



深 高 速
SHENZHEN EXPRESSWAY

2021

**Shenzhen Expressway Corporation Limited
Environmental, Social and Governance Report**



CATALOGUE

| | | | |
|-------------------------------------|----|--|----|
| CHAIRMAN'S STATEMENT | 01 | ABOUT THE REPORT | 63 |
| Statement of the Board of Directors | 02 | ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORTING INDEX | 64 |
| CORE HIGHLIGHTS IN ESG | 03 | SURVEY FEEDBACK FORM | 68 |

01

CONSOLIDATE THE FOUNDATION OF COMPLIANCE

| | |
|-------------------------------|----|
| ESG GOVERNANCE | 07 |
| INTEGRITY AND ANTI-CORRUPTION | 10 |

02

ADHERE TO THE CONCEPT OF GREEN DEVELOPMENT

| | |
|--------------------------------|----|
| ADVOCATE GREEN OPERATION | 15 |
| REDUCE ENVIRONMENTAL POLLUTION | 19 |
| MAINTAIN ECOLOGICAL BALANCE | 24 |
| RESPOND TO CLIMATE CHANGE | 28 |

03

STRICT QUALITY CONTROL

| | |
|------------------------------------|----|
| GUARANTEE WORK SAFETY | 35 |
| FOCUS ON HIGHWAY QUALITY | 40 |
| INNOVATE IN SCIENCE AND TECHNOLOGY | 43 |



04

CONCERN ABOUT EMPLOYEES' GROWTH

| | |
|---|----|
| GUARANTEE EMPLOYEES' RIGHTS AND INTERESTS | 47 |
| ENCOURAGE EMPLOYEES' DEVELOPMENT | 49 |
| TAKE CARE OF EMPLOYEES | 52 |

05

WORK TOGETHER FOR THE FUTURE

| | |
|--------------------------|----|
| SUSTAINABLE SUPPLY CHAIN | 57 |
| PAYBACK TO THE SOCIETY | 60 |



Chairman's Statement

2021 marks the 25th anniversary of the inception of Shenzhen Expressway and the kickoff of the Company's 14th Five-Year Development Strategic Plan. Nowadays, the world is experiencing a once-in-a-century shake-up, and the domestic and international developments are undergoing profound changes. In the meantime, the repeated outbreak of COVID-19 still has a large and uncertain impact on the global economic growth, business operations, the society and people's livelihood. Nevertheless, the proposed national goal of "carbon peaking and carbon neutrality" has brought about a significant historical opportunity for the sustainable development of enterprises. In the face of the challenges and opportunities, Shenzhen Expressway maintains its strategic priorities and holds on straight to the end. During the 14th Five-Year Plan period, the Group will deeply tap into the potential in Shenzhen and Guangdong-Hong Kong-Macao Greater Bay Area and develop a landscape across the country. Featuring "innovation, intelligence, green and efficiency", it provides sustainable development solutions for cities, and commits itself to becoming a top-notch key service provider for the construction and operation of infrastructures for transportation and environmental protection, promoting high-quality sustainable development of enterprises, and opening a new sphere in environmental, social and governance responsibility.

Focus on national strategy and facilitate green environmental protection

2021 is a critical year for China to further promote the work of carbon peaking and carbon neutrality. With the continuous improvement of the "1+N" policy system for carbon peaking and carbon neutrality, China has taken a key step from a major strategic decision to a scientific and systematic deployment in its effort of carbon peaking and carbon neutrality. Against this backdrop, Shenzhen Expressway fulfills the mission of "building high-quality infrastructure and serving a better life in the city". With the vision of becoming a leading player in the segment of general environmental protection, the Company strategically deploys the development of characteristic environmental protection and integrated clean energy industries, actively responds to climate change, and is committed to green and efficient operations. In daily operation and management, we have effectively reduced greenhouse gas emissions by enhancing the development of clean energy, replacing traditional high-energy-consuming sodium lamps with LED lights, enabling mobile payment to issue electronic invoices and a series of other energy-saving and consumption-reducing measures. In addition, we strive to reduce noise, dust and waste generated during construction and project operation, standardize the treatment and discharge of pollutants, protect biodiversity, and achieve a sustainable and coordinated development of road traffic and regional environment. During the year, the Group generated 1,384,439.31MWh of on-grid electricity from wind power and 1,617,447.00 kWh of on-grid electricity from biogas power and treated 430,205.87 tons of kitchen waste.

Adhere to stable operation and ensure quality and safety

We always observe the philosophy that road quality and road safety are top priorities. In 2021, the Company achieved the goal of "zero casualties" for work safety and had no production safety accident for which it was held responsible. We promoted the ETC service improvement through online traffic attraction of ETC promotion campaigns. We standardized emergency rescue management, and performed trailer rescue services for 29,247 times throughout the year, taking averagely 13.5 minutes to arrive at the scene. In the future, we will steadily advance the construction of major construction projects, actively fulfill the obligations of transportation construction, and make utmost efforts to ensure the safe and green travel of the people.

Adhere to technological innovation and promote digital and intelligent empowerment

We believe that technological innovation is the greatest productivity and core competitiveness in this era. The Company makes every endeavorendeavour to build an information-based intelligent Shenzhen Expressway. We continue to innovate in the field of engineering and in the research and application of intelligent transportation. Moreover, we strengthen the investment in research and development of environmental protection technology and continuously improve the green transformation ability and sustainable development level of the Company. As of the end of 2021, the Group has obtained a total of 333 authorised patents, of which 39 were obtained in 2021. At present, the Group is formulating corporate-level scientific research and innovation plans for expressways, general environmental protection, informatization, etc. to boost digital and intelligent empowerment, improve the Company's core competence and fuel the sustainable development of the Company.

Care for employee growth and stick to people-orientation

Employees are the cornerstone of Shenzhen Expressway's sustainable development and the source of power for strategic advancement. The Company always pays attention to safeguarding the legitimate rights and interests of employees, attaches great importance to the growth of employees, constantly improves the talent training mechanism, and concerns about humanistic care and the physical and mental health of employees. It has established a long-term incentive mechanism to stimulate employees' drive and make the Company a place where employees can fully display their talents. In 2021, the average length of training was 14 hours per employee, and 19 employees in need were given assistance, with a total of 95,000 invested in assistance. In the face of repeated COVID-19 outbreak, we strictly implemented the requirements of pandemic prevention work, actively organized vaccination for employees, and fully cooperated with the joint pandemic prevention and control on expressways.

Fulfill social responsibility and sincerely give back to the society

While continuing to promote and consolidate the national achievements in poverty alleviation, we actively carry out volunteer services, community care and other activities to promote the benign interaction between the enterprise and the society, bring long-term benefits to the community and promote the synchronized development of the community economy and society. In 2021, we organised a total of 54 events of volunteer service with a total of 480 participants, and a duration of 1,932 hours in total.

We relentlessly forge ahead in pursuit of our ambitious goal. 2022 is the year for Shenzhen Expressway to shore up the foundation for its 14th Five-Year strategic plan, the year for the development and improvement of the dual core businesses, and the year for the deepening of comprehensive high-quality development. Thanks to the firm perseverance and the ability to overcome any challenges, Shenzhen Expressway will continue to put more efforts on fulfilment against difficulties and stay true to the original aspiration of serving a better urban life, keeping a close eye on the dual core business development plan of "toll expressway + general environmental protection". With the mindset of serving the whole world, we shoulder the mission and responsibility entrusted to us by the history, team up with all stakeholders to procure the harmonious development of the enterprise and the environment and make important contributions to promoting economic and social development and ushering in a better future.

Statement of the Board of Directors

The Company's Board of Directors attaches great importance to the sustainable development management. The Company has established an effective ESG management mechanism and has formed an ESG governance structure featuring clear hierarchy and labour division.

As the highest governance body in the Group, the Board of Directors is responsible for the management and decision-making of ESG matters of the Group, clarifying the development direction of ESG matters, formulating ESG work strategy, regularly following reports from the Secretariat of the Board and the Investor Relations Department on ESG work, and comprehensively supervising the Company's ESG management. The Board of Directors hears and reviews the Company's Environmental, Social and Governance Report annually, and supervises the implementation progress against the related ESG targets.

During the reporting year, the Company has completed the review and assessment of ESG issues and set ESG environmental targets. The Board of Directors reviewed, discussed, and confirmed the ESG work results of this year.

Core Highlights in ESG



Conducted various anti-corruption warning education activities for

65 times

with a total duration of

69 hours



Achieved **0** work-related death

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



Invested an amount of **292** million in the annual road maintenance expenses

the utilisation rate of ETC in the straight pipeline section in Shenzhen is **65** %



Achieved an on-grid energy production of **1,384,439.31** MWh from wind power generation and

1,617,447.00

kWh from biogas power generation and processed

430,205.87 tons of kitchen wastes



Saved about **14,494,400** kWh of electricity per year on expressways directly managed by Shenzhen Expressway using LED light sources, which was equivalent to saving about **4,827** tons of standard coal and reducing CO₂ emission by about **11,305.64** tons



Conducted more than **150** land inspections

Stopped **2** cases of illegal occupation of red-line land

Stopped **30** cases of illegal construction



Recruited **2,033** new employees and invested a total amount of **95,000** in supporting employees in difficulty



Obtained **333** authorized patents and invested a total amount of **84.482** million in research and development



Invested a total amount of **500,000** in public welfare activities as of the end of 2021.


Throughout the year, **480** person-times have participated in volunteer activities, with a total duration of

1,932 hours

Consolidate the Foundation of Compliance

Shenzhen Expressway adheres to the mission of “building high-quality infrastructure and serving a better life in the city”, seizes the opportunities of Shenzhen building a pilot demonstration zone of socialism with Chinese characteristics and the construction of Guangdong-Hong Kong-Macao Greater Bay Area, continues to maintain the steady operation of the Company, proactively advocate corporate social responsibility, and consolidate the foundation of the Company’s sustainable development.

Carried out various warning education activities

65 times 


Total duration of anti-corruption education for employees¹

69 hours 

Response rate towards reported complaints / violations

100% 

Total duration of anti-corruption education that senior management participated in

6 hours 

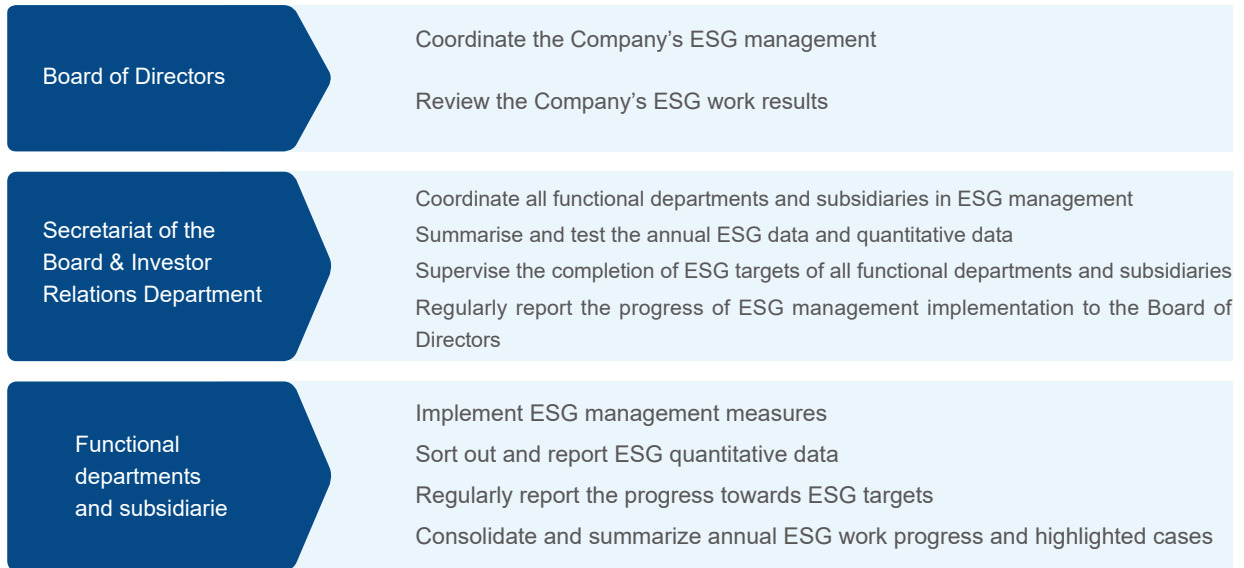
¹ Statistics of anti-corruption education are organized by the headquarters, and the data excludes the relevant training organized by subsidiaries.



ESG Governance

While developing rapidly, 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 facilitation of the Secretariat of the Board & Investor Relations Department.

ESG governance structure of Shenzhen Expressway










In the future, Shenzhen Expressway will continue to improve its internal ESG management system, establish an ESG governance structure with clear responsibilities, and strive to continuously improve ESG performance by virtue of well-organized and efficient management.



Communication with Stakeholders

Stakeholders of Shenzhen Expressway include governments, shareholders, suppliers, customers, employees, communities, etc. We attach great importance to communication with stakeholders and listen to their demands and expectations. In line with their characteristics, we establish diversified communication channels and feedback mechanisms, disclose the Company's sustainable development tendency in a timely manner, fully understand and actively respond to the demands of stakeholders to promote the Company's sustainable development with them.

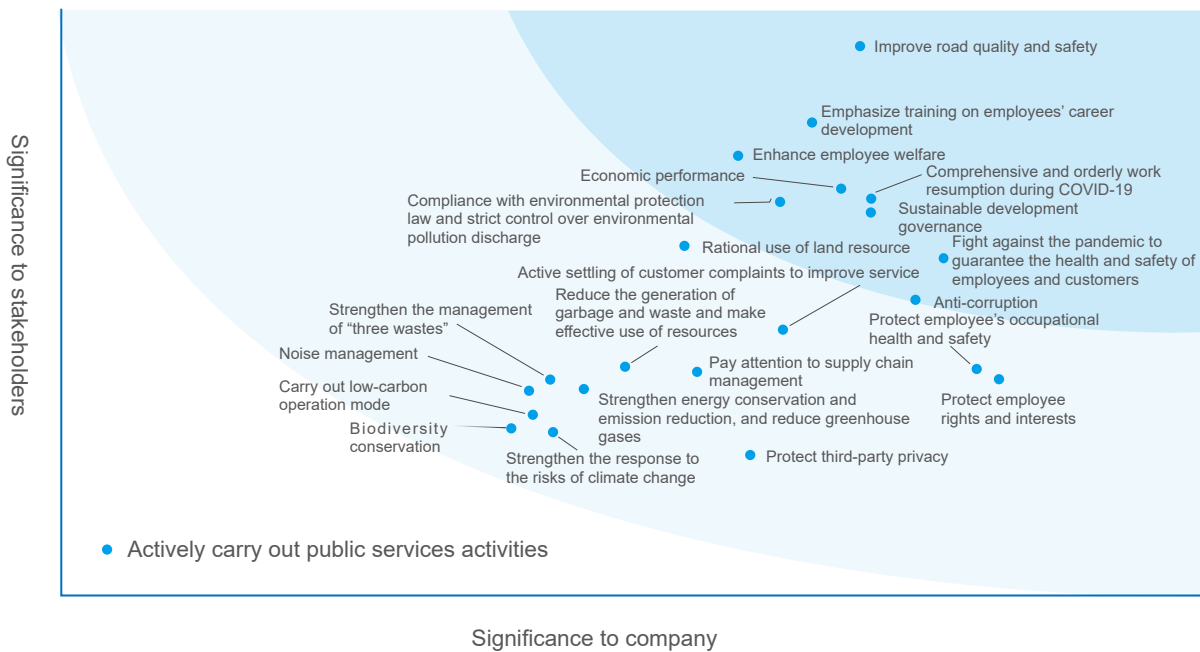
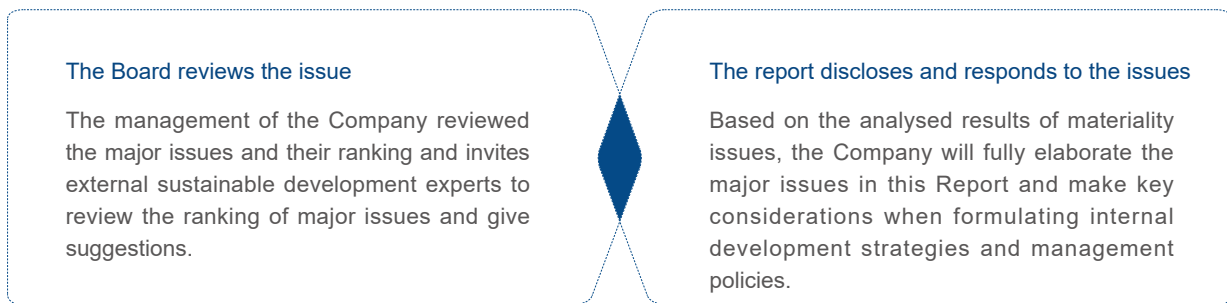
Communication with Stakeholders of Shenzhen Expressway

| Stakeholders | Demands and Expectations | Response |
|---|--|--|
|  Government and regulatory agency | Comply with laws and regulations Implement national policies Conduct rural revitalisation and support local and regional development | Continuously strengthen the corporate compliance management Actively respond to national policies |
|  Shareholder | Strengthen information disclosure Operate steadily Create market values | Conduct information disclosure in a compliance manner Hold the general meetings of shareholders and strengthen investor relations Consistently build business results Improve the management level of the Company |
|  Supplier | 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 |
|  Customer | Protect the legal rights and interests Ensure safe and smooth traffic flow Guarantee highway maintenance | Communicate with personnel Open the complaint channels to public Strengthen the highway safety management |
|  Employee | Salary and benefit Development opportunities Training system | Continuously improve the salary management system Employee satisfaction survey Career development training |
|  Community | 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 utilisation Implement green operation and office Strengthen the disclosure of environmental information |



Assessing Materiality Issues


During the preparation of the environmental, social and governance (ESG) report, we reviewed and evaluated the annual ESG issues, referred to the issues from excellent peer companies at home and abroad, and combined with the disclosure requirements and the focuses of capital market, to ensure that the existing issues are highly related to the business operation of Shenzhen Expressway and the development of its industry. As there were no major changes in the business and sustainable development management of Shenzhen Expressway this year, we adopted the analysis results of major issues of the previous year as the basis for the preparation of the report.



Matrix of Materiality Issues for Shenzhen Expressway in 2021

Integrity and Anti-corruption


Shenzhen Expressway insists to achieve steady operation, strengthens the construction of integrity culture through well-established anti-corruption system and creates a good atmosphere of fair competition, honesty, and integrity, advancing sustainable development of the Company.



In 2021, the number of corruption lawsuits filed by Shenzhen Expressway and concluded was **0**


Integrity Management System

Shenzhen Expressway strictly abides by the *Anti-Corruption and Bribery Law of the People's Republic of China*, the *Anti-Money Laundering Law of the People's Republic of China*, the *Tendering and Bidding Law of the People's Republic of China* and other laws and regulations, adheres to the principle of "zero tolerance" for fraudulent behaviour, and has formulated the *Anti-Fraud Work Regulations* to clarify the key areas and division of responsibilities for anti-fraud work, fraud prevention and control, and the whistle-blowing, investigation, handling and reporting procedures. In addition, we regulate the behaviour and ethics of all employees through the *Employee Handbook*, the *Employees Rewards and Punishments*, the *Anti-Fraud Work Regulations* and other systems, eliminating the breeding ground for corruption from the source.



Risk Prevention and Control

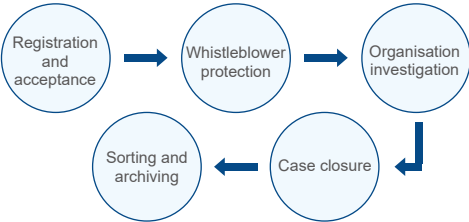
In order to effectively prevent and control integrity risks and improve the construction of the system for punishing and preventing corruption, Shenzhen Expressway has formulated the *Handbook in Risk Prevention and Control in Key Areas*, which covers the possible integrity risk points in the work process in six major fields, including project construction, investment management, operation management, financial management, general administration, and employee management, incorporates contractors' code of conduct into risk prevention and control requirements, and clarifies the focus of risk prevention and control and the direction of work.



Report Acceptance

We formulate and regularly update the *Administrative Measures for Discipline Inspection, Petition and Reporting Work*, which clarifies the work process of report acceptance, to ensure that petitions, complaints, reporting cases and incidents are handled accurately, timely and fairly.

Work Process for Discipline Inspection, Petition and Reporting



```

graph LR
    A((Registration and acceptance)) --> B((Whistleblower protection))
    B --> C((Organisation investigation))
    C --> D((Case closure))
    D --> E((Sorting and archiving))
            
```

Reporting Channels of Shenzhen Expressway

| | |
|-------------------|--------------------------|
| Reporting Hotline | 0755-86698236 |
| Reporting E-mail | jjjian@sz-expressway.com |



Whistleblower Protection

Shenzhen Expressway has formulated the Reporter Protection System, which stipulates the handling of confidential documents and the protection of reporter information, to protect the basic rights and interests of whistleblower from being infringed on, and resolutely prohibits any form of retaliation, and stipulates that:

- All departments, units and personnel must keep strictly confidential towards the whistleblower's name, employer, home address and other relevant information;
- Relevant reporting materials must be submitted to the Company's Discipline Inspection Committee for confidential management, and shall not be excerpted, copied, withheld or destroyed without permission;
- Transfer of reporting materials to the unit or person reported against is strictly forbidden;
- The acceptance of the report from the reporter and the verification of the situation with the reporter shall be carried out under the condition of maintaining confidentiality and not disclosing the reporter's identity;
- Rewards and publicity for the meritorious whistleblower shall not disclose the name, employer and other information about the reporter without the written consent of the reporter.



7 effective whistle-blowing cases of various types were received in 2021



and the response rate of effective reporting was **100%**

Integrity Culture Building

Shenzhen Expressway conducts regular education and publicity on typical cases of violations against integrity regulations through board newspapers, WeChat official accounts, corporate internal journals, internal and external websites, and other publicity platforms. It organizes incorrupt practice education conferences and anti-corruption warning education lectures and organizes employees to watch anti-corruption warning education films every year to promote employees at all levels to keep in mind the concept of anti-corruption and promoting integrity and reflect it in their behaviour.

Integrity Commitment

In order to prevent conflicts of interests and effectively prevent corruption of powers, we require the management personnel at or above the deputy level, the personnel in key positions of the Company and all its subsidiaries and the dispatched personnel of participating companies to sign the Integrity and Self-discipline Commitment during their tenure urging them to perform their duties conscientiously, strengthen their awareness of integrity in practice, and consciously accept supervision. The signing rate of employees was 100% in 2021.

Case: Shenzhen Expressway organised employees to watch a discipline education and warning film

In September 2021, the Discipline Inspection Committee of the Group organized employees to watch the discipline education and warning film *Alarm Bells Ringing*. The participants included the Group's executives, the management at or above the deputy level, and all personnel of the Human Resources Department and the Discipline Inspection as well as Supervision Office.



Watching warning film

Case: Shenzhen Expressway held the Party Committee's month of Party conduct and integrity construction as well as discipline education and learning

In September 2021, the Group held a mobilization meeting for the Party Committee's month of Party conduct and integrity construction as well as discipline education and learning. The attendees included the members of the Group's leadership team, the management at or above the deputy level, oath-of-integrity representatives and other cadres and employees. At the meeting, Lin Jitong, Secretary of the Discipline Inspection Committee and Chairman of the Supervisory Committee, deployed the activities of the month of Party conduct and integrity construction as well as discipline education learning; Hu Wei, Secretary of the Party Committee and Chairman of the Board of Directors, gave a lecture on a clean political party with the theme of *Sticking to Responsibility, Dare to Take Responsibility, Forging Ahead in 14th Five-Year Plan Period, and Braving the Wind and Waves*. Experts from Shenzhen Municipal Commission for Discipline Inspection and Supervision were invited to the meeting to give lectures for integrity education and held an oath-taking ceremony for integrity for cadre and employee representatives was held. Finally, the participants collectively watched the integrity education film *Hunting*.



The discipline education and learning month mobilization meeting

In 2021, Shenzhen Expressway carried out **65** varied warning and education activities, and the total duration of anti-corruption education activities was **69** hours, with a total of **7,105** participants. Specifically, the total duration of anti-corruption education activities for senior management staff and directors was **6** hours, with a total of **12** participants.

Adhere to the Concept of Green Development

Under the concept of green development and putting resource and energy conservation and ecological environmental protection first, Shenzhen Expressway actively carries out pollution control, ecological protection, climate change response and other work, aiming to promote a comprehensive green transformation of economic and social development. We have formulated a series of internal management systems in accordance with national laws and regulations, vigorously driven green and efficient operations through various energy conservation and emission reduction measures, paid attention to the impact of various businesses on the surrounding natural environment, and incorporated environmental factors into project planning to promote the high-quality development of transportation and high-level protection of the ecological environment and contribute to the harmonious development of transportation and nature. Meanwhile, Shenzhen Expressway identifies the general-environmental protection segment as the Group's second core business and actively expands green industries such as characteristic environmental protection and integrated clean energy to push forward the high-quality and sustainable development of the Company.

On-grid electricity from wind power generation

1,384,439.31

MWh

On-grid electricity from biogas power generation

1,617,447.00

kWh

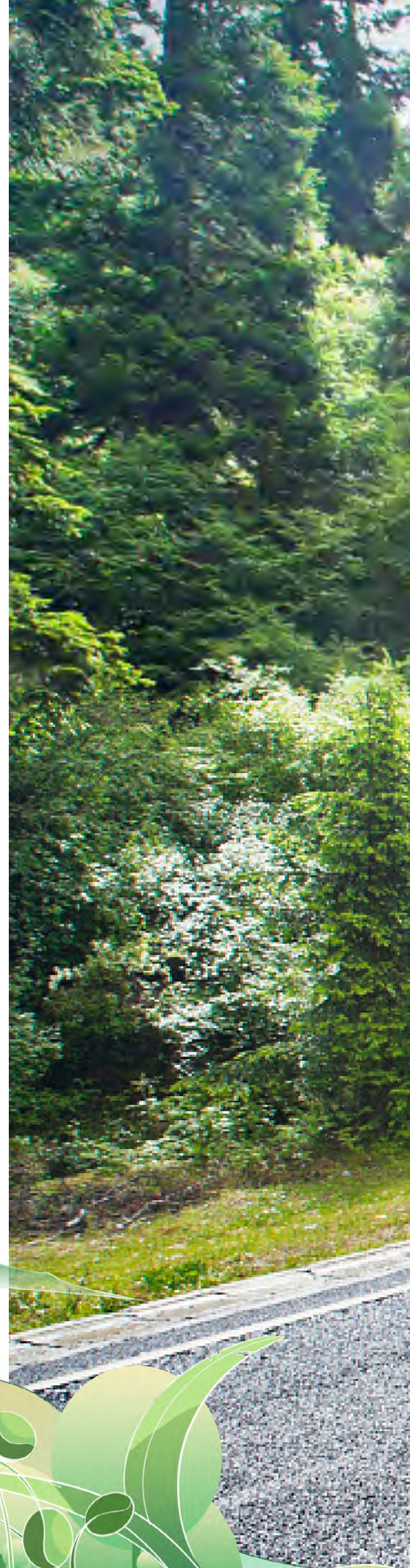
Treatment amount of kitchen waste

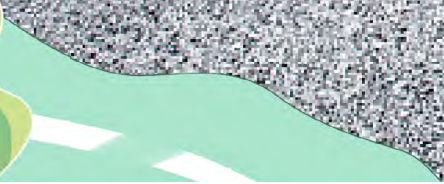
430,205.87

tons

Environmental penalty incidents

0





Resource usage data of Shenzhen Expressway in 2021

| Resource type | Unit | 2021 |
|---|---------------------|----------------|
| Electricity | kWh | 125,950,025.11 |
| Gasoline | Litre | 681,188.26 |
| Diesel | Litre | 1,833,307.77 |
| Natural gas | Cubic meter | 828,174.50 |
| Liquefied petroleum gas | kg | 10,878.80 |
| Water resources | ton | 1,537,968.58 |
| Water use density | ton/million revenue | 141.47 |
| Comprehensive energy consumption ² | kWh | 197,634,705.7 |
| Comprehensive energy consumption density | kWh/million revenue | 18,180.0 |

2 The calculation of comprehensive energy consumption and the selection of relevant reversion factors are in accordance with the National Standard of the People's Republic of China -- General Principles for Calculation of the Comprehensive Energy Consumption (GB/T2589-2020).

Comprehensive energy consumption calculation includes the consumption of renewable electricity.



Based on 2021, we expect to reduce water consumption per million RMB revenue by **2.5%** in 2024.



Based on 2021, we expect to reduce comprehensive energy consumption per million RMB revenue by **3%** in 2024.

*In 2021, due to the office relocation of Corporate headquarters and its subsidiary, the Construction Company, the setting scope of environmental targets only includes Environmental Company, Operation Development Company, Yichang Company, New Energy Company, Shenchang Companies, Qinglian Companies, Investment Companies, and Qinglong Company.

Clean Energy Use

Shenzhen Expressway put more efforts into the development and mergers and acquisitions of wind power projects, actively develops new energy industry chain projects, and has basically completed the industrial chain landscape of “wind turbine manufacturing and sales + wind farm development and construction + wind farm operation + wind turbine operation and maintenance + financial support”. It will continue to build the “integrated” clean energy system with the characteristics of Shenzhen Expressway. Up to now, the cumulative installed capacity of wind power has reached 648 MW.



In Shenzhen Expressway’s toll highway business segment, the main energy consumption is the power consumption of streetlamps on expressways. On the premise of ensuring road illumination, Shenzhen Expressway achieves energy saving and emission reduction by replacing traditional high-energy-consuming high-pressure sodium lamps (HPSL) with energy-saving LED lights. As of the end of 2021, Shenzhen Expressway had a total of 18,284 sets of LED lighting for road illumination, which have had good energy saving effect since their completion and operation. Compared with traditional HPSL lighting, LED lighting can save about 14.4944 million kWh of electricity every year, with an electricity saving rate of about 50%.



Energy-saving LED lights are used for tunnel and expressway lighting

Capitalizing on the LED lighting, the sections directly managed by Shenzhen Expressway can



save about
4,827
tons of standard coal



save about
57,978
tons of pure water



reduce CO₂ by about
11,305.64
tons



SO₂ by about
130.45
tons

Case: Shenzhen Expressway held the Party Committee’s month of Party conduct and integrity construction as well as discipline education and learning

Clean energy fuel

The pavement mixing station uses colourless, odourless, and non-toxic clean energy natural gas (LNG) as fuel to replace traditional fuel oil such as heavy oil. The natural gas has the characteristics of high calorific value, low unit cost, and sufficient combustion, and is safe, environmentally friendly, and economical.

New dump trucks

In construction, Shenzhen Expressway uses new energy dump trucks for operation. Compared with traditional dump trucks using gasoline, the new dump trucks reduce the use of traditional fossil energy and achieve the effect of energy saving and emission reduction.

LED energy-saving lamps

The Company uses environmental-friendly and energy-saving LED lamps with good colour rendering, high luminous efficiency, and long life for road lighting along projects under construction and operation and for illumination in service areas.

Automatic spray curing system

The prefabricated beams are cured by an automatic spray curing system. The water is recovered through the off-line drainage ditch for recycling after the curing is completed, reducing the construction water consumption, saving water, and achieving the purposes of saving project cost, economy, and environmental protection.

Solar water heater

Solar water heaters are used for the Building Architectural design to reduce carbon emissions and save energy. Ecological ditches are used for the drainage system to better protect the environment and practice the concept of sponge city.

Shenzhen Expressway proactively promotes the concept of sustainable development to employees to enhance employees' awareness of energy conservation and environmental protection. We launched the green office activity themed by "Consciously Save Energy, Share the Green", organized employees to watch promotional videos, posted promotional materials on energy conservation, and sent email reminders to establish employees' awareness of energy conservation and guide employees to save every drop of water and every kilowatt-hour of electricity starting from little things around them, continuously reducing greenhouse gas emissions.

Case: Shenzhen Expressway's green office activity "Consciously Save Energy, Share the Green"

- The cooling temperature of office air conditioners is not set below 26°C, and it is required to turn off the air conditioner half an hour before end of business.
- The lights are turned off in time when no one is in the office, and the standby time of electrical appliances such as computers are reduced.
- Paperless office is comprehensively promoted, the number of documents to be printed is strictly controlled, and documents are modified on electronic device as much as possible.
- Office paper is used for printing on both sides or reused, and the Company's OA system is used to regularly remind employees to pay attention to energy conservation and environmental protection.
- The use of disposable paper cups is eliminated, and mugs are used for visitors.
- The "Clear Your Plate" action is actively implemented to eliminate the waste of food and promote civilized dining.
- An office supplies application and review system are established for on-demand purchase of office equipment and waste reduction.



Reduce Environmental Pollution

Shenzhen Expressway actively promotes the construction of ecological civilization to solve ecological and environmental problems. We instill the concept and practice of environmental protection in the entire process of road research, construction and operation and resolutely fight the battle against pollution.

In 2021, the Company established an ecological civilization construction working group to coordinate and organize ecological civilization construction work, regularly carry out ecological civilization construction inspections, promptly urge rectification of problems identified in the inspections, and strengthen organisational leadership and strictly supervise the process. In addition, the Company organized all projects to continuously conduct cultural propaganda on ecological civilization construction, and made full use of construction fences, on-site banners, electronic scrolling screens and other media to publicize the ideas and concepts of ecological civilization construction to promote the concept of ecological civilization construction to gain ground.

To strictly control the emission of newly added pollutants, we adjust the load of the generating sets in a timely manner based on the data changes by checking the online monitoring data on an hourly basis. If the data exceeds the standard, we will stop the generating sets in time and immediately contact the operation and maintenance company for the treatment. We maintain technical communication with relevant equipment manufacturers and have in place timely detection by third parties.

In 2021, Shenzhen Expressway were not subject to any penalties or involved in any legal proceedings due to environmental issues.

Pollutant Emission Data of Shenzhen Expressway in 2021

| Pollutant type | Unit | 2021 |
|--|---------------------|------------|
| Hazardous waste | kg | 12,589.42 |
| Hazardous waste density | kg/million revenue | 1.16 |
| Non-hazardous waste | ton | 149,507.57 |
| Non-hazardous waste density | ton/million revenue | 13.75 |
| Total air pollutant emissions ³ | kg | 56,265.25 |
| NOx emissions | kg | 22,507.34 |
| SOx emissions | kg | 32,990.19 |
| Particulate emissions | kg | 767.73 |
| Air pollutant emission density | ton/million revenue | 5.18 |
| Total chemical oxygen demand | ton | 1,031.72 |
| Total wastewater discharge | ton | 608,015.38 |
| Wastewater discharge density | ton/million revenue | 55.93 |

³ The calculation of air pollutant emissions is based on the Appendix II -- Guidelines for Reporting Environmental Key Performance Indicators issued by the Hong Kong Stock Exchange.



Based on 2021, we expect to reduce hazardous waste generation per million RMB revenue by **3%**, reduce non-hazardous waste generation per million RMB revenue by **3%** in 2024.



Based on 2021, we expect to reduce air pollutant emissions per million RMB revenue by **3%** in 2024.

**In 2021, due to the office relocation of Corporate headquarters and its subsidiary, the Construction Company, the setting scope of environmental targets only includes Environmental Company, Operation Development Company, Yichang Company, New Energy Company, Shenchang Companies, Qinglian Companies, Investment Companies, and Qinglong Company.*

Develop Green Industries

In the context of the national strategy of “carbon peaking and carbon neutrality”, with the vision of becoming a leading enterprise in the general environmental protection segment, Shenzhen Expressway strategically deploys to expand the segment of environmental protection, carries out research and application of new energy, new technology and new equipment, promote the application of environmentally friendly technology and green materials, and seize the opportunity to build a characteristic “integrated” clean energy system, with a view to becoming a force of Shenzhen to drive China’s target of “Carbon Peaking and Carbon Neutrality”, helping to build a resource-saving and environmental-friendly society.

In 2021, the general-environmental protection segment achieved



The disposal of **430,205.87** tons of kitchen waste



The treatment of **61,210** tons of leachate



The recovery of **20,513.04** tons of industrial oil



The on-grid electricity of **1,617,447.00** kWh from biogas power generation



The on-grid electricity of **1,384,439.31** MWh from wind power generation

Expand the Wind Power Industry



The Company actively expands onshore wind power projects and has successively acquired Baotou Nanfeng, Xinjiang Mulei, Huaian Zhongheng and other projects. Hitherto, the cumulative installed capacity has reached 648 MW. Meanwhile, the Company vigorously explores the “expressway + distributed new energy model” to make rational use of advantageous resources. On the other hand, the Company links Avis’s advanced wind turbine drive chain technology to the wind turbine equipment manufacturing sector to fully take the synergistic advantages and provide wind farms with gearbox maintenance services to improve power generation efficiency. The Group has basically completed the construction of the industrial chain landscape of “wind turbine manufacturing and sales + wind farm development and operation + wind farm operation + wind turbine operation and maintenance + financial support” and will continue to build an “integrated” clean energy system with the characteristics of Shenzhen Expressway.

Slurry Separation Process



The Company puts into use high-pressure circular automatic slurry treatment presses to separate the slurry on the construction site. The separated water reaching the drainage standard can be directly discharged to the urban pipe network, and the separated sand is transported to the outside. In this way, the purposes of zero discharge of slurry, resource saving, and environmental protection are achieved.

Kitchen Waste Treatment



In 2021, Shenzhen Expressway upgraded the kitchen waste treatment process, used the “water treatment sludge + anaerobic swamp sludge + separate oil treatment + oil extraction rate increase + anaerobic tank entry + pretreatment + anaerobic fermentation + sewage biochemical” treatment process, and iteratively upgraded the three requirements of “harmless, reduced and recyclable” kitchen waste to reduce the use of carbon resources and save transportation and operating costs.

Shenzhen Expressway’s Measures for the Harmless, Recycling and Reduction Treatment of Kitchen Waste

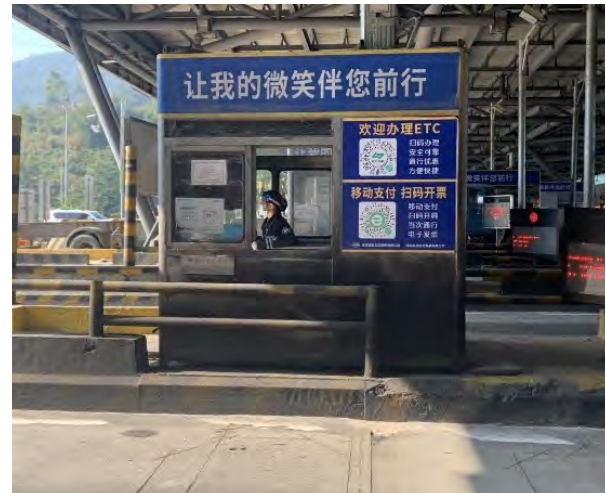
| | |
|-------------------------|---|
| <p>Harmless</p> | <p>Inorganic waste residues are transported by slag trucks to domestic waste sanitary landfills for harmless landfilling to make the kitchen waste harmless.</p> |
| <p>Recycling</p> | <p>The ether extract in kitchen waste and waste cooking oil is processed in the oil workshop and sold; The water residue enters an anaerobic fermentation system, and the biogas generated by the anaerobic fermentation is used for heat supply and power generation; For the generated waste residue and sludge, after going through the desliming workshop, part of the sludge is returned to the anaerobic tank for further utilisation, and the remaining waste residue and sludge are dehydrated and composted into nutrient soil to realize resource utilisation of kitchen waste; The pretreated waste residue is used as feed for the breeding of black soldier flies to realize the reuse of waste; Leachate of waster is treated to prevent the occurrence of environmental pollution incidents.</p> |
| <p>Reduction</p> | <p>The generated sewage passes through the biochemical sewage treatment system and is filtered by the ultrafiltration membrane and discharged into the municipal pipe network after reaching the standard; the waste air (odour) generated from the production workshop and equipment ventilation is discharged after being treated by the biological deodorization system and up to standard to realize the reduction of kitchen waste.</p> |

Reduce Waste Generation

We rigorously comply with the *Law of the People's Republic of China on the Prevention and Control of Environment Pollution Caused by Solid Wastes* and regulatory requirements of local laws and regulations on solid wastes and are committed to reducing wastes generated in the process of operation as well as environmental pollution.

Kitchen Waste Treatment

In July 2021, we launched the self-developed electronic invoice service system for mobile payment, providing online invoice service for 178,000 vehicles per day to lower paper consumption, while shortening the waiting time for mobile payment to request paper invoices. After implementation of electronic invoice for mobile payment, we saved the cost of paper invoice by 1.75 million. According to 3-second reduction of a single vehicle, 148 hours of vehicle passing through the lane every day and 2,256 days a year can be saved, while simultaneously reducing about 33,200 tons of carbon emission generated by vehicles, playing a positive role in promoting low-carbon and environmental-friendly travel.



Electronic invoices are issued online at expressway toll stations

General-environmental Protection Industry

Shenzhen Expressway adopts the management mechanism of “whoever produce shall take full responsibility”, 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 pollution. In addition, the Company has set up solid (hazardous) waste rooms to store waste batteries and waste toner cartridges, which are recycled and safely disposed of by qualified units.

Project Construction Management Services and Other Industry

We are committed to complying with environmental regulations in the process of project construction, subcontract projects to construction contractors with specific qualifications, 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. The Company has established a sound environmental supervision system. In the preparation phase, it is necessary to check whether the design documents and construction scheme meet the requirements of environmental protection. In the construction phase, carry out monitoring in terms of water, gas, sound, solid waste, ecological environment and radioactive substances according to the specific requirements of the EIA report and its reply on pollution prevention and control measures and ecological environment protection measures during the construction period; in the acceptance phase, supervise and inspect the construction unit to organize the completion documents and data in time, give opinions about environmental supervision and submit the general report of environmental supervision during the project construction period. With various constraints on the construction contractors, the environmental impact of project construction can be minimized.

Exhaust Gas and Wastewater Management

In strict accordance with the *Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution*, *Water Pollution Prevention and Control Law of the People's Republic of China* and other laws and regulations, Shenzhen Expressway has formulated internal management systems such as Sewage Operation Regulations and Desulfurization System Operation Regulations and taken effective pollution control measures, to limit emissions of its exhaust gas and wastewater, and regulate the treatment and emission of pollutants.

Kitchen Waste Treatment

Waste gas treatment measures

- The desulfurized and purified biogas is used for combustion to generate electricity, and the waste gas generated from combustion is discharged at high altitude according to the local air pollutant emission standards.

Wastewater treatment measures

- The process of “anaerobic + MBR (Membrane Bioreactor) system + nanofiltration + reverse osmosis” is adopted for sewage treatment. Depending on the Project, the treated wastewater can be discharged into the sewage treatment plant after meeting the discharge standard of sewage pipe network or transported to the sewage treatment plant by tank truck for terminal treatment.
- To effectively monitor the sewage discharge and prevent pollutants with concentration exceeding the standard from entering the sewage pipe network, online monitoring devices were installed in the sewage outfalls of the kitchen waste treatment plant to monitor the pollutant concentration at the sewage outlet.

Project Construction Management

Waste gas treatment measures

- At the exit of the construction site, set up facilities for washing vehicles.
- The road on the construction site shall be cement or hardened pavement, and the bare soil covering film, closed cement warehouse, material processing shed, fog gun machine and spray system are adopted to effectively prevent the dust on the construction site.
- Supporting installation of automatic instrument for monitoring total suspended particulate matter.

Wastewater treatment measures

- Set up mobile toilets, wastewater sedimentation tanks and oil separation tanks on the construction site, and part of the treated wastewater shall be recycled.
- The construction wastewater that cannot be recycled is transported to the municipal sewage treatment plant for treatment by the closed suction-type sewer scavenger.
- If the construction site is in the section of water source protection zone, it is required to set intercepting ditch and sedimentation tank on one side of the reservoir to collect and divert the wastewater generated during construction.

|Case:| Mulei Project in Xinjiang using the integrated sewage treatment equipment

The three wind farms of Mulei Project in Xinjiang are using more advanced sewage treatment and recycling technology, namely MBR tank integrated equipment for sewage treatment. After domestic sewage is treated by MBR process, the concentration of suspended solids (SS) in produced water is close to zero. The sewage treated by the sewage treatment system can reach Class I Standard A and meet the domestic water discharge standard. This equipment can effectively reduce the impact of wind farm operation on the surrounding ecological environment.

Maintain Ecological Balance

Shenzhen Expressway puts a new premium on the protection of ecological environment and biodiversity. We strictly abide by the *Regulations on Environmental Protection Management of Construction Projects* and other laws and regulations and industry regulations, have internally formulated the *Third-Party Monitoring Management System and the Interim Measures for Basic Safety Requirements for Construction Projects*, and adopt various effective prevention and control measures to achieve sustainable and coordinated development of expressway traffic and regional environment.

In 2021, Shenzhen Expressway did not have any incident that caused large-scale damage to the surrounding ecological environment and national protected wildlife.

Ecological Environment Protection

In the process of expressway construction and operation, Shenzhen Expressway takes effective measures to conserve biodiversity, natural water resources, and water and soil, maintain the health of the ecosystem around expressways, and ensure that the living environment quality of residents along the expressways is not affected.

Dust Control

Shenzhen Expressway requires each construction section to formulate a Special Plan for the Prevention and Control of Dust Pollution to strengthen the prevention and control of dust pollution, and organizes various projects to promote the recycling of discarded soil, construction waste, pile foundation slurry, etc. We also organize all projects to promote the closed operation of rebar processing plants and mixing stations to reduce the pollution to the atmosphere during the operation process, and strictly implement seven 100% measures for dust control, and maintain regular management. In addition, we reserve a special fund for the prevention and control of dust pollution in the project cost, and compulsorily require construction units to take responsibility for prevention and control of dust pollution.

Dust Removal Construction

All projects under construction actively adopt ecological, environmentally friendly, energy-saving and efficient construction techniques, and clarify the principle of "three concentrations", which is to implement closed production of rebar processing plants, concrete mixing plants and asphalt mixing plants, adopt modern, new, high-standard, environmentally friendly mixing stations, implement closed construction by setting up smoke and dust removal and odor purification treatment systems and sunken anti-channelling cold hopper closed dust-removal systems, and reduce the noise generated from construction and prevent dust pollution in the aggregate production process, achieving "zero smoke and dust" emissions, energy saving and emission reduction.



Noise Management

To address the traffic noise problem of the expressway, we add no-honking signs on relevant sections and soundproof screens along the expressway. For some sections with serious surface damage, potholes, and other problems, on which vehicles generate loud noise when passing, we carry out road rectification work such as finish layer of relevant sections. In addition, the upper layer of the expressway pavement is equipped with modified asphalt SMA-13 noise-reducing pavement structure, which effectively alleviates the noise pollution problem of the expressway.

For construction noise, the main noise sources are placed far away from the office area in the overall design of the plant area, the noise threshold limit requirements are set when equipment is purchased, noise-reducing facilities such as mufflers, sound insulation covers and flexible hoses are installed for high-noise equipment, and buildings and green belts in the plant are fully utilized to reduce noise. In the construction stage of the project, we reasonably arrange the construction time, and prohibit construction at noon and at night; during the construction process, we choose low-noise machinery, reasonably arrange the location and working time of construction equipment and avoid concentrating the use of many power machinery equipment at the same time. We try to keep construction machinery and equipment away from noise-sensitive objective as much as possible and carry out certain isolation and noise proof and reduction treatments to reduce the impact of construction noise.

|Case:| Noise-reducing pavement

To effectively reduce the driving noise, the Company laid about 51,000 m² of noise-reducing pavements such as milling finish layer and ultra-thin finish layer on Jihe Expressway, with a total investment of 6.91 million. In 2022, the Company plans to lay about 28,000 m² of noise-reducing pavements such as milling finish layer and ultra-thin finish layer on Jihe Expressway and Meiguan Expressway.

Green Belts Laying

In the project operation stage, we increase the greening area and plant species, strictly implement the requirements for the greening rate of the expressways under management, ensure that the growth of vegetation meets the greening control standards, and improve the greening quality. Meanwhile, we regularly build vegetation along expressways, at interchanges and in toll station areas, strengthen daily greening maintenance management. All projects continue to carry out landscape greening work to achieve harmony between roads and the environment and create characteristic landscapes in cities.

Biological Deodorization

The treatment of kitchen waste produces malodorous gas. Targeting the characteristics of this process, we use a biological deodorization system to control it. The deodorization system equipment is automatically controlled and can effectively improve the deodorization effect in the plant area and ensure the safety of employees. In addition, compared with other chemical methods, biological deodorization will not transfer pollutants to produce secondary pollution.

During the transportation of kitchen waste, a fully enclosed vehicle type with an automatic loading and unloading structure must be used to prevent odour from overflowing. After the garbage storage and transportation vehicle enters the unloading room, an induced draft fan installed in the receiving cabin extracts the odour. The odour is collected by the pipeline and sent to the biological deodorization equipment. All workshops are fitted with the negative pressure system to ensure that the odour generated in the space does not overflow.

Proper Use of Land

Shenzhen Expressway strictly implements the *Water and Soil Conservation Law of the People's Republic of China*, the *Technical Specifications for Highway Maintenance* and other relevant regulations and entrusts a qualified unit to prepare a water and soil conservation plan for the project before the construction project starts to effectively prevent soil erosion. Take the new outer ring project for an example. In the project design stage, to minimize land occupation, the whole line basically adopts the bridge structure, with bridges accounting for 99%. When the route passes through woodland and mountains, we use the half-bridge and half-road form to minimize the damage to the natural ecological environment due to mountain excavation. In the preparation stage of the project, we timely discover and stop illegal land occupation through inspections, visits, and investigations, etc., to ensure zero occurrence of illegal land occupation of red-line land.

The Company's projects under construction make full use of the existing land, internalize the earthwork as much as possible, and have effectively reduce the occupation of urban land resources through measures such as the recycling of waste residues, interconnecting micro-topography and landform transformation, greatly reducing the impact on the ecosystem and culture in the business location.



Interconnecting micro-topography transformation for the project of Outer Ring Phase II

In 2021, Shenzhen Expressway conducted



more than **150** land inspections,



and stopped **2** cases of illegal occupation of red-line land



and **30** cases of illegal construction.



|Case:| Nanjing Wind Power actively takes measures to reduce ecological impact

The requirements for ecological protection around a wind farm vary with the topography, landform, climate, hydrology, geology, and other conditions of the wind farm. Nanjing Wind Power takes several measures in the decision-making stage, design stage, wind farm construction stage and operation stage to avoid damage to the ecosystem and maintain biodiversity.

Decision-making stage



1. Look for a qualified and experienced EIA unit with strong contract performance ability to make the project EIA report form;
2. Look for a professional environmental protection and water conservation design unit to carry out professional design for the environmental protection and water conservation of the project;
3. Look for a qualified, experienced and highly skilled environmental protection and water conservation monitoring unit to monitor the project and manage the environmental protection and water conservation project, and maintain good contact and effective communication and coordination with relevant government departments;
4. "Three simultaneous", simultaneous design, simultaneous construction, and operation at the same stage;
5. Set up special funds to ensure that the measures are in place;
6. Establish and improve the environmental protection system, set up and properly run the organisational structure system.

Wind farm construction stage



1. Build drainage ditches and sand wells, bury culverts, build figure-of-eight walls and retaining walls;
2. Net suspended spray sowing and build checked grids for planting grass in the middle;
3. Set up spoil fields, harden roads, plant trees and grass;
4. Domestic waste treatment: Set up septic tanks, and bury sewage pipes, sewage purification and treatment systems, and rain and sewage diversion system; the purified reclaimed water is used for flower watering, maintenance and car washing, and it is strictly forbidden to directly discharge untreated sewage;
5. Sign a safe, civilized and environmentally friendly construction agreement with the construction unit, or expressly stipulate the relevant requirements in the contract and supervise the implementation. Formulate practical and targeted measures to ensure a good construction environment on site and reduce the adverse impact and damage of construction on the environment.

Design stage



1. Take into account the ecological environmental measures in the distribution of wind turbines to keep them away from areas where birds live and migrate; take into account the forestry ecological red lines and the protection of wetlands, rivers, lakes, cultivated land, flood discharge areas, grasslands, etc.; locate them far away from residential areas to avoid noise disturbance;
2. In the design stage, consider ecological environmental measures and apply new technologies, new equipment, new processes, new materials, etc. to minimize damage to the original appearance or reduce ecological damage in design; consider design methods such as disassembly and assembly in terms of structural design and material transportation, so as to reduce the damage to the original landform during construction;
3. "Four savings" and "one environmental protection": energy saving, land saving, water saving and material saving; and environmental protection.

Operation stage




1. Sign a domestic waste treatment agreement with the local government or a waste treatment plant, regularly treat and clean up the domestic waste in the booster station to maintain environmental hygiene;
2. Booster stations purchase large trash cans or build a garbage pool to collect, classify and stack domestic waste for regular removal or recycling;
3. Conduct environmental monitoring, wind turbine noise monitoring and booster electromagnetic radiation monitoring properly and take protective measures or technical update measures as needed.

Respond to Climate Change

Climate change has increased the frequency of extreme weather and natural disasters, which has become a common challenge for all mankind. Extreme weather and natural disasters have a direct impact on the transportation industry. For example, they will cause various degrees of damage to transportation equipment and ground facilities, while the possible impact of natural disasters on traffic safety is also increasing.


Reduce Greenhouse Gas Emissions

Shenzhen Expressway regards the general-environmental protection segment as the second core business. We provide renewable energy sources for the society through new energy industry, reduce the utilisation of fossil fuels, and improve the resource utilisation 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 2021, the on-grid power of Shenzhen Expressway wind power generation was

1,384,439.31 MWh



Equivalent to a reduction of

419,000 tons of standard coal

Greenhouse Gas Emission Data of Shenzhen Expressway in 2021⁴

| Resource type | Unit | 2021 |
|-------------------------------------|---|-----------|
| Greenhouse gas emissions of scope 1 | Tons of carbon dioxide equivalent | 8,484.80 |
| Greenhouse gas emissions of scope 2 | Tons of carbon dioxide equivalent | 73,176.96 |
| Total emissions of greenhouse gas | Tons of carbon dioxide equivalent | 81,661.8 |
| Density of greenhouse gas | Tons of carbon dioxide equivalent/million revenue | 7.51 |

⁴ 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.

On the basis of 2021, we expect to reduce GHG emissions per million RMB revenue by **3%** in 2024.

**In 2021, due to the office relocation of Corporate headquarters and its subsidiary, the Construction Company, the setting scope of environmental targets only includes Environmental Company, Operation Development Company, Yichang Company, New Energy Company, Shenchang Companies, Qinglian Companies, Investment Companies, and Qinglong Company.*



Climate Risk Response

Shenzhen Expressway added the identification of climate change risk in the annual risk analysis and took several measures to deal with potential hazards. In the future, the Company will refer to the suggestion from Task Force on Climate-related Financial Disclosures (TCFD), and start identifying, quantifying, and reporting climate-related risks and opportunities. In addition, we will refer to best practices of peers and international leading standards, and develop short-term, medium, and long-term management strategies of climate change and reduction targets of greenhouse gas emissions, continuously improving the adaptability to the impact of climate change.

Risk Identification of Climate Change for Shenzhen Expressway in 2021

Physical risk⁵

- 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.
- Sea level rising would affect highway lines in the coastal areas, and infrastructures may be eroded and damaged by seawater.

Transformation risk⁶

- In 2020, China proposed to achieve “carbon neutrality” by 2060, which may create policy requirements for energy conservation and emission reduction.
- A series of transportation industry policies and regulations issued by China require propelling the green and low-carbon development of transportation, which may increase the operating costs of enterprises.
- 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 crisis 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.

⁵ Physical risk refers to the impact of environment on entity assets and productive forces.

⁶ Transformation risk refers to the risk of sudden depreciation of assets caused by laws and regulations supporting the transformation of green economy.

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 organisation to appoint professionals on site to sample raw materials in time and carry out flaw detection and inspection on welds.

Leveraging AI lens intelligent inspection with 24-hour manual uninterrupted video patrol inspection, the customer service centre proactively discovers special situations of road traffic in a timely manner and directly assigns rescue tasks to rescue units, road administration personnel, maintenance personnel and traffic police departments through one-key assigning function of "road network monitoring and command and dispatching system".



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 expressways under severe weather conditions. Before the arrival of extreme weather, increase the number of rescue vehicles, carry out hidden danger investigation, increase road patrols and reinforce pavement, cut down some trees, etc. In addition, enhance information linkage. According to the weather forecast, the customer service centre timely releases road traffic information through Weibo, WeChat official account, traffic radio and other channels, guides the vehicles to make travel scheme in advance and gives full play to information guidance, to ensure highway accessibility and high-efficiency operation.

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.



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 utilisation, meet the requirements of energy conservation and emission reduction and green transformation policies to reduce policy risks.



Shenzhen Expressway adheres to the concept of green development with priority given to resource and energy conservation and ecological environment, while taking positive actions such as promotion of pollution control and ecological protection as well as climate change response, aiming to spur a comprehensive green transformation in respect of economic and social development. We establish a series of internal management systems under national laws and regulations and proactively promote green and efficient operation through various energy saving and emission reduction measures. Meanwhile, we pay attention to the impact of various businesses on surrounding natural environment and incorporate environmental factors into the project planning, to propel the high-quality development of transportation and high-level protection of ecological environment, and advance harmonious development between traffic and nature.



Highlighted Data of Environmental Protection in Shenzhen Expressway in 2021

On-grid
energy of
wind power
generation



1,384,439.31^{MWh}

Treatment
capacity of
kitchen waste



430,205.87^{ton}

Treatment
capacity of
kitchen waste

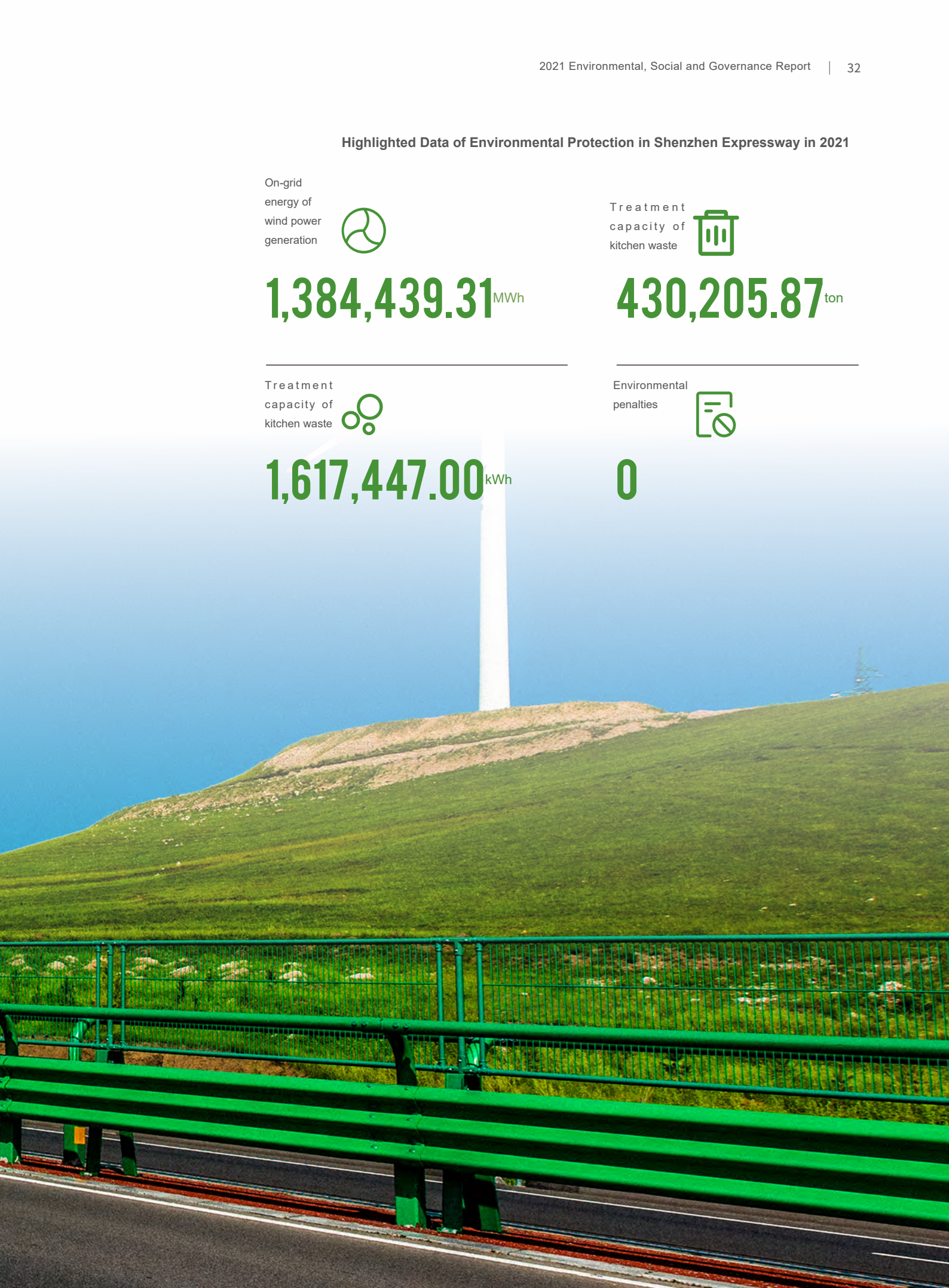


1,617,447.00^{kWh}

Environmental
penalties



0



Strict Quality Control

Focusing on the construction concept of “project quality, safety essence, architectural art, construction assembly, operation intelligence and environmental friendliness”, Shenzhen Expressway continues to provide high-quality projects. We adhere to the business philosophy of safety development and emphasize the construction of a standardized work safety system while promoting a dual-prevention mechanism, to improve the level of emergency management and emergency response capabilities. We always remove roadblocks with the fastest speed, ensure safety with the highest standards, and translate quality into the most refined services.

Investment in road maintenance expenses

RMB **292** million



Signing rate of the safety responsibility agreement

100%



The utilisation rate of ETC in the straight pipeline section in Shenzhen is

65%



Handling rate of complaints

100%





Guarantee Work Safety

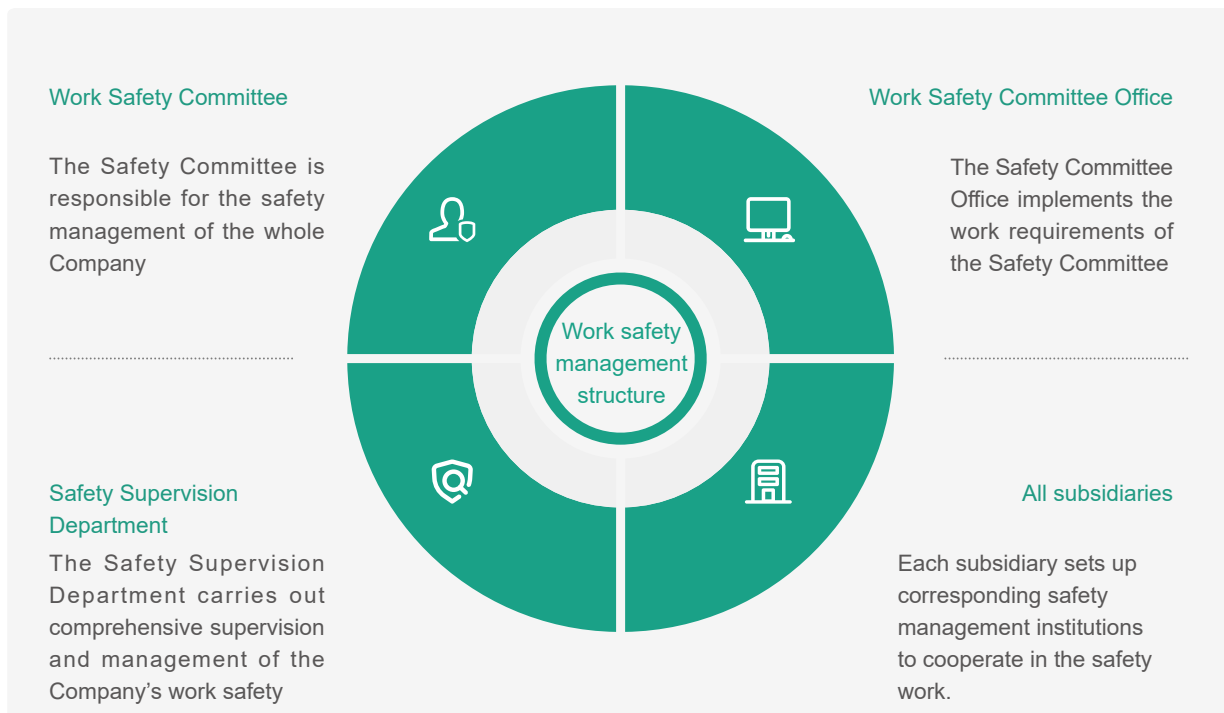
Shenzhen Expressway develops targeted safety assurance systems and standards for different business segments, and in addition to fully protecting the safety of employees, actively promotes the relevant parties' effective implementation of various safety assurance measures under the premise of fully assuring the safety of employees, to jointly create a safe, healthy and reliable work and operation environment.

Safety System

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 policies, including but not limited to the *Corporate Safety Management Procedure*, *Emergency Response Management Procedure for Work Safety* and *Safety Training Management System*. In 2021, we improved the *Emergency Plan of Shenzhen Expressway Company Limited for Work Safety Accidents*, and in accordance with the requirements for the standardization of work safety, each highway section operated by the Company carried out the construction and operation of the safety accident emergency system. For newly established and acquired affiliated units, we require them to comprehensively reconstruct the safety management policy system and gradually start the work of revising the safety management policy in accordance with the newly released Work Safety Law and related laws and regulations.

Work Safety Management Structure

We have set up a four-level work safety management structure, which from top to bottom consists of the Work Safety Committee (hereinafter referred to as the "Safety Committee"), the Work Safety Committee Office (hereinafter referred to as the "Safety Committee Office"), the Safety Supervision Department, and all subsidiaries. Specifically, the Safety Committee is responsible for the safety management of the whole Company, the Safety Committee Office implements the work requirements of the Safety Committee, the Safety Supervision Department carries out comprehensive supervision and management of the Company's work safety, and each subsidiary sets up corresponding safety management institutions to cooperate in the safety work.



Establishing a Dual-prevention Mechanism

To better control the safety work, the Company fully implements the construction of a dual-prevention mechanism. Since May 2021, the Company has launched a six-month trial run of the existing dual-prevention mechanism, sorted out a list of position risk control responsibilities covering more than 100 positions, effectively identified hazard sources, and clarified risk classification and control measures, to provide a guarantee for the safe operation of the business.

Work Safety Responsibility Assessment

To better achieve the effect of assessment and supervision, Shenzhen Expressway has on the basis of the original *Shenzhen Expressway Management System of Safety Assessment, Reward and Punishment*, intensified the assessment of the implementation of work safety responsibility for the main persons in charge, persons in charge and the main business departments. We make full use of the *Work Safety Risk Collateral Policy*, link safety performance with salary income, and combine result indicators with process indicators. At the beginning of 2021, we formulated and issued a safety risk collateral withdrawal plan for relevant personnel to consolidate responsibility through assessment. In addition, the Company has also introduced a third-party professional institution to carry out the annual work safety standardization assessment, testing the effectiveness of the system operation of each unit and the implementation of the safety management responsibilities of personnel at all levels through the implementation of process indicators.

In 2021, there were no work-related injuries or deaths of employees at Shenzhen Expressway.

Safety Assurance

The Company is engaged in various industries such as toll highway, project construction, general environmental protection, and new 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, to implement control measures accordingly.

In 2021, the Company adhered to the goal of "zero casualty" in work safety, and there were no responsible work safety accidents throughout the year.

Shenzhen Expressway Number and Proportion of Work-related Deaths 2019-2021

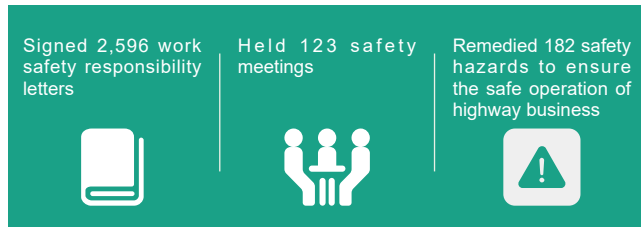
| Year | Unit | 2019 | 2020 | 2021 |
|--|--------|------|------|------|
| Number of work-related deaths | Person | 0 | 0 | 0 |
| Proportion of work-related deaths | % | 0 | 0 | 0 |
| Number of work-related working days lost | Day | 0 | 0 | 324 |

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 *Safety Responsibility System*, 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.

In 2021, we further improved the safety management rules and regulations, established a “multi-party” inspection mechanism through the interpretation of the plan of Shenzhen City on preventing and resolving road traffic safety risks, established a special seat for road administration, and implemented a leadership duty policy for the special protection period.

To implement the policy of “two duties for one post” and build a dual-prevention mechanism, we signed 2,596 work safety responsibility letters, held 123 safety meetings and remedied 182 safety hazards to ensure the safe operation of highway business. Specifically, Coastal Expressway (Shenzhen section) successfully passed the “safe highway” assessment for ordinary trunk highways and locally managed and maintained expressways of Guangdong Province in 2021.



Project Construction Management Industry

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. Shenzhen Expressway has formulated the *Management Procedures for Safe and Civilized Construction*, *Management Regulations of Hazardous Projects in Highway Projects*, *Temporary Electricity Use Safety* and other policies to standardize safety management, 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.

To effectively implement work safety, Shenzhen Expressway takes multiple measures concurrently. We conduct safety objectives management for engineering projects, determine the safety responsibilities of all relevant parties, and specify the assessment, reward, and punishment methods. On a quarterly basis, the Company organizes a third party to carry out safety inspections of outer ring projects and implements corresponding countermeasures for the identified safety hazards to eliminate unsafe factors. For contractors’ work safety management, we take measures such as innovation of work safety management policies, work safety inspection and special actions. In 2021, we strengthened our routine safety inspections, organized regular safety checks monthly, and conducted several special actions focusing on various aspects of work safety.



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 *Interim Management Measures for Work Safety Responsibility*, *Interim Management Measures for Safety Inspection and Potential Hazard Investigation*, *Interim Management Measures*



for *Work Safety Supervision of Related Parties* and other internal system documents of the Company, which include 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 of accident prevention.

In 2021, based on the actual situation of the Company’s environmental protection business, we adjusted the organisational structure of the Company with reference to the advanced management experience of the industry, integrated the management of environment, occupational health, and safety (EHS), and built the EHS management system. Meanwhile, we strengthened the EHS function and strength of the business line responsibility management department and designated full-time EHS managers for the project construction and operation management departments. In the general-environmental protection business segment, the Company requires the subsidiary companies with more than 50 employees to set up an independent “Safety and Environment Protection Department” and establish an EHS management organisation and makes it clear that the EHS affairs of the general-environmental protection business companies shall be decided by the EHS Management Committee

In 2021, in terms of plant safety, we launched an automation renovation and upgrade. As the anaerobic system is a key safety control section, the project company took the opportunity of this technical transformation to implement the anaerobic system upgrade project, to ensure the safe operation of the system. The upgraded equipment sets the alarm function in strict accordance with the SOP technical indicators, which can identify and solve problems in time. In addition, we have improved the “policy of five simultaneous for work safety” in workshops and work groups, established personal safety production files, trained or transferred personnel who did not have the required safety qualifications for their positions; we promptly understand the safety state of mind of employees when arranging work, so as to make careful and proper arrangements for each person’s work, and strictly implement the work ticket policy to ensure that the safety of employees is controllable and under control.

Safety Promotion

Shenzhen Expressway has formulated the *Management Policy on Work Safety Education and Training*. In 2021, the Company continued to carry out various types of safety education, which covered safety training, emergency drills, safety knowledge publicity and implementation and other awareness-raising activities, to strengthen the safety awareness of employees.

Toll Highway Industry

In June 2021, we carried out “Work Safety Month” activities for the toll highway business segment, under the theme of “Implementing Safety Responsibility and Promoting Safety Development” and carried out various activities to raise employees’ safety awareness, reduce safety hazards in the Company’s routine operation, and protect employees’ safety through the implementation of a series of activities.

Promoted the activities through banners, bulletin board displays and leaflets.

Organized an online safety knowledge contest, with 4,562 employees participating and 52.6 answers per capita.

Carried out fun games of safety skill competition and safety knowledge quizzes and safety riddles.

Conducted 261 safety inspections, addressed 1,657 safety hazards, and conducted 46 emergency drills.



Work Safety Month activities of Shenzhen Expressway

Project Construction Management Industry

In 2021, we held four pieces of safety training within the Company in accordance with the type characteristics of the business segments and the requirements of relevant national laws and regulations.

Internal Safety Training for the Project Construction Management Business Segment

| Training name | Training contents | Number of participants and duration |
|--|--|---|
| Security and law training | The <i>National Security Law</i> and the <i>Anti-Terrorism Law</i> , the <i>Anti-Espionage Law</i> and other national security-related laws and regulations. | 16 participants 1.5 hours of training sessions |
| Safety training on the <i>Management of Major Accident Hazards in Highway Projects and Projects with High Risk</i> | Organized employees to study the concept of various hazard sources, potential risks and risks in highway projects, determine the potential risks of major accidents in highway projects, master the scope and management of highway projects with high risks, understand and focus on the regulatory documents and standards, and benchmark the management of projects with high risks of the same type of construction units. | 14 participants 2 hours of training sessions |
| Training on the <i>Temporary Electricity Use and the Safety Risk Assessment for Highway Projects and Management of Projects with High Risk</i> | Organized employees to study the <i>Temporary Electricity Use Safety</i> , master the tools and techniques of power distribution and line protection, etc., and master the management of projects with high risk through the study of the <i>Management Regulations on Projects with High Risk in Highway Projects</i> . | 22 participants 3 hours of training sessions |
| Training on the new <i>Work Safety Law</i> | Organized employees to study the highlights of the new <i>Work Safety Law</i> , interpreted and publicized the laws, regulations and rules related to highway project work safety, emphasized how construction units should implement their safety responsibilities, and explained the typical cases of work safety. | 10 participants 2 hours of training sessions |

In addition to internal training, in 2021, the Company urged project contractors to organize 1,325 safety training sessions with 1,471 participants, working with relevant parties to ensure safe and orderly project construction.



General-environmental protection industry

In 2021, we focused on EHS knowledge and skill training, aiming to enhance the EHS awareness and mastery of EHS knowledge and skills of personnel at all levels. The training contents included special equipment safety management, ecological environment management requirements, roofing operation safety, etc. In the post-training effectiveness assessment, we attached importance to the conversion of training knowledge and skills and confirmed the training effectiveness through phased return visits and on-site inspections.

During the reporting period, Shenzhen Expressway's general-environmental protection business segment conducted a total of 15 safety training sessions, including 11 special training sessions for projects and 4 comprehensive training sessions for managers, which covered 436 people.



Training on general-environmental protection business segment



Focus on Highway Quality

Shenzhen Expressway adheres to strengthening the “road maintenance standardization” management, in order to create a “smooth, clean, green, beautiful” travel environment for travelers. Currently, the Company has 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*. In this year, we completed the revision and signing of the Commission Contract of Expressway Operation and Maintenance Management, clearly defined the process of potential hazard investigation and safety maintenance and prevented and reduced accidents. Given various potential hazards identified, we determine the management scheme and duration according to the different levels of potential hazards, to control various potential hazards resolutely and effectively.

By the end of the Reporting Period, the indices of technical conditions of each expressway managed by the Company were graded as excellent or good.

Maintenance Quality Indicator (MQI) of Sections Operated by the Company 2019-2021⁷

| | Jihe West | Jihe East | Meiguan Expressway | Coastal Expressway |
|------|-----------|-----------|--------------------|--------------------|
| 2019 | 94.41 | 92.73 | 94.14 | 96.84 |
| 2020 | 94.31 | 94.01 | 95.04 | 97.03 |
| 2021 | 94.27 | 94.2 | 94.98 | 96.96 |

⁷ Technological condition evaluation of highways comprises four parts, namely road surface, roadbed, bridge and tunnel structure and roadside facilities, represented by MQI (Maintenance Quality Indicator), a technological condition index of highways, and corresponding sub-indices. It is classified into five grades, namely excellent, good, average, sub-standard and poor, where a project scoring 80-90 is good, and over 90 is excellent.

Safety of 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, based on the reconstruction and extension of Jihe Expressway plans, we have proactively explored the three-dimensional composite reconstruction and expansion mode of expressways to rationally plan new highways and improve highway accessibility.

In 2021, we dug deeper into management improvement of toll stations in terms of equipment improvement, optimization of passage, personnel support, ETC conversion and strengthening supervision. We developed "one policy for one spot" remediation and improvement measures for 15 congestion-prone and accident-prone road "black spots", and effectively improved the efficiency of road operation by transformation of signage, addition of flashing lights, increase of safety tips and other micro-transformation to alleviate road congestion. In addition, we actively carried out service quality improvement, promoted ETC service enhancement, and carried out online promotion activities for ETC in each toll station. By 2021, we have issued a total of 4,492 ETC devices and increased the usage rate of ETC.

Shenzhen Expressway has formulated the *Measures for Processing of Highway Rescue Information*, which specifies 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 2021, we optimized the policies, standardized emergency rescue management, and strengthened the supervision of tow truck rescue companies in terms of rescue efficiency, rescue services and compliance fee charges. As a result, the quality of tow truck rescue was significantly improved. We set up 15 regular stationing points for tow trucks and 7 permanent points for emergency clearance. Approximately 31,684 tow truck rescue services were performed during the reporting period. The proportion of arriving at the scene within 20 minutes reached more than 90.9%, the average time spent on arriving at the scene was about 13.5 minutes, and the rescue effectiveness far exceeded the time requirements of arriving at the scene within 60 minutes in the Service Standards and Operating Procedures of Guangdong Province for Vehicle Rescue on Expressways (Provisional), to implement the rescue in a highly efficient manner and ensure smooth and safe roads. In addition, we strengthened the emergency response drills, ensuring that the highway administration officials could respond within 5 minutes, arrive at the scene of the accident within 25 minutes, be stationed in the peak hours, and arrive as soon as possible.



Road Collapse Emergency Drills

Customer Service

Shenzhen Expressway has created a service brand system with regional and industrial characteristics, which, with the “36710” service standard model as the core, combines the regional characteristics of the city, the needs of drivers and passengers, and the characteristics of the enterprise, and through comprehensive and multi-dimensional enhancement measures, constantly extends the service chain, expands the service connotation, and improves the service level and management quality.

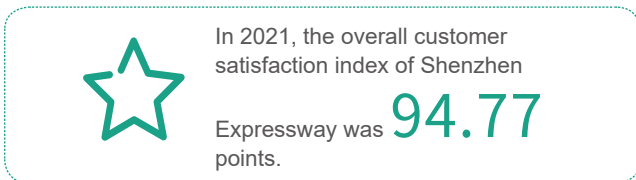
Paying attention to the protection of customer privacy, we have established strict confidentiality management policies such as the *Management Measures for Customer Property* and the *Management Policies for Security Documents and Files* to clarify the responsibility for information confidentiality of each person. We have set up strict control procedures for operation data information query and retrieval, so that demand declaration is required for any data extraction by the Company’s employees, that data extraction and delivery by business personnel is permitted only after review by the department, and that it is required to archive relevant records.

Shenzhen Expressway has formulated the *Customer Complaint Handling Procedures* and the *Determination Criteria for Types and Nature of Customer Complaints*, which clearly stipulate the types of customer complaints and the handling of different types of complaints. The Customer Service Information Department collects and records customer complaints, is required to forward them to the relevant responsible units for investigation and verification, and properly handles the complaints by means of communication and consultation with the complainants. If the complainant is not satisfied with the handling result, it is returned to the responsible unit for re-handling, to continuously improve the effectiveness of service quality. In 2021, we issued the *Notice on Re-emphasizing Requirements Related to the Handling of Letters and Visits*, requiring all units responsible for complaints to adopt a unified handling procedure for online orders to ensure more standardized and efficient complaint handling.

Shenzhen Expressway has established various complaint channels, including the Company’s official website, the 24-hour service hotline of the customer service center, the WeChat official account of the customer service center, the Sina Weibo of the customer service center, the media (such as traffic stations, newspapers, TV, etc.), the letter and visit hotline of the municipal government, the Letter and Visit Bureau of Shenzhen, the service hotline of the Ministry of Transportation, the service hotline of the Guangdong Transportation Department, the service hotline of Yue Tong Card, and on-site acceptance, etc. Among them, for government visits and media-type complaints, acceptance, investigation, and evidence collection, handling and replying to customers are all completed within two business days, while relevant evidence is retained. As at the reporting period, the acceptance rate and response rate of all complaints reached 100%.

| | |
|---|--|
| <p>Shenzhen Expressway customer complaint channels: 24-hour customer service Tel.0755-88833118 Referral of municipal government complaint service hotline 12345 Media referral complaints (Traffic channel service hotline)Shenzhen Expressway service website</p> | <p>Service hotline of the Ministry of Transportation 95022 Service hotline of the Guangdong Transportation Department 96998 Service hotline of ETC 96533 Interaction with Shenzhen Expressway official account on Wechat Acceptance on the toll site</p> |
|---|--|

Shenzhen Expressway conducts annual customer satisfaction surveys, mainly for the expressways under the Group’s jurisdiction in the Shenzhen region. In 2021, approximately 2,200 road user questionnaires were returned, approximately 500 people received return visits by telephone, and approximately 100 people from the government and relevant parties were surveyed. The survey includes the three main aspects of impression, quality and service, and the quality and service sections each include 10 sub-items.



Innovate in Science and Technology

Focusing on technological innovation, Shenzhen Expressway continues to innovate in the professional field of engineering and in the research and application of intelligent transportation. We strengthen our investment in research and development of environmental protection technology to continuously improve the green transformation capability and sustainable development of the Company.



Investment in research and development innovation

84.482 million

Safety of Highway Accessibility

We strengthen the protection of our own intellectual property rights and ensure that we do not infringe on the intellectual property rights of others. During the reporting period, the number of cases of infringing on intellectual property rights or intellectual property rights being infringed was 4. As at the end of 2021, Shenzhen Expressway has 333 granted patents. Among them, 39 patents were granted in 2021.



4 times of infringement of intellectual property rights



Shenzhen Expressway had accumulated **333** authorized patents



39 authorized patents were granted in 2021

Intelligent Empowerment of Operation

Shenzhen Expressway continues to explore 5G, big data, artificial intelligence and other intelligent means in the construction and operation process and empowers the construction and maintenance process, thus improving the construction efficiency and operation service level and contributing to the construction of intelligent expressways.

In 2021, we completed the UAV flight command and dispatch center and realized the applications of UAV-based inspection and monitoring of roads and structures, high side slope inspection, traffic safety facilities inspection and emergency rescue command. This technology-empowered innovation effectively addresses the shortcomings and weaknesses of manual inspection, and effectively improves the efficiency and quality of road inspection, emergency command and rescue work.

We use a BIM-based maintenance management application system, which makes possible the digitization of engineering and the intelligent decision-making of management by means of business big data. The project uses various technical means to establish a digital model of the outer ring expressways with high-precision information attributes, to realize the digitization of the expressway infrastructure and the operation and maintenance business.

In addition, the system can visualize all kinds of real-time conditions of the highways, provide data analysis as a basis for decision making, realize refined, digital and grid maintenance and management, improve the efficiency of highway management, and ensure accurate real-time information and data transmission.



Case: Intelligent construction empowers Shenzhen Expressway's reconstruction and expansion project of Jihe Expressway

In 2021, Shenzhen Expressway won the first prize in the BIM competition for the application of BIM technology in the design phase of the reconstruction and expansion project of Shenyang-Haikou Expressway to He'ao-Shenzhen Bao'an International Airport section.

The Airport-He'ao Expressway reconstruction and expansion project will be the first time in China to adopt the 8+8 double-layer three-dimensional composite channel. It is proposed to adopt the infrastructure full life-cycle digital BIM application to realize the full life-cycle transmission of models and information, which can make full use of the historical data information of structures in each stage of business management and allows viewing the component information and health status information at any time. It controls traffic using ramp control, speed limit, traffic flow forecast and other methods, conducting innovative exploration on the traffic management model of "active early intervention". By means of digital twin technology, it empowers the whole process of project construction management, provides early warning for on-site inspection and maintenance, effectively delays, or eliminates potential traffic bottlenecks, and provides a better travel experience for road users.



"Big data" Intelligent Management of Traffic




Concern About Employees' Growth

We adhere to the core value that “being human-oriented is the source of energy for Shenzhen Expressway”, propose that “our development achievements should be shared by our employees”, create a cultural atmosphere for “good faith, diligence, happy working, harmony and win-win situation”, put guaranteeing our employees' rights and interests in the first place, establish a sound and quite competitive salary and welfare system and build a sound training system to promote the improvement of employees' individual vocational ability. Meanwhile, we carry out various caring activities to enrich our employees' daily activities.


Newly recruited employees

2,033 
persons

Proportion of female employees

41.3 % 

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

19 person-times 

Total amount for supporting employees in difficulty

95,000 





Guarantee Employees' Rights and Interests

Shenzhen Expressway formulates targeted security systems and specifications according to different business sectors. In addition to fully ensuring the safety of employees, we actively promote the effective implementation of various safety and security measures of relevant parties, jointly creating a safe, healthy and reliable production and operation environment.

Employment in Compliance with Laws

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 several 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 and guarantees the legitimate rights and interests of employees, and strives to provide 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 completely eradicates any form of discrimination and 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 2021, Shenzhen Expressway



has recruited
2,033 new
employees



a total of
7,105
employees at that
time



of which
2,932
were female
employees



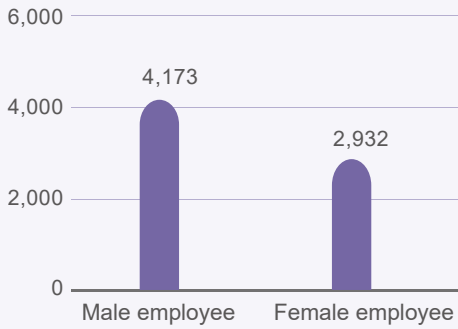
accounting for
41.3%

To implement the protection of employees' rights and interests, Shenzhen Expressway 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. 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.

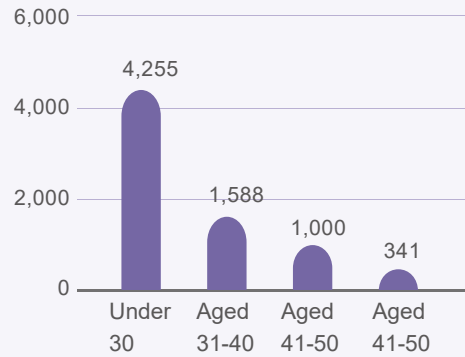


In 2021, no employment of forced labor or child labor occurred in Shenzhen Expressway.

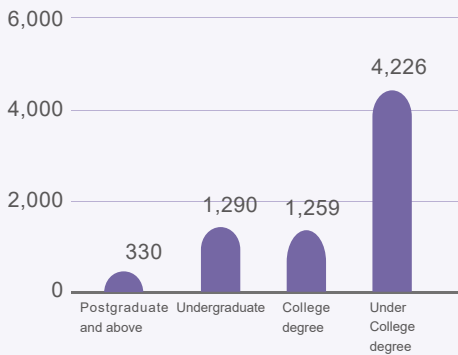
Number of employees by gender - persons



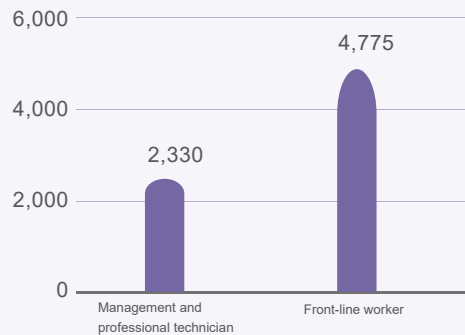
Number of employees by age - persons



Number of employees by academic qualification - persons

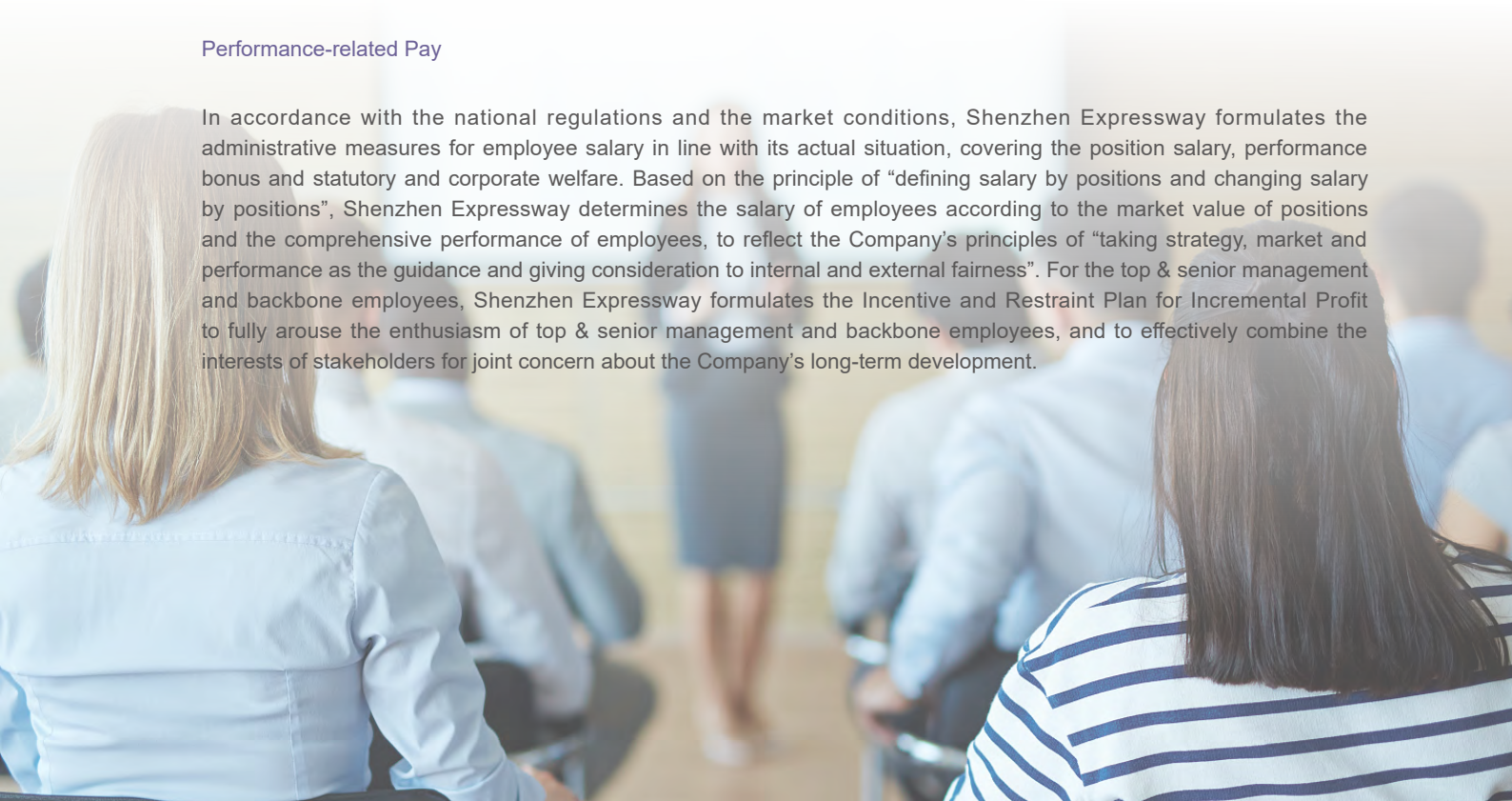


Number of employees by function - persons



Performance-related Pay

In accordance with the national regulations and the market conditions, Shenzhen Expressway formulates the administrative measures for employee salary in line with its actual situation, covering the 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”. For the top & senior management and backbone employees, Shenzhen Expressway formulates the Incentive and Restraint Plan for Incremental Profit to fully arouse the enthusiasm of top & senior management and backbone employees, and to effectively combine the interests of stakeholders for joint concern about the Company’s long-term development.



Encourage Employees' Development

Attaching great importance to employees' growth, 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, establishes the Company's diversified talent training system, and encourages employees to participate in learning to improve their personal abilities and make progress together with us.

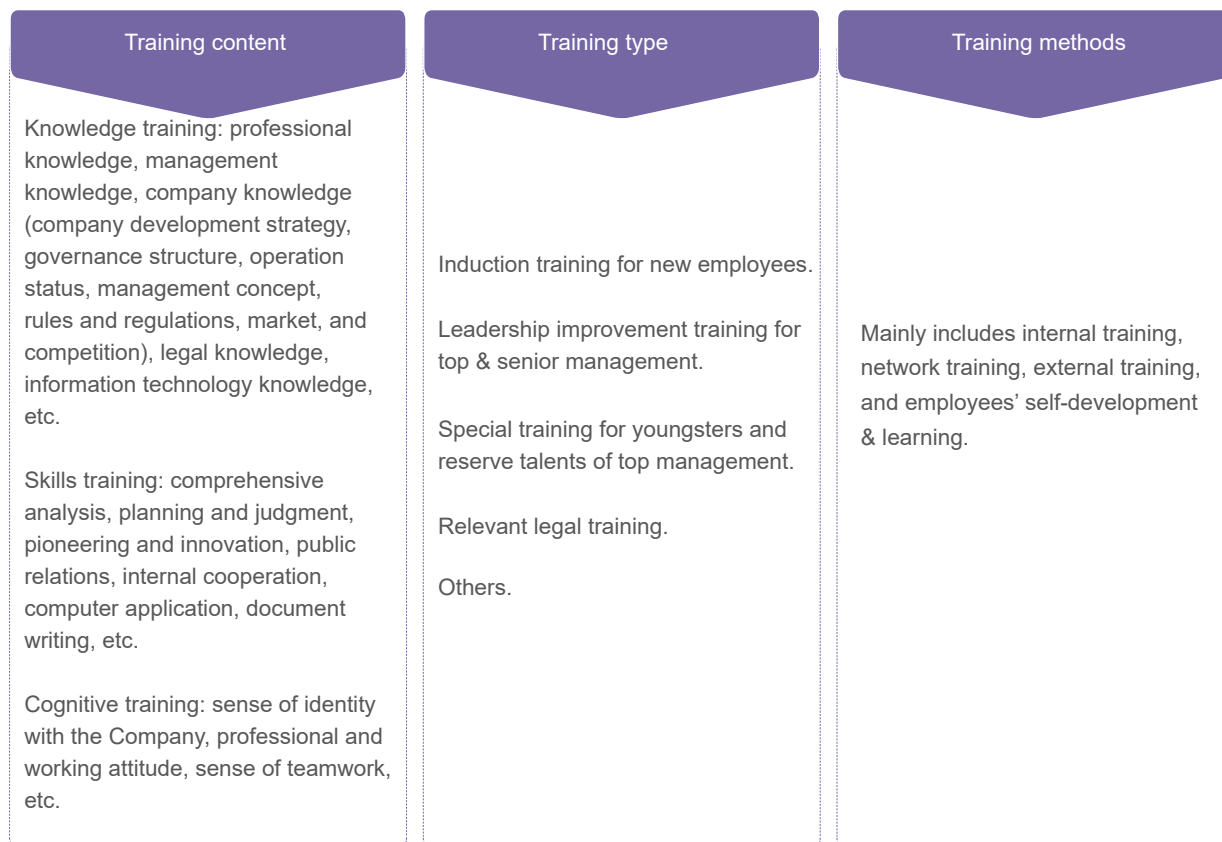
Employee Training

Shenzhen Expressway regards development of employees as its important strategy and improves its employee's knowledge and skills through various trainings to build a more professional team for serving the enterprise development. We insist on providing our employees with the training content they really need, encouraging employees to apply what they have learned, and stressing practical results, to promote the collaborative improvement of employees and organisational performance. Shenzhen Expressway specifies the detailed procedures for training in the *Measures for Management of Employee Training*, to provide all employees with professional knowledge meeting their job requirements by training.

Employee Training

Being enterprise strategy-oriented, Shenzhen Expressway regularly analyzes the training demands of employees, divides the training content into knowledge training, skills training, and cognitive training according to the analysis result, adopts diversified training methods, formulates comprehensive training plans, builds a sound training system, and enhances employees' personal quality and work ability, to achieve better growth of the Company and employees.

Shenzhen Expressway Employee Training System



Provide Customized Training Courses

Shenzhen Expressway customizes multiple training programs to meet diversified demands of employees according to the work characteristics and content for its employees at different levels.

Shenzhen Expressway Customized Training

| New employee | Professional employee | Senior manager or above |
|--|---|---|
| <ul style="list-style-type: none"> • “Development training” and “special training on enneagram”. etc • While publicizing and spreading the corporate culture, help new employees identify their characteristics to maximize the advantages and specialties of employee | <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” | <ul style="list-style-type: none"> • Organize “leadership improvement” training in famous universities |



2021 Shenzhen Expressway training course for ability improvement of reserved talents

Participate in Supporting Education

We actively participate in supporting education and other types of activities initiated by the government, cooperate with universities and colleges to support, and cultivate new young employees, so that they can have opportunities to continue their education. We also keep being concerned about employees’ career development and vocational ability training to continuously provide our development with various talents.

Case: Shenzhen Expressway participates in the poverty alleviation in education themed on “Dream Project”

Shenzhen Expressway actively participates in the poverty alleviation in education-themed “Dream Project” is initiated by government agencies such as the Communist Youth League in Shenzhen for its excellent employees, grassroots front-line employees, employees in difficulty and unemployed persons, and cooperates with universities such as Tianjin University, Shandong University, Beijing University of Posts and Telecommunications, to set up junior college and undergraduate programs such as business administration, financial management, e-commerce, social work, accounting, computer science and technology, with a view to providing its employees with abundant continuing education resources.



In 2021, Shenzhen Expressway subsidized approximately 30 people



with the subsidy of approximately 152,300

Shenzhen Expressway Employee Training Data in 2021⁸

| Employee type | | Unit | 2021 |
|---|---|-----------|-----------|
| Total number of trainees | | Person(s) | 825 |
| Total training hours | | Hour(s) | 11,614 |
| Total investment in training in 2021 | | RMB | 1,023,082 |
| Number of new employees trained in 2021 | | Person(s) | 48 |
| Number of employees trained | Number of male employees trained | Person(s) | 413 |
| | Number of female employees trained | Person(s) | 412 |
| | Number of management and professional employees | Person(s) | 825 |
| Average duration of employee training | Average training hours of male employees | Hour(s) | 15.3 |
| | Average training hours of female employees | Hour(s) | 12.85 |
| | Average training hours of management and professional employees | Hour(s) | 14.1 |

⁸ The training data is only for the training organized by the Human Resource Department of the Group

Career Development

To the extent of complying the relevant laws and regulations, 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 specifies steps of the employment process, to continuously improve the employment management efficiency and to ensure the fairness and justice of the process. In addition, we have 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 implements a market-oriented talent introduction mechanism, pays continuous attention to the development of outstanding talents in the Company, and continuously expands the talents team by cultivating and selecting talents within the Company. It sets the internal rotation mechanism of employees, replenishes reserve talents, 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 set 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.

Shenzhen Expressway advocates the on-the-job self-study and encourages all its employees to actively participate in the same to actively supplement the knowledge necessary for holding the post and for the Company's future development. It gives a certain sum of rewards to those employees who have worked for one year or more for the Company and hold the college degree or above or diploma recognized by the State because of studying in spare time. Besides, to encourage employees to obtain professional qualification certificates, Shenzhen Expressway not only reimburses the training and examination expenses but also gives the corresponding cash bonuses after any employee obtains the certificate.



Take Care of Employees

Shenzhen Expressway cares for employees for their lives, not only attentively builds a safe and pleasant work environment for its employees, but also holds a series of activities for employees, and encourages employees to relax and explore their interests and hobbies after work. Shenzhen Expressway attaches importance to the communication with employees, carefully listens to employees, and helps employees maintain physical and mental health and work-life balance.

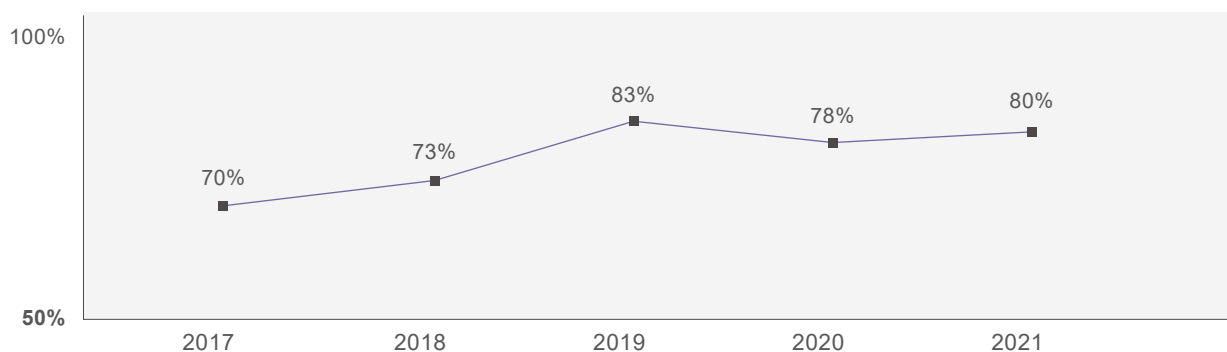
Communication with Employees

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

We attach great importance to opinions from our employees and actively respond to the issues they are concerned about to guarantee their rights and interests. We carry out employee satisfaction surveys annually from four aspects of job duties, job rewards, work team and corporate management. As indicated by the survey result, the results of employee satisfaction have been continuously improved since the implementation of the employee satisfaction survey. In view of issues frequently reported by employees, Shenzhen Expressway has solved them and followed up them continuously, for example, in accordance with employees' suggestions, it has made an annual adjustment of employee salary according to the Company's performance, carried

out benchmarking of salary market, and optimized the salary management system and promotion channels for employees to achieve more efficient long-term incentives. 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.

Shenzhen Expressway Overall Employee Satisfaction from 2017 to 2021



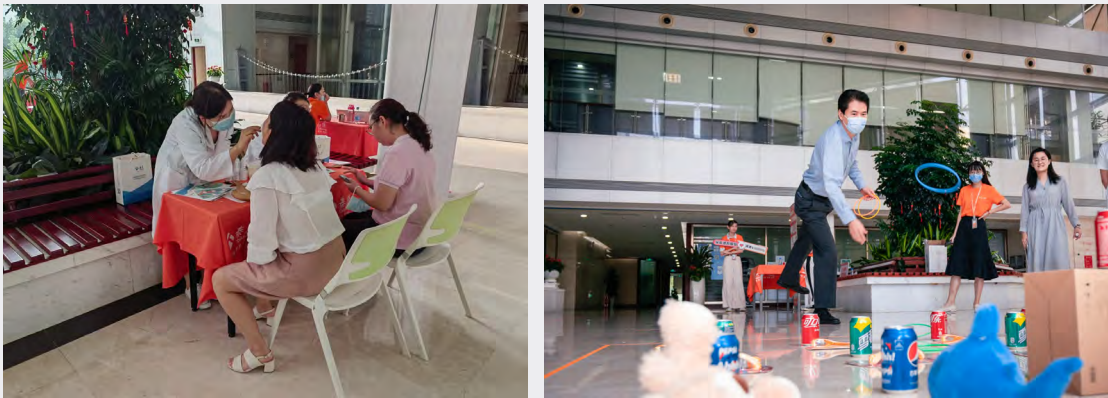
Employee Welfare

Shenzhen Expressway is committed to providing life guarantee and care for its employees, actively helps employees in need and devotes itself to the building of a good group atmosphere. In accordance with the relevant provisions of the local policy department, Shenzhen Expressway pays five insurances and one housing fund for employees on time, and pays supplementary pension for the management and the main technical personnel regularly, to make employees share the achievements of the Company's development and establish a long-term trust relationship between the Company and employees. Meanwhile, Shenzhen Expressway provides employees with diversified 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 Employee Welfare | | | |
|--|---|--|--|
| Daily welfare | Special welfare | Holiday welfare | Health welfare |
| <ul style="list-style-type: none"> Offer employees with free breakfast, lunch, and dinner, as well as fruit, snacks and other catering services during the "Afternoon Tea". | <ul style="list-style-type: none"> Offer employees paid leave and consolation money 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 money to sick employees in hospital; Buy blood pressure meters and body fat scales for employees. |

Case: Month of employee guarantee benefits in 2021

On September 9, 2021, to further strengthen employees' physical quality and relax bodies and minds, Shenzhen Expressway organized a health care carnival activity themed by "care for employees, protection at all times" jointly with Taikang Life, in which more than 80 employees of the Group company and its subsidiaries participated. In addition to the health checkup service provided, some funny games were available on the site so that employees could relax their bodies and minds. That activity not only strengthened the health guarantee for employees, but also enriched employees' spare-time lives.



Month of employee guarantee benefits for Shenzhen Expressway employees in 2021

Besides, Shenzhen Expressway set up the mutual fund for its employees to help those employees who suffered from critical illness or accidental injury. By the end of 2021



Shenzhen Expressway has provided supports for **19** employees in difficulty



in which **95,000** has been invested in total



Work Together for the Future

Shenzhen Expressway is committed to the benign interactions with its cooperators and seeks to make progress and develop together with them. We integrate the sustainable development idea into the supplier management by perfecting the supply chain management system, aiming to build a sound supply chain system and promote the green development of the industry. We always keep in mind our social responsibilities as an enterprise and carry out a series of public charity activities to promote the fulfillment of our social responsibilities in order, while developing stably.

Total public welfare expenditure

RMB **500,000** 

Volunteer participation person-times

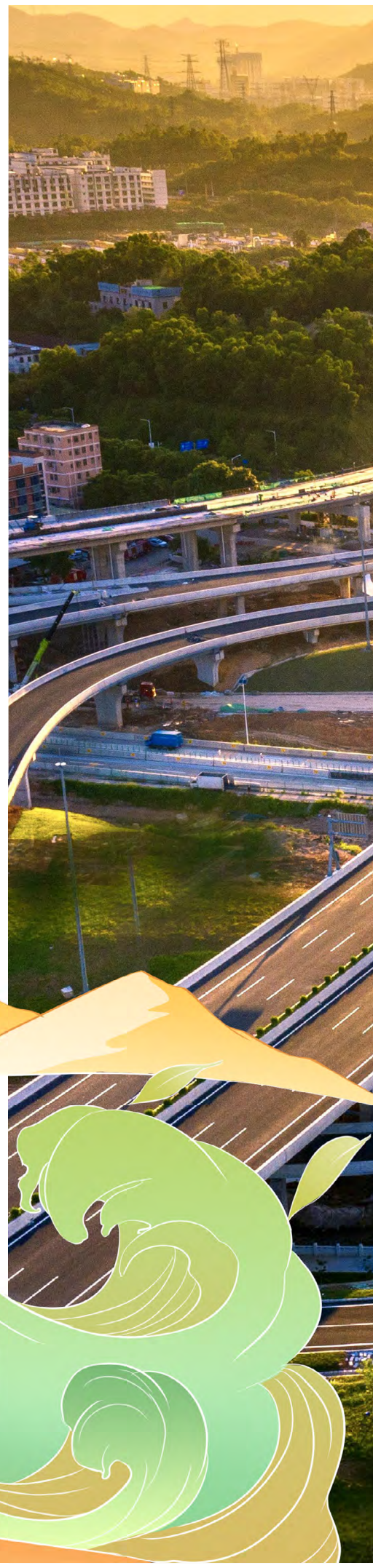
769 
person-times

Total hours of volunteer activities

1,704 hours 

Number of authorized patents

333 items 





Sustainable Supply Chain

In the supply chain management process, Shenzhen Expressway implements the requirements of the sustainable development idea. It comprehensively considers its supplier in terms of environmental protection, energy conservation and emission reduction, green construction, includes the requirements of the sustainable development in the review standards for and annual review and evaluation of the access for suppliers, and signs the letter of commitment with its supplier covering the environmental protection in a form of contract or agreement. It is committed to prompting the suppliers to build the sustainable development management system, aimed at building an open, green, and inclusive sustainable supply chain together.

Build a Perfect Supply Chain System

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, complied with the basic principles of openness, fairness, impartiality and good faith, and strictly standardized the management of suppliers in business segments

Number of Suppliers of Shenzhen Expressway in 2021

| Supplier location | Unit | 2021 |
|-------------------|-------------|-------|
| China | Supplier(s) | 2,168 |

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*, adheres to the main strategy of focusing on prevention supplemented by fighting, and resolutely and completely eradicates all forms of corruptions in the bidding process, striving to build long-term stable cooperation relationship with its suppliers in good faith.

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. 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.



Shenzhen Expressway Process of Contractors Management



Advocate Green Supply Chain

Actively promoting and advocating the green supply chain development, Shenzhen Expressway not only takes the Outsourcing Management Control Procedure and the Management Measures for Alternative Libraries of Outsourcing Parties of Construction Companies as the essential bases for the selection and assessment of supplies by the relevant departments, but also includes the environmental requirements in the supplier assessment to promote the green sustainable development of the supply chain.

Supplier 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.



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 utilisation, 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 <i>Monthly Report of Safety Production</i> to local highway engineering quality supervision station • Participate in various work safety inspections organized by government departments |
|  <p>Withdrawal of a contractor</p> | <ul style="list-style-type: none"> • 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" | <ul style="list-style-type: none"> • 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 |

Payback to the Society

Shenzhen Expressway always keeps in mind its social responsibilities while developing stably. In 2021, the Company worked together with its employees and partners as well as some institutions and regulators to carry out a series of charity activities, particularly the effective activities in the battle against COVID-19 and disaster relief, rural revitalization, and public charity, which promoted the benign interactions between the enterprise and the society and made the society nice further.

By the end of 2021



Shenzhen Expressway has invested **500,000** in public charity



480 person-times have participated in volunteer activities



Total duration of volunteer activities is **1,932** hours

Battle Against COVID-19 and Disaster Relief

In 2021, the COVID-19 didn't end. As a responsible enterprise, Shenzhen Expressway kept paying high attention to the COVID-19 and built a COVID-19 prevention and control group. It has "borne its responsibilities to the State" and tried its best to give supports to the affected areas in China, showing a good image of a responsible enterprise, while guaranteeing the health of its employees

Case: Shenzhen Expressway was completely supportive in the joint prevention and control of the COVID-19

Between June and July in 2021, Shenzhen Expressway mobilized its employees to participate in the joint prevention and control of the COVID-19 by taking temperatures, disinfecting the passing vehicles, and recording information about people at the specific expressway toll stations and service zones, as an active response to the State's call. Meanwhile, it mobilized volunteer service teams to actively propagandize the COVID-19 prevention to improve drivers' and passengers' awareness of safe prevention and control of the COVID-19 and to contribute its efforts to the prevention and control of the COVID-19 for the local communities.



Shenzhen Expressway employees were assigned to Yanluo Subdistrict, Baoan District for the assistance in the nucleic acid testing

Shenzhen Expressway employees checked the COVID-19 cases door-to-door

Rural Revitalization

Shenzhen Expressway has been concerned about China's rural development and has actively promoted the consolidation and extension of the national achievements in poverty alleviation for years, with a view to speeding up the overall rural revitalization and to resolutely performing its social responsibilities as a state-owned enterprise.

Case: We donated and assigned cadres to villages for targeted supports to and assistance in rural revitalization

In July 2021, Shenzhen Expressway assigned two employees to Daan Town, Lufeng City where they would act as the members of the support team in that town and would participate in various work of rural revitalization. The local industrial development was effectively enhanced, and the local people were assisted in achieving the common prosperity by means of vigorously perfecting the infrastructure construction, devoting more efforts to propagandize the local agricultural products, and promoting the scale, standard, brand and green development of the crop farming.

Public Charity

Shenzhen Expressway is always enthusiastic about public charity and mobilizes its employees to actively participate in various public charity activities. It actively communicates with community people and actively conducts various public charity activities, including fighting the flood and providing relief, public service advertising and volunteer actions, which benefit communities in the long term and promote the community economy and social development.

In 2021



Shenzhen Expressway provided **54** voluntary services



in which **480** volunteers participated



and **1,932** hours of voluntary services were provided in total



Peasants were assisted in planting early season rice early



Public service advertising of Niudali traditional Chinese medicinal materials in Jishui Village



Starlight Project for Helping Students in Need



Consolation to Xinmin Villagers on the "Guangdong Poverty Alleviation Day"



Volunteers went to voluntarily enable villagers to have their hair cut



Consolation to shepherds by Baotou Nanfeng

Case: We rushed to the rescue in Henan to drain flooded fields and to provide disaster relief

In July 2021, an extreme heavy rainfall occurred in Henan, and intense fall led to a flood disaster the same night, resulting in severe waterlogging in some of the disaster-affected areas and in a serious impact on people's lives. Shenzhen Expressway urgently mobilized the rescue team of its Bioland Environmental Technologies Corp., Ltd. to rush to the rescue in Henan, and specifically allocated its dredging robots independently designed, researched, and developed to help residential areas successfully solve the difficulty in drainage arising from the waterlogging after the disaster.



Rescuers from Shenzhen Expressway rushed to Zhengzhou for the rescue



About the Report

Introduction

This report is the Environmental, Social and Governance Report publicly released by Shenzhen Expressway Corporation Limited for the second successive year. It discloses the environmental, social and governance information about Shenzhen Expressway Corporation Limited and its subsidiaries so that 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 can know more about the Company's sustainable development strategy and the Company can be under the social supervision.

Reporting Cycle

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

Reporting Time

This report covers the year 2021, from January 1, 2021, to December 31, 2021. Considering the continuity and comparability of the disclosed information, some information contents should be extended forward and backward as appropriate.

Reporting Scope

The organisation scope of this report is Shenzhen Expressway Corporation Limited and its subsidiaries.

Preparation Basis

This report is prepared in accordance with the *Guidelines for Reporting Corporate Social Responsibility* 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.

Reference

For the convenience of presentation, in this report: "Shenzhen Expressway", "the Company", "Company", "Group" and "We" all represent Shenzhen Expressway

Co., Ltd. and/or its subsidiaries;

"Corporate headquarters" refers to Shenzhen Expressway Cooperation Limited and its subsidiaries directly managed in Shenzhen.

"Jihe Expressway" refers to the expressway from Shenzhen Bao'an 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.

"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 March 29, 2022. It is confirmed that the content is accurate, true, and complete.

Publication Channel

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. | Exhaust gas and wastewater management |
| KPI A1.1 | The types of emissions and respective emissions data | Reduce environmental pollution |
| KPI A1.2 | Direct (scope 1) and energy indirect (scope 2) greenhouse gas emissions and intensity | Respond to climate changes |
| KPI A1.3 | Total hazardous waste produced and intensity | Reduce environmental pollution |
| KPI A1.4 | Total non-hazardous waste produced and intensity | Reduce environmental pollution |
| KPI A1.5 | Description of set emission targets and steps taken to achieve such targets | Reduce waste generation |
| KPI A1.6 | Description of how hazardous and non-hazardous wastes are handled, and description of set emission targets and steps taken to achieve such targets. | Develop green industries 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 | Efficient use of resources |
| KPI A2.1 | Direct and/or indirect energy consumption by type in total and intensity | Efficient use of resources |
| KPI A2.2 | Water consumption in total and intensity | Efficient use of resources |
| KPI A2.3 | Description of set energy use efficiency, targets and steps taken to achieve such targets | Efficient use of resources |
| KPI A2.4 | Description of whether there is any issue in sourcing water that is fit for purpose, and set water efficiency and steps taken to achieve the targets | Efficient use of resources |
| KPI A2.5 | Total packaging material used for finished products and 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 | Environmental management system Ecological environment protection |
| KPI A3.1 | Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage relevant impacts | Ecological environment protection |

| Aspect, General Disclosure and KPI | Description | Relevant Chapters |
|------------------------------------|---|---|
| A4: Climate Change | | |
| General Disclosure | Policies on identifying and responding to major climate-related matters that have had and may have impacts on the issuer | Respond to climate changes |
| KPI A4.1 | Description of major climate-related matters that have had and may have impacts on the issuer and responding actions. | Respond to climate changes |
| 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 | Guarantee employees' rights and interests |
| KPI B1.1 | Total workforce by gender, employment type, age group and geographical region. | Guarantee employees' rights and interests |
| KPI B1.2 | Employee turnover rate by gender, age group and geographical region. | Guarantee employees' 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. | Safety assurance Safety promotion |
| KPI B2.1 | Number and rate of work-related fatalities in the past three years (including the Reporting Year). | 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 promotion |
| 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 | Employee training |
| KPI B3.2 | The average training hours completed per employee by gender and employee category | Employee training |

| Aspect, General Disclosure and KPI | Description | Relevant Chapters |
|------------------------------------|---|---|
| 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. | Guarantee employees' rights and interests |
| KPI B4.1 | Description of measures to review employment practices to avoid child and forced labor | Guarantee employees' rights and interests |
| KPI B4.2 | Description of steps taken to eliminate violations when they are discovered | Guarantee employees' rights and interests |
| B5: Supply Chain Management | | |
| General Disclosure | Policies on managing environmental and social risks of the supply chain | Build a perfect supply chain system |
| KPI B5.1 | Number of suppliers by geographical region | Build a perfect supply chain system |
| KPI B5.2 | Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored | Build a perfect supply chain system |
| KPI B5.3 | Description of practices relating to identifying environmental and social risks at each link of the supply chain, and how they are implemented and monitored | Advocate green supply chain |
| KPI B5.4 | Description of practices of causing the use of more environmentally friendly products and services when selecting suppliers, and how they are implemented and monitored | Advocate green supply chain |
| 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 | 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. | Innovate in science and technology |
| KPI B6.4 | Description of quality assurance process and recall procedures | Highway quality |
| KPI B6.5 | Description of consumer information protection and privacy policies, how they are implemented and monitored | Customer service |

| Aspect, General Disclosure and KPI | Description | Relevant Chapters |
|------------------------------------|---|---|
| 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 | Integrity 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 | Integrity management system |
| KPI B7.2 | Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored | Integrity management system Integrity culture building |
| KPI B7.3 | Description of anti-corruption training provided to directors and employees | Integrity culture building |
| 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 | Proper use of land |
| KPI B8.1 | Focus areas of contribution (e.g., education, environmental concerns, labor needs, health, culture, sport) | Public charity |
| KPI B8.2 | Resources contributed (e.g., money or time) to the focus area | Public charity |

Survey Feedback Form

Dear readers:

Thank you for reading this report! This is the Environmental, Social and Governance Report 2021 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 2021 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 | V e r y 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? | | | | | |



深圳高速公路集团股份有限公司
SHENZHEN EXPRESSWAY CORPORATION LIMITED

Contact address: Floor 46, Hanjing Financial Center, No.9968, Shennan Avenue,
Nanshan District, Shenzhen, Guangdong, China
Post code: 518057
Fax: (86)755-86698002
Telephone: (86)755-86698000
Investor Hotline: (86)755-86698069

