Guangshen Railway Company Limited 2016 Social Responsibility Report

29 March 2017

The Board of Directors and all Directors of the Company guarantee that there are no misrepresentations or misleading statements contained in, or material omissions from this report, and severally and jointly accept full responsibility for the authenticity, accuracy and completeness of the information contained herein.

> The Board of Guangshen Railway Company Limited 29 March 2017

Content

I. Chairman's statement	1
II. General Information of the Company	3
III. Regulated management and honest operation	5
IV. Transportation safety and passenger and freight services	12
V. Environmental protection, energy saving and emission reduction	19
VI. Social welfare and staff rights and benefits	21
VII. Explanatory notes to the report	28

I. Chairman's statement

Dear sirs/ madams,

In 2016, Guangshen Railway ushered in the 20th anniversary of its restructuring and listing. On the 20-year-journey of reform and development, Guangshen Railway endured great hardships when establishing the business; yet, it moved forward with its valiant efforts. The railway lines operated by our Company have evolved from regional railways to the backbone of the national railway network; its passenger transportation, which ever was a regular speed railway, has entered a new era of high-speed railway network, whereas the freight transportation has also transformed from traditional freight transportation into modern logistics, in which the asset size, comprehensive efficiency and management effectiveness of the Company have all been improving. We hereby would like to take this opportunity to express our wholehearted thankfulness to the shareholders and all our friends for your concerns and support to Guangshen Railway's development in its operations, also I would like to acknowledge the management and all employees' valuable contributions to the Company with the highest regards and deepest gratitude.

In 2016, Guangshen Railway achieved operating revenues of RMB 17.281 billion and net profit attributable to shareholders of the listed company of RMB 1.158 billion. A passenger delivery volume of 84.89 million persons and a freight transportation volume of 48.6 million tons were achieved. The Company actively fulfilled its corporate citizen responsibilities to make due contributions for the sustainable development of the economy, society and environment, and a social contribution value of RMB1.34 per share was realized.

The Company has always been regarding safeguarding the transportation safety as its utmost social responsibility, in which it sees ensuring the absolute safety of the high-speed railways and carriages as a focus. The Company strengthened its safety management and increased its investment in running safety to achieve its railway transportation accident target of zero responsibility of incidents with General Level Type B and above during the year.

The Company has paid more attention to its social responsibility with its various stakeholders, by upholding the integrity of business, standardizing the operations of the Company, protecting the rights and interests of employees, paying tax according to the laws and implementing the distribution of cash dividends. During the year, the Company's total remuneration and benefits expenditure was RMB6.219 billion, whereas the taxes paid and accumulated cash dividends since its listing were amounted to RMB 982 million and RMB

10.331 billion respectively.

The Company has established a more comprehensive view in regards to its social responsibility, as well as attached importance to environmental protection and energy conservation and emission reduction. Meanwhile, it has paid attention to its pollutant emissions, energy consumption management and data statistics.

In 2017, the railway industry will continue to carry out the Medium to Long Term Plan for Railway Network Development with its continuous efforts in propelling the railway supply-side structural reform, as well as to promote the construction of quality railways in an efficient manner. The industry will play its important role in facilitating the economic and social development, meanwhile safeguarding and improving the livelihood of the public. Guangshen Railway will seize the opportunities and challenges, adhere to its business development and at the same time fulfill its social responsibility. With its strong execution, the Company will implement each decision made at the general meetings and the Board meetings of the Company in order to create a greater value for the community, its shareholders and employees.

> Chairman: Wu Yong 29 March 2017

- II. General Information of the Company
- (I) Company Profile

On 6 March 1996, the Guangshen Railway was registered and established in Shenzhen, the People's Republic of China (the "PRC") pursuant to the Company Law of this country. In May 1996, the H shares (share code: 00525) and American Depositary Shares ("ADSs", ticket symbol: GSH) issued by the Company were listed on The Stock Exchange of Hong Kong Limited and the U.S. New York Stock Exchange, Inc., respectively. In December 2006, the A shares (share code: 601333) issued by the Company were listed on the Shanghai Stock Exchange. In January 2007, the Company used the fund raised from issuing A shares to acquire the Guangzhou-Pingshi Railway (Southbound Railway in the Beijing-Guangzhou Line), and the scope of its operations expanded from a regional railway to being part of the national backbone network, thus improving passenger and freight transportation capacities significantly. Guangshen Railway is currently the only PRC railway transportation enterprise with its shares listed in Shanghai, Hong Kong and New York.

Guangshen Railway is mainly engaged in the passenger and freight transportation businesses on the Shenzhen-Guangzhou-Pingshi Railway, the long-distance passenger transportation services, and the operation of the Hong Kong Through Train passenger services in cooperation with Hong Kong MTR Corporation Limited in Hong Kong. The Company is also entrusted with railway operating services for the Wuhan-Guangzhou High-speed PRailway, the Guangzhou-Zhuhai Intercity Railway, the Guangzhou-Shenzhen-Hong Kong High-speed Railway, the Guangzhou-Zhuhai Railway, the Xiamen-Shenzhen Railway, the Ganzhou-Shaoguan Railway, the Nanning-Guangzhou Railway, the Guiyang-Guangzhou Railway, the Guangdong Pearl River Delta Inter-city Railway and etc.

The Shenzhen-Guangzhou-Pingshi Railway, which runs 481.2 kilometers vertically through the entire Guangdong Province, is operated solely and independently by Guangshen Railway. Among which, the Guangzhou-Pingshi portion is the southern part of the Beijing-Guangzhou railway, which is an aorta connecting northern and southern China. The Guangzhou-Shenzhen Railway is currently the only railway that leads from the mainland China to Hong Kong. It connects with the Beijing-Guangzhou, the Beijing-Kowloon, the Sanshui-Maoming, the Pinghu-Nantou and the Pinghu-Yantian lines, as well as the Hong Kong MTR Train East Rail Line. It is an important component of the transportation network of China. The Guangzhou-Shenzhen portion of railway is the first

wholly-fenced railway in China with four parallel tracks. It has also realized its operations with the separation of passengers from its freight trains on separate lines.

(II) Management of corporate social responsibilities

1. View of corporate social responsibilities

As a listed company providing integrated railway passenger and freight transportation services, Guangshen Railway amalgamates the business operation and management with the fulfillment of social responsibilities. While creating values for the shareholders, the Company is also committed to achieving the targets of the overall social responsibility through the promotion of socio-economic and environmental sustainable developments.

The core of the social responsibility as fulfilled by Guangshen Railway is to meet the demands in relation to passenger and freight transportation, with the premises of ensuring the transportation and production safety as well as producing the operation and management efficiency. Specifically, it comprises of six components of responsibilities in regards to construction and development, transportation operation, production safety, maintenance and reliability, public welfare and environmental protection, each of which interconnects and interacts with one another, serving the fundamental goal of satisfying passenger and freight service demands.



Guangshen Railway's view of social responsibility

2. Management structure

Guangshen Railway has preliminarily established a management structure for corporate social responsibilities that is centered around the Board. The Board of the Company is responsible for decision making and management in relation to its social responsibility tasks and reports. The Company's functional departments such as its general management department, human resources department, operational management department, financial planning department, audit department and information technology department oversee various social responsibility tasks of the Company, whereas the Board Secretariat is responsible for the summarization and disclosure of social responsibilities information of the Company. Each railway station and section of the Company have set up specialized departments and offices in relation to labor safety, technical application, remuneration and benefits, staff training, and health and hygiene in order to cogently perform the Company's corporate social responsibilities.

(III) Honors awarded to the Company

In 2016, Guangshen Railway had received the following honors and awards:

- Chinese Securities "Golden Bauhinia Award The Best Listed Company Award" as appraised by the Hong Kong Ta Kung Wen Wei Media Group Limited;
- "2013 2016 The National Railway Sports Advanced Unit" as awarded by the China Railway Corporation.
 - III. Regulated management and honest operation
- (I) Corporate governance

In 2016, Guangshen Railway improved its corporate governance system, in which amendments to the terms in relations to the Company's business scope in its "Articles of Associations" had been made. Meanwhile, the Company also amended its "Administrative Measures for the Disclosure of Information", in which issues such as the Company's disclosure of information relating to the composition of the committee and their responsibilities had been clearly specified. Such move further improved the corporate governance policies, as well as ensured such policies could adhere to the latest regulatory requirements for the listed companies. The Company standardized its connected transactions. On 1 November 2016, it signed the "Integrated Services Framework Agreement" with the China Railway Corporation and confirmed the caps in respect of the daily connected transactions during the three years from 2017 to 2019. Over the year, the Company held a total of 2 general meetings. It also convened 15 general manager work meetings and 29 party-government joint meetings.

For details of the Company's corporate governance, directors, supervisors and

senior management, please refer to the 2016 annual report of the Company.

(II) Internal control

The Company has put into practice of the "Sarbanes-Oxley Act Section 404"; on the basis of such, it has combined the relevant requirements of "The Basic Standard for Enterprise Internal Control" and "The Supplementary Guide", and focused on initiating the establishment and assessment works of its internal control. The scope of evaluation on its internal control covers 42 operation flows of the Company's headquarter and its subordinate 11 units. Meanwhile, the Company leverages its advantages of its information system to integrate the establishment of the Company's internal control with its information technology. The Company promotes the supervision on the internal control flow by means of IT and standardizes the information management flow by means of internal control management in all aspects.

For details of the Company's internal control, please refer to the 2016 annual report and the 2016 internal control assessment report and internal control audit report of the Company.

(III) Anti-corruption and integrity promotion

The Company has thoroughly facilitated an incorruptible Party's style of work and created a positive environment embodied with integrity. It also actively explores party building patterns which are filled with special features of railways and characteristics of state-owned enterprises. Meanwhile, the Company advocates the in-depth integration of the party building works with its production and operations, in where the efficiency of party building works turns into the competitive edge for the Company's development. In 2016, the Company initiated the educational activities of "Two Studies, One Act" and further adhered to the central government's Eight Point Directives in order to strengthen not only the daily regulating and inspections but also the warning education of anti-corruption and integrity.

Provisions and Preventive measures and		Reporting
requirements	supervision procedures	procedures
"Notice regarding the	"The guidelines for the prevention	Reporting channels
carrying well of the	and management of the "hidden	for "hidden reserves"
follow-up works of reserves" risks"; to implement the		were announced.
the special items of	inspection and regulation of regular	

Company's anti-corruption and anti-fraud measures and reporting procedures

"hidden reserves"	management; to implement a strict	
investigation"	accountability system; and to carry	
	the corruption warning education	
"The rules for	Matters regarding the "Three	In regards to any
implementing matters	Importances and One Greatness" are	issues that are raised
in relations to the	determined after the	due to the violations
"Three Importances	party-government joint meetings and	of collective
and One Greatness"	the discussion of party working	decision-making
in the process of	committees; to perform the	policies and the
decision-making by	obligatory decision-making process;	implementation of
the Company's	to adopt joint signing system for	collective
leadership"	payment of sizeable sum of funds ;	decision-making
	and to set the regulations in the	process, everyone
	aspects of inspections, oversees and	will have the rights to
	accountability.	raise their opinions or
	5	to reflect the issues to
		the relevant
		authorities. The
		inspection and
		regulatory authorities
		will report the
		matters in a timely
		manner after such
		issues have been
		found.
"The requirements of	Matters regarding the "Three	
procedure regarding	Importances and One Greatness" are	-
the matters of the	determined after the	will report the
"Three Importances	party-government joint meetings and	1
and One Greatness"	the discussion of party working	-
in the process of	committees; to perform the	
decision-making by	obligatory decision-making process;	found. The
the Company's	to adopt joint signing system for	
subordinate units'	payment of sizeable sum of funds;	
leadership"	and to set the regulations in the	
readership	and to set the regulations in the	inspection and report

	aspects of inspections, oversees and	to the Company,
	accountability.	meanwhile
		monitoring
		conducted by
		organizations and the
		public are also
		accepted.
Company's	Senior management and key position	
"Employee Manual",	staff of the Company signed the	
the "Code of	relevant declaration for the year.	
Professional Ethics		
and Code of Conduct		
for Senior		
Management		
Members", and the		
"Anti-fraud (Trial)		
Regulations"		

In 2016, the Company had no corruption litigation which had been proposed or concluded against the Company or its employees.

(IV) Honest operation

The Company is committed to honest operation, with its persistence of distributing cash dividends. It also creates value for its shareholders with its incessant enhancement of information disclosure, reinforcement of investor relationship management and regulating operational behavior through which it maintains a good relationship with various stakeholders.

1. Dividend distribution

The Company adopts the policy of long-term and stable cash dividend distribution to create values for shareholders. Since the listing in 1996, the accumulated cash dividends distributed was RMB 10.31 billion (tax inclusive), representing a dividend payout ratio of 57%. In July 2016, the Company had completed the distribution of cash dividends of 2015 to its overseas shareholders, the cash dividends was RMB 0.08 per share, in a total amount of approximately RMB 567 million. The Board of the Company recommended the payment of a final dividend for

2016 of RMB 0.08 per share (tax inclusive), in a total of RMB 566,682,960.

2. Information disclosure

In 2016, the Company strictly complied with the requirements in relations to information disclosure and thoroughly implemented the "Administrative Measures for the Disclosure of Information". With the standards of disclosing information in a true, accurate and complete manner, the Company completed the disclosure of regular reports such as annual reports (20-F forms), interim reports and quarter reports successfully. The Company standardized the information disclosure of connected transactions, meanwhile issued its "Announcements in relations to entering into the assets purchase agreements and staff termination benefits and transferal of liabilities agreements and connected transactions" (the title of the announcement in H shares market: "Connected transactions: entering into the assets purchase agreements and termination benefits agreements") and the "Announcements of daily connected transactions" (the title of the circular in H Shares market: "Continuing connected transactions").

In 2016, the Company issued a total of 79 periodic reports and provisional notices in the domestic and overseas markets. For details please see Shanghai Stock Exchange website (www.sse.com.cn), the HKExnews of HKEX (www.hkexnews.hk) and the Company website (www.gsrc.com).

3. Investor relationship

In 2016, the Company convened a total of 2 shareholders meetings, that were its 2015 annual general meeting and its 2016 first extraordinary general meeting, in which voting was held in the combination of on-site voting and Internet voting so as to safeguard the voting rights of minority shareholders. Among which, the daily connected transactions between the Company and the China Railway Corporation considered at its 2016 first extraordinary general meeting are the substantial items. During which, a separated vote-taking was conducted for the minority shareholders, meanwhile, the relative poll results were also disclosed. In March and August 2016, the Company held its announcements of annual results and interim results through global telephone conferences in its headquarter respectively. Such has improved the communication between the Company's directors, senior management and institutional investors, as well as publicized the Company's results. During the year, the Company received a total of 32 investor visits, participated in 5 large-scale investment analysis conferences and answered over 150 enquiries on telephone and email from investors.

4. Regulated operation behavior

The Company has improved the internal control systems; followed the national "Anti-money Laundering Law" and other financial regulatory laws and regulations; reinforced the tracing of suspicious data relating to the funds and costs; analyzed, monitored and realized regular financial regulations; and strictly conducted auditing procedures of financial responsibilities. It also audited the financial income and expenses and monitored several mechanisms such as the management of "hidden reserves". The Company has further standardized the management of investment budgets, improved the decision-making processes of investment projects, and strictly audited the project construction costs in accordance with the professional requirements and standards. During the year, the Company had completed a total of 773 tasks in relation to estimate the budgets for construction projects and facility procurement andthe review of final budgets for construction projects. Also, it had reinforced the management of contracts, amended and improved the Company's contract templates and the terms relating to the VAT. During the year, over 6,000 financial contracts of all kinds had been signed, in which no disputes relating to the contracts had been raised.

5. Cooperative development

In 2016, Guangshen Railway, in the process of fulfilling its corporate social responsibilities, had established its targets in the concerted development of the economy, society and environment, and had strived to cooperate and communicate with different stakeholders in an effort to achieve mutual benefits, and to repay all stakeholders with the achievements of the Company's development, thereby achieving a win-win harmony.

The Company and governmental authorities: the Company reinforced the integrated remediation along the railway lines. Working together with the local governments of Guangzhou, Dongguan and Shenzhen and the Guangdong Province Political Consultative Committee to promote the implementation of the proposal relating to the environmental remediation along the Guangzhou-Shenzhen Railway, the Company coordinated and addressed the potential risks in regards to the safety of the railways and areas nearby and the issues relating to the management of the environment. Meanwhile, it also conducted landscape works along the railways and cleaned the environment outside the railways. The Company cooperated with the governmental authorities in conducting various works, such as maintaining the transportation during holidays, strengthening anti-terrorism and security and

enhancing social security and social governance. The Company complied with the requirements of regulating domestic and overseas securities and effectively fulfilled the obligations as a listed company; meanwhile, it reported information to securities regulatory authorities and stock exchange in compliance with the requirements. The Company adhered to each of the technical specifications and standards of the railway industry and ensured the safety in transportation. The Company paid tax and fees in compliance with the laws, with RMB 982 million of tax and fees were paid during the year.

The Company and its shareholders: the Company proactively established operating results and implemented long-term stable cash dividend distribution to reward shareholders. The Board recommended the distribution of 2016 final dividend of RMB 0.08 per share (tax inclusive), totaling RMB566,682,960. The Company also proactively developed the management of investors' relationship, established various channels for communications and implemented Internet voting at the general meeting, in order to strengthen the communication with its shareholders.

The Company and its creditors: currently, the Company does not have any long-term debt with banks, and its relationship with banks with respect to other businesses are satisfactory.

The Company and its suppliers: The Company and its suppliers carried out fair and open collaboration and formulated "Tender Management Approach" and "Non-tender Procurement Management Approach" to include bidding activities into the internal control system, creating a sound supply chain management. The Company maintained to conduct tender invitations as its means of management, where 31 projects were organized with tender invitations or negotiations by the Company, 133 projects had their procurement organized according to the "Management Practices for Non-tender Procurement" and a total of 948 projects of procurement with sizeable amounts by various units were audited and approved. The Company had established a business relationship with a total of 74 suppliers, of which 34 were in the Guangdong Province while 40 were outside the Guangdong Province. The procurement from the top 5 suppliers was amounted to 12.84% of the total.

The Company and the community: the Company remained a good communication with the districts along the railway lines. It also created the safe environment where railways were protected and cared. Meanwhile, it also conducted maintenance and revamps on footbridges, culverts and isolation fences along the railway lines. The Company promoted the importance of safety in the communities and schools along the railway lines, as well as communicated and coordinated with the various local departments of public unities and well-prepared for the handover works relating to the public unities in the residential areas for employees' familiy along the railway lines.

IV. Transportation safety and passenger and freight services

(I) Transportation safety

Guangshen Railway always considers the safety of railway transportation as its utmost important social responsibility. In 2016, the Company completed 56 items of major maintenance, 877 items of investment in fixed assets and achieved its railway transportation accident target of zero responsibility of incidents with General Level Type B and above.

1. Railway lines safety

The Company continued to put its great efforts in promoting the construction of safety and quality yardsticks, facilitating the standards for constructing railway lines, improving its corporate image, enhancing its follow-up management and strengthening its safety facilities. The Company safeguarded its fund investments in accordance with the annual fixed asset investment budgets as confirmed by the Board; meanwhile, it implemented major revamping projects, such as the revamps of the Jiangcun preparation field of the locomotive maintenance depot in Guangzhou, the replacement of railway switches and switch ties at the Guangzhou passenger station and the locomotive maintenance depot in Guangzhou, the replacement of railway switches near the mainline along the Beijing-Guangzhou Line, the revamps of the contact system equipment in the Dayao Shan Tunnel of the Beijing-Guangzhou Line, the revamps of the adaptation of electricity provision system of the Guangzhou-Pingshi portion of the Beijing-Guangzhou Line and the revamps of the track circuit automatic block and the computer-based interlocking system of the Guangzhou-Pingshi portion of the Beijing-Guangzhou Line. All these had promoted the safety of the connection points of the railways.

In 2016, the Company replaced 40.819 km of steel tracks under its management, 12 km of flex abrasion tracks and 142 sets of railway switches, and conducted 1,161 km of large machine tamper and conducted maintenance on 14 spots of water damages along the lines.

2. Facility safety

The Company invested in renovating and revamping its facilities and improved the technology of its equipment. Such includes the TVDS system for motion testing during train breakdowns, the automatic management system of station tracks, the safety monitoring and management system for freight inspection, the revamps of the automatic identification of AEI trains, the infrastructure of its central transportation command centers at the passenger stations, the application of the technology where patrolling is conducted by unmanned flying vehicles and etc. The Company conducted the maintenance for its facilities in adherence to the technical specification; meanwhile, it initiated safety inspection and centralized the remediation of train facilities to optimize its performance.

3.Personal safety

The Company strives to create safe stations and trains for passengers by conducting strict security check in stations, managing affairs at entrances and exits of stations, and strengthening the power of counter-terrorism officials, facilities and equipment. Also, fire-fighting and food safety examination are also implemented. The Company reinforces sequestered management along the railway lines to reduce the injuries or death of irrelevant people on the sides of the tracks; meanwhile, it puts more efforts in promoting the safety along the railway lines to create the atmosphere of protecting and caring for train rails. In 2016, the Company newly added and improved 77,401 metres of isolation fences and 825 metres of protective walls and installed 9,000 metres of razor barb-wire on the fences. The Company also initiated project inspections and renovation such as the prevention of floods, extreme weather of rain, snow and cold, and the safety of escalators. It also started its emergency responive measures, such as suspension of passenger transportation service and making anoucement of suspension of service in a timely manner via channels such as the Internet platform, towards strong cyclones such as "Typhoon Nida" and "Typhoon Haima" in order to protect the safety of the travelling tourists.

Table of statistics of security check facilities and dangerous materials seized at key passenger stations of Guangshen Railway in 2016

Items	Guangzhou Station	Guangzhou East Station	Shenzhen Station	Subtotal
Security scans (no. of machines)	30	22	12	64
Hand-held security scanners (no. of pieces)	350	42	90	482
Dangerous material seized (no. of items)	248,173	189,843	32,131	470,147

Regarding staff personal safety, the Company established and improved safety operation standards of all kinds, implemented safety management normalization, onsite operational standardization and increased the frequency of investigation and renovation. It also reinforced labor safety security, inspection and monitoring, initiated labor safety emergency drill, improved safety education and raised employees' awareness towards safety.

In 2016, there were 1 fatality on the job who was employee under the management of the Company, representing 0.022% of the total staff. There were 29 persons who were injured due to work tasks, the working days which were lost due to the occupational injuries were accumulated to be 3,053 days.

4.Other service responsibilities

The policies of the Company regarding to passengers' privacy, complaints and intellectual property rights are as follows:

- (1) Protecting personal information and privacy of the passengers: passenger tickets are purchased on a real-name basis. For that reason, operational procedures are established to regulate counter ticket sales, counter ticket issuance, ticket inspection, and ticket recycling, in order to reinforce the protection towards the information security on the Internet and to protect passengers' personal and identification information. The Company stipulates that staff should respect passengers' right of willful choice as well as other rights, and must protect the privacies of the customers by keeping personal information confidential in compliance with the law. Corresponding protective measures also apply to network and telephone ticket sales channels. The Company has complied with the relevant laws and regulations in protecting passenger information and privacy.
- (2) Complaining channels and handling: the Company publicizes complaints monitoring hotline numbers in passenger stations, freight transportation stations, and on trains, and accepts complaints related to passenger and freight transportations through the 12306 and 95306 websites and phone numbers. Station master offices or information desks are also established in major passenger stations to collect passenger inquiries and complaints. Furthermore, the Company also publicizes contact phones numbers, fax numbers and email addresses of the investors relations for the handling of related enquires from investors.
- (3) Intellectual property rights: the Company attaches great importance to the protection of intellectual property rights, installing only genuine software on office computers and information systems. The Company has established a system for the

management of technology projects, with stipulations for project initiation and implementation, assessment and application. The Company has also established a cultural assets management system to facilitate the centralized registration, management and protection of these assets.

(II) Passenger and freight services

1. Passenger transportation business

In 2016, Guangshen Railway completed the transportation of 84.8957 million passenger-trips, with a passenger transportation revenue of RMB 7.359 billion. As of 31 December 2016, the Company operated 253 daily passengers train pairs, of which 102 pairs (including 20 pairs of standby trains of the Guangzhou-Shenzhen Intercity Railway, 8 pairs of Guangzhou East to Chaozhou-Shantou Intercity EMU line) were Guangzhou-Shenzhen Intercity Railway trains, 13 pairs were Hong Kong Through Trains and 138 pairs were long distance trains.

(1) Enhancement of passenger transportation capabilities

The Company completed the acquisition of parts of the railway of Sanshui-Maoming operational assets the Railway and the Guangzhou-Meizhou-Shantou Railway, which had expanded the area and scale of the railway passenger transportation services. The Company purchased an addition of 4 groups of EMU line with their speed reaching 250km/h, and modernized the passenger transportation facilities. The Company had conducted the integration of the transportation capabilities of normal speed railways and high-speed trains. It organized the opening of the EMU line from the Guangzhou Station directing to Guiyang and Nanning, as well as started the operation of 5 pairs of interline EMU line from Guangzhou East to Chaozhou-Shantou, so as to increase the competitive edge of its regional railway passenger transportation. Since 15 May 2016, the Company has started the service of direct and express passenger trains from Shenzhen to Urumqi. This marks the first operation of long-distance passenger train services directly reaching Qinghai and Xinjiang and provides a new alternative for the Shenzhen citizens for visiting Xinjiang. On 26 September, 2016, the Pinghu Station started handling intercity passenger transportation businesses, this further improved the transportation network in the central and north part of Shenzhen and promoted the diversification of passenger transportation services and products of Guangzhou-Shenzhen Intercity public transports.

(2) Optimization of service environment

The Company emphasized on promoting the construction of Pinghu Intercity Passenger Station of the Guangzhou-Shenzhen Railway and the renewal and revamps of the directories and the broadcasting system within the station area at the Changping, Zhangmutou and Shenzhen stations. At the same time, it facilitated the project promotion works such as the revamps of waiting rooms and platforms at the passenger stations in Yingde, Lechang and etc. The Company also completed the revamps of passenger transportation facilities in the sky square at the Guangzhou East Station and the revamps of the waiting rooms at the Guangzhou East Station along the Shengzhen-Xiamen EMU line. The Company also adjusted and optimized the operations of cafes and soft-seated waiting areas at Shenzhen Station and Guangzhou East Station; meanwhile, it further improved the servicing facilities and environment of the passenger stations along the lines under its management. The Company also installed free Wi-Fi services in the passenger stations and on trains for its passengers.

The Company applied IT technology and facilities to improve the efficiency of ticket sales and ticket inspections. As of the end of 2016, passenger stations under the management of the Company had installed a total of 195 automatic ticket vending machines, 138 automatic ticket verification gates, 194 Internet ticket dispensing machines, 44 reimbursement voucher printing terminals and 282 identification information verification equipment, and the Guangzhou South Station was first to be installed with 4 ticket verification equipment featured face recognition technology. The Company also cooperated with banks and financial institutes to issue 1.30 million of Guangshen Intercity IC debit cards. A total of 600,000 transactions were completed in 2016 (2015: 560,000).

(3) Enhancement of service quality

The Company initiated its activities regarding the year of providing quality services. It put its emphasis on several aspects, for example railway lines operations, catering services and the order, hygiene, facilities and service quality on its trains. At the same time, it implemented the standardization in operations regarding the passenger transportation services, maintained a good standard of hygiene on trains, strengthened the management of beddings and equipment on passenger trains and implemented the operation of catering in specific brands. The Company also organized trainings for improving physical appearance and service etiquette for its attendants. Meanwhile, it standardized its attendants' behaviours and terms that would be used when providing services. These are to improve the overall spirits and appearance of the staff from the passenger transportation team.

During the period of the spring festival transportation of 2016 (24 January to 3 March 2016), the Company worked towards its service goal of "Safe trip, convenient trip, and warm trip" to reinforce its safety and risk management of the spring festival transportation. It put its efforts to improve the organization of the spring festival transportation, during which the mission of the spring festival transportation had been successfully reached. During the period of spring festival transportation, a "series of featured high-speed trains for returning home and trains for freight transportation of motor bikes" started its operation for the first time. It was the first time for the Company to use high-speed trains to divert and transport 16,000 passengers who used normal speed railways, and also the first time for the Guangzhou South Station to use intelligent robot "Xiaolu" and the function of WeChat "Shakes" to answer the information enquiries relating to passenger transportation and to provide instructions. During the period of the spring festival transportation, the passenger transportation volumes for the Guangzhou Station, Guangzhou East station and Shenzhen Station were 3.595 million, 3.317 million and 2.373 million respectively, while train punctuality rates were 82%, 98% and 97.5% respectively.

(4) Addressing the virus epidemic situation

In 2016, the Company worked cooperatively with the joint inspection authorities at the ports and improved the prevention and management mechanism for virus epidemics. Meanwhile, trainings for preventing and management of high infectious diseases such as Zika virus and Yellow Plague were also initiated. The Company also started the promotion of voluntary sampling check-up for inbound tourists in order to optimize the protection of the travel quarantine facilities.

2. Freight business

In 2016, Guangshen Railway achieved a freight transportation volume of 48.6 million tons and a revenue of RMB 1.718 billion.

The Company had completed the acquisition of the assets of a freight yard located in Guotang, propelled the construction of infrastructure for freight transportation, realized the floor hardening project in the freight yard and newly built several rain shelters. It also prioritized to organize works at the early stage of construction, such as the new construction of the station tracks at the freight yard in Dalang and Shaoguan East and the installation of frame canes, which had improved the capabilities of storage and turnover of its freight transportation. The Company had conducted renovation for its 14 freight transportation business offices and reception rooms for meeting customers. Meanwhile, it standardized the service signs in order to provide a better service environment to the freight owners. The Company sped up in propelling the researches in relation to the modern logistics park construction, and continued to plan for the development of the regional logistic park such as Shilong and Pinghu South freight yards. It also comprehensively promoted the construction of Shenzhen Pinghu South first-tier freight yard and second-tier freight yards including Shilong and Qingyuan. The Company operated its line of Southern speed trains, and promoted the railway freight transportation to transform and develop towards modern logistics. It also assisted the authorities in charge in the industry to commence the research studies on the ports transportation projects in which the Yantian Port in Shenzhen, Shilong Port in Dongguan and Huangpu Port in Guangzhou are the flagships. The Company also promoted the diversity of products and the increase in the volume of freight transportation. 3. Network usage settlement and other transportation service business

In 2016, the business revenue for the settlement of the Company's network usage and other transportation services reached RMB 7.093 billion, representing a growth of 20.74% year-on-year, with its contribution to the business revenue of the Company continually growing. The Company provides railway passenger transportation operation services to different railways which include the Wuhan-Guangzhou High-speed Railway, the Guangzhou-Shenzhen-Hong Kong High-speed Railway, the Guangzhou-Zhuhai Intercity Railway, the Guangzhou-Zhuhai Railway, the Xiamen-Shenzhen Railway, the Ganzhou-Shaoguan Railway, the Guiyang-Guangzhou Railway, the Nanning-Guangzhou Railway and the Pearl River Delta Intercity Railway. It also worked with the railway companies to establish the mechanism for communication and coordination. Entrusted operation service agreements were signed to realize the win-win situation for the Company and the railway companies.

4. Other businesses

In 2016, the other businesses of the Company mainly included train maintenance,

catering services on train, leases, storage and supply sales, commodities sales and other businesses related to the railway transportation. An income of RMB 1.110 billion was realized during the year.

V. Environmental protection, energy saving and emission reduction

(1) Specific measures

In 2016, the Company conducted various environmental protection measures, and completed the remediation of the environment and the landscape improvement works along the railway lines in districts such as Guangzhou, Shenzhen and Dongguan. It also conducted the maintenance and made use of the environmental protection facilities and reinforced the restriction on pollutants. At the same time, the Company removed 32 tons of white garbage along the railway lines and entrusted professional institutions to remove 420 tons of dangerous waste. The catering services on the Company's trains use biodegradable cutleries which are environmental friendly. Meanwhile, the staff canteen provides recyclable food trays and cutleries. The inspection of freight applies a paperless inspection system. The online office application and intranet email system help reduce 2.1 tons of paper usage in a year which can effectively reduce the negative impact on the environment. Furthermore, the Company also started promoting environmental protection and improved the staff's awareness in this regard. The Company implemented various energy conservation and emission reduction measures, for example to reinforce energy usage management and monitoring on automobile gas usage, water usage on passenger trains and lighting system in the stations. The Company will continually promote the use of equipment and technologies such as energy saving lighting, the recycling use of reclaimed water and centralized heating.

(2) Emission and resources usage

In 2016, due to factors such as the growth in the business volume and the acquisition of related railway operational assets (including diesel locomotives), the emission and the consumption of automobile gas were seen with a relative higher increase as compared to that of 2015.

Item	2016	2015	2016 as compared
			with 2015
Industrial wastewater ('000 tons)	2,030.81	1,554.82	+30.61%
SO ₂ emission (tons)	1.755	2.071	-15.26%
Chemical oxygen demand (COD)	67.365	50.486	+33.43%

Table of Guangshen Railway emission statistics

emission (tons)			
Smoke and particulate emission (tons)	0.511	0.486	+5.14%
Petroleum type emission (tons)	2.413	0.972	+248.25%

The resources consumption efficiency plan of the Company was about the implementation of materials and energy budget management. It ensured the supply of required resources and energy for transportation and production, meanwhile greatly reduced the expenses on non-productive energy consumption. In 2016, the Company's costs in terms of materials, water and electricity consumption were amounted to RMB 1.697 billion (2015: RMB 1.566 billion), representing an increase of 8.37% year-on-year. In 2016, the Company did not encounter any problem in respect to its requirement for appropriate water sources. The Company has stepped up its evaluation of industrial water usage indicators, and improved water usage efficiency through enhancement of control and water-saving devices. Due to the increase in the business volume, industrial water consumption amounted to 2,448,330 tons, representing an increase of 34.63% as compared with 2015.

Index.	Diesel locomotive		Electrical	automotive
Index	2016	2015	2016	2015
Total volume of gas used (tons)	57,760.8	39,374.6		
Index of energy consumption (tons of gas/ ten thousand tons kilometers)	40.79	44.69		
Total volume of electricity used (kilowatt hour)			426,508,766	425,452,268
Index of energy consumption (kilowatt hour/ten thousand tons kilometers)			142.42	145.43
Consumption of oil (tons)	287.4	140.9	66.3	31.7

Table of Guangshen Railway locomotives energy consumption

The Company provided the transportation services of railway passenger transportation. Other than the necessary protection of the freight in the process of freight transportation and the usage of strengthening material, no statistics of the usage and quantity of the packaging of the final products were included.

- VI. Social welfare and staff rights and benefits
- (I) Social welfare

In 2016, the Company proactively pushed forward its work in social welfare. During the year, 8,730 visits of condolence were paid to the employees in distress. Financial assistances were provided to employees 5,320 times through the Railway Industry Social Welfare Fund, the Company's Relief Fund and Critical Illness Fund. In 2016, staff contributions to the Railway Industry Social Welfare project were amounted to RMB 974,900 whereas other charity donations were amounted to RMB 47,600. Employees of the Company proactively joined the welfare activities in which they grouped as volunteers in major passenger stations to provide assistance to passengers. They also grouped and participated in the blood donation campaigns and imitated the charity promotion of protecting and caring for train rails in residence areas and schools located along the railway lines.

(II) Protection of staff rights and benefits

Guangshen Railway makes real efforts to protect the staff's rights and benefits, and expands its staff size. As of 31 December 2016, the total number of the Company's employees was 44,606 (2015: 43,824). Details of which are in the following table:

Item	No. of employees in 2016	No. of employees in 2015	2016 vs 2015 Increase/ Decrease
Total number of employees (no. of persons)	44,609	43,824	+1.79%
By gender			
— Male	33,255	33,298	-0.13%
— Female	11,354	10,526	+7.87%
By age			
— Under 30	14,968	13,435	+11.41%
— Between 31 and 40	7,795	10,072	-22.61%
— Between 41 and 50	11,752	15,016	-21.74%
— Above 51	10,094	5,301	+90.42%
By region			
— Shenzhen (by the location of the unit)	3,090	3,219	-4.01%

Item	No. of	No. of	2016 vs 2015
	employees	employees	Increase/
	in 2016	in 2015	Decrease
 Others districts (by the location of the unit) 	41,519	40,605	+2.25%
By job nature			
— Passenger transportation,			
freight transportation and	19,989	18,828	+6.17%
transit operation			
— Engineering	5,418	5,552	-2.41%
— Vehicles	4,428	4,510	-1.82%
— Public works	4,510	4,511	-0.02%
— Electricity	2,042	1,693	+20.61%
— Electricity and water supplies	2,376	2,232	+6.45%
— Building construction	1,067	1,026	+3.99%
 Various operations and other subsidiaries 	69	381	-81.89%
 Technical, administration and management 	4,710	4,855	-2.99%
— Others	0	236	-100%
By educational qualification			
— Postgraduate and above	154	107	+43.93%
— University graduate	3,708	3,225	+14.98%
— Vocational training and others	40,747	40,492	+6.30%

The Company has complied with the provisions of relevant state laws and regulations. A series of human resources systems have been established and the newly recruited employees are briefed on the "Employees' Handbook" in which the Company's policies of promotion, work hours, holidays, equal opportunity, diversity developments, anti-discrimination policies and other remuneration and benefit are stipulated. The Company has not employed any child labor and forced labor. It is the Company's regulation that if an employee is forced to work by means of violence, threats, or illegal restriction of personal freedom, or if the employee is required by illegitimate directions to engage in dangerous operation which threatens the employee's personal safety, the employee may terminate the employment contract immediately, without prior notice to the

employing unit.

1. Employee's remuneration and benefits

In 2016, the Company strictly complied with the "Law of the People's Republic of China on Employment Contracts", reinforced remuneration budget management and improved the income allocation mechanism. A performance-based appraisal system was implemented and the labor organization scheme was improved. The total remuneration and benefits expenditure for the year was RMB 6,219.35 million, representing a growth of 19.37% as compared with that of 2015. The Company has established a mechanism ensuring the steady income growth of the employees in order to raise the income level of the frontline employees. The Company arranged various social securities and housing provident funds for the employees in full amounts, and implemented the staff holiday system.

The Company complies with the relevant provisions of the labor laws in the termination and removal of employment contracts, the details of which are stipulated in the Company's "Employees' Handbook". Employees may unilaterally terminate the employment contract. If an employee has created great impact with respect to the completion of assigned tasks, such as refusal to accept requests for adjustments or deployment, severe violation of discipline or involvement in criminal responsibilities, the Company may terminate the employment contract. In 2016, the Company terminated the employment contracts of 207 employees, representing 0.46% of the total number of employees.

2.Building its workforce

The Company attaches great importance to building its workforce. The Company raises the overall quality of its employees in the means of recruitment, internal training, providing education with qualifications, competitions of the skills and etc. The Company also initiates the qualification assessment for various skills so as to enhance the potential of career development for the employees. Meanwhile, the Company devoted funds to construct the professional SIMS training rooms for railways operation, purchased large SIMS equipment of EMU Line driving and held professional seminars in order to provide employees with assistance to improve their skills. The Company encourages employees to provide reasonable suggestions in regards to the operation and development of the Company, and the Company provides policies and financial support to quality projects which are highly connected with the production and operation of the Company as well.

In 2016, the Company recruited 2,071 graduates, among which 116 were undergraduates and 1,955 were higher vocational school graduates. With them, the Company has substantiated the technical strength and business capabilities of key positions in the Company. A total of 798,803 employees joined different kinds of occupational training with the proportion of employees recruited for a position after being qualified with certificates reached 100%.

Category of employees	No. of employees (persons)	Average training hours (hours)
Senior management of the Company	5	40.0
station masters	170	57.4
Other middle-level management	1,642	56.3

Table of training hours received by the management of Guangshen Railway in 2016

National and industry honors awarded to the staff of Guangshen Railway as an individual or a group in 2016

Individuals	Units belonged	Honors awarded
Guo Xiangdong	Senior management	New Fortune's Top Secretaries of
	of the Company	Directorate, Chinese Securities'
		"Golden Bauhinia Award" - The
		Best Secretary of Directorate of a
		Listing Company
Deng Yiying, Wang Juan	Guangzhou South	The Leader of Railway Medal
	Station	
Duan Xiquan	Jiangcun Station	
Yang Xuetong	Canton -Kowloon	
	passenger	
	transportation section	
Zhan Yong	Guangzhou vehicles	
	section	
Chen Shitong	Guangzhou	
	electricity supply	
	section	
Lin Huabing	Shenzhen electricity	
	supply section	

Fang Shuchi, Zou Qiuyan, Li	Canton -Kowloon	The National Railway Youth Post
Zhaowei	passenger	Specialist
	transportation section	r r r r r r r r r r r r r r r r r r r
Sun Bo	Guangzhou South	
	Station	The National Railway Sports
Xie Jun	The Company's	Advanced Individual
	Authorities	
Yao Jinhua	Guangzhou vehicles	The Excellent Communist Party
	section	Members of China Railway
		Corporation
Chang Sheng	Guangzhou	The Excellent Party Workers of
	engineering section	China Railway Corporation
Chen Fong	Guangzhou vehicles	The Excellent Petition Advanced
	section	Individual of China Railway
		Corporation
Huang Shihong	Guangzhou vehicles	The National Railway Excellent
	section	Youth Employee
Cai Heng	Guangzhou building	The Champion of Electrician's
	construction section	Martial Arts Competition of China
		Railway Corporation
Group	Units belonged	Honors awarded
Guangzhou engineering	Guangzhou	
section of the	engineering section	
Guangzhou-Shenzhen		
operating railways		The Leader of Railway Cup
Dalang Station	Jiangcun Station	The Dedder of Running Cup
Guangzhou public works	Guangzhou public	
section of Lechang bridge and	works section	
tunnel railways		
Guangzhou engineering	Guangzhou	The National Workers Vanguard
section of the Guangzhou	engineering section	
operating railways		

The QC Team of the electricity	Guangzhou	The National Excellent Quality
supply of the Guangzhou	electricity supply	Management Team
South High-Speed Railway	section	
The QC Team of the	Guangzhou	
administration of the	passenger	
Guangzhou passenger	transportation section	
transportation section	· · · · · · · · · · · · · · · · · · ·	
The QC Team of the electrical	Guangzhou vehicles	The National Railway Industry
appliances of the Shantou	section	Excellent Quality Management
operating railways		Team
The QC Team of the electricity	Guangzhou	
supply of Zhaoqing East	electricity supply	
	section	
The 3 rd Team of Guangzhou	Guangzhou vehicles	
passenger train inspection and	section	
station inspection		
The QC Team of the electricity	Guangzhou	The National Dailway Industry
supply of the Zhongshan	electricity supply	The National Railway Industry
High-Speed Railway	section	Quality Guaranteed Team
The QC Team of the three	Guangzhou vehicles	
machines of the Zhaoqing	section	
operating railways		
The 6 th United Party Branch of	Guangzhou	The National Railway Model Party
the Beijing-Guangzhou Train	passenger	Branch
Team	transportation section	
The Party Committee of the	Guangzhou	The Advanced Fundamental Party
Guangzhou passenger	passenger	Organizations of China Railway
transportation section	transportation section	Corporation
The Guangzhou Transit	Guangzhou transit	
Operation Unit	operation section	
The Party Branch of the	Guangzhou electrical	
Guangzhou South Railway	section	
The Group Committee of	Guangzhou	The National Railway May Forth
Guangzhou passenger	passenger	Red Flag Group Committee
transportation section	transportation section	

The Group Committee of the	Canton -Kowloon	The National Railway Communist
Canton -Kowloon passenger	passenger	Youths' Promotion works Advanced
transportation section	transportation section	Unit
Guangzhou engineering	Guangzhou	The National Railway Sports
section	engineering section	Advanced Unit
Shenzhen electricity supply	Shenzhen electricity	The Guangdong Province May First
section	supply section	Labor Awarding Certificate
The QC Team of the Longcun	Guangzhou vehicles	The Guangdong Province Excellent
operating railways	section	Quality Management Team
The Guangzhou South Station	Guangzhou South	The Family of the Guangdong
Union	Station	Province Model Workers
The Guangzhou engineering	Guangzhou	The Guangdong Province Sports
section	engineering section	Festival Activities Advanced Unit

3.Improvement of production and living conditions

In 2016, the Company made a huge investment in improving the production and living conditions along the railway lines. It conducted revamping projects on staff living districts, single apartments and canteens along the railway lines, with 6 train crew dormitories, 17 single apartments and 8 canteens revamps were completed. It also purchased equipment and facilities such as furniture, electrical appliances, recreational and sports equipment, to improve the production and living environment for the frontline staff. The Company applied high technological devices such as systems of advanced freight inspection, high definition surveillance and automatic identification of trains, so as to alleviate the amount of labor work for the frontline employees and protect their operational safety. Meanwhile, the Company also distributed protective gear for employees and arranged sick leave for its staff so that the health of employees can be maintained.

In 2016, the Company had arranged physical examinations for 33,071 staff members (including arranging gynecological examinations for 6,219 female employees), provided inoculations for 2,864 employees and approved 3,323 sick leaves.

4. Cultural and sports life

In June 2016, the Company held a chorus singing competition for celebrating the 95th Anniversary of the establishment of the Party, in which a total of 923 employees who grouped as 22 chorus team had joined the competition. The Company puts its efforts in initiating team sports activities, for instances, it held the 14th Employees Sports Meeting in success, arranged a total of over 270 competitions of tennis, badminton, table tennis and swimming, with a sum of over 600 staff members from 24 units had participated. At the

end of December 2016, the Company held the hiking activity of "Celebrating the New Year's Day, Competing in the period of the Spring Festival Transportation". The Company's internal magazines also called for drafts from the employees so as to publish their writings, photography and calligraphies created. All of the above activities had not only vitalized the cultural ambience of the Company, but also had made the employees' cultural and sports life fruitful and raised the team's morale and their cohesion. The Company and its subordinate Guangzhou engineering section were awarded with "The National Railway Sports Advanced Unit", and two employees were awarded with the honor of "The National Railway Sports Advanced Individual".

VII. Explanatory notes to the report

(I) Scope of this report

Unless otherwise stated, all the data and information in this report comes from Guangshen Railway and its subordinate stations and railway sections. Unless otherwise stated, this report mainly covers the passenger and freight transportation operations and the economic, environmental and social activities of various businesses carried out by Guangshen Railway from 1 January 2016 to 31 December 2016 as well as a brief review of the relevant activities in the past. Unless otherwise stated, financial data in this report are expressed in RMB.

(II) Data collection

In order to collect the comprehensive data and information of the fulfillment of corporate social responsibilities of the Company, Guangshen Railway sent questionnaires to each unit (department) in respect to the fulfillment of corporate social responsibilities. The collection of the relevant data was carried out through the Company's internal office network, the process of which has demonstrated the realization of a "paperless office".

This report aims at fully reflecting the work conducted by the Company in fulfilling its corporate social responsibilities. The Company will continue to refine and improve the information disclosed and its format. An updated social responsibility report will be issued on a yearly basis.

(III) Basis of preparation

This report complies with the requirements set out in the "Preparation Guidelines of 'Report on Fulfilling Social Responsibilities by a Company'", "Manuscript of Review Work of 'Report on Fulfilling Social Responsibilities by a Company'", "Notice on Reinforcing Listed Companies to Fulfill their Social Responsibilities and Releasing 'Disclosure Guidelines on Environmental Information of SSE Listed Companies'" issued by the Shanghai Stock Exchange (SSE), and Appendix 27 of the Listing Rules of the Hong Kong Stock Exchange "Environmental, Social and Governance Reporting Guide", and has followed the relevant guidelines and requirements when making disclosures and finalizing the contents in the report.

This report is available in both Chinese and English languages. In case of discrepancies, the Chinese version shall prevail.

(IV) Social contribution value per share

Pursuant to the "Notice on Reinforcing Social Responsibilities of Listed Companies" and "Releasing Disclosure Guidelines on Environmental Information of SSE Listed Companies", and "Guidelines on Preparing Report of Companies Fulfilling Social Responsibilities" issued by the Shanghai Stock Exchange, Guangshen Railway continued to disclose the social contribution value per share and the calculation parameters in this report. In 2016, the Company created a social contribution value per share of RMB 1.34 (2015: RMB1.04 per share), including earnings per share attributable to the shareholders of RMB 0.16, added-value per share attributable to the society of RMB 1.18 (annual tax payments to the nation of RMB 982.01 million + wages and benefits paid for employees of RMB 6,219.35 million + charity donations of RMB 1.02 million+ value created for other related stakeholders (such as environmental protection and greenery, material investments in running safety, etc.) of RMB1,202.33 million - pollution costs calculated on the basis of pollution discharge fees and etc. of RMB 16.94 million) / total number of shares (7,083,537,000 shares).

(V) Contact details

Address: Board Secretariat, Guangshen Railway Company Limited,

No. 1052 Heping Road, Louwu District, Shenzhen, Guangdong Province Postcode: 518010 Telephone: +86-755-25588150 Fax: +86-755-25591480 Email: ir@gsrc.com