



浙江滬杭甬高速公路股份有限公司
ZHEJIANG EXPRESSWAY CO., LTD.

2018

**ENVIRONMENTAL AND
SOCIAL RESPONSIBILITY REPORT**

STOCK CODE : 0576

ABOUT THIS REPORT

REPORTING PERIOD

This report covers the reporting period from January 1, 2018 to December 31, 2018.

REPORTING SCOPE

This Environmental and Social Responsibility Report covers Zhejiang Expressway Co., Ltd. and its subsidiaries (“the Company”) engaging in the expressway business, excluding Zheshang Securities Co., Ltd. and its associates, joint ventures and joint-stock companies.

BASIS OF PREPARATION

Environmental, Social and Governance Reporting Guide of the Hong Kong Stock Exchange.

SOURCE OF INFORMATION

All information referred to in this report is derived from the official documents, statistical reports and financial reports of the Company, and has been verified by a third party. All information referred to in this report is solely for the purpose of disclosure on the progress of sustainability management of the Company and shall not be used for commercial purposes.

LANGUAGES

This report is prepared in both traditional Chinese and English.



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CHAIRMAN'S STATEMENT

As transportation is considered the mother of industry, the expressway network is linked to national fate. A road leading to the far distance brings economic prosperity and meets the people's needs for a good life. It is our constant pursuit to ensure the safety, smooth passage and quality of avenues. With the continuous development of science and technology, the operation and maintenance of expressways are gradually moving towards standardisation, technicalisation and informationisation. The upgrading and transformation of expressways is a challenge brought to us in the context of the new era, and that not forgetting to pay attention to the environmental impact coming along with the upgrading and transformation is also a social responsibility we should undertake.

In 2018, the Company successfully achieved smooth passage for 322 days, and the total number of vehicles passing through the toll stations of our expressways was 258 million. While the business was growing steadily, the Company also focused on developing green economy, contributing to coping with the challenges of environmental protection and global climate change. "Energy saving, consumption reduction and green environment" is the environmental policy we have been adhering to. In our management of the expressway operating environment, we aim to comply with laws and regulations and prevent environmental pollution, striving to build green and environmentally-friendly expressways with the focus on energy conservation and consumption reduction. In 2018, the Company successively carried out energy-saving lighting replacement, asphalt road surface hot-in-place recycling, green ring maintenance and other projects, taking a step closer to establishing the lofty goal of "lucid waters and lush mountains". The Company will also continue to proceed on the road for green development.

Many a little makes a mickle. The contribution of each of our employees accumulates to make the Company run successfully and stably. The diligent work of our over 3,000 employees has ensured smooth road passage, helping people in a rush to reach their respective distant destinations. We want our employees to work and live happily and we pay greater attention to the care for employees. Our practical drills ensure the safety of employees; our regular training allows employees have longer-term career development; our reasonable remuneration system gives security to employees in the material aspects of life; and our psychological counselling room at the basic stations and various interest clubs ensure employees to live a healthy and spiritual life. Volunteer service is an important component of the Company's party-building work. Construction of a clean and honest administration will create a refreshing and righteous ecological environment for our operation, thus making sure the sustainable development of the Company.

Building an environment-friendly enterprise and daring to assume social responsibility will be the only way for the Company in heading for high quality and sustainable development. We will also adhere to the corporate mission of "building the road through the world and creating the future by harmonious development" all the way on the road of sustainable development bright with sunshine!

YU Zhihong
April 4, 2019

1 EMISSIONS



1.1 Air pollutant emissions

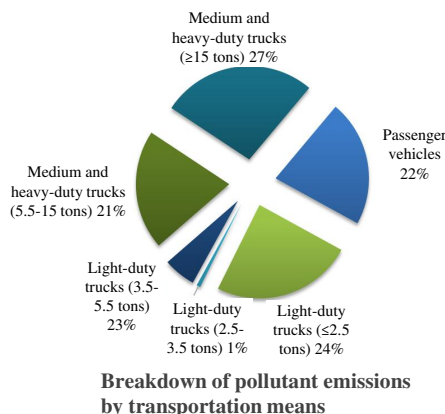
The Company's air pollutant emissions are mainly derived from motor vehicles, including nitrogen oxides (NO_x), sulfur oxides (SO_x) and respirable suspended particulates (PM) ①.

NO_x emissions
10,591 kg

SO_x emissions
14 kg

PM emissions
687 kg

The chart on the right shows the breakdown of pollutant emissions by transportation means based on statistics conducted on the total discharge of the three types of air pollutant emissions by vehicle type. Among which, emissions from heavy-duty trucks larger than 15 tonnes account for the largest percentage of about 27% and light-duty trucks of 2.5-3.5 tons account for the smallest percentage of about 1%.



1.2 Noise pollution

NovaChip, an ultra-thin wear layer construction technology capable of effectively reducing noise of moving vehicles, is adopted. Upon adoption, noise level of ordinary road surface can be reduced by 2-4 decibels. Regular road patrol is conducted to timely deal with broken road surface to reduce unusual noise of moving vehicles. At the scene of accident, where the results are guaranteed, light instead of broadcasting is adopted as far as possible for indication to minimise disruption to people.

In 2018, NovaChip technology dealt with road surface of as long as **19 km**, representing a cumulative increase of **90%** comparing with last year.

To effectively improve noise pollution along highways, installation of sound barriers for certain sections along the route of expressways such as Hangzhou-Ningbo Expressway was gradually implemented in stages.



Sound barrier

Road sections and length of new sound barriers in 2018

Hangzhou-Ningbo Expressway

600 m

Hanghui Expressway

2,200 m

① NO_x and SO_x emission factors are based on The Clean Air Charter – A Business Handbook issued by the Hong Kong General Chamber of Commerce and the Hong Kong Business Coalition and that data comes from the Sustainability Report 2014 of Towngas. PM emission factors are based on the EMFC-HK Vehicle Emission Calculation Model of the Hong Kong Environmental Protection Department (EPD) and the vehicle emission modelling software of the US Environmental Protection Agency, assuming 80% relative humidity, 25 degrees Celsius, an average speed of 30 kmh and emissions only during driving.



1.3 Greenhouse Gas (GHG^①) emissions

The Company's GHG emissions for 2018 are accounted for in accordance with the Hong Kong EPD's Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for Buildings (Commercial, Residential or Institutional Purposes) in Hong Kong. In 2018, the Company's total GHG emissions were **20,519 tCO₂e^{②③}**, and emission intensity was **31 tCO₂e/km**. Specific emissions are detailed in the table below.

Emission (Removal) Sources			Facility	Physical Consumption	Unit	Emissions (kgCO ₂ e)
Direct emissions or relocations	A. GHG emissions from stationary combustion sources	Natural gas	Gas appliances	26,000	m ³	66,378
	B. GHG emissions from mobile combustion sources	Gasoline	Passenger vehicles	244,546	L	666,596
			Light-duty trucks (≤2.5 tonnes)	183,944	L	497,902
		Diesel	Passenger vehicles	201,333	L	623,030
			Light-duty trucks (≤2.5 tonnes)	111,812	L	309,986
			Light-duty trucks (2.5-3.5 tonnes)	13,407	L	37,169
			Light-duty trucks (3.5-5.5 tonnes)	53,657	L	148,756
			Medium and heavy-duty trucks (5.5-15 tonnes)	126,044	L	332,675
			Medium and heavy-duty trucks (≥15 tonnes)	161,032	L	425,022
	C. HFC and PFC emissions from refrigeration and air conditioning	R32 refrigerant	Air conditioning	383	kg	258,188
		R410A refrigerant	Air conditioning	167	kg	288,075
	D. GHG removals from newly planted trees	Tree	Arbor	12,000	Tree	-276,000
Indirect emissions	Electricity		Electrical equipment	27,208,128	kWh	17,141,121
Total emissions (tCO ₂ e)						20,519
Total mileage (km)		663	Emission intensity (tCO ₂ e/km)			31

① GHG: Greenhouse Gas

② Data in this report has been rounded off.

③ CO₂e: Carbon dioxide equivalent which is the basic unit for measuring the greenhouse effect. Remarks on unit: tCO₂e: tonne of carbon dioxide equivalent; tCO₂e/km: tonne of carbon dioxide equivalent per kilometre; kgCO₂e: kilogram of carbon dioxide equivalent; m³: cubic meter; L: litre; kg: kilogram; kWh: kilowatt hour; km: kilometre



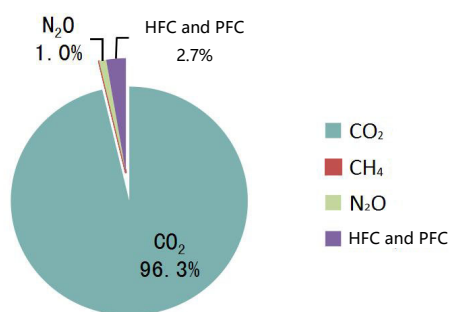
1.3 Greenhouse Gas (GHG) emissions

Classification of emissions ^①

In 2018, the Company's GHG emissions included carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O) and fluorocarbons (HFC and PFC^②). Specific emissions and the breakdown are shown in the table and chart below. Among which, carbon dioxide emissions accounted for the largest percentage of 96% whereas methane emissions accounted for the smallest percentage, close to zero.

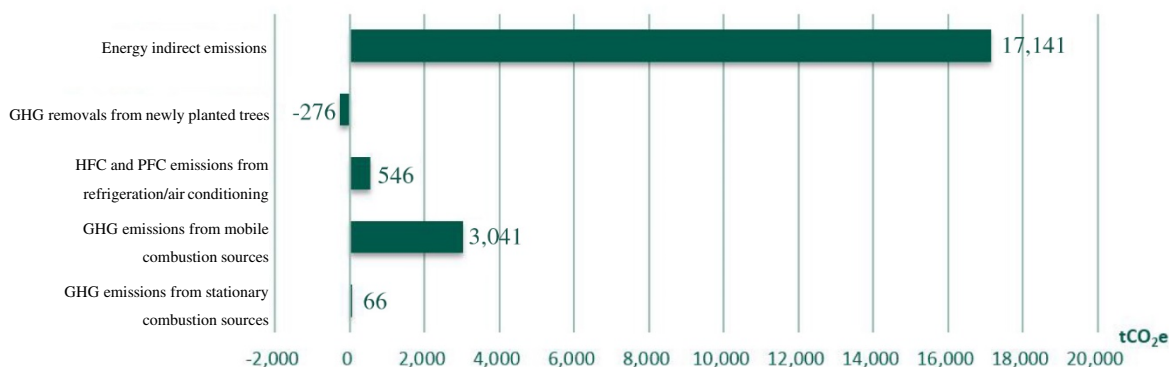
Methane and nitrous oxides are derived from the combustion of fuels (natural gas, gasoline and diesel oil), and fluorocarbons are derived from the consumption of refrigerants.

GHG emissions (tCO ₂ e)	
CO ₂	19,768
CH ₄	3
N ₂ O	202
HFC and PFC	546
Total	20,519



Breakdown of GHG emissions ^③

In classifying emissions by source, the Company's GHG emissions in 2018 included energy indirect emissions (electricity emissions), GHG removals from newly planted trees, HFC and PFC emissions from refrigeration/air conditioning, GHG emissions from mobile combustion sources and GHG emissions from stationary combustion sources. The above GHG emissions are shown in the diagram below.



^① Classification is based on the Hong Kong EPD's Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for Buildings (Commercial, Residential or Institutional Purposes) in Hong Kong.

^② HFC: hydrofluorocarbon; PFC: perfluorocarbon

^③ Breakdown of GHG emissions: Given that methane (CH₄) emissions account for close to zero of the total, the portion of CH₄ has not been shown in the pie chart.



1.4 Waste emissions

- The “low carbon, environmentally friendly and efficient” asphalt pavement on-site thermal regeneration technology is adopted to maintain the road surface, making it possible for 100% of the original asphalt pavement materials to be recycled. Moreover, the works can be done in a short time which will minimise the impact on road capacity. Wastes not being used for this technology but produced in maintenance are used for repairs of slopes or lower grade roads, thus achieving a utilisation rate of approximately 100% for maintenance wastes.
- During the reporting period, the Company cumulatively produced old bituminous materials of 115,419 tonnes (including the original coastal segments), of which, 53,234 tonnes were used for hot-in-place recycling, 59,748 tonnes were for sale and 2,437 tonnes were used for soil road shoulder, achieving a recovery rate of as high as 100% and a recycling rate of 46%.
- Domestic garbage is processed regularly by local environmental and hygiene companies.
- During the reporting period, the Company had not been held liable for any improper disposal of hazardous waste. Major control measures: For the discharge of hazardous waste such as paint slag and waste paint buckets involved in the maintenance process, the Company has to sign an environmental protection agreement with the maintenance contractor under which the contractor is required to dispose the waste according to regulations. At the same time, regular or unscheduled checks of the maintenance process are carried out to supervise and inspect the contractor in performing the environmental responsibility.



1.5 Emission reduction measures

Promotion of ETC



Compared with manual semi-automatic toll stations, ETC can save fuel consumption by 0.03 litre, which translates into a reduction of approximately 50% of carbon dioxide emissions and approximately 70% of carbon monoxide emissions per ETC lane and vehicle.



**No. of ETC lanes
cumulatively
209**

**Scan Alipay
coverage rate
58.67%**

**Newly planted arbor
trees of**

about 12,000

**Equivalent to a reduction of
carbon dioxide emissions of
approximately 276 tonnes**



The arbor trees newly planted by the Company in 2018 can absorb road dust and vehicle exhaust, reducing GHG emissions.

2 USE OF RESOURCES

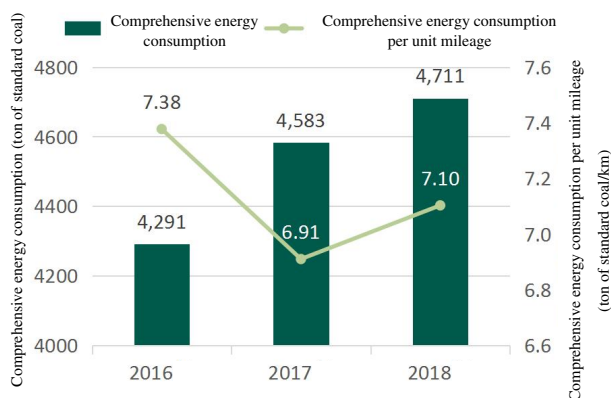
2.1 Consumption of resources

The Company consumes energy including electricity, diesel, gasoline and natural gas. Total energy consumption in 2018 was **4,711 tonnes** of standard coal.

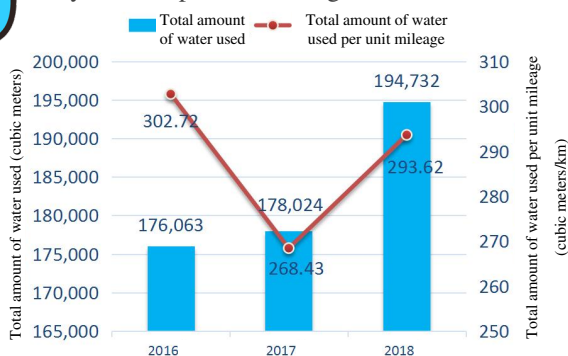
The comprehensive energy consumption per unit mileage in 2018 was **7.10 tonnes of standard coal/km**, up by 2.79%^① year on year, mainly attributed to the improvement in tunnel illumination.

Year	2018				2017			
Type of fuel	Physical volume	Unit ^③	Equivalent volume	Percentage as of total	Physical volume	Unit	Equivalent volume	Percentage as of total
Natural gas ^②	26,000	m ³	32	1%	-	-	-	-
Diesel	697,521	L	874	19%	729,383	L	914	20%
Gasoline	429,340	L	461	10%	480,939	L	517	11%
Electricity	27,208,128	kWh	3,344	71%	25,647,854	kWh	3,152	69%

The Company's comprehensive energy consumption for the past three years and per unit mileage is shown in the diagram on the right. The increase in comprehensive energy consumption in 2017 was mainly attributed to the 2017 new data arising from the newly-acquired 100% equity of Huangshan Changjiang Huihang Expressway Co., Ltd. whereas the increase in total mileage led to a reduction of energy consumption per unit mileage. In 2018, greater attention was paid to road safety due to policy reasons. As a result, tunnel illumination was improved, and comprehensive energy consumption and comprehensive energy consumption per unit mileage also increased.



Amount of water used for the past three years and per unit mileage



Total amount of water used in 2018

194,732 m³

Total amount of water used in 2018
per unit mileage

294 m³/km

① The standard coefficient is quoted from the GB/T2589-2008 General Principles for the Calculation of Comprehensive Energy Consumption.

② Statistics on natural gas consumption were newly collected in 2018 but the relevant data was not collected and disclosed in 2017.

③ Remarks on unit: m³: cubic meter; L: litre; kWh: kilowatt hour

2 USE OF RESOURCES

2.2 Resources utilisation enhancement and measures

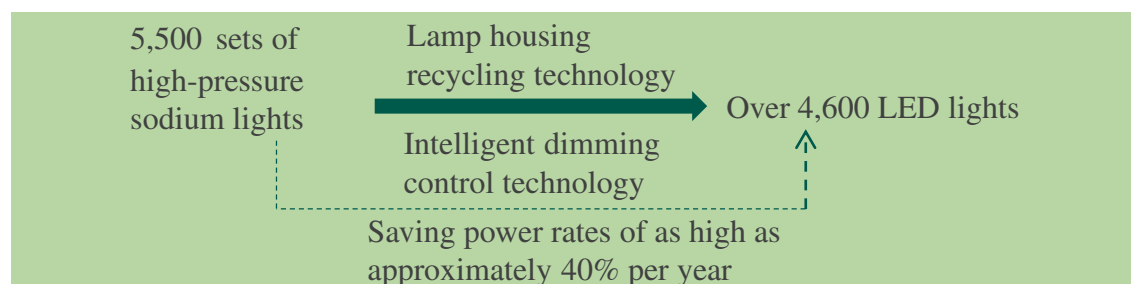
Resource utilisation enhancement

2018

- LED lights installed in tunnels, ramps, stations, etc. completed;
- Lighting replacement at bridge towers completed;
High mast energy-saving lighting improved and upgraded

2014-2018

- The Xintian Management Office completed LED replacement work for four tunnels, namely, Panlongling Tunnel, Langkeling Tunnel, Longshan Tunnel and Renhuling Tunnel.



Water resources utilisation enhancement

- The Company carried out energy-saving and emission-reduction activities, encouraging every staff to take part in “saving every degree of electricity, every drop of water and every piece of paper” so as to become a good energy-saving and emission-reducing employee in jointly creating a green low-carbon atmosphere.
- Drip irrigation technology using a central reservation
 - PVC pipes are used to install fixed irrigation channels and river waters under the bridge culvert are guided by a pump and transported uniformly and accurately through the dripping head to the root of the plants at a frequency of 2-3 hours per day.
 - The successful application of this technology not only solves the safety hazards of traditional road greening and maintenance using a central reservation resulting from the need for road closure and repeated entry and exit of waterwheels for high-speed filling and irrigation, but is also better compared with the original broad irrigation in terms of water conservation, environmental protection and even irrigation, conducive to the growth of plants.



2 USE OF RESOURCES

2.2 Resources utilisation enhancement and measures

Ongoing application of asphalt pavement on-site thermal regeneration technology

The asphalt pavement on-site thermal regeneration technology has prominent energy-saving and emission-reducing effects, capable of effectively improving pollution. It is estimated that, comparing with the traditional milling and overlaying method, works on a single carriageway road^① using the asphalt pavement on-site thermal regeneration technology can save **0.65 tonne** of heavy fuel oil, **15.95 tonnes** of asphalt and **353 tonnes** of new materials per lane and kilometre, and reduce **2.02 tonnes** of CO₂ emissions, achieving **100%** utilisation of the old materials.



Since 2012, the Company has started to use the asphalt pavement on-site thermal regeneration technology which is currently used in Shanghai-Hangzhou-Ningbo Expressway, Shangsang Expressway, Ningbo-Jinhua Expressway and Hangzhou-Huizhou Expressway. Asphalt pavement on-site thermal regeneration has become a conventional means of the Company for special road surface maintenance.

Area of road surface completed adopting asphalt pavement on-site thermal regeneration technology in 2018

500,000 m²

Total area of road surface completed adopting asphalt pavement on-site thermal regeneration technology in 2012-2018

1.59 million m²

① Single carriageway road: a road that does not divide roadways using a separation zone

3 EMPLOYEES



3,374



41.17%



58.83%

Total number of employees

Male/Female ratio

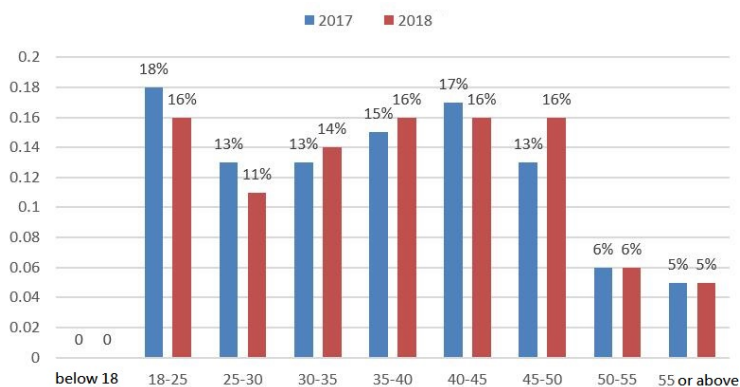


The Company’s employees came from a number of regions, mainly Zhejiang, Anhui, Fujian, Henan, Hubei, Jiangsu, Jiangxi, Heilongjiang, Shaanxi, Sichuan, etc.

The Company continued to uphold the corporate value system of integrity, harmony, openness and aggressiveness. By providing a sound working environment and an upbeat working atmosphere for its employees, the Company endeavours to build a career platform that can facilitate employees to explore their potentials. **A variety of channels** such as **campus recruitment**, **community recruitment**, **referral** and **self-recommendation**, and **recruitment agency**, were still fully adopted to introduce talents that meet the Company’s strategic requirements, with adherence to the requirements of the position regardless of region, gender, experience and qualifications.

During the reporting period, 284 employees departed the Company which was basically the same as that in last year, primarily labourers aged below 30 with male/female ratio was 6:4. Distribution was relatively even and there was no apparent geographical differentiation.

Employee Age Distribution



Open and fair talent selection and recruitment principle

Featuring “morality and talent with focus on performance and morality first”

Career development path

Encouraging competition for the position with dual choices, democratic election and position exchange

Revision and improvement

Rules for the Appraisal of Headquarters’ Staff of the Company

Administrative Regulations for the Transfer of Posts among Middle- and Branch-level Staff of the Company (Revised)

Formulation

Measures for the Annual Appraisal of Middle-level Executives

4 HEALTH AND SAFETY

Regular medical check-ups are arranged for employees and, where necessary, labour protection supplies are purchased for the protection of employees. To ensure the mental health of employees, each basic station has a special mental health consultation room and an emotion ventilation room with the support of 18 qualified psychologists.



Huihang Company launched publicity activities on the Law on the Prevention and Control of Occupational Diseases

Work injury insurance coverage rate

100%

Medical check-up coverage rate

100%

During the reporting period,

- No incident of major occupational injury occurred among employees
- No incident of occupational disease experienced by employees
- No incident of work fatality reported among employees

“People-oriented, safety first, prevention is better than cure, integrated governance, safe development”

The Company’s leaders attach great importance to safety and smooth passage work. The Company fully implements the safety management philosophy of “one post with dual roles” and “three musts”, always placing production safety the first priority.

“One post with dual roles”: managing production must manage safety;

“Three musts”: managing the industry must manage safety, managing the business must manage safety, and managing production and operation must manage safety.

Guarantee on safety expenses

In the whole year, more than **Rmb4.5 million** of special production safety funds were devoted to maintenance projects and supervision on the special funds for production safety was strengthened.

Strengthening the technical views exchanging system for the safety of projects before construction

A tense momentum for safety was maintained to ensure that safety requirements are thoroughly carried out among front-line workers and managers at all levels.

Continuously reinforcing production safety supervision and inspection

Special inspections were carried out throughout the year, and more than **40** secret investigations were conducted. The Company reported more than **20** production safety issues to which rectification was implemented.



Chairman Yu Zhihong and General Manager Luo Jianhu went to the front line to guide the work for smooth passage against icy rain and heavy snow.

4.1 Relentless Effort on Safety Work



Standardisation of production safety

During the reporting period, the Company continued to push ahead the standardisation of production safety of expressway enterprises and the standardisation of production safety of workshops, and maintained systems including the Administrative Measures on Production Safety, Accidents and Deficiencies. Traditional events included “Production Safety Month”, “Ankang Cup”, whereas popular themed events such as production safety quiz, safety essay competition and safety photography contest were also organised to continuously create strong safety ambience. The Company achieved full coverage of its employees for safety training during the Production Safety Month, effectively improving the safety awareness among employees.

- Seminar on safety site
- Promotion of communication for safety management experience
- Benchmark enhancement
- Special action plan for identification and rectification of production safety deficiencies

Special Events



Marching toward the Company’s management objective of becoming “the leading operator in China and a top-notch operator globally”

- Stringent access examination and subsequent monitoring and management system has been established with respect to road maintenance as well as electrical and mechanical construction;
- Relevant constructor service providers are subject to the occupational health and safety management system of the Company;
- During the reporting period, no material incident of production safety, liability and occupational hazards were experienced by the Company and the construction service providers.



5 DEVELOPMENT AND TRAINING



Strengthening team building

During the reporting period, taking into account the actual circumstances of cadre teams, the Company focussed on building a team of pioneering cadres, the Zhejiang Expressway Iron Team, to create a clean and positive employment ambience in planning and strategising a stronger building of “good leaders, good members and good ladders”. The Company encourages employees to participate in training and education, and rewards employees that meet the education requirements and attain education achievements as appropriate.

Expenditures on education and training during the reporting period

Rmb5.97 million

YOY growth

9%

Training hour

A certain length of training was maintained among personnel at all levels.

Non-management personnel	General management	Mid management personnel	Senior management personnel
8 hours	60 hours	100 hours	Above 50 hours

Trainings by category and by hierarchy

Tailored to the job characteristics of employees, various training courses are provided to enhance the business skills and management standards of employees.

- Training on comprehensive management knowledge
- Training on professional techniques
- Training on production position skills



5 DEVELOPMENT AND TRAINING

Training by level

The Company has formulated and implemented a talent training and development system that meets the actual needs of the Company where quality personnel are prioritised training, core personnel are subject to key training, scarce personnel are subject to intensive training and general personnel are subject to systematic training, achieving innovation in a targeted and effective manner.

Ways of training	
Comprehensive capability improvement training for young cadres was developed by way of talent review and targeted and customised training	In cooperation with new-type universities on the Internet, the Company organised training on comprehensive capability improvement for core management through detailed research on training needs research.
The Company continued to establish an online training platform via OA and optimised the opening of training courses according to the work needs of employees in different positions and levels to encourage them to make use of their leisure time to add value via the online platform.	The building of internal trainer teams was further strengthened, and some practical problems encountered in the work process were effectively solved.



Service demonstration training

- Toll collectors were trained on the correct approach to improve resonance and affinity of their voice.
- The Shanghai-Hangzhou-Ningbo Toll Service Etiquette Exercise and the Guide on the Use of Language for Onsite Tolling Service were prepared.

Continuous innovation

Exploring innovative ways on talent screening and recruitment

● System assurance

Opinions on Further Strengthening Team Building
Administrative Measures on Non-Executive Personnel

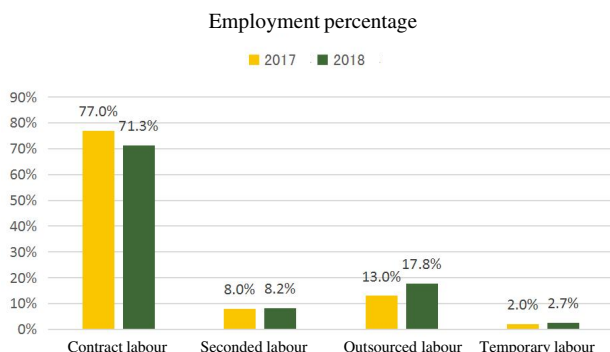
- Advancing cadre training on channels such as promoting senior executives and technical positions, effectively broadening promotion channels for all core management personnel and improving the ladder of personnel growth.

Technical guidance

- The original Dai Zhigang Skill Master Workshop of Ningbo Management Office and sub-platform were maintained.
- In 2018, under the technical guidance of the “Skill Master Workshop”, the scientific and technological innovation research paper “Research on the Application of Solar Photovoltaic Power Generation Technology in Expressways” of Hangzhou Management Office was successfully selected as an excellent research result of the SASAC and the Provincial Association of State-owned Assets Administration.

6 LABOUR STANDARDS

6.1 Overview of employment



The Company's employment percentage during the reporting period is detailed in the diagram on the left.

- A wage increment system has been established.
- Collective salary negotiation
- Any material changes to the employee remuneration and labour interests are subject to approval at the employee representative meeting.
- The Company's labour contract rate was 100%; and social insurance coverage was 100%. No labour dispute was identified.

6.2 Compliance

- During the reporting period, the Company continued to strictly abide by the labour laws and regulations and observed the employment policy of impartiality. In particular, the Company was in compliance with regulations regarding the special protection of women's and children's rights.
- During the reporting period, the percentage of employment secondment was in compliance with the Interim Provisions on Employment Secondment. However, the Company has increased the percentage of outsourced labour. Labour laws and regulations are being enforced during work hours, of which, a comprehensive working hour system is implemented for toll collectors, which is reported to the local human resources and labour security departments for record and approval, whereas standard working hours are implemented for the rest of the employees. Overtime hours and overtime pay are implemented according to regulations.

6.3 Employee satisfaction

During the reporting period, the Company maintained the employee feedback system and received more than 600 complaints and recommendations from employees through various channels, including special events, suggestion boxes and visits by executives. Of which, more than 297 complaints have been resolved and the rest is given a reasonable explanation. Employees are satisfied with the above results. The Company has kept the system where leaders regularly visit employee representatives. The visits are conducted at least once a quarter and findings are shown to which employees are satisfied.

6.4 Caring for employees



During the reporting period, the Company implemented the “three-period” protection for female employees in accordance with the laws. At the basic stations, female employee washroom, snooze room for pregnant women and breastfeeding room have been set up according to the needs of female employees.



During the reporting period, in order to further implement the people-oriented principle and properly resolve the actual difficulties of relatively senior employees who are not fit for the current job due to physical reasons, the Company issued the “Measures for the Administration of Early Retirement” in accordance with relevant national laws and regulations. Employees satisfying the above conditions may retire early and enjoy the pension in advance.



During the reporting period, the Company established a medical assistance mechanism comprising a fund for employees in distress, a party member caring fund and year-end greetings to prevent employees from poverty due to illness. During the reporting period, total expenditures on the Company’s assistance and caring funds amounted to **Rmb364,000**, up by **51.67%** from the previous year.

Assistance funds	Party member caring fund	Fund for Chinese New Year greetings
Rmb286,000	Rmb24,000	Rmb54,000



The Company is supportive of employees developing healthy hobbies and has therefore established a variety of clubs including photography, cultural affairs, basketball, outdoor activities, swimming, badminton and table tennis, inviting approximately 2,500 employees to participate. These clubs not only spice up the leisure life of employees, but also effectively alleviate the stress from work.

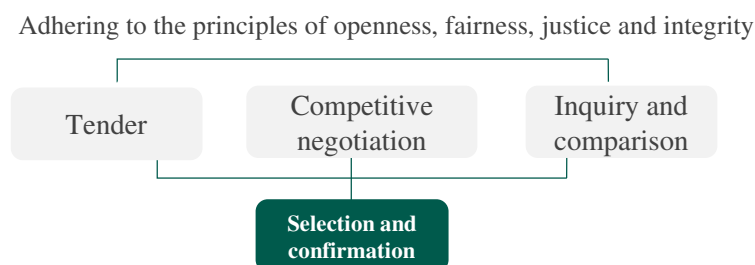


General Manager Luo Jianhu paid a visit to study front-line operations at a basic station



7 SUPPLY CHAIN MANAGEMENT

7.1 Confirmation of suppliers



7.2 Standardisation of process

- The Measures for the Administration of Special Electrical and Mechanical Projects (Zhe Gao Gu [2018] No.64) have been newly formulated.
- The Acceptance, Review and Approval of Special Electrical and Mechanical Projects has been newly established for the OA process, detailing management procedures for special electrical and mechanical projects in terms of aspects such as bidding, alteration, acceptance and supervision.

7.3 Overview of suppliers

- During the reporting period, under the tender system, the Company confirmed **26** major construction suppliers (including maintenance projects, inspection, supervision, consulting, design and municipal gardening).
- Through the Measures for the Administration of Special Electrical and Mechanical Projects, **45** electrical and mechanical equipment and installation suppliers have been confirmed.

7.4 Evaluation management

- In the course of cooperation with suppliers, the Company and the suppliers shall enter into economic contracts, safety and civilisation agreements and clean agreements respectively which set out the Company's requirements on environmental and social responsibilities for suppliers' reference.
- The Company carries out review and assessment on suppliers occasionally as well as post-project evaluation management of suppliers upon expiry of the project or annually to comprehensively evaluate the suppliers in areas of contract performance, quality, cost control, wage payment, production safety, clean policy development, quality and safety accidents and social adverse events (veto indicator). Suppliers are managed under a ranking system where suppliers graded IV will be directly eliminated.

8 PRODUCT RESPONSIBILITY

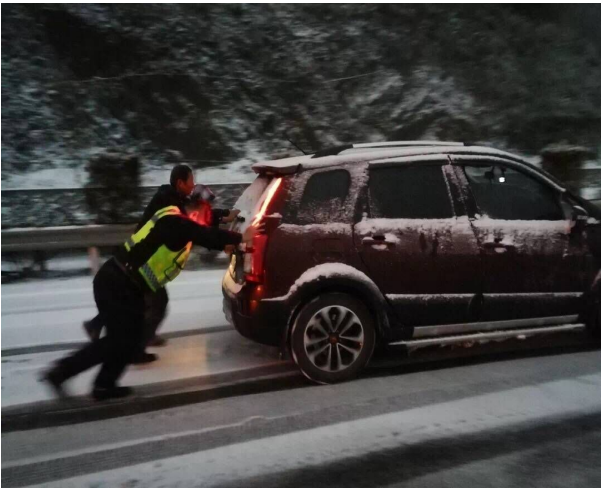
8.1 Overview of operations

No. of days of smooth road passage About 322 days	No. of lanes installed with automatic card device at entry gate 8 new lanes Cumulatively 148 lanes	Total number of vehicles passing through the toll stations of our expressways 258,070,000 up by 8.2% year on year
Congestion rate ^① 0.037%		
No. of ETC lanes Cumulatively about 229 lanes	Scan Alipay coverage rate 100%	No. of free green agricultural vehicles 1,050,000 up by 0.7% year on year

Toll waiver for free green agricultural vehicles amounted to **approximately Rmb163,590,000**, down by **4.7%** year on year, mainly attributed to the adjustments made to the free vehicle policy in November 2018 in accordance with the State Council’s requirements for joint prevention and control of African swine fever under which vehicles originally transporting livestock and poultry no longer enjoy the green agricultural policy.

8.2 Road rescue service

- In 2018, the Company carried out **59,922** times of emergency road assistance service, up by 35.6% year on year.
- The average time required for emergency road assistance service from time of call should not exceed 25 minutes (including the five minutes required for dispatching the emergency road assistance team) and the actual time required for 2018 is **11.03** minutes, **down by 18%** year on year.
- The average time required for emergency service should not exceed 30 minutes and the actual time required is **15.42** minutes on average, **down by 22.7%** year on year.



① Congestion rate = time of congestion over 1 km * length/total mileage * 365 * 24

8.3 Maintenance investment

- After the annual inspection of the CICO Inspection Centre, the Company’s pavement quality indicators (PQI) score over **93** points, recording an average of **94.42** points.
- Upon inspection conducted at the end of 2018, pavement condition index (PCI) and road quality index (RQI) of the expressways of the Company score an average of **96.54** points and **92.56** points respectively.



- Road maintenance costs of the Company amounted to approximately Rmb334 million, used for the projects as follows:

Disease treatment of road surface of 314,600 sq.m.	Maintenance and reinforcement of 102 bridges	Overlay for 67 bridge areas	Pavement overlay of 45.9 km (single carriageway road mileage)
Reinforcement and treatment of 43 slopes	Asphalt road surface hot-in-place recycling for 94.5 km (single carriageway road mileage)	NovaChip for 21.2 km (single carriageway road mileage)	

8.4 Customer satisfaction

- In 1-15 November 2018, the Company organised units to carry out the “Customer Satisfaction Survey” activity along its expressways. During the period, questionnaires were sent to attendants and passengers on the scale of 20 surveys per toll station, 50 surveys per service region and 30 surveys per major client.
- The Company received 40 customer complaints, down by 130% year on year. Average response time for complaints was 10.92 minutes, up by 3.07 minutes from last year. The main reason is that there were fewer but relatively complicated complaints this year.
- No litigation relating to intellectual property rights, nor litigation relating to divulgement of customer data was identified.

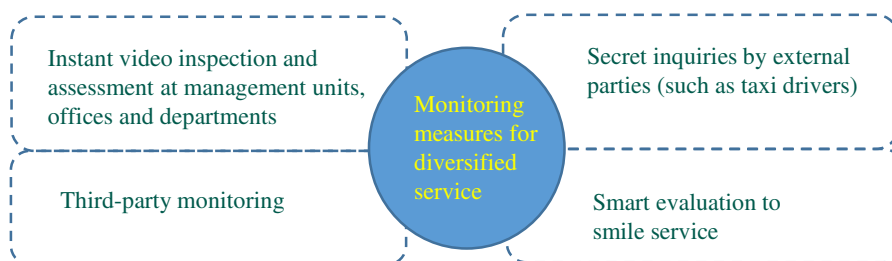
Valid questionnaires collected	4,026
Overall customer satisfaction rate	98.13%
YOY growth of	0.6%
Customer complaints handling and response rate	100%

8.5 Service optimisation

On the original basis, the Company has kicked off a series of events under the “Year of Service Optimisation”. In addition to standardising the toll service of expressways in operation, the Company endeavours to enhance customer experience. The Company further pushes ahead the development of the service management system which centers around the elements of clean and neat image, focused service, simple and efficient service as well as natural and pleasant service with a view to strengthen the toll service works.

Further strengthening the quality control system

- The Company has established a system of daily inspection by toll stations, general inspection by the management office thrice a month and an annual assessment by the operation department. At the same time, the operation department conducts random quality inspection through remote video occasionally and third-party onsite evaluation on a quarterly basis.
- The Company has formulated the No.1 transportation branding plan, continuously upholding the six service characteristics of “scheduled volume, zero waiting time, fast journey, slow life, smart travel and frequent service” and a total of 99 specific service items.



During the reporting period, the Company achieved substantial improvement in toll stations across areas including toll collector’s service, operation speed, motion simplification, station appearance and service impression. The trend of a shift in tolling service from standardisation to the focus on customer experience has been formed and is gaining strength.

5th “Most Beautiful Road Collector in China” election organised by China Highways & Transportation Society

Award	Winner
“Most Beautiful Road Collector in China”	Fei Yufeng, Dayun Unit of Jiaxing Office
“Most Beautiful Road Collector Team in China”	“Seven Colours” Team, Ningbo Unit of Ningbo Office
“Finalists of the Most Beautiful Road Collector in China”	Pan Yingying, Leidian Unit of Huzhou Office
	Hu Linglin, Tunxi Unit of Huihang Company
“Finalists of the Most Beautiful Road Collector Team in China”	“Hui Gu Liang” Team, Tunxi Unit of Huihang Company



9 ANTI-CORRUPTION

- The Company has established a legal internal audit department and a discipline monitoring office. Part-time discipline inspection officers are allocated to each basic station to strengthen the anti-corruption and anti-bribery internal control.
- The Company has continued to enter into the Letter of Responsibilities for Party Construction Work Objectives with its direct business units and subsidiaries, and the Letter of Undertaking of Clean Practice with the mid-level or above management and all key personnel in finance, human resources and tendering.
- In strengthening the undertaking of clean practice among management and employees at all levels, the Company has implemented the one-on-one accountability system which states the leader as the first responsible person.
- The original Work System for Part-time Discipline Inspection Officers has been maintained to strengthen the management and training of discipline inspection teams. Training for part-time discipline inspection officers is carried out to enhance business capabilities and work standards.



“Sunlight project:
Role model of clean practice”

Ongoing development of model project

“Clean family”

Themed education event

“Qing Feng”

Column in Wechat Public Platform

Regular work report and inspection

- Leaders are required to prepare regular reports on work, clean practice, integrity practice and compliance practice, while leaders are subject to democratic appraisal by the representatives of all employees.
- By organising clean and disciplinary inspection routine meetings, the disciplinary inspection reviews and patrols, monitoring audit and the police-enterprise cooperation, the Company builds a clean operations atmosphere and effectively combats against and eliminates the risks associated with clean practice in the course of operations and management.
- During the reporting period, no incident of corruption in violation of the laws and regulations was identified.



Cheng Tao, Secretary to the Party Committee, visited a basic unit to give guidance on the Party building and disciplinary work

10 COMMUNITY INVESTMENT

To conscientiously implement the major strategic plans of the Central Government and Zhejiang Provincial Party Committee and Zhejiang Provincial Government on the promotion of rural revitalisation, and to intensively carry out the provincial three-year action plan for eliminating sluggish collective economy, the Company responds positively to the call for “pairing enterprises with villages for the elimination of villages with a sluggish economy”. “Xiao Bo”^① work has been carried in Taozikeng Village, Jinshuitan Town, Yunhe County in Lishui City to provide relevant assistance.



Cheng Tao, Secretary to the Party Committee, conducted field research and carried out “Xiao Bo” work at Taozikeng



**Approximately 28
volunteer activities
throughout the
year**

Volunteer activities

**No. of volunteers
2,512**

**Volunteer service
expenditure
Rmb97,500,
up by 21.88%
year-on-year**

The Company gathers strength from party members to establish a number of volunteer service teams and continues to carry out diversified and content-rich volunteer service activities while stepping up efforts in launching volunteer service activities such as expressway vehicle consultation, convenient service, free blood donation, safe driving promotion, “youth action” (青力青為) smooth emergency passage during festive seasons and civilised traffic guidance.

Donation activities

The Company is supportive of the cultural and sports development in Zhejiang and has entered into donation and cooperation agreements with Zhejiang Provincial Sports Bureau. During the reporting period, the Company made a donation of Rmb1 million to Zhejiang College of Sports for education, scientific research and talent training.

① “Xiao Bo”: Eliminate the sluggish collective economy

INDICATOR INDEX

Aspects	Indicator no.	Description of the indicator	Disclosure	Location in the report
Environmental				
A1: Emissions	General disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and nonhazardous waste.	√	P4 - P7/P10
	A1.1	The types of emissions and respective emissions data.	√	P4 ^①
	A1.2	Greenhouse Gas emissions in total (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	√	P5-P6 ^②
	A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	√	P7
	A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	√	P7
	A1.5	Description of measures to mitigate emissions and results achieved.	√	P7
	A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	√	P7/P10
A2: Use of Resources	General disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	√	P8 - P9
	A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	√	P8
	A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	√	P8
	A2.3	Description of energy use efficiency initiatives and results achieved.	√	P9
	A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	√	P9
	A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	Not applicable as it is a service	
A3: The Environment and Natural Resources	General disclosure	Policies on minimising the issuer's significant impact on the environment and natural resources.	√	P10
	A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	√	P10

① The content on air pollutant emissions has been added in 2018, based on How to Prepare an ESG Report updated by the Stock Exchange of Hong Kong Limited (SEHK) in November 2018.

② GHG emissions for 2018 have been calculated in accordance with the Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for Buildings (Commercial, Residential or Institutional Purposes) in Hong Kong, with newly-added carbon dioxide emissions generated by various activities and facilities as well as various types of GHG emissions and their share. As the reference guidelines for the accounting of GHG used in 2018 are inconsistent with the Guide to Accounting for and Reporting on Greenhouse Gas Emissions for Land Transportation Enterprises of the National Development and Reform Commission which was the reference standard for 2017, no comparison has been made.

Aspects	Indicator no.	Description of the indicator	Disclosure	Location in the report
Social				
B1: Employment	General disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	√	P11
	B1.1	Total workforce by gender, employment type, age group and geographical region.	√	P11
	B1.2	Employee turnover rate by gender, age group and geographical region.	√	P11
B2: Health and Safety	General disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	√	P12 - P13
	B2.1	Number and rate of work-related fatalities.	√	P12
	B2.2	Lost days due to work injury.	√	P12
	B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored.	√	P13
B3: Development and Training	General disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	√	P14 - P15
	B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	√	P14
	B3.2	The average training hours completed per employee by gender and employee category.	√	P14
B4: Labour 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 labour.	√	P16-P17
	B4.1	Description of measures to review employment practices to avoid child and forced labour.	√	P16-P17
	B4.2	Description of steps taken to eliminate such practices when discovered.	√	P16
B5: Supply Chain Management	General disclosure	Policies on managing environmental and social risks of the supply chain.	√	P18
	B5.1	Number of suppliers by geographical region.	√	P18
	B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	√	P18

Aspects	Indicator no.	Description of the indicator	Disclosure	Location in the report
B6: Product Responsibility	General disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	√	Health and safety P19 -P21 Advertising and labelling are not applicable as it is a service
	B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Not applicable as it is a service	
	B6.2	Number of products and service related complaints received and how they are dealt with.	√	P20 Product returns are not applicable as it is a service
	B6.3	Description of practices relating to observing and protecting intellectual property rights.	√	P20
	B6.4	Description of quality assurance process and recall procedures.	Not applicable as it is a service	
	B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	√	P20-P21
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.	√	P22
	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.	√	P22
	B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	√	P22
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.	√	P23
	B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	√	P23
	B8.2	Resources contributed (e.g. money or time) to the focus area.	√	P23

VERIFICATION STATEMENT OF ENVIRONMENTAL AND SOCIAL RESPONSIBILITY REPORT

Pursuant to the engagement by Zhejiang Expressway Co., Ltd. (“Zhejiang Expressway” or the “Company”), Hangzhou Wantai Attestation Limited Company (“Wantai Attestation”) has conducted an independent audit verification on the 2018 environmental and social responsibility report of Zhejiang Expressway (the “Report”).

Zhejiang Expressway is responsible for the information collected, analysed, compiled and disclosed in the Report, whereas Wantai Attestation is responsible for verifying the implementation of the contents of the Report within its terms of reference under the agreement with Zhejiang Expressway. Zhejiang Expressway is the customer designated under the Verification Statement. The Verification Statement is based on the 2018 environmental and social responsibility report prepared by Zhejiang Expressway. Zhejiang Expressway takes responsibility for the completeness and truthfulness of the information in the Report.

Scope of Audit Verification

- the accuracy and reliability of the Report as to key performance indicators, information and management systems in the year of disclosure (2018);
- the locations of verification including relevant departments of Zhejiang Expressway Co., Ltd., which is situated at No. 2, Mingzhu International Business Center, 199 Wuxing Road, Hangzhou City, Zhejiang Province, China, namely the party group department and union office, discipline inspection and audit supervision department, human resources department, operations department, maintenance management department, as well as the Information Centre and Hangzhou Management Office in Yunfeng, Pengbu Town, Hangzhou City. We did not interview other business units and stakeholders of Zhejiang Expressway Co., Ltd.;
- We assessed the processes including collection, analysis and inspection of the information in the Report.

The period of verification is January 8, 2019.

Verification Method

The verification process includes the following activities:

- Assess the information and documents provided by Zhejiang Expressway;
- Interview the personnel responsible for collecting the information and documents of Zhejiang Expressway;
- Examine the public information published on the related websites and media, and verify the relevant information in the Report by random;
- Assess the balance of the content and reporting structure, comparability, accuracy, timeliness, clarity and reliability of the data disclosed in the Report with reference to the requirements of ESG Reporting Guide in the Appendix 27 to the Rules Governing of the Listing of Securities on The Stock Exchange of Hong Kong Limited (the “Stock Exchange Listing Rules”) (the “ESG Reporting Guide”).

Verification Conclusion

- The 2018 environmental and social responsibility report prepared by Zhejiang Expressway Co., Ltd. objectively reflects the progress of the Company's performance of social responsibilities in 2018 and the performance results obtained. By random verification, the information in the Report is reliable and objective. Wantai Attestation is not aware of any systematic or material mistakes. The information disclosure is clear, understandable and available;
- The Report is prepared based on the structure of the ESG Reporting Guide of Appendix 27 to the Rules Governing the Listing of Securities on the Hong Kong Stock Exchange (the "Stock Exchange Listing Rules") in the manner that the requirements of the Guide are fundamentally implemented, and the expectations and demands of the stakeholders are responded.

Rectification Recommendations

Through verification and assessment, we have made the following rectification recommendations with respect to Zhejiang Expressway's practice and management of social responsibilities:

- It is advised to strengthen the collection and analysis of the environmental performance data regarding the management of waste gases, wastewater and solid wastes among the parties to better prepare for further implementation of the information disclosure of key performance indicators under the ESG Reporting Guide;
- The Company is advised to further optimise the strategic planning for the sustainable development between smart operations and career path of general staff to safeguard the employment of people.

Special Statement:

The Verification Statement does not include:

- Activities other than information disclosure;
- Statements regarding the positions, views, beliefs, objectives and future development directions and undertakings of Zhejiang Expressway.

Statement of Independence and Capacity:

Hangzhou Wantai Attestation Limited Company is the most longstanding third-party professional institution in China engaging in attestation. The qualifications of Wantai Attestation are recognised by Certification and Accreditation Administration of the People's Republic of China ("CNAS") and ANSI-ASQ National Accreditation Board. Its businesses cover three major types of attestation namely management systems, products and services. It is currently one of the large-scale comprehensive attestation institutions in China with the most complete range of certifications and qualifications and largest scope of business.

Hangzhou Wantai Attestation Limited Company warrants that there is no conflict of interest with Zhejiang Expressway Co., Ltd. or its branches and stakeholders in the course of verifying the Report. All of the information in the Report is provided by Zhejiang Expressway. Wantai Attestation is not involved in the compilation of the Report.

General Manager

Date: January 10, 2019