

## 緣色動力環保集團股份有限公司

Dynagreen Environmental Protection Group Co., Ltd.

(A joint stock limited liability company incorporated in the People's Republic of China) Stock Code : 1330.HK & 601330.SH



# 2021 ENVIRONMENTAL, SOCIAL AND GOVERNANCE ("ESG") REPORT

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## **1 ABOUT THIS REPORT**

#### 1.1 Basis of preparation

This is the sixth Environmental, Social and Governance (ESG) report (the "Report") of Dynagreen Environmental Protection Group Co., Ltd. ("Dynagreen" or the "Company" or the "Group"). This report was prepared in accordance with the Environmental, Social and Governance Reporting Guide of Appendix 27 to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "Hong Kong Stock Exchange"), and satisfies relevant requirements under the Self-regulatory Guidelines for Listed Companies No. 1 of the Shanghai Stock Exchange – Standard Operation. The reporting period is from 1 January 2021 to 31 December 2021. The contents of this report provide a brief review of past related activities. This report will be published on the website of the Hong Kong Stock Exchange, the website of the Shanghai Stock Exchange and the official website of the Company.

#### **1.2 About the Group's Business**

The Group is a listed company invested by the Beijing Stated-owned Assets Management Co., Ltd., dedicating to the industry of recycling and renewable energy. Our scope of business covers the investment and construction, operation and management, technology research and development and supply of the core equipment relating to urban waste treatment projects, and other professional services including consultation in order to provide comprehensive solutions for the urban waste treatment.

The urban waste treatment projects invested and constructed by the Group are comprehensive waste recycling projects integrating waste incineration, power generation, heat supply as well as bricks manufacturing from bottom ash. The core facilities of waste incineration make use of local proprietary technologies, taking advantage from costs and technical adaptability. The environmental protection technologies, such as controlling the time and temperature in waste incineration as well as the strict smog and gas treatment technologies, ensure all the emissions including dioxin emissions are meeting the environmental emission requirements. The energy generated from waste incineration is used for power generation and heat supply, and the bottom ash is used for making bricks. The leachate generated from waste treatment is treated for reuse or discharge to the municipal sewage system, while fly ash is solidified with the use of chelating agents and cement before sending to the sanitary landfill, minimizing pollution from the municipal waste through detoxification, reduction and recycling, which is conducive to carbon emission reduction.

In 2021, the Group recorded a turnover of approximately RMB5,056.8894 million, representing an increase of 122.03% as compared to the same period last year. Net profit realized amounted to approximately RMB741.8431 million, representing an increase of 40.39% as compared to the same period last year. In 2021, the Group treated a total of 10.5376 million tons of municipal solid waste (inclusive of landfill), representing an increase of 17.43% as compared to the same period last year. While green on-grid electricity generated amounted 33,291,482 million kWh, representing growth of 22.10% as compared to the same period last year. As at the end of 2021, the daily treatment capacity for waste incineration of the Group was approximately 33,600 tons.



#### 1.3 Scope of the Report

This report covers the information of Dynagreen Environmental Protection Group Co., Ltd. and its subsidiaries and focuses on reporting the environmental and social performances relating to the waste treatment projects of the Group in China during the reporting period. The environmental information disclosed in the Report covers the Group's head office and 24 projects which are key pollution monitoring companies that were in operation throughout 2021 (located in Changzhou, Haining, Pingyang, Yongjia, Wuhan, Taizhou, Rushan, Anshun, Jizhou, Huizhou, Jurong, Bengbu, Tongzhou, Ninghe, Guangyuan, Miyun, Jiamusi, Shantou, Bobai, Zhangqiu, Sihui, Hong'an, Yichun and Fengcheng, respectively).



Haining Expansion Project



Jizhou Project







#### **1.4 Source of information**

The data in this report is extracted from internal documents and relevant statistical materials of Dynagreen Environmental Protection Group Co., Ltd. and its subsidiaries.





## 2 ESG DEVELOPMENT STRATEGY OF THE GROUP

## 2.1 ESG Strategy of the Group

The Group has maintained profit growth and consistent improvement in comprehensive capacity on the basis of considering its business objectives and market position while being in pursuit of sustainable corporate development. In the leading competitive fields and business environment for future expansion, the Group emphasizes internal management, customer management, personnel management and market management, aiming at formulating a sustainable development plan that takes into account overall planning, long-term diversification and forward-looking vision.

Adhering to the idea of sustainable development, the Group adheres to the value of "generating social benefits as the primary goal while economic efficiency as the basis" and regards "creating a better living environment" as its corporate mission. Upholding the operation and management concept of "safe, environmentally friendly, civilized and effective", the Group attaches great importance to safety and environmental protection work, and we expect to work together with customers, suppliers, employees, community residents and other stakeholders for mutual benefits, so as to make contributions to social progress, economic growth and environmental governance.

#### 2.2 Management Structure of the Group

The board of directors of the Group is responsible for the evaluation and determination of risks relating to the environment and the society and to ensure the Group has established an appropriate and effective environmental and social risk management and internal control system. Under the leadership of the board of directors, the management of Group is responsible for implementing business ideas including production safety, compliance with environmental standards, mutual benefits as well as honesty and integrity, formulating policies relating to the environmental and social governance, defining job duties and responsibilities, implementing specific measures and monitoring the implementation results.

#### 2.3 Participation of Stakeholders

Among the internal and external stakeholders in relation to the ESG aspects of the Group, the major stakeholders include internal personnel (from management to front-line employees), suppliers, customers, shareholders and investors, the government and the communities in which the Group operates. On the basis of the existing materiality assessment, management will continue to review the effectiveness of stakeholder engagement and materiality assessment to ensure that the report reflects the Group's latest developments in sustainable development as fully as possible.



#### 2.4 Materiality Assessment

Based on the outcome of stakeholder engagement and materiality assessment, we have identified the following aspects that have a significant impact on the sustainable development of the Group, and has listed these aspects as key focuses of the sustainable development of the Group.

Environmental Aspect		Social Aspect		
_	Air emission (exhaust gas) Weate water (leashate from weate dump and	- Health and Safety		
_	Waste water (leachate from waste dump and sewage)	<ul> <li>Employee benefits</li> </ul>		
-	Solid waste (bottom ash and fly ash)	– Anti-corruption		
		<ul> <li>Product Responsibility</li> </ul>		
		- Employee development and training		







## **3 ENVIRONMENT**

#### 3.1 Overview and Relevant Policies of Environmental Protection

As a leading environmental company in China, the Group places high emphasis on environmental protection, and has established an environmental supervision and management model comprising government supervision, societal monitoring and corporate internal control.

Environmental protection laws and policies involving the waste incineration industry introduced in 2021 include: the National List of Hazardous Wastes (2021), the Technical Guidelines for Self-Monitoring of Soil and Groundwater in Industrial Enterprises (HJ1209-2021), the Technical Guidelines for Self-Monitoring of Pollutant Discharging Units – Solid Waste Incineration (HJ1205-2021), the Regulations on the Administration of Pollution Discharge Permits (Order No. 736 of the State Council of the People's Republic of China) and the Administrative Measures for Legal Disclosure of Enterprise Environmental Information, which tighten the emission standards for waste-to-energy practices and strengthen law enforcement and penalty measures. The Group has updated the existing regulations and standards, and organized project companies to carry out interpretation training.

The Group adheres to the corporate mission of "creating a better living environment" and sees compliance with environmental protection regulations as top priority. Thus, it has established stringent internal control procedures and standards and passed environmental management system certification. During the year, awards received by the Group include: "Top Ten Influential Brands in China's Solid Waste Industry" and "Integrity Enterprise in China's Solid Waste Industry" awarded at the 2020 (fourth) Boao Enterprise Forum; Wuhan Company won the 6th Hubei Provincial Environmental Protection Government Award; The Group has been listed among the top 500 enterprises in Shenzhen for four consecutive years; Tongzhou project won the China Construction Engineering Luban Award (National Quality Project); Zhangqiu Project was awarded the honorary certificate of the national "AAA-level Domestic Waste Incineration Plant"; Haining Expansion Project won the "National Quality Engineering Award"; and the Group won the "Top Ten Solid Waste Influence Enterprises" for twelve consecutive years.



For environmental protection management, the Group adhering to the principle of "prevention as top priority" and combining prevention with governance", implements "three simultaneities" for environmental protection facilities. The Group has formulated and strictly implemented the Environmental Protection Management System of Dynagreen Group, and monitors the whole process of environmental protection during the construction and production. Since our establishment, the Group has been complying with national laws and regulations including the Standard for Pollution Control on the Municipal Solid Waste Incineration (《生 活垃圾焚燒污染控制標準》) (GB18485-2104), the Circular on Further Strengthening the Administration on Environment Impact Assessment of Biomass Power Projects (Huan Fa [2008] No. 82) (《關於進一步加強生物 質發電項目環境影響評價管理工作的通知》(環發[2008]82號)), the Emission Standard for Odor Pollutants (《惡 臭污染物排放標準》) (GB14554-93), the Emission Standard for Industrial Enterprises Noise at Boundary (《工 業企業廠界環境噪音排放標準》) (GB12348-2008), the Integrated Wastewater Discharge Standard (《污水綜合 排放標準》) (GB8978-1996), the Reuse of Urban Recycling Water – Water Quality Standard for Industrial Uses (《城市污水再生利用工業用水水質》) (GBT19923-2005), the Standard for Pollution Control on the Landfill Site of Municipal Solid Waste (《生活垃圾填埋場污染控制標準》) (GB16889-2008), the Standard for Pollution Control on the Storage and Disposal Site for General Industrial Solid Waste (《一般工業固體廢物貯存、處置 場污染控制標準》) (GB18599-2001) and the Standard for Pollution Control on Hazardous Waste Landfill (《危 險廢物填埋污染控制標準》) (GB18598-2001). We conduct independent monitoring in strict accordance with the requirements of the Self-monitoring Technology Guidelines for Pollution Sources - General Rule (《排 污單位自行監測技術指南總則》) (HJ819-2017) and all monitoring data are qualified. We have applied for the pollutant discharge permit in accordance with the Technical Specification for Application and Issuance of Pollutant Permit – Municipal Solid Waste Incineration (《排污許可證申請與核發技術規範生活垃圾焚燒》) (HJ1039-2019). In accordance with relevant laws and regulations on environmental protection, we strictly supervise the emission and disposal of smog, waste water, noise, stench and solid waste of each of its operating project companies, so as to make sure the emission and disposal fulfilling national requirements in order to prevent environmental pollution. The Group also strives to reduce the emission of pollutants so as to safeguard the health of employees and promote safe and environmental business operation.

Besides, the Group urges each of its operating project companies to formulate environmental protection work plans, organize and implement environmental protection and improvement arrangements in the production areas of enterprises. The Group has taken effective preventive measures with respect to various sources of pollution that may cause pollution to the environment in order to avoid environmental pollution accidents. The Group also educates its employees to comply with national regulations relating to environmental protection, performs its obligations in environmental protection and dares to curb the phenomenon of environmental pollution and destruction. Besides, the Group conducts regular on-site inspections and unscheduled inspection on environmental protection of its waste-to-energy power plants and requires them to conduct regular independent inspection on environmental protection.

Each of the operating project companies shall set up an environmental leading group comprising the general manager (as the group leader), the deputy general manager of production/assistant to the general manager/director of safety and environmental protection, department managers, specialist engineers and shift chief operators, which specifies their respective duties in environmental management, so as to put the responsibility system in place to every part of production. The safety and environment department of a project company is responsible for the daily supervision of the environmental protection work of that project company to strengthen evaluation and accountability. The president of the Group is the first person responsible for environmental management of the Group and the vice president responsible for operation is the person directly responsible for environmental management of the Group is the functional department for supervision of the environmental management of the operating projects of the Group and is responsible for the supervision and evaluation on the environmental protection work of each of the Group's operating project companies.



## 3.2 Major Pollutants Affecting the Environment

The Group is mainly engaged in the waste-to-energy business. The specific process of waste incineration is illustrated in the following diagram:



#### Specific Process of Waste-to-energy Business

From the above process, the pollutants which are produced by the Group during waste treatment and incineration to affect the environment mainly include exhaust, waste water (leachate from waste dump and sewage), solid waste (bottom ash and fly ash) and noise from operating equipment. The Group adopts advanced pollution prevention and control technology and strict pollution prevention and control measures, and the Group's internal standards for pollutant emissions are often stricter than the national standards, further consolidating the Group's environmental efforts. The relevant measures formulated by the Group with respect to the above major sources of pollution are set out below.



#### 3.2.1 Air Emission (Exhaust Gas and Odor Control)

The waste gas generated from waste-to-energy projects comprises noxious gas, heavy metal and particulates. The main components of waste gas include smog, sulfur dioxide, carbonic oxide, oxynitride and hydrogen chloride. The odors from waste dump mainly come from ammonia and hydrogen sulfide. All of the Group's project companies implement treatment process including desulfurization, denitration, adsorption of dioxin by activated carbon and bag filtering. We regularly maintain and update the environmental protection equipment and facilities to ensure that the emissions meet the environmental standards. In particular, the dioxin generated from waste incineration is the focus of public attention. The dioxin emissions of all projects of are lower than 0.1ng TEQ/Nm3 required by the Standard for Pollution Control on the Municipal Solid Waste Incineration (《生活垃圾焚燒污染 控制標準》) (GB18485-2014). The projects in trial operation must, before commencing commercial operation, file an application with the competent administrative authority of environmental protection for environmental protection acceptance, which includes a dioxin emission inspection report prepared by a qualified third party. Dioxin emission levels for projects in commercial operation are also regularly inspected by such qualified third parties and the relevant local environmental protection bureau. In 2021, the Group passed the dioxin monitoring organised by the Ministry of Ecology and Environment of the PRC. Besides, the online monitoring system of the waste-to-energy power plants of the Group is interconnected with the monitoring system of the Ministry of Ecology and Environment of the PRC. The LED screens at the gate of the waste-to-energy power plants publicize the five pollution factors of particulate matter, sulfur dioxide, nitrogen oxide, carbon monoxide, hydrogen chloride of each incinerator and furnace temperature monitoring data.

In response to the odors in the local regions, the project companies have taken measures to minimize odor emissions, including sealing the waste discharge area besides the discharge opening, and installing deodorization devices and rerouting air from waste storage dump to the incinerator for combustion to maintain negative pressure in the waste storage dump. In order to prevent dissipation of odors emitted from leachate into the surrounding environment, the Group funnels leachate to a leachate treatment station for processing. The methane from the landfill of our Huizhou Project is collected for power generation, controlling the problem of odor in an effective manner. In order to further ensure that dioxin emission is up to standard, and monitor the addition amount of activated carbon in real time, the Group proactively implements technological transformation for the activated carbon addition system to ensure continuous and stable addition of activated carbon.



#### 3.2.2 Wastewater Treatment

The wastewater content received by the plants of the Group is high and leachate emanates from stored waste. Wastewater in the form of leachate mainly comprises highly concentrated dissolved organic matter and inorganic ions, including large amounts of ammonia nitrogen, soluble cations, heavy metals, phenols, soluble fatty acid and other organic pollutants. During the year, we modified the leachate concentrate recirculation spraying hearth (滲濾液濃水回噴爐膛改造) to reduce wastewater production. In addition, the Group's waste unloading platform requires cleaning regularly, which generates wastewater. Chemical water desalination workshops produce acid and alkaline wastewater. The plants also produce a small amount of domestic sewage.

The Group usually adopts biochemical system, ultrafiltration (UF), nanofiltration (NF), reverse osmosis and other technologies for wastewater treatment. As waste-to-energy facilities need a large amount of cooling water, most of the recycled and reclaimed wastewater from most projects is used as cooling water for waste-to-energy facilities or used for landscaping in the plant site, reducing sewage emitted to the municipal pipelines. At the same time, through technical transformation, the concentrated water reprocessing system (DTRO) was added to further reduce the volume of concentrated water production. Some of the Group's projects, such as Huiyang Environmental Park (惠陽環保園) in Hui zhou and the project in Tongzhou attain "zero emission of sewage" by reusing treated waste water.

Generally, the Group engages a third party for wastewater treatment to ensure that the sewage emitted by us to the municipal sewage pipelines complies with applicable emissions standards. The emission limit values of leachate strictly comply with the environment impact assessment report and approval. The waste water connecting to pipelines shall be subject to level III discharge according to the Integrated Wastewater Discharge Standard (《污水綜合排放標準》) (GB8978-1996) in China and shall be connected to sewage treatment plants for further biochemical treatment. Third-party wastewater monitoring is generally conducted once a quarter. For the real-time monitoring of wastewater by project companies, it is necessary to determine whether to install the corresponding online instrument according to the actual situation of the environmental impact assessment and approval requirements, and the tail water disposal method (reuse or discharge). During the year, no excessive discharge was identified in on-site monitoring.

#### 3.2.3 Waste Management

#### Solid Waste Treatment

The solid waste produced by the waste-to-energy projects of the Group mainly includes bottom ash and fly ash. As a responsible waste-to-energy service provider, the Group handles our waste carefully and strives to minimize the environmental impacts. Therefore, the Group closely monitors our waste generation and treatment.

Fly ash treatment measures: The fly ash generated after waste incineration is subject to collection in a closed way and then sent to landfills by transportation units with corresponding transportation capacity after it meets the standards under the Standard for Pollution Control on the Landfill Site of Municipal Solid Waste (《生活垃圾填埋場污染控制標準》) (GB16889-2008) after solidification with chelating agent and cement.

Bottom ash treatment measures: The bottom ash produced after incineration of municipal waste is classified as ordinary industrial solid waste. After cooling, magnetic separation and deferrization, the bottom ash is stored in a room and then delivered by disposal units to a third-party company for brick making. The bottom ash storage area is equipped with anti-seepage measures. Meanwhile, we inspect bottom ash every day and make proper inspection records to ensure that the ignition loss rate of bottom ash is lower than 5%.

The output of fly ash and bottom ash are weighted and recorded by the Group every day to ensure that the fly ash and bottom ash are stored in a sealed environment in the transportation process without any dispersal and keep the transportation channels for fly ash and bottom ash clean and unobstructed. Transfer forms are issued upon the final treatment of fly ash. Records are made for the comprehensive utilization of bottom ash.

In addition to bottom ash and fly ash, the leachate is generated when the waste received by each project is stored in the waste store, and the sludge is generated during the process of leachate treatment. The sludge is disposed by the sewage treatment system of project companies and returned to the waste store after pressure filtration and dehydration, then independently incinerated in the project after mixing with the waste evenly.

#### Hazardous Waste Treatment

The Group stores hazardous wastes including waste lubricating oil and lubricants of equipment in accordance with the requirements of the Standard for Pollution Control on Hazardous Waste Storage (《危險廢物貯存污染控制標準》) (GB18597-2001), and the wastes are then handled by qualified processing contractors for treatment.

#### 3.2.4 Noise Prevention and Control

The Group's sources of noise pollution mainly include the turbine generators and other ancillary facilities. The Group conducts noise monitoring on the noise and major sources of noise pollution at the factory boundary, factory zone and living area according to the Emission Standard for Industrial Enterprises Noise at Boundary (《工業企業廠界環境噪音排放標準》) (GB12348-2008). The monitoring cycle and monitoring results are all complied with the Emission Standard for Industrial Enterprises Noise at Boundary (《工業企業廠界環境噪音排放標準》) (GB12348-2008) and the national requirements.

The measures of noise prevention and control:

- proposing restriction requirements on suppliers when purchasing equipment, controlling the sources of noise pollution, such as choosing and using low-noise and shock-absorbing equipment with advanced technology;
- 2) installing soundproof doors and windows as well as mufflers to reduce noise pollution;
- 3) making an overall reasonable layout to fully utilize the sound insulation of the buildings in the factory and reduce noise with the use of greenbelt to mitigate the impact of noise to the surrounding areas.



#### 3.2.5 Environmental Emission Data

Environmental emis (project companies		Unit	2021 <sup>1</sup>	2020	2019
Total sewage discha (The total sewage	-				
the outside of oper	rating sites)	tons	416,006	111,474	126,144
Total COD emissions	3	tons	35	7	6
Exhaust emissions	Nitrogen oxide	tons	4,640	3,355	2,125
	Sulphur dioxide	tons	721	512	450
	Particulates	tons	130	89	72
	Hydrogen chloride	tons	492	384	226
Total solid hazardous	s waste				
(fly ash chelates)		tons	311,367	222,256	173,961
Liquid hazardous wa	aste (waste				
lubricating oil, lubr	ricating oil, acid				
sludge, waste min	eral oil, etc.)	tons	31	25	13
Emissions exceeding	g environmental				
protection standar	ds	times	0	0	0
Fines and prosecution	ons due to				
noncompliance wi	th environmental				
protection laws an	d regulations	times	0	0	0

1 Total sewage discharge and total COD emissions increased due to expansion projects.

#### 3.3 Use of Resources

#### 3.3.1 Water consumption

In the process of power generation from waste incineration, a large amount of water is required to produce steam, which drives the turbine generator to produce electricity. So, water is one of the major natural resources used by the Group. We strive to reduce water consumption and improve the efficiency of all plants through various measures, including reusing the cooling water and demineralized water, and using the cooling water that can no longer be reused for irrigation and cleansing in the factory zone. Besides, by virtue of technological transformation as well as adjusting the feedwater for boilers, we reuse the treated sewage which is qualified for reuse to reduce amount of water acquired.

#### 3.3.2 Power consumption

The waste-to-energy power plants of the Group mainly use the power generated by themselves for normal operation, so a small amount of power is acquired from outside providers. In 2021, the comprehensive power consumption rate at plants of the Group was 16.50%, representing a decrease of 0.35% from 16.85% for 2020, mainly due to that certain new projects adopted new technologies including large-scale incinerators and high-speed steam turbines, which improved the heat utilization rate, increased the power generation per ton of waste, and reduced the power consumption rate of plants.



#### 3.3.3 Others

Due to the characteristics of the industry in which the Group operates, other aspects affecting the environment, such as the use of packaging materials, transportation-related energy consumption as well as non-transportation-related energy consumption, do not cause significant impacts on the environment, so the Group does not make relevant disclosure in this report.

#### 3.3.4 Resources use data

Use of resources (the Group's head office)	Unit	2021	2020	2019
Electricity consumption at the Group's				
head office	kWh	236,669	221,419	195,416
Water consumption at the Group's head		,	,	,
office	tons	2,702	2,813	1,474
Use of resources (project companies)	Unit	2021	2020	2019
Waste treated	tons	9,705,956	7,841,291	5,479,497
Electricity generated	0'000 kWh	378,468	305,471	189,744
Electricity consumption at plants	0'000 kWh	62,998	56,535	30,471
Water withdrawal	tons	15,083,934	12,177,723	7,615,487
Natural gas for boilers	cubic meter	436,611	134,671	156,163
Diesel for boilers	tons	5,882	6,695	2,516
Diesel for machinery and vehicles	tons	71	127	182

#### 3.4 Development of New Environmental Technology

The Group keeps on developing new process and technologies, including complete combustion, automated control and exhaust gas treatment technologies, in order to effectively improve the efficiency of wastetoenergy power plants, to manage the pollutants emitted by the Group in the environment, and to treat other categories of solid waste. We believe that, consistent technological innovation will help the Group consolidate our leading position in the waste-to-energy industry in China while improving the efficiency of the waste-to-energy operation of the Group and mitigating impacts on the environment. We continued to research into and develop large incinerators and completed the commissioning of the 800-ton incinerator as developed independently by the Company. The equipment ran stably and the combustion condition was good; the Company completed the design and optimisation of the 900-1,000-ton incinerator as developed independently by the Company, which will be used for large new projects. During the year, the denitrification of SER polymers was gradually promoted depending on the situation of project companies, to reduce the emission of nitrogen oxides. By virtue of active development of new incineration technology, Dynagreen will maintain its technology leading position in China.

#### 3.5 Statement of Compliance

The Group strictly complies with national environmental laws and regulations. During the reporting year, there was no material violation or non-compliance event.



## **4 SOCIETY**

#### 4.1 Relevant Policies of Society

In addition to making profit, the Group firmly believes that an enterprise should undertake the social responsibility with respect to customers, employees, society and environment. Therefore, we have formulated the corporate social responsibility policy for the Group and are committed to assuming corporate social responsibility and encouraging all employees to strictly comply with such policy. The corporate social responsibility policy of the Group covers the following aspects.

#### 4.2 Employment

#### 4.2.1 Health and Safety

Upholding the management concept of "safe, environmentally friendly, civilized and effective" and the basic principle of "protecting personal safety, protecting power grid and protecting equipment", the Group attaches great importance to safety. Pursuant to the national requirements in relation to production safety, we have formulated detailed regulations and systems with respect to safety tool management, temporary power consumption management, safety incident management, hazardous chemicals management, emergency plans for accidents, and major and sensitive facilities management while enhancing production safety, safety education and training. The Group also includes the performance on safety into the appraisal system, which serves as the basis for human resources management work such as salary adjustment, job changes, training and development of employees. Each of the project companies has set up an internal safety and environmental department under the direct leadership of the general management of the relevant project company, which is responsible for the daily supervision and management of the production safety and environmental protection work of such project company. During the year, the Group updated the ISO45001: 2018 occupational health and safety management system certification.



The Group has formulated the following systems and measures for project operation: (1) production safety rules and procedures for incident inspections and exception management, which establish a clear internal structure with detailed responsibilities of each department; (2) regular safety inspection system with the preparation of safety monthly reports to evaluate the monthly production safety records and set up the safety target for the next month based on the completion status of safety target in the preceding month; (3) regular safety education and training system. During the year, the Group organised the main leaders and safety management personnel of project companies to attend the training on certificates of safety management organised by the local emergency management agency to ensure that the personnel of project companies have the necessary knowledge of operation safety; and (4) organised the signing of the annual Responsibility Documents of Safety and Environmental Protection. During the pandemic, the Company regularly distributed medical masks to employees and carried out disinfection and prevention measures in the factory, workshp, dormitory and canteen every day. For strengthening the access management of personnel and vehicles, the Company took measures such as temperature check and registration for all employees and waste truck drivers. In addition, the Company strictly implemented the pandemic information reporting system, enforced the recording and approval of personnel leaving the factory, and did a solid job in pandemic prevention and control.

For project construction, the Group has established responsibility system for production safety to conduct comprehensive supervision and management on production safety, troubleshoot all construction sites, carry out risk evaluation and analysis and identify sources of hazards. At the same time, the Group also adopts prevention and treatment solutions for major construction procedures and implements appropriate emergency measures in order to safeguard construction safety.

For the subcontractors involved in the design and construction work for our projects, the Group has established clear standards for them to follow when undertaking the Group's projects. The Group also has specific technological requirements that must be met by project contractors under the supervision of the Group's specialized project engineers. During the reporting period, the Group did not record any work accident or violate any laws and regulations relating to the health and safety of employees.

Number of work-related fatalities Number of work-related injuries Lost days due to work injury Fines and prosecutions due to non-compliance with laws and regulations related to health and safety	0 0 0	0 0 0	0 0 0



## 4.2.2 Employee Recruitment and Benefits

Focusing on our development strategy based on the actual condition of the Company, the Group has established and implemented a scientific, open and fair human resources policy which is beneficial to sustainable corporate development. The Group has also standardized human resources management procedures including personnel plans, recruitment, training, attendance and vacation, salary, appraisal, resignation and dismissal of employees. The Group has also introduced a series of supporting human resources management systems, such as the Selection and Recruitment System of Employees (《員工選聘錄用制度》), the Management Measures on Recruitment and Entry (《招聘及入職管理辦法》), the Training Management System (《培訓管理制度》), the Appraisal Rules for New Employees during Probation Period (《新員工試用期考核細則》), the Management Measures on Labor Contracts (《勞動合同管理辦法》), the Remuneration Management System (《結動管理制度》) and the Management System on Employee Resignation (《員工辭職管理制度》), with strict compliance with the national laws and regulations and the relevant requirements of the Company with respect to the introduction, development, use and dismissal of human resources.

In addition to general benefits, reimbursements for the travel expenses incurred by the project companies' technicians in visiting their relatives were allowed. Besides, the Company implemented an annual salary system for the remuneration of the senior management at the head office and the management teams of the project companies that their salaries were determined based on performance. Annual business objective and appraisal and incentive measures were introduced to improve the performance appraisal system and the cohesion of middleto-senior management to the Company.

During a performance appraisal for an employee, the evaluation should be made in the following order: the employee himself/herself, his/her direct superior and the competent senior management personnel. Then, the evaluation should be reviewed by the president. The president has a veto power. After the whole performance appraisal procedure, the direct superior shall give feedback to the result again. Through the perfect appraisal system for the chief financial officers of project companies, we have been committed to optimizing the appraisal indicators and revising the appraisal methods, leading the business development towards the of the Group's strategic goals, strengthening the training of reserve talents, and creating a talent training system with characteristics of Dynagreen; we regulated the recruitment and interview processes and provided training courses for "interviewers" so as to continuously improve the brand image as an employer. During the year, we continued to streamline and optimize the Group's personnel appraisal indicators, to highlight the focus of performance appraisal and ensure that the production and operation of the subordinate project companies were consistent with the Group's overall strategy.



As at 31 December 2021, the Group had a total of 3,007 employees who are all full-time employees. During the reporting period, the Group did not violate any laws and regulations relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.

Employment data (as at 31 December 2021)	Number of employees in 2021	Separation rate in 2021
Total number of employees of the Group	3,007	18.9%
By gender – Male – Female	2,353 654	19.8% 15.7%
By age - 17-30 - 31-40 - 41-50 ->51	1,109 1,078 651 169	21.2% 18.8% 15.7% 17.2%
By region – China – Overseas	3,007 0	18.9% 0%

#### 4.2.3 Employee Development and Training

The Group regards providing opportunities and scope of sustainable development for employees as our responsibility and obligations. In addition to salaries and benefits, the employees are entitled to training and development opportunities. Employee development and training provide the Group guarantees for accomplishing business objectives, improving performance and achieving sustainable development and are also ways for employees to be competent at their duties, achieve self-improvement and explore their potential. The Group has formulated the Training Management System of Dynagreen Group (《綠色動力集團培訓管理制度》), the Internal Lecturer Management System of Dynagreen Group (《綠色動力集團內部講師管理制度》), the Management Measures on Employee Development and Training of Dynagreen Group (《綠色動力集團內部講師管理制度》), and other training systems.

Training for new employees comprises two stages, namely common required courses and professional training within departments. Of which, common required courses include introduction to the Company, corporate development milestones and future prospect, corporate culture, brief introduction to the work of functional departments and internal regulations and systems, etc. Professional training within departments refers to the training and guidance provided by the departments for their new members on work skills, i.e. pre-job training, which requires practical on-site guidance. We also added Party construction and discipline inspection education training to the original training programs with an aim to fully implementing the Party's spirit.



To cultivate talents, the Group offers training to fresh graduates and reserved management personnel at middle level and also provides internal and external skills training for the production personnel at the forefront. The Company arranges internal lecturers for internal training, including corporate culture and system training, safety management, factories' safety and environmental protection education training, professional expertise, management training and craft training. For external training, the Company usually sends the employees to professional training institutions for fulltime external training at the Company's cost. In addition, the Company arranges some of its employees to visit advanced enterprises in the industry for on-site training and experience exchange in a regular manner.

Training data	2021
Total training hours of employees	25,422
Training proportion of employees by gender – Male – Female	98.68% 98.01%
Average training hours of employees by gender – Male – Female	8.49 8.31
Training proportion of employees by rank – Senior management – General management – Non-management employees	100% 95.50% 98.88%
Average training hours of employees by rank – Senior management – General management – Non-management employees	13.09 11.95 8.03









#### 4.2.4 Labor Standard

The Group strictly complies with all relevant labor laws and regulations, including the Law on the Protection of Minors, the Labor Law, the Labor Contract Law and the Social Insurance Law. By conducting information verification of new employees at the pre-service stage, detecting signs of child or forced labor regularly and organizing internal training to improve the awareness towards related laws and regulations, the Group achieves the goal of prohibiting child and forced labor. During the reporting period, the Group strictly complied with the Provisions on the Prohibition against Using Child Labor of the Chinese government and did not employ any person under 16 years of age. There was also no relevant case of discrimination and harassment.

During the reporting period, the Group strictly complied with the regulations including the Provisions on the Prohibition against Using Child Labor of the Chinese government. There were also none noncompliance incidents regarding employed child labors or force labors.

#### 4.3 Anti-corruption

The Group has formulated the Anti-fraud and Reporting System (《反舞弊與舉報制度》), the Ten Rules on Employee Behavior of Dynagreen (《綠色動力員工行為十誡》), the Three Importance and One Greatness Collective Decision Making Management System (《三重一大集體決策管理制度》), the Management System for Regulating Capital Flow with Related Parties (《規範與關聯方資金往來的管理制度》) and the Decision Making System for Non-Ordinary Business Transactions (《非日常經營交易事項決策制度》). Adhering to the principles of combining punishment with prevention and prevention as the first priority, the Group has determined the focus of anti-fraud as illegal occupancy or misappropriation of corporate assets, obtaining illicit benefits, false statement, material omission, abuse of power and collusion. Besides, the Party committee of the Company established a discipline inspection committee, and has further strengthened the prevention, control and management on integrity risk as well as petitioning work, gradually establishing an accountability mechanism for the construction of a clean Party work style and integrity, a promotion and monitoring mechanism for anti-fraud, which plays an effective role in anti-fraud. The Group has introduced a veto power clause to employee appraisals for clean and honest administration, strictly reviewed the processes of selection, appointment and dismissal of management and promoted the core idea of "integrity" throughout the Group. In response to the anti-corruption work of China, the Group set up the discipline inspection committee during the year, to lead the construction of a clean Party work style and integrity, earnestly perform the supervising responsibility and prevent the occurrence of fraudulent practices. During the year, the Group's discipline inspection committee assisted the Party committee in holding a warning education conference on "drawing lessons learnt from past experience to promote reforms", to further enhance the bottom-line awareness of the Group's Party members and cadres and promote the comprehensive and strict governance of the Party in a continuous and in-depth way in the Group. The discipline inspection committee of the Group successively visited six project companies in Guangyuan, Jiamusi, Shishou, Haining Expansion Project, Dongguan Changneng and Hong'an to carry out presentations on incorruptibility culture.

During the reporting period, the Group did not violate any laws and regulations relating to bribery, extortion, fraud and money laundering.



#### 4.4 Product Responsibility

The customers of the Group mainly comprise the municipal administrative authorities of the local governments and power grid companies. Pursuant to the "Concession Agreement" entered into between the Group and the municipal administrative authorities of the local governments, the Group provides waste treatment service to the municipal administrative authorities and receives waste treatment fee. The amount of processed waste is measured with the equipment monitored by the both parties and the waste treatment standards are in line with the relevant technical specifications and emission standards. There is no additional quality verification process or product recycling procedure. The "Concession Agreement" stipulates the waste treatment fee, which will be reviewed and adjusted on a regular basis.

The Group is dedicated to providing quality and professional waste treatment service to municipal administrative authorities of the local governments, so as to improve urban environment and establish our brand image. During the year, the Group passed ISO9001:2015 quality system certification, showing the capability of our quality waste disposal service. Meanwhile, we have been also protecting our intellectual property right, and applied technical patents for our research and development. The Company has been accumulatively granted 70 patent authorizations (including 17 patents for invention).

During the reporting period, the Group did not violate any regulations relating to the product liabilities.

#### 4.5 Supply Chain

The Group mainly procures various equipment, construction and installation services and consumables. The Group maintains a database of suppliers and, in accordance with the procurement processes and policies we established, selects suppliers publicly based on their merits through bidding and other manners as permitted by laws. The Group will enter into procurement contracts with the selected suppliers and make payment at the time the suppliers provide products or services. The Group values the relationship with suppliers and has established long term cooperation with them based on the concepts of "fairness and mutual benefits". We conduct irregular communication with the suppliers according to the actual situations of different projects. The Company encourages suppliers to use more environment-friendly products and services. During the year, the Group was not aware of any major violations or accidents with suppliers.

Number of suppliers	2021
<ul> <li>Mainland China and outside mainland China</li> </ul>	4,125

Note: Most suppliers of the Company are in the mainland China.



#### 4.6 Community Investment

The Group calls for the establishment of harmonious relationship among villages, communities as well as enterprises. The corporate social responsibility policy established by the Group covers the investment in community. We also actively participate in community events to show our care for the community and make contribution to community affairs. To strive for understanding and support from surrounding residents and all sectors of society, we keep proactive contact with the residents in the vicinity and invite industry experts and scholars, citizens and the media to visit the project sites at any time to accept supervision from the general public and reduce the impact of "not in my backyard" effect. At present, our projects in Haining Expansion, Tongzhou, Pingyang, Wuhan, Rushan, Anshun and Huizhou are classified as Environmental Protection Bases, while the projects in Tongzhou, Huizhou and Rushan are Science Popularization Education Bases as well, and the projects have been receiving visits from students organised by surrounding schools to spread the knowledge of garbage disposal and classification to the general public, which are very well-received.



The plant of Tongzhou Circular Economy Industrial Park has an exhibition hall of nearly 1,000 square meters for education and publicity on environmental protection and a spacious process flow line visiting corridor. In the exhibition hall, various display forms such as videos, animations, games, etc., are entertaining and educational, and comprehensively display environmental science popularization, waste-to-energy and other environmental protection knowledge, and it is open to the general public and primary and secondary school students for free.

Through a series of public activities of good-neighborliness with emotional integration, we maintain our longterm positive interaction with citizens, establishing harmonious relationship between villages and enterprises as well as between communities and enterprises. The relationship not only significantly boosts the brand image of the Group as a responsible corporate, but is also conducive to cracking the "not-in-my-backyard" predicament, turning the negative attitude into positive.



## 5 INDEX OF THE ESG REPORTING GUIDE OF THE HONG KONG STOCK EXCHANGE

Aspects		Section	Remarks
Α	Environmental		
Aspect A1:	General Disclosure	3.2	
Emissions	Information on:		
	(a) the policies; and		
	<ul> <li>(b) compliance with relevant laws and regulations that have a significant impact on the issuer</li> </ul>		
	relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.		
KPI A1.1	The types of emissions and respective emissions data.	3.2.1 3.2.5	
KPI A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	-	Greenhouse gas KPIs are not identified as material issues of the Group. We will continue to observe regulatory changes to update any disclosures needed in the future.
KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	3.2.5	
KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	3.2.5	
KPI A1.5	Description of emissions target(s) set and steps taken to achieve them.	3.2.1	
KPI A1.6	Description of how hazardous and non- hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	-	Fly ash and slag are mainly produced by waste incineration, and the amount produced is related to the waste components (ash and non-combustible components Comprehensive utilization of slag is a measure for

emission reduction. Fly ash is a hazardous waste. At present, as there is no clear resource recovery process for fly ash, there is no emission reduction target for the time being.



Aspects		Section	Remarks
Aspect A2:	General Disclosure	3.2	
Use of Resources	Policies on the efficient use of resources, including energy, water and other raw materials.	3.3	
KPI A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in'000s) and intensity (e.g. per unit of production volume, per facility).	3.3.4	
KPI A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	3.3.4	
KPI A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them.	-	The Group will formulate new targets for plant power consumption rate, power generation and power generation per ton of waste for project companies every year depending on different circumstances.
KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.	3.3.1	The situation of each project company is different. Generally, the project companies conduct clean production on a regular basis to reduce the water consumption rate per unit of power generation.
KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	-	Our operation does not involve the use of packaging material.
Aspect A3: The Environment and Natural Resources	<b>General Disclosure</b> Policies on minimising the issuer's significant impacts on the environment and natural resources.	3.4	
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	3.4	



Aspects		Section	Remarks
Aspect A4: Climate Change	<b>General Disclosure</b> Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	_	Climate change KPIs are not identified as material issues of the Group. We will continue to observe regulatory changes to update any disclosures needed in the future.
KPI A4.1	Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	-	Municipal waste-to-energy business can realize the harmless treatment, reduction treatment and resource utilization of municipal waste, which is conducive to reducing greenhouse gas emissions.
B Social			
Aspect B1: Employment	General Disclosure	4.2.2	
Employment	Information on:		
	(a) the policies; and		
	<ul> <li>(b) compliance with relevant laws and regulations that have a significant impact on the issuer</li> </ul>		
	relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti- discrimination, and other benefits and welfare.		
KPI B1.1	Total workforce by gender, employment type (for example, full – or part-time), age group and geographical region.	4.2.2	
KPI B1.2	Employee turnover rate by gender, age group and geographical region.	4.2.2	
Aspect B2:	General Disclosure	4.2.1	
Health and	Information on:		
Safety	(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.		
KPI B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	4.2.1	





Aspects		Section	Remarks
KPI B2.2	Lost days due to work injury.	4.2.1	
KPI B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored.	4.2.1	
Aspect B3:	General Disclosure	4.2.3	
Development and Training	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.		
KPI B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	4.2.3	
KPI B3.2	The average training hours completed per employee by gender and employee category.	4.2.3	
Aspect B4:	General Disclosure	4.2.4	
Labour Otawalawala	Information on:		
Standards	(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.		
KPI B4.1	Description of measures to review employment practices to avoid child and forced labour.	4.2.4	
KPI B4.2	Description of steps taken to eliminate such practices when discovered.	4.2.4	
Aspect B5:	General Disclosure	4.5	
Supply Chain Management	Policies on managing environmental and social risks of the supply chain.		
KPI B5.1	Number of suppliers by geographical region.	4.5	
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	4.5	
KPI B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	4.5	
KPI B5.4	Description of practices used to promote environmentally preferable	4.5	
	products and services when selecting suppliers, and how they are implemented and monitored.		



Aspects		Section	Remarks
Aspect B6: Product Responsibility	General Disclosure	4.4	
	<ul> <li>(a) the policies; and</li> <li>(b) compliance with relevant laws and regulations that have a significant impact on the issuer</li> </ul>		
	relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.		
KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	_	The Company is not involved in downstream consumption.
KPI B6.2	Number of products and service related complaints received and how they are dealt with.	_	The Group has not received complaints about products or services.
KPI B6.3	Description of practices relating to observing and protecting intellectual property rights.	4.4	
KPI B6.4	Description of quality assurance process and recall procedures.	4.4	
KPI B6.5	Description of consumer data protection and privacy policies, and how they are implemented and monitored.	_	The Company does not involve downstream consumers.
Aspect B7:	General Disclosure	4.3	
Anti-corruption	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.		
KPI B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	4.3	
KPI B7.2	Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	4.3	
KPI B7.3	Description of anti-corruption training provided to directors and staff.	4.3	



Aspects		Section	Remarks
Aspect B8: Community Investment	<b>General Disclosure</b> 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.	4.6	
KPI B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	4.6	
KPI B8.2	Resources contributed (e.g. money or time) to the focus area.	4.6	

