



愛德新能源投資控股集團有限公司

Add New Energy Investment Holdings Group Limited

(Incorporated in the Cayman Islands with limited liability)

Stock Code: 2623

ENVIRONMENTAL, SOCIAL
AND GOVERNANCE REPORT

2021



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Environmental, Social and Governance Report

Add New Energy Investment Holdings Group Limited

Environmental, Social and Governance Report

2021



Environmental, Social and Governance Report

ABOUT THIS REPORT



Blossoming Flowers (Yangzhuang Iron Mine)

Reporting Standard

We are pleased to present our Environmental, Social and Governance (ESG) report to stakeholders. This report has been prepared in accordance with the “Environmental, Social and Governance Reporting Guide” under Appendix 27 to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited. Our sustainability approach emphasizes workplace health and safety, environmental protection, and creating a harmonious relationship in our host community. We expect to inspire the entire mining industry to join the action of green mine construction.

Reporting Scope

Our report covers the sustainability performance of our Yangzhuang Iron Mine in Shandong Province, PRC from 1 January 2021 to 31 December 2021, unless otherwise stated. We have outsourced exploration, blasting and mining works of Yangzhuang Iron Mine to contractors; hence these activities are not included in our reporting scope. The Zhuge Shangyu Ilmenite Mine owned by the Group has no production volume in the year, while Qinjiazhuang Ilmenite and the Gaozhuang Shangyu Ilmenite, also owned by the Group, remained dormant in production, therefore they are not included in the reporting boundary of this report.

Environmental, Social and Governance Report

Reporting Principles

In preparation of this Report, due diligence has been taken to adhere to the Reporting Principles stipulated in the ESG Reporting Guide:

- “Materiality” – The materiality assessment detailed on pg. 5 has ensured the Report addresses the most material ESG topics pertaining to our businesses.
- “Quantitative” – The Report strives to disclose quantitative metrics and related targets whenever possible, to demonstrate our impact.
- “Balance” – The Report presents an unbiased representation of our ESG management approach and performance. It avoids misleading omissions and presentation.
- “Consistency” – Whenever deemed material, the Report details the standards, tools, assumptions and/or source of conversion factors used, as well as explanations of any inconsistencies to previous reports.



Environmental, Social and Governance Report

Materiality

In order to identify the material themes to be disclosed in this report, we conducted stakeholder engagements. These engagements aim to understand our stakeholders' concerns, prioritize the material topics, and decide the material themes. We conducted survey and workshop during this process, especially by engaging with our employees and department heads. Four material themes with prioritized topics are confirmed as follow: About Our Business, Internal and External Governance, Relationship with People and Relationship with the Environment.

ESG aspects set out in the ESG Reporting Guide	Material Themes	
A. Environment	A1: Emission A2: Use of resources A3: The environment and natural resources A4: Climate change	Relationship with the Environment
B. Social	B1: Employment B2: Health and safety B3: Development and training B4: Labour standards	Relationship with People
	B5: Supply chain management B6: Product responsibility B7: Anti-corruption	Internal and External Governance
	B8: Community investment	Relationship with People

We plan to engage more of our external stakeholders in further materiality analysis processes, including investors, customers, suppliers, communities, government, institutions, media and society. We will also strengthen our stakeholder engagement measures to include online survey and site visits.

For more information about our social and environmental responsibility, please refer to the Group's official website: www.addnewenergy.com.hk.

Confirmation and Approval

Information contained in this report was sourced from official documents and statistical data of the Group, and from managerial and operational information aggregated in accordance with systems of the Group. This report was approved by the Board on 31 May 2022.

Opinion and Feedback

The Group values the opinion of stakeholders. If any stakeholder has any feedback or suggestions on the ESG Report, please send them to the principal place of business in Hong Kong of the Company at Suite 3105, 31/F, Tower 6, The Gateway, Harbour City, 9 Canton Road, Tsim Sha Tsui, Kowloon, Hong Kong. Your feedback or suggestions would greatly help the Group continuously improve its ESG performance.

Environmental, Social and Governance Report

APPROACH TO SUSTAINABILITY

Our Management Approach

The Board takes the overall responsibility for the oversight of the Group's ESG matters, including policies, measures, performance and risks. Through regular board meetings, the Board evaluates and reviews ESG matters as appropriate.

Our Sustainability Mission

The management of the Group integrates the concept of sustainability into the business operation and daily operation, and actively responds to the carbon neutrality target in the 14th Five-year Plan of China. In this reporting year, the Group joined the Greater Bay Area Carbon Neutrality Association as a founding member, The Group actively explores the development of the new energy industry, fully practices the enterprise mission of clean energy construction and operation, and strives for the green transformation of the region and the country.

Our Achievement

The Group was awarded the InnoESG Care Prize 2021, commending our performance in ESG aspects. The InnoESG Prize is jointly organized by SocietyNext Foundation and other companies, and aims to encourage companies to reform their core businesses in innovative ways by adapting or incorporating into the sustainable development/environmental, social and governance categories. The Group has been committed to achieving a sustainable society for years. Through corporate social responsibility projects and environmental protection measures, it has joined hands with stakeholders to contribute to a sustainable future and was recognized by the judges.



Add New Energy is one of the Founding Members of GBA Carbon Neutrality Association



Add New Energy was awarded the InnoESG Care Prize 2021

Environmental, Social and Governance Report

Our Stakeholder Engagements

We value constructive opinions from both our internal and external stakeholders and shareholders. We strive to improve our engagement measures with our investors, customers, suppliers, employees and communities, etc. to learn more about their opinions on our business. The integration of stakeholders' opinions will help us in formulating a sustainable business. During this reporting year, we engaged our stakeholders on an ongoing basis via different kinds of channels as below.

Stakeholders	Specific Stakeholder Groups	Engagement Methods
Investors	Shareholders	Online media and road shows
Customers	Steel Manufacturers	Service hotline Online media
Suppliers	Facility suppliers Contractors	Supplier questionnaire Site visits to suppliers
Employees	Frontline workers Administrative staffs Senior managers Directors	Routine general meeting Satisfaction survey HR interview Department director interview
Communities	Neighboring counties	Community activities
Research Institutions	Academic institutions Industry associations	Cooperation in study Investment in research
Government and Other Publics	Local governments	Online media

Environmental, Social and Governance Report

ABOUT OUR BUSINESS

Business Perspective

We are the largest private-owned iron ore and titanium producer in Shandong Province, PRC. Our currently owned mines include Yangzhuang Iron Mine, Zhuge Shangyu Ilmenite Mine, Qinjiazhuang Ilmenite Mine and Gaozhuang Shangyu Ilmenite Mine. Principally engaged in iron and ilmenite ore exploration, mining and processing, we focus on producing iron concentrate and plan on developing titanium concentrate business. Our products are sold directly to iron pellets and steel producers.



In Shandong Province, PRC
Yangzhuang Iron Mine,
Zhuge Shangyu Ilmenite Mine,
Qinjiazhuang Ilmenite Mine,
and Gaozhuang Shangyu Ilmenite Mine

Our major operation in this reporting year focused on Yangzhuang Iron Mine. In response to the global iron concentrate market downturn, we have not explored and produced any ore in this reporting year. We exercised appropriate control on production and processing, in order to be well prepared for the production in a boom market. To further maintain the operation, we took the opportunity and had actively managed the resources effectively and conducted the business of trading where 414,600 tons of iron concentrate were produced. 1,477,600 tons of coarse iron powder, 51,200 tons of semi-coke and 26,600 tons of blended coal were traded in this reporting period.

Environmental, Social and Governance Report

Environmental and Social Expenditures

We manage our impacts, both positive and negative, from the planning to the completion stage of our mining projects (more information can be found in the “Relationship with People” and “Relationship with the Environment” sections). Our commitment to sustainability is reflected in our investment of over **RMB53.4 million** since the company was established. Of this total, approximately **RMB52.2 million** was spent on natural resources preservation and ecosystem reclamation, and approximately **RMB1.2 million** was used to develop neighboring communities.

Types of our environmental expenditures include but not limited to:

- Cooperation with scientific and research institutions to improve ore processing techniques and preserving mineral resources;
- Innovation of patented tailing dry discharge system, saving water resources and minimizing tailing dam break;
- Afforestation to offset Greenhouse gas emissions;
- Land reclamation to enhance soil fertility;

Types of our social expenditures include but not limited to:

- Environmental management for neighboring community;
- Poverty relief, education system construction and activity sponsorship for the community.

Environmental and Safety Licenses

Our licenses, including new exploration permits and mining rights of existing ones, are subject to environmental impact assessments and safety production permits offered by local governmental departments. These processes ensure our compliance with relevant legal regulations, and provide an opportunity to reassert our corporate responsibility and commitment to developing a sustainable green mine.

At present, we have the exploration and mining right of Yangzhuang Iron Mine, which has an approved annual mining production scale of 2.3 million ton. Currently, the mining license and safety production permit of Yangzhuang Iron Mine are under the procedure for renewal. Due to market reasons, we have not taken any mining activities in 2021.

Our Independent Third Party Blasting Contractor has obtained the blasting qualification certificate and blasting permits under the relevant PRC laws and regulations required to carry out their blasting work at our Yangzhuang Iron Mine.

Environmental, Social and Governance Report

INTERNAL AND EXTERNAL GOVERNANCE

Ethics and Conduct

We believe that honesty, integrity and justice are valuable assets for our long-term development. All employees should conduct in a manner free from bribery, extortion, fraud, money laundering, disloyalty and corruption to uphold the Group's reputation and value. We have set employee discipline policies and management system to prevent, monitor and report any misconduct in our daily operation.

In this reporting period, we have held anti-corruption training for general staff to enhance awareness and knowledge on anti-corruption. Due to the impact of COVID-19, directors were unable to participate in offline training this year. We will arrange anti-corruption training for directors and general staff next year.

Since company establishment, there is nil complaint or legal case regarding corrupt practices brought against the issuer or its employees.

0 Legal Cases

Suggestions or complaints from stakeholders are welcomed through our hotline, email or by mail. We take a fair view and active response towards all suggestions and complaints, and all personal information will be kept completely confidential.

Supply Chain Management

Suppliers, as an integral part of our stakeholders, act as the cornerstone towards our sustainable business development. As our suppliers contribute indirectly to our environmental and social impacts, we have set up policies and measures to ensure suppliers conform to all legal regulations and our supplier selection standards. These measures include surveys and site visits to supplier factories, in order to keep our supplier accountable for product quality management, environmental and employment responsibilities, as well as community development.

Environmental, Social and Governance Report

One example of our efforts in reducing supplier’s environmental impact – we are concerned about the carbon footprint produced by goods transportation from suppliers to us. Currently there are 78% processing facility suppliers and 82% office facility suppliers stationed within Shandong Province, thereby reducing unnecessary indirect GHG emissions.

Besides our facility suppliers, we care about our contractors. Blasting and mining contractors, as part of our most important suppliers, are responsible of undertaking blasting and mining works at Yangzhuang Iron Mine. We hold regular safety meetings in ten-day periods with our blasting and mining contractors to ensure that all of their activities are under safe operation and strengthen their coping capacity during emergency situations.

Number of suppliers

Mainland China	72
Other region	0

Responsibility to Our Product

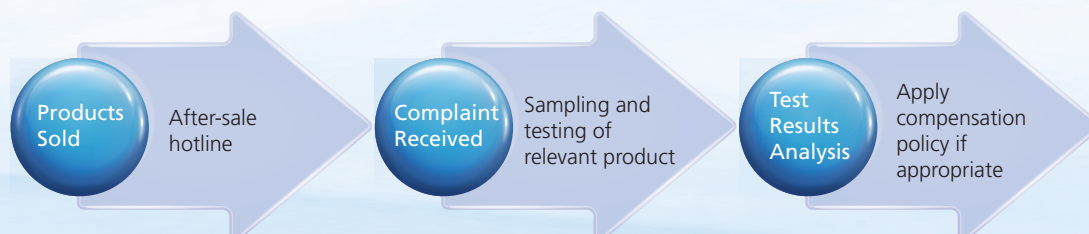
Production Quality Assurance

Producing high quality products give our stakeholders confidence, and is our ultimate pursuit as well. Based on internal governance and supply chain management as cornerstones, we conduct rigorous quality assurance management to further ensure our product quality. Our product quality management first ensures that staff activity is conducted in a systematic manner, followed by routine inspection and equipment maintenance and upgrades. In addition, trainings are provided to develop staffs’ technical skills and to raise their overall awareness for product quality throughout the production processes. Through these approaches, we are able to manage and prohibit any unqualified products from reaching our customers. All products sold comply with relevant laws and regulations, and fully satisfy the needs of our customers.

After-sale Services

In order to improve our after-sale services, we formulated management policy for complaints from customers and regulatory authorities respectively. We take responsive actions to resolve any quality-related issues, in order to maintain a harmonious and steady relationship with our customers. When issues arise, we will sample and test relevant products. All verified cases of quality issues caused by our company, compensation will be made to customers according to relevant policies.

With captioned management in place, no product or service has ever been returned or complaint received in the reporting period, neither has any product sold been recalled for safety or health reasons.



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Privacy

In order to protect customer's privacy, we formulated a management system according to relevant archives management and confidentiality work regulations. Customer files are generally kept in password-protective archives by specific personnel.

When handling confidential information, we require our employees to comply with applicable laws and regulations. To preserve confidentiality, we only collect and keep information of our business partners and customers that is necessary in the business activities. Prior to data collection, informed consent from the relevant stakeholders is obtained to ensure they understand the purposes of collecting the data and how such data would be used.

Technology Innovation

We coordinated with the Institute of Process Engineering, China Academy of Sciences to research in technological innovation for enhancing iron concentrate and strengthening the company's competitiveness in the industry. We also worked with Siberian Division of the Russian Academy of Science to introduce new processing technologies. Our investments in these areas both improved product quality and decreased processing cost as well.

Protection of Intellectual Property Right

In order to strengthen the protection of intellectual property rights and standardize intellectual property management, we have established an intellectual property rights department and internal policies. Our intellectual property rights include:

1. Patent rights and technology secrets;
2. Trademark rights and know-how;
3. Copyright (including computer software & programmes); and
4. Other intellectual properties related to national laws and regulations.

In particular, our tailing dry discharge system has obtained a national patent in PRC, and has substantially improved our utilization rate of water and mineral resources.

We also encourage our employees to initiate, create and promote the application of scientific and technological achievements. Every staff should heed their responsibility of intellectual property right management in the course of their duties.

Environmental, Social and Governance Report

RELATIONSHIP WITH PEOPLE

Health and Safety

Recognizing the inherent hazards in the mining industry, we regard employees' health and safety as our highest priority. In order to ensure the occupational safety and health of our employees, we enhance safety management to reduce and eliminate accidents, enhance property security and avoid occupational diseases based on comprehensive personnel safety and health management policies.



0

Number of deaths due to work in the past three years including the reporting year

0

Number of working days lost due to work injury

Under the core policy of "Safety first, Prevention-oriented and Comprehensive Management", a responsibility distribution system was set up in which directors at all levels, engineers and technicians take up their responsibilities in safety production. Under this responsibility system, the entire production process will be regularly inspected and every person in charge of an operation will be regulated if his or her dereliction of duty was found.

Environmental, Social and Governance Report



To implement our safety policy, our detail approaches to enhance employee occupational safety are as follows:

- Developing emergency rescue plans and regularly holding exercises;
- Holding regular safety meetings;
- Providing education and trainings for employees;
- Holding safety meetings regularly with our blasting and mining contractors;
- Organizing physical examination on occupational hazards for employees before, during and after operations;
- Setting up emergent sheltering system, monitoring and inspection system, personal location system (PLS), communication system, water and air supply system for the worker(s) underground;
- Upkeeping underground drainage system to prevent flooding;
- Building specific rooms and corridors for safety education and promotion; and
- Keeping record of distribution and condition of personal protective equipment.

Not only do we care about employees' physical health and providing safe working conditions, we also care about employees' mental health. To that end, we provide mental health management, including regular communication with and holding health seminars for our employees. Under our comprehensive health management system, our employees are able to maintain both physical and mental well-being, and also record no occupational fatality or lost-time injury in the reporting year.

Environmental, Social and Governance Report

Employment Relations

We value our human resources, which is reflected in our people-oriented management philosophy. We formulated rigorous regulations on recruitment and employment processes to standardize recruitment procedures and avoid any unfair recruitment issue as well as optimally strengthen the Company's core competitiveness. We mainly emphasize an open recruitment process in compliance with employment recruitment regulations. The HR department is responsible for the recruitment process while the supervisory department conducts handle internal audit on the process. If any process is found to be against regulations, including recruitment of juveniles under the age of 16, forced labour and illegal labour, the HR department and the supervisory department would have a joint investigation and implement disciplinary measures according to regulations.

To further establish a harmonious labour relationship, all of our employees enjoy equality in career development and promotion regardless of gender, age, region, position or employment type. Meanwhile, to preserve the positivity and creativity of employees, and to encourage them to fully develop personal intelligence and talents, our reward and welfare distribution mechanisms are strictly based on personal contribution and performance.

To protect employees' legal rights, we have set up employee social security management regulations as per relevant national regulations, guaranteeing to ensure employees' due benefits. Also, in order to guarantee employees' human rights and to improve their working efficiency, we have formulated regulations to standardize employee off-duty management.

Environmental, Social and Governance Report

Staff Activities



Staff chorus on International Labor Day

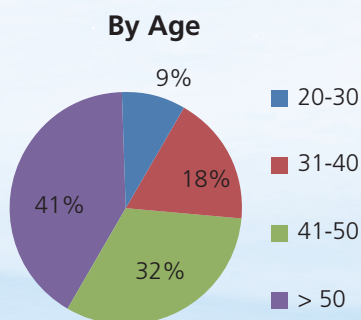
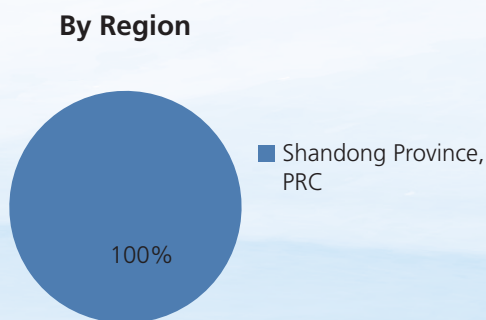
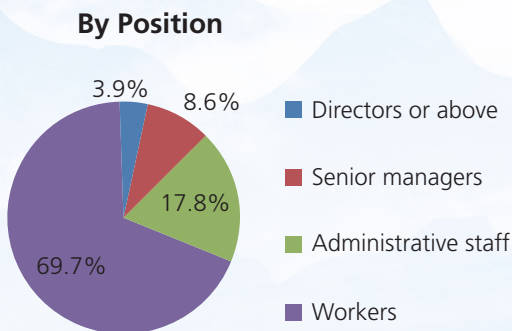
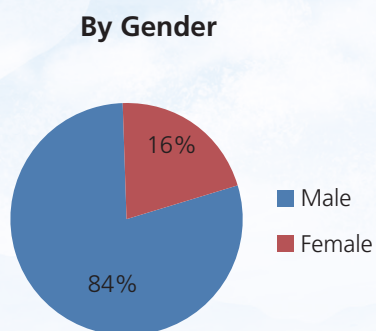


Celebration of International Women's Day

Environmental, Social and Governance Report

By the end of this reporting year, we had a total of 152 workers excluding our contractors, with the following distribution characteristics:

Category	2021 Employment Data
Total	152
By Gender	
Male	128
Female	24
By Position	
Directors and above	6
Senior Managers	13
Administrative Staff	27
Workers	106
By Age	
Between 20-30	13
Between 31-40	28
Between 41-50	49
Above 50	62
By Region	
Shandong Province, PRC	152
Other regions	0



Environmental, Social and Governance Report

Turnover Rate

By the end of this reporting year, our turnover rate was 2%.

Category	2021 Turnover Rate (%)
Total	2%
By Gender	
Male	2.3%
Female	0%
By Position	
Directors and above	0%
Senior Managers	7.7%
Administrative Staff	0%
Workers	1.9%
By Age	
Between 20-30	0%
Between 31-40	3.6%
Between 41-50	4.1%
Above 50	0%
By Region	
Yishui County, Shandong Province, PRC	2.0%
Other regions in the PRC	0%

Our HR department has hold regular discussions and communications with employees and conduct annual satisfaction survey. At the end of each year, there would be an investigation sampling all employees on their opinions towards the Group's management, policies, culture, welfare and environment, etc. This communication approach helps the management to better understand its employees, and thereby reducing turnover rate. In this reporting year, types of investigations including face-to-face conversation, satisfaction questionnaire had been applied. The investigations involved 70 people and the results showed that employees reached a good balance of work and life, reflecting a positive feedback on the management of the company.

Environmental, Social and Governance Report

Training and Development

We believe in the continuous development of employees, as the more well-equipped our employees are, the more efficient the company would become. Numerous benefits include enhancing employee self-satisfaction, improving their working performance, avoiding occupational accidents, while also enhancing our human resources competitiveness which is ultimately beneficial to company sustainable development. We therefore developed employee training management regulations and afford comprehensive training courses to sustain the development of our employees.

All of our employees participated in internal training courses with an annual average of 106 hours in the reporting year. All of our staff are protected under equal opportunity policy, which shows no discriminatory treatment in gender.

During the reporting period, the Group achieved the following indicators of employee development and training.

Number and percentage of staff that received training

Number of staff that received training	152
Percentage of staff that received training	100%

	Percentage of staff that received training by position	Average training hours completed per employee by position (Hour)
Directors and above	100%	150
Senior Managers	100%	150
Administrative Staff	100%	100
Workers	100%	100

	Percentage of staff that received training by gender	Average training hours completed per employee by gender (Hour)
Male	100%	107
Female	100%	104

Environmental, Social and Governance Report

Community Engagement

In pursuit of building a good relationship between the Group and the local community for a win-win situation, we make every effort to create a green and harmonious environment to drive the region's environmental, social and economic development simultaneously. In the recent several years, the Group has undertaken the following tasks:

Caring about and supporting public education, we had donated a culminated amount of RMB121,000 to the public education development within Yangzhuang Iron Mine's neighboring community – Yishui County, including construction of several community schools. In addition, we have also provided relief funds for poor families, scholarships to students from excellent community families who are admitted to universities, and donated RMB1.2 million to college students.

400 employment opportunities were made available to residents in nearby communities in recent years. Among these employment positions, around 160 were offered for Qinjiazhuang, 50 for Shuiniu, 38 for Gongdan Mountain, and 120 for other villages – priority is given to residents of nearby communities in our development.

To develop a sustainable environment, we invested over RMB120,000 in environmental management of neighboring communities. We not only take comprehensive utilization of our by-products to mining reclamation and provide self-planted fruits and vegetables to villagers for free, but we also invested in greening barren mountains, greening villages and providing haze disaster relief, etc.

For poverty relief and charities, we had contributed over RMB443,500 for relieving lonely elderly without family and constructing community facilities.

To further contribute to society and benefit the community while improving the Group's image, we had contributed over RMB700,000 for community activities for and also took an active part in these activities.



Land reclamation – flower scent in Yangzhuang Iron Mine

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RELATIONSHIP WITH THE ENVIRONMENT



Flowers blossom in the Spring Season (Yuanzhuang Iron Mine)

Resource management

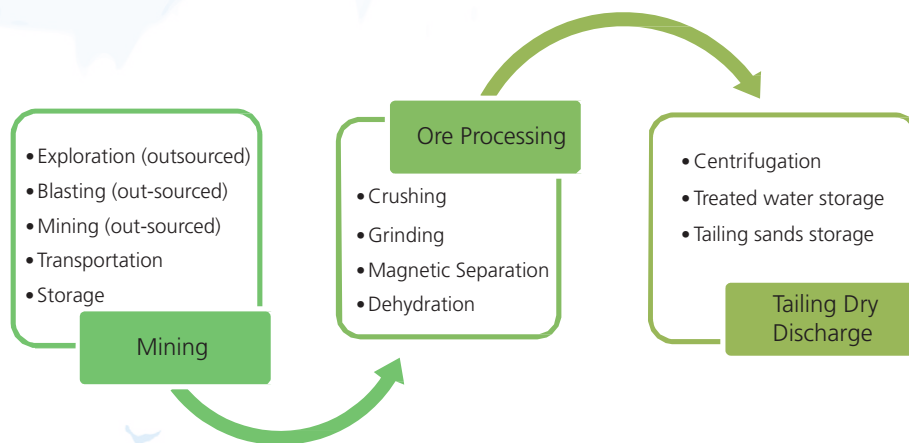
We rely on the environment for existence, well-being and development. Thus, in the mining business where environmental degradation is a particular concern, we adhere to policies to protect the environment in parallel with our business development. We carried out environmental management initiative both within our Group boundary and in surrounding community – offer our people a green working condition, our community a green living condition, and our industry a more competitive position in international market.

Resource Consumption and Intensity

2021

Water (mining, processing, municipal use)	28,964 m3
Water intensity (per ton output)	0.0241 m3/ton
Electricity (mining, processing, municipal use)	5,951,794 kWh
Electricity intensity (per ton output)	4.960 kWh/ton
Petrol (transportation use)	220,102 kg
Petrol intensity (per ton output)	0.183 kg/ton
Diesel (transportation use)	36,043 kg
Diesel intensity (per ton output)	0.030 kg/ton

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Our production activities mainly include mining, ore processing and tailing dry discharge, and their respective potential environmental impacts.

1. Potential impacts on air quality:
 - Particulate matters (PM) produced and emitted during mining and ore processing stages
 - Greenhouse gases (GHG) produced and emitted in all operation stages
 - Air pollutants produced and emitted in the blasting and transportation steps
2. Potential impacts on water resources:
 - Reduction in underground water availability in the exploration and blasting steps
 - Change in surface and underground water dynamics in the exploration and blasting steps
 - Degradation of water quality during the ore processing stage
3. Potential impacts on land:
 - Land occupation by treated water and tailing sands storage
 - Change of geographical structure in exploration and blasting steps
4. Potential impacts on ecosystem:
 - Habitat loss in mine operation area and outside mine operation area
 - Loss in fauna and flora richness, diversity and population
 - Fragmentation of ecosystems

We have set up dedicated measures to avoid and reduce environmental impacts in these aspects, details of which are introduced in the following sections.

Environmental, Social and Governance Report

Water Resources Management



Spring lake (Yangzhuang Iron Mine)

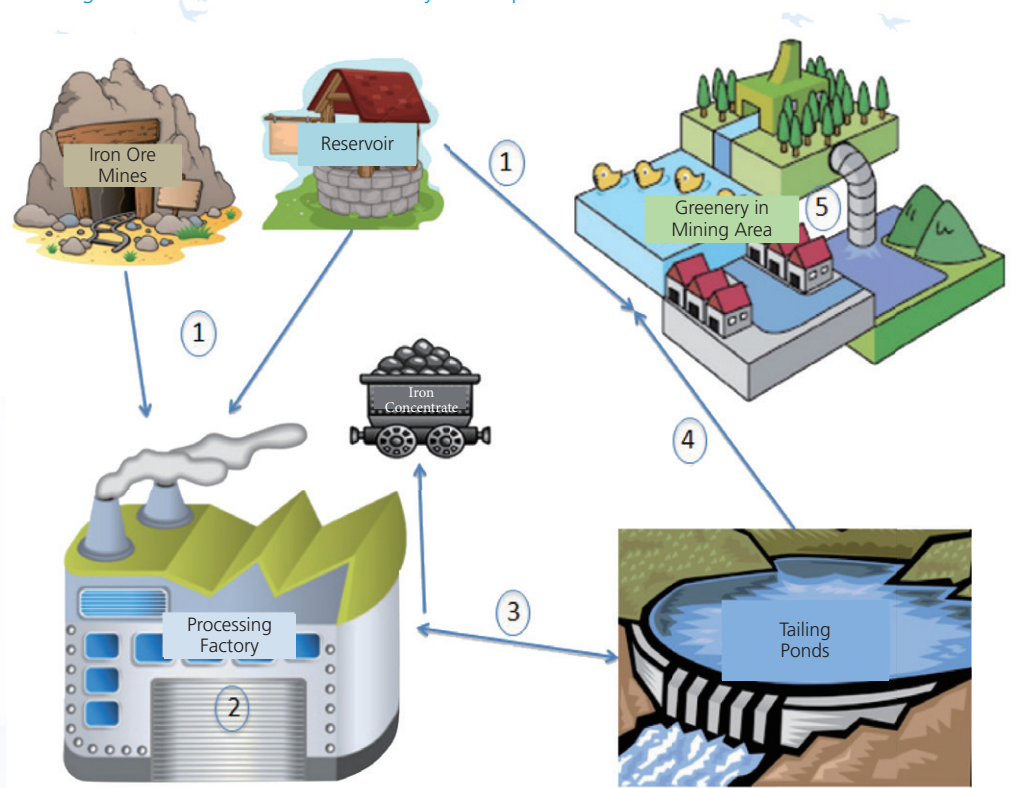
Zero sewage discharge as one of the first listed green mine in China, truly reflects our fundamental principle of “Reduce and Reuse Water”. Here we specified zero sewage discharge in processing activities and municipal sewage, which were collected and directed to our tailing dry discharge system and municipal sewage treatment facilities respectively. Amount of water used for dust suppression mitigation measures is considered minimal and evaporates quickly, and thus is not discussed in the report.

Environmental, Social and Governance Report

We have no issue in sourcing water. We aim at to enhance water efficiency and reduce water consumption by the following directional targets:

- Using reclaimed water for daily operation
- Reducing water consumption by increasing the use of water saving equipment
- Maintaining water intensity level by increasing the proportion of water efficient equipment

Our mining method utilizes physical processes, thus eliminating any impact potentially induced by chemical processes. We invented water reclamation and tailing dry discharge system to achieve zero sewage discharge and maximize utilization of tailing sands. The water utilization cycle is operated as follow:



Environmental, Social and Governance Report

1. Collect underground water from rain water, reservoir and mines for mining and processing use, while some well water is used for daily purposes;
2. Water is used in the iron ore extraction process; and waste water is collected by recycling equipment;
3. Waste water from processing factory is treated by tailing dry discharge system to separate water and tailing sands, and treated water is stored in tailing ponds for recycling use in processing factory;
4. Part of treated water from tailing pond will be inputted in our artificial lake;
5. In addition, our domestic sewage will be treated by our owned treatment plant and then to be used for irrigation.

Our water reclamation and tailing dry discharge system is not only certified as a national patent, its treatment capacity also fully meets the amount of water needed for our production in the reporting year, achieving complete utilisation of recycled water in production. Water quality of both water resources and treated sewage comply with relevant national standards and are eligible to be used for corresponding production, daily living and greenery purposes.



Climate Change, Energy and Mineral Resources

Mutual balance between energy use and climate change is crucial for our long-term sustainability. We made every endeavor to improve our resource and energy utilization rate, thereby contribute in slowing down the pace of climate change.

Climate Change: We recognize that climate change may influence its operation and business. It could lead higher frequency of extreme weather events which may affect the safety and health of our employees and daily operation. To deal with the climate change challenges, we will focus on enhancing energy efficiency and strengthening resource recovery to reduce emissions. We will consider and develop climate-related policy to identify risk and opportunities for low-carbon transformation, including physical risk and transition risk. Also, we will monitor the latest policies and standards to ensure the business will be able to fulfil relevant requirements.

Resources Utilisation: We apply short-hole shrinkage mining and sublevel room mining to increase our resource utilization rate – mining recovery rate was increased thereby maximizing utilization of measured iron ore resources and extending the mine's service life.

Energy Utilisation: We understand that corporate reduction in Greenhouse gas (GHG) emissions can have a major influence on combating global warming and climate change. Therefore, we are dedicated to decrease our own GHG emissions, as well as encouraging our stakeholders to do so. Measures we took to reduce GHG emissions are as follow.

Environmental, Social and Governance Report

We conducted preliminary iron ore selection at mining process – by taking out part of waste rocks, the ore quantity needed for grinding has decreased significantly. This achievement helps to cut down our cost on energy usage and electricity, reduce direct Greenhouse gas emission and air pollutants.

We used more crushing and less grinding procedures in iron ore processing. This approach helps to reduce electricity consumption and respective GHG emissions for achieving specified iron ore granularity. It also helps to enhance the efficiency of magnetic separation to improve product quality.

Being one of the State Green Mine in China, large quantities of selected flora are planted within site boundary. This laid the foundation in conducting carbon removal to offset our GHG emissions. For details of afforestation, please refer to the “Biodiversity and Land Use” section.

We have set out strategies to reduce emissions and energy consumption by following directional targets:

- Maintaining (or lowering) consumption level of energy compared to last year
- Replacing traditional fossil fuels with cleaner fuels
- Taking utilisation of a greater proportion of renewable energy
- Optimizing mining and iron ore processing process to reduce electricity consumption



Almond flowers white like clouds (Yangzhuang Iron Mine)

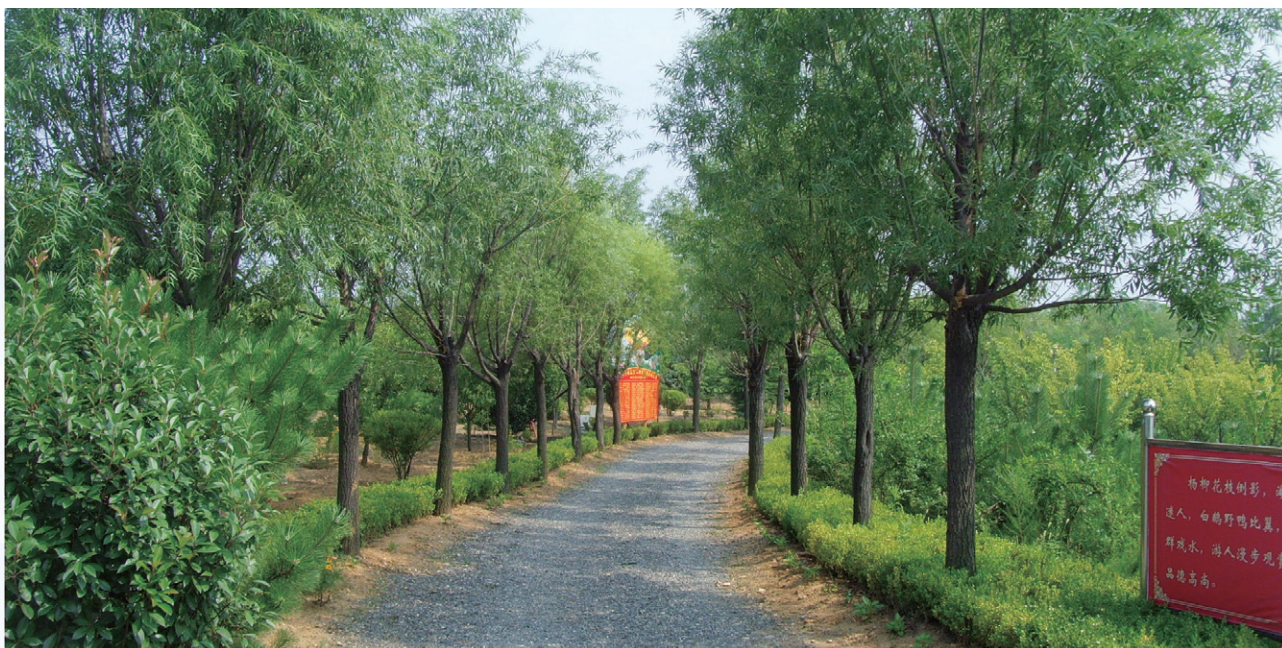
Environmental, Social and Governance Report

GHG Emissions	2021
Scope 1 Stationary Sources (Tons of CO ₂ e)	923.45
Scope 2 Non-renewable Grid Electricity (Tons of CO ₂ e)	5,605.99
Total (Tons of CO₂e)	6,529.45
CO ₂ e/total output (tons of CO ₂ e/ton)	0.0054

Remark:

(a) The scope of data does not include exploration and blasting works outsourced to our contractors;

Based on our current consumed energy type, we are moving forward to take utilisation of renewable energy (e.g. wind power electricity generation) to partly substitute existing energy types.



Tree-lined road (Yangzhuang Iron Mine)

Other Emission

Our air pollutants during operation are mainly particulate matter (PM) arising from mines and outdoor storage yards. Those PM were controlled by water spray. Those arising from processing factories would initially be controlled by water spray, then collected by dust collecting tower and emitted with compliance to relevant national standards. Our owned vehicles were installed with exhaust gas purifier and emitted minimal SOX and NOX which are not recorded at this stage. Since the exploration, blasting and mining processes were outsourced to our contractors, the air pollutants are not included in this reporting year.

Environmental, Social and Governance Report

Our non-hazardous emissions mainly composed of municipal waste.

Waste rocks were used for paving roads; tailing sands and mud cakes were used for gob stowing and land reclamation. These comprehensive utilisations of all processing by-products minimised formation of tailing dams, thereby reducing land demand and potential risks of tailing dams break.

Municipal wastes of office buildings and living area are collected by regional refuse station.

During the reporting year, the Board has participated in training on reducing paper consumption – Paperless listing and Subscription Regime, Online Display of Documents and Reduction of the Types of Documents on Display. Besides, starting from 2020, the Group's ESG reports have been changed to electronic versions to help reduce resource consumption and waste generation.

No hazardous emissions were produced as only physical processes instead of chemicals were adopted in our mining processing factories.

We are committed to promoting low-waste environment. We will mitigate the adverse environmental impacts with following directional targets.

- Upgrading raw materials from substandard products or waste
- Reuse raw materials from mining process to reduce waste
- Maintaining (or lowering) non-hazardous waste intensity compared to last year

As identified by our materiality assessment, packaging is not a material issue to our operations. Thus, we do not disclose data in this report.



Environmental, Social and Governance Report

Biodiversity and Land Use

The nature of our business principally has impact on local physical environment, which in turn has influence on its biotic environment. Without a proper management system, the ecosystem may become imbalanced, culminating in irreversible environmental impact. Thus, we put emphasis on the protection of our lands and biodiversity through prevention, control, mitigation, and compensation. In recent years, we invested over RMB52 millions in natural resources preservation (water source, mineral sources, etc.) and ecological construction.

- 100% greening of afforestation area;
- 100% recycling water for operation afforded by our patented tailing sand dry discharge system in this reporting year;
- High ore dressing recovering rate, improving mineral resource utilization rate;
- Over 200,000 trees and other plants were planted on our own initiative;
- Geographical remediation and afforestation to Gong Dan Mountain, including **9,500 m²** slope surface arrangement, **1,280 meters** mine cracks control, **15,425 m³** blasting perilous rocks, **3,900 m³** earthwork backfilling, and afforestation including **10,479 m²** grassing, etc;
- Landscapes of mining areas on both visual sides of highways were comprehensively afforested.

For open-pit mining environment and tailing dams which were adopted before the establishment of the company, we applied afforestation to outdoor mining area; and slope cutting, broadening, strengthening, and afforestation of tailing dams to minimise potential dam break concerns. All our achievements were witnessed by government and community, and we eventually became one of the first mining companies being certified as “State Green Mine” by Ministry of Land and Resources and China Mining Association becoming one of the five iron mines certified. In May 2016, the company has achieved the top 10 of the most influential Green Eco-friendly corporation for 2015 in Shandong Province.



Land reclamation-Peanuts Plantation (Yangzhuang Iron Mine)