



AAG

2018

可持續發展報告

Sustainable Development Report

亞美能源控股有限公司

AAG Energy Holdings Limited

(Incorporated in the Cayman Islands with limited liability)

(於開曼群島註冊成立的有限公司)

Stock Code 股份代號: 2686

CONTENTS 目錄



About This Report 關於本報告	2
Statement From the Chairman 主席致辭	5
1. New Starting Point, New Journey 新起點·新征程	8
1.1 About Us 關於我們	8
1.2 Our Management 我們的管理層	9
2. Sustainable Operation 可持續運營	10
2.1 Sustainable Development Strategy 可持續發展戰略	10
2.2 Integrity and Compliance 堅守誠信合規	12
2.3 Corporate Social Responsibility Management 社會責任管理	13
3. Production Safety and Clean Operations 安全生產·清潔運營	17
3.1 Health, Safety and Environmental Management System 健康、安全和環保管理體系建設	18
3.2 Production Safety and Risk Management 安全生產·風險管控	19
3.3 Ecology & Environment Protection and Resources Utilization Efficiently 生態環境保護·高效利用資源	24
4. Creating Value and Going Forward Together 共創價值·攜手前進	34
4.1 Supply Chain Management 供應商管理	34
4.2 Increasing Production to Ensure Steady Gas Supply in Winter 提升產量·冬季保供	35
4.3 People-Oriented Helps Talent Development 以人為本·助力人才發展	36
5. Benefiting Local Communities to Embrace a Fine Future Together 惠澤社群·共迎未來	43
5.1 CBM Supply for Communities 社區供氣	44
5.2 Caring for the Elderly 關愛老人	45
5.3 Sponsoring Social Activities 為愛助力	46
HKEX ESG Disclosures Index 香港聯交所ESG指標索引	48
Feedback 讀者意見回饋表	54

About This Report

關於本報告

The theme of this report is “New Starting Point, New Journey, and New Chapter of AAG Energy”. This report presents sustainability performance of AAG Energy Holdings Limited (the “Company” or “AAG Energy”) in 2018. It describes the social, environmental and governance (“ESG”) performance of AAG Energy and responds to the expectations and concerns of the stakeholders.

- **Time Period**

This report covers data from 1 January 2018 to 31 December 2018.

- **Scope of the Report**

This report includes AAG Energy and its subsidiaries.

- **Data Specifications**

All data was mainly sourced from official documents, statistical and financial reports of the Company, as well as the environmental, social and governance information collected from the Company’s statistics, summaries and audits. The board (the “Board”) of directors (the “Directors”) of the Company takes full responsibility for its ESG strategy and report. This report is available in Chinese and English. If there is any conflict or inconsistency between the two versions, the Chinese version shall prevail. If financial data is different from annual report, the annual report shall prevail. Unless otherwise stated, the currency used is Chinese Yuan (CNY).

- **References**

This report was prepared based on the ESG Reporting Guide of The Stock Exchange of Hong Kong Limited (the “Stock Exchange”). We also referred the Sustainability Reporting Guidelines (G4.0) issued by the Global Reporting Initiative (GRI).

- **Reporting Principles**

During the preparation of this report, AAG Energy applied the four reporting principles as listed in the ESG Reporting Guide by the HK Stock Exchange, namely materiality, quantitative, balance and consistency. The table below presents AAG Energy’s understanding about and responses to these reporting principles.

本報告以「新起點、新征程、開啟亞美能源新篇章」為主題，介紹亞美能源控股有限公司（「亞美能源」或「本公司」）2018年度的可持續發展表現，闡述亞美能源在社會、環境及管治方面做出的努力，並回應利益相關方的期望與關切。

- **時間範圍**

本報告內容時間界限為2018年1月1日至2018年12月31日。

- **報告範圍**

本報告覆蓋亞美能源控股有限公司及附屬公司。

- **資料來源**

全部資訊數據來自公司的正式文檔、統計報告與財務報告，以及經由公司統計、匯總與審核的環境、社會及管治信息。董事會對公司的環境、社會及管治策略及彙報承擔全部責任。報告發佈中、英文版本，如有內容不一致，請以中文版為準。財務數據如與年報有出入，以年報為準。如無特殊說明，貨幣單位均為人民幣元。

- **報告編制依據**

報告編制參照香港聯合交易所《環境、社會及管治報告指引》，同時適度參考全球報告倡議組織(GRI)《可持續發展報告指南》(G4.0)。

- **報告原則**

在籌備此份《可持續發展報告》的過程中，亞美能源應用聯交所在《環境、社會及管治報告指引》中提出的四項報告原則，包括重要性、量化、平衡及一致性。以下表格呈現了亞美能源對這些報告原則的理解以及回應。

About This Report

關於本報告

Reporting Principles 報告原則	Meaning 含義	Response from AAG Energy 亞美能源回應
Materiality 重要性	This report should contain environmental and social topics that are material to stakeholders. 報告應匯報對利益相關方有重要影響的環境和社會議題。	This report was based on materiality analysis and was designed to cover the most concerned topics of different stakeholders. 報告內容基於實質性評估，確保涵蓋各組別利益相關方最關注的議題。
Quantization 量化	This report should disclose key performance indicators in ways that can be measured. 報告應以可以計量的方式披露關鍵績效指標。	AAG Energy continued to improve the data disclosure of this report and strived to present quantization information with explanations. 亞美能源持續改善報告的數據披露，盡量展現量化的資訊並附帶說明。
Balance 平衡	This report should present the performance of the Company in an unbiased manner. 報告應不偏不倚地呈報本集團的表現。	This report identified and described the achievements made and challenges faced by AAG Energy on a balanced basis. 報告識別和闡述了亞美能源所取得的成績以及面對的挑戰。
Consistency 一致性	This report should use consistent statistical and disclosure methods so that meaningful comparison can be made in future. 報告應使用一致的統計和披露方法，令數據日後可作有意義的比較。	AAG Energy strived to adopt consistent statistical and disclosure methods whenever appropriate with comparisons of different years presented, so that stakeholders can make year-on-year comparison on the performances of AAG Energy. 盡量於適當的情況下使用一致的統計及披露方法，並提供年度對比，令利益相關方得以逐年比較亞美能源的表現。

- **Reporting Specifications**

Throughout this report, AAG Energy Holdings Limited may be referred to as "AAG Energy", "the Company" and "We".

- **Access to the Report**

AAG Energy's Sustainable Development Report is bilingual and the electronic version is uploaded to HKEX website and AAG Energy official website: <http://www.aagenergy.com/>.

- **指代說明**

為便於表達，亞美能源控股有限公司在報告中的表述分別使用「亞美能源」、「公司」和「我們」。

- **發佈形式**

亞美能源控股有限公司可持續發展報告為中英文版，電子版報告已上載至聯交所披露網站 (www.hkexnews.hk) 及本公司網站 <http://www.aagenergy.com/>。

About This Report 關於本報告

- **Disclaimer**

This report includes certain forward-looking statements with respect to the results of the Company's business operations and certain plans and conditions. All statements that address activities, events or developments, are forward-looking statements and by their nature involve risk and uncertainty. This means that actual results may differ materially from those indicated in the forward-looking statement due to a number of factors and uncertainties. The Company undertakes no obligation to update these forward-looking statements unless required by an appropriate regulatory authority.

- **免責聲明**

本報告包括前瞻性陳述。除歷史事實陳述外，公司預計或期待未來可能或即將發生的業務活動、事件或發展動態的陳述都屬於前瞻性陳述。受諸多可變因素的影響，未來的實際結果或發展趨勢可能會與這些前瞻性陳述出現重大差異。除非監管機構另有要求，公司沒有義務或責任對任何前瞻性陳述進行更新。



Statement from the Chairman

主席致辭



1. AAG Energy in New Journey

Looking back on 2018, the world economy had gradually been recovering. China's economy has shifted from a high-speed growth stage to a high-quality development stage. The economy situation was stable in general. A new journey was launched in a new era. The year of 2018 was the 40th anniversary of China's reform and opening up. It was also an important milestone for AAG Energy to start a new journey with Liming Holding Ltd. acquiring 50.5% share of AAG Energy in 2018, which provides mores resources for Coalbed Methane ("CBM") exploration and investment and gains more concession rights.

In 2018, the National Energy Administration ("NEA") took more measures to encourage natural gas production and marketing reforms. This has contributed to AAG Energy ongoing growth as a leading CBM provider and boosted production and sales. We are also confident that we will continue to control costs and improve profit margins, and provide clean energy to society while bringing more returns to shareholders.

AAG Energy is committed to developing and optimizing the value of unconventional gas resources to supply clean energy to China economy. The Company's key operating assets, Panzhuang and Mabi concessions, are located in the southwestern part of Qinshui Basin in Shanxi Province, which boasting the largest proved CBM geological reserves among basins in China. The Company has released its Sustainable Development Reports in the past two consecutive years, which is a manifestation of our commitment to social responsibility, community care and sustainable development.

1. 新亞美、新征程

回首2018年，世界經濟總體回暖，中國經濟由高速增長階段轉向高質量發展階段，整體形勢穩中向好。新時代開啟新徵程。2018年，是中國改革開放40週年，也是亞美能源開啓全新徵程的重大轉折點。2018年香港利明控股有限公司完成對亞美能源50.5%的股權收購，煤層氣投資、新區塊開發的權限進一步釋放。

2018年國家能源局採取進一步的措施，以鼓勵天然氣生產和市場改革。這助力亞美能源作為領先的煤層氣生產商業績繼續成長，在產量和銷量上達到新高。我們也有信心繼續控制成本和提高利潤率，在為社會提供清潔能源的同時給股東及其他相關方帶來更多的回報。

亞美能源致力於非常規天然氣資源的開發及價值優化，為中國經濟供應清潔能源。公司的主要運營資產潘莊及馬必區塊位於山西南部的沁水盆地，其煤層氣探明地質儲量居中國各盆地之首。公司在過去兩年連續公佈可持續發展報告，這是我們對社會責任、社區關懷和可持續發展的鄭重承諾體現。

Statement from the Chairman

主席致辭

2. Hit Record Highs

The year of 2018 is an excellent year for AAG Energy, mainly due to the Company having strong business performances, such as the outstanding operation capacities, the competitive technical capabilities, strict cost control, as well as the excellent executions of management team and staff. Production and sales amount showed two-digit growth both for Panzhuang and Mabi Concession, and our operation cost decreased dramatically while we achieved the commitment of safe production and sustainable development. It has further consolidated our leading position in the CBM industry in China.

“Life First, Safe Development” is one of AAG Energy development pillars. In building a solid foundation for steady development, AAG Energy has insisted on ensuring health, safety and environment (“HSE”) from its start through the endeavors of improving the system of HSE management. The Company sets its goal at zero injury of staff and zero pollution of environment, and is willing to be the role model in CBM industry in this regard. In 2018, the Company continued to keep an excellence effectiveness in HSE performance with zero for total recordable injury rate (“TRIR”), lost time injury rate (“LTIR”) and preventable motor vehicle accident rate (“PMVA”).

We believe that employees are the greatest motivation for AAG Energy towards excellence, as well as a powerful force for the Company to maintain sustainable development. Therefore, we put emphasis on creating an equal and diverse workplace. Through the Company culture propaganda, continuous management system improvement and business training, it intends to assist the employees to reach their full potential so that they can grow up and develop together with the Company. Meanwhile, in line with the concept of “people-oriented, pursuit of excellence”, the Company commits to cultivate comprehensive talents both in management abilities and working skills, and to attract more young talents to join us.

For AAG Energy, the year of 2018 was also a year of actively fulfilling our community responsibilities and supporting the sustainable development of local economy. The Company actively paid taxes in operation according to laws and regulations to support local economy development. Under the same conditions, we gave priority on selecting local contractors and suppliers to foster and support them to grow together. We also attached great importance to giving back to the community and organizing volunteers to actively participate in social welfare undertakings, such as participating in charity work, providing volunteer services, joining in community activities.

2. 再創新高

2018年對於亞美能源來說是極為出色的一年，這主要基於公司強勁的業務基本面，包括出色的運營表現、富有競爭力的技術能力、嚴格的成本控制以及極具執行力的管理層和員工。保證全面履行安全、環境和可持續發展的承諾下，潘莊區塊和馬必區塊生產和銷售呈現了兩位數增長，而且成本顯著下降，這一切更加鞏固了我們在中國煤層氣行業的領先地位。

「生命至上，安全發展」是亞美能源的根基。亞美能源自始至終堅持將確保健康、安全和環境(HSE)作為公司穩步發展的根基，致力於不斷完善健康、安全與環境管理體系，公司追求人員零傷害、環境零污染的目標，並願意在此方面充分發揮煤層氣行業模範帶頭作用。2018年本公司在HSE績效指標方面繼續保持卓越成效，員工總可記錄事故率(「TRIR」)，損失工時事故率(「LTIR」)和可預防性交通事故率(「PMVA」)均為零。

我們相信員工是令亞美能源卓越不凡的最大動因，是亞美能源可持續發展的強大助力。因此，公司著重營造平等和多元化的工作場所，並透過文化宣傳、制度建設及業務培訓，旨在發揮員工潛能，務求讓員工與本集團共同成長與發展。同時，公司還本著「以人為本、追求卓越」的理念，矢志培養管理和技術方面的複合型人才，並吸引青年人才的加入。

2018年也是體現亞美能源更好履行社區責任、推動地方經濟發展的一年。公司在生產運營中積極主動納稅，支持地方經濟發展；在同等條件下，優先選用當地承包商和供應商，培養並扶持其發展；高度重視回饋社區，積極投身公益事業、組織志願者活動。同時，積極參與慈善工作和義工服務等社區活動。

Statement from the Chairman

主席致辭

Diverse activities were carried out to support healthy and harmonious development of the communities covered by the Company business, such as planting and afforestation, building fire prevention corridors, caring for vulnerable residents of communities etc.

All these great achievements have been benefited from the endeavors and cooperation of our employees, our partners and all stakeholders.

3. Outlook for Future

Following the 13th Five-Year Plan and the 19th National Congress, in the short-term and sustainable development future, the Chinese government will adhere to green economic development goals of “wonderful China with green mountains and waters”, which calls for the whole society to implement the action plan of green development, ecological protection and effective resource utilization. AAG Energy responds positively to the national environmental policies and provide clean and economic energy to residents and industrial users through the commercial development of CBM to contribute to China’s economic development.

We will continue to operate and manage existing projects in China with the endeavors to achieve the increase of clean energy supply and the promotion of our operation capacity. The production performance is expected to reach to a higher level in the new fiscal year with the industry policy support from governments at all levels. In the favorable period of CBM development policy, we are poised to take the road of the green and sustainable development through further developing business, seizing upcoming opportunities and exploring new projects.

4. Sincere Thanks

Opportunities and challenges coexist as we glory and struggle together. At the starting point of our new journey, we are confident that AAG Energy will have prosperous future with the great contributions of all employees. On behalf of the Board and the shareholders, I would like to express my gratitude to our employees and all stakeholders for their efforts to achieve our sustainable development goals in the past year. The Board and the Company management will continue to fulfill the mission and lead all employees to promote the sustainable and healthy development of AAG Energy, and to return the country, society, shareholders, customers and employees with the better performance.

我們開展植樹造林、為林區修建防火通道及關愛弱勢社群等活動，以多元化的形式支持業務所覆蓋社區的健康與和諧發展。

所有這一切成就的取得，得益於我們廣大員工和合作夥伴及相關利益方的共同努力。

3. 展望未來

繼「十三五」規劃和第19屆全國人民代表大會之後，在短期及可持續發展的未來，中國政府將堅持「青山綠水」、「美麗中國」的綠色經濟發展目標，倡議全社會履行綠色發展、生態保護和有效資源利用行動計畫。亞美能源積極響應國家環保政策，通過煤層氣的商業開發，向居民和工業用戶提供清潔經濟的清潔能源，為中國的綠色經濟發展做出貢獻。

我們將繼續在中國執行現有項目的運營及管理，提高公司清潔能源的供應規模和運營能力，並預期在中央和地方政府的行業政策支持下，生產業績將在新的一年中更上一層樓。在煤層氣發展政策利好的時期，我們蓄勢待發、緊抓機遇、發展新項目、堅持走綠色可持續發展道路。

4. 誠摯感謝

機遇和挑戰並存，榮耀與奮鬥同在。站在新起點，我們有信心把亞美能源進一步發展好。在此，謹代表董事和股東，向我們的員工和其他利益相關方在過去的一年裏為實現我們可持續發展目標所做出的共同努力表示衷心的感謝！公司董事會、管理層將不辱使命，帶領全體員工共同推動亞美能源持續健康發展，以更加良好的業績回報國家、社會、股東、客戶和員工。

1. New Starting Point, New Journey 新起點，新征程

1.1 About Us

AAG Energy is an international energy company and a leader in China's CBM exploration and development sector, with a special focus on developing and optimizing the value of unconventional gas resources to supply clean energy to the Chinese economy. AAG Energy's key operating assets, the Panzhuang and Mabi concessions, are located in the southwestern part of the Qinshui Basin, Shanxi Province, which boasts the largest proven CBM geological reserves among basins in China.

AAG Energy's Panzhuang concession, which is in partnership with China United Coalbed Methane Corporation Ltd. ("CUCBM"), continues to be the CBM project with the highest output in China, and was listed as China's key CBM project in production under the 13th Five-Year Plan for the development and utilization of CBM (Coal mine gas) prepared by the National Energy Administration (the "NEA") and issued by the National Development and Reform Commission (the "NDRC") of the People's Republic of China. In 2018, the gross production from Panzhuang concession reached 705 million cubic meters.

AAG Energy's Mabi concession, which is in partnership with China National Petroleum Corporation ("CNPC"), was listed as China's key CBM project in construction under the 13th Five-Year Plan for the development and utilization of CBM (coal mine gas) prepared by NEA and issued by the National Development and Reform Commission ("NDRC"), and became one of the key CBM construction projects in Shanxi Province in 2018. On 8 October 2018, NDRC formally announced the Approval Regarding the Overall Development Plan ("ODP") in respect of the Foreign Cooperation CBM Project within the Southern Area in Mabi Concession, Qinshui Basin, Shanxi Province. According to the Announcement, the approval was officially issued in September 2018. With this approval, Mabi is eligible for its commercial development. Pursuant to the approval, the project has a constructed production capacity of 1 billion cubic meters ("bcm") per year, and the construction period is 4 years.

In 2018, Liming Holding Ltd. completed the acquisition of a 50.5% stock equity of AAG Energy, which further expanded the resources of AAG Energy to invest in CBM industry and new business development. The new management team optimized the management structure, laying a solid foundation for the Company's performance growth.

1.1 關於我們

亞美能源控股有限公司是一家在中國煤層氣勘探開發領域處於領先地位的國際能源公司，專注於非常規天然氣資源的開發及價值優化，為中國經濟供應清潔能源。亞美能源的主要運營資產潘莊及馬必區塊位於山西南部的沁水盆地，其煤層氣探明地質儲量居中國各盆地之首。

亞美能源與中聯煤層氣有限責任公司「中聯煤」合作的潘莊區塊仍然是中國最高產的煤層氣項目，在由國家能源局制定、中華人民共和國國家發展和改革委員會「國家發改委」發布的煤層氣(煤礦瓦斯)開發利用(十三五)規劃中，被列為國家在產煤層氣重點項目。2018年潘莊區塊的總產量達到了7.05億立方米。

亞美能源與中石油合作的馬必區塊，在由國家能源局制定、中華人民共和國國家發展和改革委員會「國家發改委」發布的煤層氣(煤礦瓦斯)開發利用(十三五)規劃中，被列為國家在建煤層氣重點項目，並成為山西省2018年煤層氣重點建設項目之一。國家發改委於2018年10月8日正式公告了關於山西沁水盆地馬必區塊南區煤層氣對外合作項目總體開發方案(「ODP」)的批復。根據其公告，該批復於2018年9月正式批出。自此，馬必項目具備了商業開發的條件。根據批復，項目產能建設規模為10億立方米/年，建設期為4年。

2018年香港利明控股有限公司完成對亞美能源50.5%的股權收購，煤層氣投資、新區塊開發的權限進一步釋放。公司新管理層優化了管理結構，為公司業績增長奠定堅實基礎。

1. New Starting Point, New Journey

新起點，新征程

Based on the capital and industrial advantages of the new equity party, AAG Energy will seize the development opportunities of China's natural gas industry and continue to expand the market share and industry influence in upstream industry chain, improve our profitability and risk management capability, thereby further consolidating and enhancing the sustainability of AAG Energy.

亞美能源借助新股權方的資本與產業優勢，抓住我國天然氣行業的發展機遇，繼續擴大在上游市場的份額與行業影響力，提升盈利能力，管控風險，從而進一步鞏固並提升亞美能源的持續經營能力。

1.2 Our Management

The members of the Board are set out below:

Executive Directors

Mr. Ming Zaiyuan (Chairman)
Mr. Yan Danhua (President)
Mr. Zhang Jianbing (Vice President)

Non-Executive Directors

Dr. Cui Guiyong
Ms. Gu Ren

Independent Non-executive Directors

Mr. Tai Kwok Leung Alexander
Dr. Liu Xiaofeng
Dr. Yang Ruizhao

1.2 我們的管理層

亞美能源控股有限公司董事會(「董事會」)成員載列如下：

執行董事

明再遠先生(主席)
嚴丹華先生(總裁)
張艦兵先生(副總裁)

非執行董事

崔桂勇博士
顧韜女士

獨立非執行董事

戴國良先生
劉曉峰博士
楊瑞召博士

2. Sustainable Operation 可持續運營

As a leading international energy company in CBM exploration and development in China, we focus on the development and value optimization of unconventional natural gas resources to provide clean energy in China. Adhering to the concept and the Company culture of promoting the harmonious development of economy, society and environment, we commit to operate our business and carry out the activities in a responsible way to society and environment. It is our goal that we strive to a sustainable and friendly development with our communities and living environment together.

2.1 Sustainable Development Strategy

2.1.1 Sustainable Development Commitment

It is recognized that the main goal of AAG Energy is to bring maximum returns to shareholders and to take the corresponding social and environmental responsibility in the meantime. AAG Energy will face the challenges of energy depletion and environment pollution together with all relevant organizations in China, and strive to provide a new clean energy to residents and industrial users through the commercial explorations of CBM which will contribute to China's economic development.

- We are committed to adopting fair labor practices at our workplaces and will abide by all relevant laws and industry standards.
- We are committed to bring maximum returns to shareholders in responsible manner for society and environment through production safety, continuous innovation and adherence with the concept of sustainable development. We will continue to strive to provide users with efficient clean energy through the commercial exploration of coalbed methane, make due contributions to the sustainable development of China's society, and achieve mutual benefit and win-win result with the communities.
- We are committed to preventing any work-related injuries, fatalities or health impairments of employees and contractors.
- We will form open and trustworthy relationships with all stakeholders to increase mutual understanding on matters of common concern.

作為一家在中國煤層氣勘探開發領域處於領先地位的國際能源公司，我們專注於非常規天然氣資源的開發及價值優化，為中國經濟供應清潔能源。秉持促進經濟、社會、環境協同發展的理念與文化，我們承諾以對社會和環境負責的方式來經營我們的業務和開展相關活動。我們的目標是實現與社區和我們賴以生存的環境共同可持續地、友好地發展。

2.1 可持續發展戰略

2.1.1 可持續發展承諾

亞美能源認識到，公司的主要目標是為股東帶來最大的回報，同時還應擔負起相應的社會和環保責任。亞美能源將和中國所有相關組織一起共同面對整個社會、能源和環境所面對的挑戰，通過煤層氣的商業開發，向居民和工業用戶提供新型的清潔能源，為中國經濟的發展做出應有的貢獻。

- 我們承諾，我們在工作場所將採用公平的行為準則並遵守所有相關的法律和行業標準。
- 亞美能源通過安全生產，不斷創新，堅持可持續發展理念，致力於以對社會和環境負責的方式為股東帶來最大回報。我們將繼續努力，通過煤層氣的商業開發，向用戶提供高效的清潔能源，為中國社會可持續發展做出應有的貢獻。並實現與社區的互利共贏。
- 我們承諾避免員工和勞務人員出現任何工傷，致死事故以及健康損害。
- 我們將與所有股東保持透明和互相信任的關係並就雙方互相關心的問題進行溝通以增進相互瞭解。

2. Sustainable Operation 可持續運營

- We will strive to run our operations in social responsible, sustainable and environmental manners; thereby preventing or minimizing adverse impacts caused by our operations.

Our corporate social responsibility will be reviewed regularly to reflect AAG Energy's commitment to, and growing understanding of the development concept of corporate social responsibility in China.

2.1.2 Technical Renovations Increase Efficiency

AAG Energy has been continuously researching and improving the applicable technologies for the commercial development of CBM and has been in the lead in the CBM development in China. The application of the advanced technology in consideration with the local geological conditions has enabled the commercial development of Panzhuang concession in a short period of time. AAG Energy adopts a variety of CBM drilling technologies in Panzhuang and Mabi concessions correspondingly, which has greatly increased the gas production capacity of the concessions. We will continue to explore other approaches to increase the commercial value of concessions.

AAG Energy has played a positive role in promoting the development of key technologies for CBM in China. The company owns rich experience in adopting applicable technologies for specific coal seam geology, which will help the Company to further explore commercial development potential of the concessions and become more competitive in China's CBM gas resource development competition. Sino-American Energy, Inc. ("SAEI"), a subsidiary of AAG Energy, was rewarded as "Advanced Management Organization in Industry Development" (「產業發展先進集體單位」) by the People's Government of Qinshui County in 2018.

- 我們將堅持對社會負責可持續發展和環保的經營理念，開展生產活動，以減少生產所帶來的不利影響。

我們將不斷更新亞美能源企業社會責任的內容，以使其與中國不斷更新的企業社會責任理念相適應。

2.1.2 技術革新提升生產效率

亞美能源一直不斷研發並改進煤層氣商業開發適用技術，並在中國煤層氣開發領域處於領先地位。先進且符合當地地質條件技術的應用，使潘莊區塊煤層氣得以在短時間內實現商業化開發。亞美能源在潘莊、馬必兩個區塊針對性地採用不同的煤層氣開採技術，極大地提升了區塊產氣量，並將繼續探索其他方法提高區塊煤層氣開採的商業價值。

亞美能源對中國煤層氣關鍵技術的發展起到了積極的推進作用。亞美能源在針對特定煤層地質情況，選擇和採用適用技術方面有著成熟的經驗，這有助於公司進一步發掘區塊商業開發潛力，並在中國煤層氣資源開發中更具競爭力。亞美能源附屬公司美中能源有限公司被沁水縣人民政府評選為2018年度「產業發展先進集體單位」。

2. Sustainable Operation 可持續運營

2.2 Integrity and Compliance

AAG Energy is committed to building a corporate culture of integrity and anti-fraud. The Company's Anti-Fraud and Reporting System sets out the Company's principles in the prevention, reporting and management of fraud and cheating. It aims to guide employees and the public in communicating about suspected fraud or corruption by promoting the Company's core values, thus helping to regulate the business behaviors of the Company.

The governance structure of the Company include the annual general meeting, board of directors, board committees, and the management. Each unit in the structure has clear rights and responsibilities, performs its duties, coordinates with each other, and maintains effective balances, which makes the operation structure scientific and normative.

The monitoring of the fraud and misconduct supervision is applicable for all employees. The follow-up treatment of the fraud and misconduct includes terminating the labor contract or reporting the fraud and improper behavior to the relevant government agencies and taking necessary legal action, including civil liability and criminal liability.

At the end of 2018, the Company revised the Anti-Fraud and Reporting System that aims at fostering a fair culture with integrity. The Company conducted extensive publicity and education for all staff through introduction presentation and films to enhance the anti-fraud awareness of all employees. In 2018, there were no litigation involving corruption or fraud of the Company or its employees.

2.2 堅守誠信合規

亞美能源致力營造誠信和反舞弊反欺詐的公司文化。公司的《反舞弊與舉報制度》闡述了公司在舞弊和欺詐的預防、報告及管理方面的原則，旨在通過宣傳公司的核心價值觀，引導員工及公眾在對涉嫌舞弊或腐敗行為方面的溝通方式，從而規範公司的商業活動。

公司治理架構包括股東大會、董事會、董事委員會以及高級管理層。公司各結構單元權責明確、各司其職、相互協調、有效制衡，形成了科學決策、規範運作的經營管理架構。

監察對象為全體員工，監察內容為舞弊與不正當行為。發現問題的後續處理包括與不當行為人解除勞動合同，或將舞弊和不正当行為上報相關政府機構並追究其法律責任，包括民事責任和刑事責任。

公司於2018年年底修訂了《反舞弊與舉報制度》，意在樹立誠信正直的企業文化。並對全體員工以制度宣講和宣傳片觀看的方式進行宣貫學習，以增強大家對於舞弊風險的認識。2018年，公司未發生因舞弊或欺詐引起的訴訟事件。

2. Sustainable Operation 可持續運營

2.3 Corporate Social Responsibility Management

2.3.1 Stakeholders' Management

AAG Energy is committed to expanding its business as an important policy of development, and to enhance the long-term value of the Company in order to protect the interests of all stakeholders. We encourage stakeholders to participate in the process of our operations. Through actively collecting and reviewing their feedback, we are able to improve the areas of operational management, focus on business development and take actions accordingly. We invite stakeholders to express their opinions through different channels. The following table lists the communication channels we use, the main concerns and expectations of stakeholders, and the measures taken by the Company regarding to their opinions.

Stakeholders 利益相關方	Expectations and Demands 期望與要求	Communication Channel 溝通方式
Governments and Regulators	Complying with national laws and regulations Promoting local economic development Promoting local employment Promoting industry development	Reporting and filing Provide suggestions Provide special report Discuss cooperation
政府與監管機構	貫徹落實國家政策及法律法規 促進地方經濟發展 帶動地方就業 推動行業發展	上報存檔 建言獻策 專題彙報 洽談合作
Shareholders	Return of investment Operation with compliance Production safety	Company announcements Special report Site visit
股東	收益回報 合規運營 安全生產	公司公告 專題彙報 實地考察
Customers and Partners	Fulfil contracts Operations with integrity Deliver high quality products and services	Business communication Customer feedback Communication and discussion
客戶及合作夥伴	依法履約 誠信經營 優質產品與服務	商務溝通 顧客回饋 交流研討

2.3 社會責任管理

2.3.1 利益相關方管理

亞美能源以拓展業務為重要發展方針，同時致力提升公司長遠價值，以此保障各利益相關方的利益。我們鼓勵利益相關方參與營運過程，並積極聽取他們的意見，從中瞭解公司有待改善的營運項目和重點範疇，並作出相應行動。我們透過不同管道邀請利益相關者表達意見，下表羅列我們所使用的溝通渠道、利益相關方的主要關注議題及期望，以及公司就有關意見所採取的措施。

2. Sustainable Operation

可持續運營

Stakeholders 利益相關方	Expectations and Demands 期望與要求	Communication Channel 溝通方式
Environment 環境	Emission compliance Energy conservation and emission reduction Ecological protection 合規排放 節能減排 保護生態	Work reports Statement submission Investigation and inspection 工作彙報 報表報送 調研檢查
Employees 員工	Rights and interests of employees Occupational health Compensation and benefits Career development 權益維護 職業健康 薪酬福利 職業發展	Employee representation meetings Collective negotiation Democratic communication platform 職工代表大會 集體協商 民主溝通平臺
Communities and Public 社區及公眾	Improvement of community environment Public service and charity Open and transparent information 改善社區環境 參與公益事業 資訊公開透明	Official website Company announcements Interview and communication 公司網站 公司公告 採訪交流

2. Sustainable Operation 可持續運營

2.3.2 Identification of Material Issues

AAG Energy invited internal and external stakeholders to participate in the identification and assessment of material topics which are relevant and important to stakeholders and the impact on our business development with references to the ESG Reporting Guide and the Sustainability Reporting Guidelines (G4.0). Through staff interviews, on site survey, questionnaires and other manners, we can understand the sustainable development topics of internal staff and external stakeholders. This report discusses impacts of ESG sustainability, and addresses the specific topics in response to our stakeholder's concerns in a timely manner and align ourselves with the major principles of the Stock Exchange.

2.3.2 重大性議題判定

亞美能源的可持續發展報告依據《環境、社會及管治報告指引》及《可持續發展報告指南》(G4.0)的要求辨識重要議題。我們邀請公司內部和外部各利益相關方參與識別環境、社會和管治議題並進行重要性評估。通過員工訪談、現場走訪、問卷調查等多種形式，充分理解內部員工和外部利益相關方關注的可持續發展議題。我們的報告披露了有關環境、社會和管治三個方面可持續發展議題，及時回應利益相關方的關切需求以及聯交所的重大性議題披露準則。

Steps to Identify Material Environmental, Social and Governance Issues

環境、社會及管治議題篩選流程



2. Sustainable Operation 可持續運營

Materiality Matrix
重大議題矩陣



3. Production Safety and Clean Operations 安全生產，清潔運營

AAG Energy regards production safety and clean operations as the top priorities of the Company's sustainable development at all times. We strive to establish the concept of safe development through forming a production safety pattern, and enhancing environmental protection to reduce the impact on ecological environment and to strengthen all staff awareness on production safety and environmental protection responsibilities.

Health, Safety and Environmental Commitments

- To protect the occupational health and safety of employees, contractors, customers and the public; ensure that the environmental impact of the Company's operations is minimized; and protect the Company's assets (e.g. facilities and equipment) from damage or loss.
- To demonstrate outstanding health, safety and environmental ("HSE") leadership and commitment;
- To pursue the goal of zero injury and zero environmental pollution;
- To follow applicable laws and regulations, international standards and industry rules;
- To take the lead in the CBM industry;
- To disclose our business performances;
- To regard HSE matters as an important issue as other critical issues;
- To enhance the Company's HSE culture to ensure that employees take on HSE commitments, as well as to integrate HSE performance in all employees' performance assessments system.

亞美能源將保障安全生產、綠色清潔運營視為公司可持續發展的首要任務。一直以來牢固樹立安全發展理念，全力打造安全生產格局，加大環保力度，著力降低生態環境影響，強化企業安全環保與綠色發展的責任意識。

健康、安全和環境承諾

- 保障員工、承包商、客戶及公眾的健康和安全；並確保公司作業對環境的影響最小化；保護公司資產(例如：設施和設備)免遭破壞或損失。
- 展示卓越的健康、安全和環保(HSE)領導力和承諾；
- 追求人員零損害和環境零污染的目標；
- 遵循適用的法律法規、國際標準及行業規則；
- 在煤層氣行業起模範帶頭作用；
- 公佈我們的業績；
- 健康、安全和環境事宜與其他關鍵性事宜同等重要；
- 提升公司健康、安全和環境文化，確保員工擔當健康、安全和環境承諾，並將健康、安全和環境績效列入所有員工的業績考核內容。

3. Production Safety and Clean Operations

安全生產，清潔運營

3.1 Health, Safety and Environmental Management System

AAG Energy places great value on HSE and takes efforts on assuming its social responsibilities. AAG Energy focuses on the construction of HSE and social responsibility management system, as well as continuous improvement, through multi-dimensional programs regarding compliance assurance, employee training, inspection and audit, accident management and social welfare activities, to strengthen and improve its HSE performance. In April 2018, Asian American Gas, Inc. ("AAGI"), a subsidiary of the Company, was awarded the "Outstanding Enterprise in Environment Protection of 2017 (2017年度落實環境保護工作優秀企業)" by the People's Government of Jincheng City and also the "Advanced Unit of Safe Production of 2017 (2017年度安全生產先進單位)" by the Coal and CBM Industry Bureau of Qinshui County. In May 2018, the Company's HSE system passed the first periodical audit of DNV•GL (Det Norske Veritas and Germanischer Lloyd), maintaining the validation of ISO14001:2015 Environmental Management System Certificate and the OHSAS18001:2007 Occupational Health and Safety Management System Certificate. AAG Energy invested more than CNY40.96 million in HSE for the whole year in 2018.

The Company has made continuous progress in reliability, integrity and compliance of HSE through effective HSE management system. We encourage all staff to intervene in unsafe behaviors and to report unsafe conditions. Operators are trained to be well prepared in response to emergency situations, as well as being capable to identify hazards and reduce risks to a reasonable and practicable level during the design, construction and operation phase of the project.

3.1 健康、安全和環保管理體系建設

亞美能源高度重視健康安全環境(「HSE」)工作及履行社會責任的義務。以構建健康安全環境及社會責任管理體系並持續改進為重點，通過合規性管理、員工培訓、檢查審核、事故管理、社會公益活動等多維度的紮實工作，實現健康安全環境理念的強化，提升了健康安全環境績效。本公司附屬公司亞美大陸煤層氣有限公司(「AAGI」)於2018年4月被晉城市人民政府授予「2017年度落實環境保護工作優秀企業」，被沁水縣煤炭煤層氣工業局授予「2017年度安全生產先進單位」。2018年5月，公司健康、安全和環境體系通過了DNV•GL(上海挪華威認證有限公司)第一次定期審核，保持了ISO14001:2015環境管理體系和OHSAS18001:2007職業健康安全管理体系認證證書有效性。2018年，亞美能源全年HSE投入資金超過人民幣4,096萬元。

本公司通過有效的HSE管理體系，在HSE的可靠性、完整性以及合規性方面不斷取得進步。鼓勵員工幹預危險的行為和不安全的狀況，並時刻做好應對緊急事件和安全威脅的準備。在項目的設計、施工、建設和運營期間，充分識別和降低風險至合理可控的範圍內。

3. Production Safety and Clean Operations 安全生產，清潔運營

3.2 Production Safety and Risk Management

"Life First, Safe Development" is the foundation of AAG Energy development. We always regard safety as our first responsibility, and value personal safety and human life as our top priorities. AAG Energy strictly abides by the applicable requirements of Production Safety Law of People's Republic of China, Law of People's Republic of China on the Prevention and Control of Occupational Diseases, Environmental Protection Law of People's Republic of China and Safety Regulations for CBM Exploitation (trial edition). We provided appropriate working tools and personal protective equipment to workers. A safety audit and safety inspection system has been established. The safety inspections and emergency response drills have been carried out accordingly as planned.

In 2018, AAG Energy recorded zero on LTIR, TRIR and PMVA in respect of its safety and environmental protection performance. As of 31 December 2018, AAG Energy has achieved an outstanding safety performance record of zero lost time injury for 4 years and 117 days.

3.2.1 Safety Management

No people injury is one of the goals of AAG Energy operation management. We protect the rights of employees and contractors to allow them to stop working in time when their HSE is threatened through the formulation of the "Stop Work Policy" and "Fitness to Work Management" procedures, which ensure that the health of employees and contractors is protected, and a safe and comfortable working environment is provided.

The Company strictly implements Permit to Work system and Management of Change system to conduct dynamic management of the risks from the operation process and site conditions. At the same time, multiple safety barriers have been established through regular audits, including internal and external audits which have been carried out, comprehensive inspections and specific inspections which have been implemented, site check and working records which have been reviewed, to identify hazards and to eliminate the risk accordingly.

3.2 安全生產，風險管控

「生命至上，安全發展」是亞美能源的根基。我們一直以安全為首要重任，堅持以人為本。嚴格遵守《中華人民共和國安全生產法》、《中華人民共和國職業病防治法》、《中華人民共和國環境保護法》、《煤層氣地面開採安全規程(試行)》等法律法規。提供適當的作業工具和個人防護用品，設立安全審核和安全檢查制度，定期舉行職業健康安全檢查及應急演練活動。

2018年亞美能源取得了損失工時事故為零、總可記錄事故為零、可預防性交通事故為零的安全環保業績。截至2018年12月31日，亞美能源取得了累計4年零117天無損失工時事故的優秀安全業績。

3.2.1 安全管理

亞美能源以無人身傷害作為管理目標，通過制定《停止工作政策》及《工作適合性管理》制度，嚴格保障員工及承包商人員在健康、安全或環境受到威脅時，及時停止工作的權益，充分考慮員工及承包商人員的健康保證，並為其營造安全舒適的工作環境。

公司嚴格執行作業許可及變更管理制度，對作業過程及現場情況實施動態管理，從源頭及流程上控制風險。同時定期開展各級審核工作，內部審核與外部審核雙管齊下，綜合檢查與專項檢查齊頭並進，現場工作及書面手續相結合，為排除隱患建立多重保障。

3. Production Safety and Clean Operations 安全生產，清潔運營

3.2.2 Risk Management

AAG Energy attaches great importance to the safety control of high-risk operations such as drilling, fracturing and surface construction. We regard production safety risk management and control as an important part of enterprise operation risk management and have carried out a lot of initiatives. We implemented on-site safety standardization on construction sites to strengthen the occupational health, environmental protection and safety management and improve contractor safety management. A drilling safety appraisal activity and safety assessment appraisal for the surface construction contractors were carried out respectively in 2018.

Case: Control for Hydrogen Sulfide (H₂S) risk

In the exploration of 15# coal seam in Panzhuang concession, AAG Energy installed desulfurization tower valued with CNY5.76 million to remove the hydrogen sulfide in the CBM gas for H₂S risk reduction consideration. The venting waste gas meets the regulated class II Gas Fugitive Emissions Standard.

3.2.2 風險管控

亞美能源高度重視鑽井、壓裂、地面建設等高風險作業的安全管控。我們把安全生產風險管控作為企業營運風險管理重要的一部分，開展了大量的主動性工作。為強化施工現場的職業健康、環境保護及安全管理程度，提高承包商的安全管理水準，做好現場安全生產標準化建設，2018年開展了鑽井安全評比活動和地面建設承包商安全管理評比活動。

案例：硫化氫風險管控

潘莊區塊在開採15#煤層中，所產煤層氣含有硫化氫，公司新投入人民幣576萬元安裝脫硫塔設備，用來脫除煤層氣硫化氫含量，以達到國家天然氣二類標準，減少硫化氫氣體的風險。



Desulfurization Tower
脫硫塔



3. Production Safety and Clean Operations 安全生產，清潔運營



Super Gravity Machine
超重力機

Case: Contractors Safety Management Appraises activities

In order to continuously improve the safety awareness of the bottom line and to reduce the “three violations” behaviors, HSE department organized construction contractors to carry out safety management appraisal activities.

AAG Energy staff and contractor workers actively took participated in the Safety Management Appraise Activities. The contractors carefully carried out inspections and to take corrective actions accordingly in reference to the requirements of HSE management and the Appraise Activities arrangements which enhanced team cooperation and self-management, also improved the HSE management for contractors.

案例：地面建設承包商安全管理評比活動

為持續強化安全紅線意識，杜絕「三違」現象，全面提升地面建設承包商自身安全管理水準，第三季度安全環保部牽頭組織地面建設承包商隊伍開展了安全管理評比活動。

地面建設部同仁們積極參與到了本次活動中，各承包商根據活動方案認真梳理HSE管理，開展自查自改，並對評比考核中發現的不符合項積極進行整改，大大提高了團隊管理和自主管理能力，提升了承包商單位的安全管理水準。

3. Production Safety and Clean Operations 安全生產，清潔運營



Contractors Appraisals
承包商評比

3.2.3 Safety Culture Build-up

According to the Production Safety Law of the People's Republic of China, Production Safety Training Management Measurement and the safety training requirements in CBM industry, AAG Energy delivered series of HSE training program with accumulated training time of approximately 22,552.50 hours in total, about 40 hours per individual in 2018 to improve staff awareness on production safety, environmental protection, hazards identification and risk control.

AAG Energy organized quarterly safety competition and Safety Day activities to maintain excellent safety culture and to draw staff attentions and to encourage continuous engagement in HSE matters.

3.2.3 安全文化建設

亞美能源依據《中華人民共和國安全生產法》、《安全生產培訓管理辦法》和行業對安全生產培訓的要求，為進一步提高全員的安全生產和環境保護意識，提升安全環保技能和管理能力，2018年公司組織實施安全環保相關培訓累計22,552.50學時，人均HSE培訓39.63小時。

為提高全員對安全環保工作的重視和參與熱情，促進公司安全文化建設，亞美能源組織實施了季度專題安全競賽活動、「安全日」活動。

3. Production Safety and Clean Operations 安全生產，清潔運營

Case:

On 27 June 2018, the "Safety Day" campaign was held with the theme of "Life First, Safe Development", in which a detailed HSE related regulations and laws introduction and colorful activities were carried out. AAG Energy employees and contractors actively participated in the competitive games to answer the identified unsafe working conditions. The activities of Safety Day not only enhanced the unity, cooperation and communication among colleagues, but also demonstrated employees' concerns for HSE, which promoted safety culture development.

案例：

2018年6月27日，開展了以「生命至上，安全發展」為主題的「安全日」活動，給員工們詳細介紹了與安全生產有關的法律法規。在安全知識搶答和隱患識別環節，員工們積極參加搶答，安全日活動，不僅增進了同事間的團結、合作和交流，也顯示出公司員工對健康、安全和環境的深切關注，在公司範圍內營造了良好的安全文化氛圍，推動了公司的安全文化建設。



Answering Questions in Safety Day Activities
安全日員工搶答問題

3. Production Safety and Clean Operations 安全生產，清潔運營

3.3 Ecology & Environment Protection and Resources Utilization Efficiently

As a pioneer in the development and utilization of CBM and a clean energy provider, AAG Energy always puts environmental and ecology protection at the same level with other critical business issues, as well and has taken proactively actions in accordance with national environmental and ecological protection requirements of the "Green hills and clear waters" strategy. We strictly comply with national and local environmental laws and regulations related to CBM to protect the ecological environment of surrounding communities. We commit to minimize impacts on the environment during exploration, development, production and operations. In 2018, there were no environmental pollution or ecological damage accident. AAGI, a subsidiary of the Company, was rewarded as "Advanced Management Organization" by the People's Government of Qinshui County in recognition of the excellent achievements on ecology and environmental protection in 2018.

3.3.1 Clean Energy

As associated mineral resource with coal, CBM's heat value is almost equivalent to natural gas but a cleaner and more environmentally friendly energy source. Its main component is methane. Compared with the gas emissions of coal combustion, CBM combustion produce far fewer pollutants such as sulphur dioxide, nitrogen oxide, smoke and dusts; compared with conventional fuels, CBM has the lowest carbon-hydrogen ratio and lowest oxycarbide content in its combustion products. It helps reduce the emission of greenhouse gas and is emphatically developed by the government as a strategic resource.

3.3 生態環境保護，高效利用資源

亞美能源作為煤層氣開發利用先行者和清潔能源提供者，積極回應國家「青山綠水」環境生態保護戰略，始終將業務發展與環境保護置於同等重要的地位。我們嚴格遵守國家及地方煤層氣相關環保法律法規，確保對周邊社區及生態的保護。致力於降低在勘探、開發、生產和運營過程中對環境產生的影響。在2018年，我們未發生任何環境污染或生態破壞事故。本公司附屬公司亞美大陸煤層氣有限公司生態環保成績獲得沁水縣人民政府的表彰，並被評為生態環保「2018年度先進集體單位」。

3.3.1 清潔能源屬性

煤層氣作為煤的伴生礦物資源，其熱值與天然氣相當。煤層氣是一種更加清潔的環保型能源，其主要成分是甲烷，燃燒後產生的二氧化硫、氮氧化物、煙塵等污染物排放量遠低於燃煤產生的污染物；並且相比傳統燃料，煤層氣的碳氫比值最低，燃燒產物中的碳氧化物含量最少，有助於減少溫室氣體排放，煤層氣的資源化利用在生態環保方面有著重要的意義，是國家重點開發的戰略資源。

Comparison of Pollutants Discharged from CBM and Coal Burning with Equivalent Heat Value 熱值相當的煤層氣和燃煤污染物排放對比表

Fuel 燃料	Discharge/ Cubic meters 排氣量/m ³	Carbon Monoxide/kg 一氧化碳/kg	Nitric Oxide/g 氮氧化物/g	Sulphur Dioxide/g 二氧化硫/g	Dusts/g 煙塵/g
3,000 cubic meters Coalbed Methane 3,000 m ³ 煤層氣	8.05 × 10 ⁴	0.0189	10.20	1.89	0.86
3.99 t Standard Coal 3.99 噸標準煤	10.87 × 10 ⁴	7.60	50.74	53.64	83.82

Reference: Hu Kun, Chen Mingqiang, Guo Yongcun. (2009). A Brief Discussion on CBM Recycling and Environmental Protection, Coal Engineering, Issue 11.

參考文獻：胡坤·陳明強·郭永存：淺談煤層氣資源化與環境保護：煤炭工程2009年11期

3. Production Safety and Clean Operations

安全生產，清潔運營

3.3.2 Energy Saving and Emission Reduction

The Company always regards energy saving and waste reduction as an important part of long term sustainable business development. We have integrated the concept of energy saving and consumption reduction into the entire process of production and operations. In 2018, the Company implemented a series of engineering innovation projects, including transforming the motor of compressor to variable frequency motor, energy-saving renovation of roots blower and so on. We also encourage employees to save electricity as well as reduce business travel and the use of vehicles in their daily life. In 2018, a total of approximately 15.56 Mega kW•h of electricity was saved, and approximately 10,950 pieces of papers were saved with paperless office campaign.

Energy Management

The Company has made the inventory of energy usage in detail and has conducted energy saving technique innovation to save energy consumption. It also provides decision support for long-term resource utilization strategy while realizing fine management of operating costs.

3.3.2 節能減排

公司始終將能源節約貫穿到生產活動的過程，採取多種節能政策，通過資源重複利用、節能改造等方式，實現資源節約，為公司長久的可持續發展提供充分保障。2018年，公司通過實施壓縮機變頻改造，羅茨風機節能改造等措施，以及鼓勵員工在日常生活中節約用電，減少差旅及車輛使用次數，全年共節約電量15.56兆千瓦時，無紙化辦公節約用紙10,950張。

能源管理

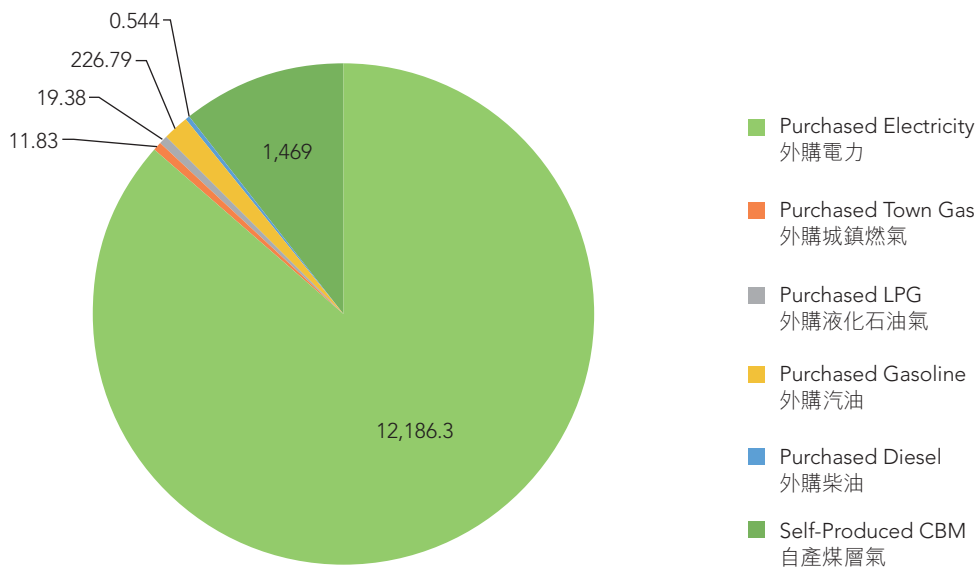
公司詳細記錄能源使用情況，適時進行節能改造，以節省能源消耗，在實現對運營成本精細化管理的同時，為長遠的資源利用策略提供決策支援。

2017–2018 Energy Consumption of AAG Energy
2017–2018 年亞美能源消耗

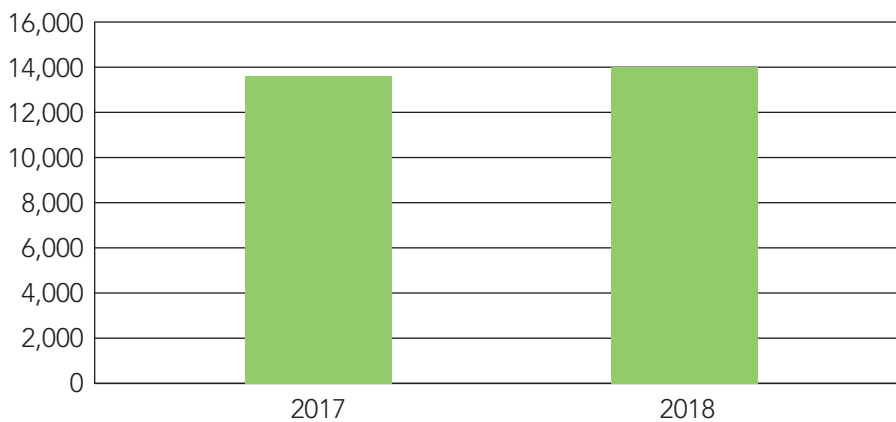
	2017 Energy Consumptions 2017年 能源消耗	2017 Standard Coal Conversion Amount 2017年 標煤折算量	2018 Energy Consumptions 2018年 能源消耗	2018 Standard Coal Conversion Amount 2018年 標煤折算量
Purchased Electricity 外購電力	79,187MW·H	9,732.1t	99,156 MW·H	12,186.3t
Purchased Town Gas 外購城鎮燃氣	14,966m ³	20t	14,500m ³	19.38t
Purchased LPG 外購液化石油氣	2,372.35m ³	9.6t	2,925m ³	11.83t
Purchased Gasoline 外購汽油	302,829L	320.8t	214,090L	226.79t
Purchased Diesel 外購柴油	301,080L	364.1t	450L	0.544t
Self-Produced CBM 自產煤層氣	3,387,796.18m ³	3,116.8t	1,596,623m ³	1,469t

3. Production Safety and Clean Operations 安全生產，清潔運營

Energy Consumptions to Standard Coal in 2018 (Ton)
2018年各類能耗標煤折算量(噸)

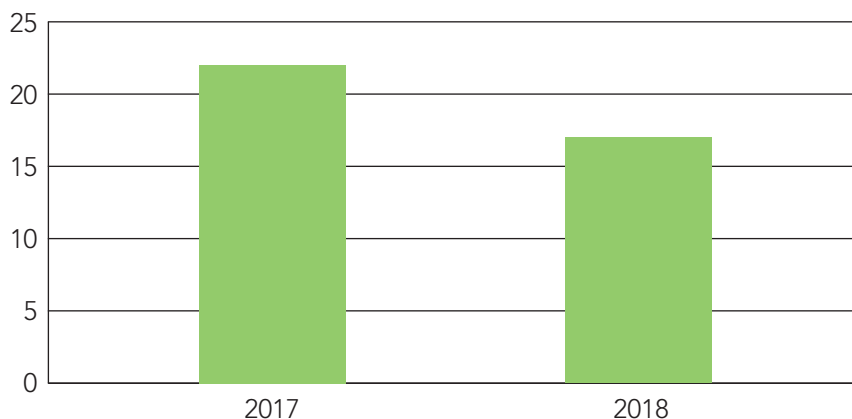


Energy Consumptions to Standard Coal (Ton) in 2017-2018
2017-2018年能耗消耗量(以標煤折算量計)



3. Production Safety and Clean Operations 安全生產，清潔運營

Standard Coal Conversion Amount (Ton) per Million Cubic Meter CBM Produced
折算標煤能耗(噸)/生產百萬立方煤層氣



Case: Roots Blower Energy Saving Transformation

In the gas gathering station, a total of 9 roots blowers were installed. Each unit power of blower is 185KW, and the operating current is 200A. After technological modification, the current of the unit blower is decreased from 200A to 20A, and the individual blower power saves 14 Kwatt•H, a total of 3,024 Kwatt•H of electricity was saved each day.

案例：羅茨風機節能改造

集輸站場總共有9台羅茨風機，單台風機功率為185KW，運行電流為200A，經過大修處理，單台設備電流從200A下降到20A，單台節省電量為14度/時，9台設備節約用電3,024度/天。



Roots Blower
羅茨風機



3. Production Safety and Clean Operations 安全生產，清潔運營

AAG Energy adopts the stringent discharge standards of national and local regulations related with CBM exploration to manage emission. To continuously reduce the pollutant emissions is our basic policy for mitigating environmental impact and climate temperature change. The company continues to strengthen management and introduces new CBM exploration technologies to reduce pollutant emission. In 2018, the Company's equivalent CO₂ emissions totaled 116,467.44 tons, which was almost equivalent to the emission in 2017, while our gas production volume was increased dramatically in 2018 in comparison with that of 2017.

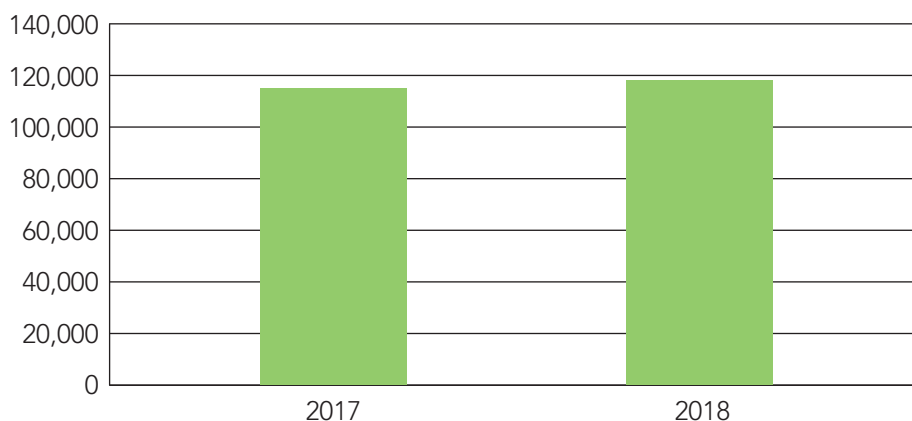
遵循嚴格的污染物排放標準，不斷減少排放量是亞美能源保護環境和應對氣候變化的基本政策。公司持續加強管理力度，推出新的技術方法降低污染物排放。2018年，公司二氧化碳排放當量為116,467.44噸，在產量大幅提升的情況下，與2017年排放當量基本持平。

	2017	2018
Greenhouse Gas ("GHG") Emissions Equivalent CO ₂ (Ton) 溫室氣體排放二氧化碳當量(噸)	116,186	116,467
CBM Gas Produced (Million Cubic Meters) 產氣量(百萬立方米)	630	802
GHG Emissions per Million Cubic Meters CBM Produced 百萬立方米CBM產能的溫室氣體排放量(噸/百萬立方米)	184.4	136.1

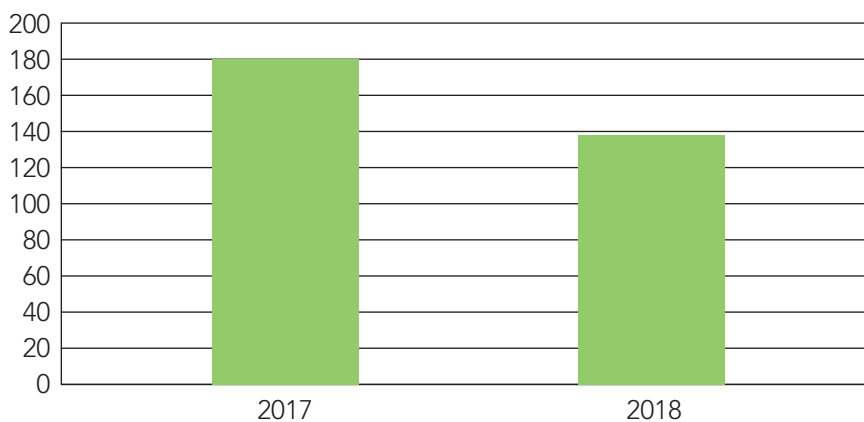


3. Production Safety and Clean Operations 安全生產，清潔運營

GHG Emissions Equivalent CO₂ (Ton)
溫室氣體排放以二氧化碳當量計(噸)



GHG Emissions per Million Cubic Meters CBM Produced
溫室氣體排放量/百萬方CBM產能



Air Pollutant Emissions Management

AAG Energy strictly adheres to national and local waste gas emission standards and CBM Emission Standards (interim) (GB21522-2008), strengthens waste gas emission control, optimizes the mining processes, reduces unplanned process venting and strives to reduce emissions from discharge sources.

大氣污染物管理

亞美能源嚴格遵照國家及地區廢氣排放標準和《煤層氣(煤礦瓦斯)排放標準(暫行)》(GB21522-2008)，加強廢氣排放治理工作，優化開採工藝流程，減少非計畫工藝放空，力爭從源頭降低廢氣產生量。

Waste Water Management

The Company strictly complies with related national laws and regulations for the treatment and discharge of production wastewater and domestic sewage. At the same time, the Company reduces the discharge of sewage through purification and reutilization.

水污染物管理

公司嚴格按照國家相關法律法規對生產廢水和生活污水進行專業的處理和達標排放，通過污水淨化、二次利用等方法減少污水排放。

3. Production Safety and Clean Operations

安全生產，清潔運營

The Company advocates the reuse of domestic sewage. Through the biochemical treatment system, after two-stage filtration, the domestic sewage goes into the softener and cartridge, through the reverse osmosis system after treatment to be used for greening and road sprinkler.

In 2018, a total of 128,310 cubic meters of pumping water was treated, of which the treatment volumes of Panzhuang concession and Mabi concession were 113,131 cubic meters and 15,179 cubic meters respectively. The pumping water was decreased by 4.6% compared with that of 2017.

Solid Waste Management

In 2018, AAG Energy endeavored to enhance the management of solid waste. The Company implemented standardized solid waste management system to clarify the responsibilities of the hazardous wastes management and associated it to performance evaluation. This system aims at double checking and archiving all hazardous waste records, and making the receipt and delivery records clear and traceable with signatures, to confirm the hazardous wastes are strictly classified and safely stored. The stored hazardous wastes are delivered to qualified contractors for centralized treatment after transferring tables are filled out according to the management rules.

The industrial waste and household garbage have separately sorted, stored and delivered to the designated places for further disposal. In 2018, the total amount of hazardous waste generated by the Company was 8,800 cubic meters of drilling mud, 4,650 cubic meters of drilling debris and 14.93 tons of waste lubricants. The total amount of non-hazardous waste generated was 26,140.2 tons, among which, the total amount of industrial solid waste generated was 26,076.04 tons, the total amount of household garbage was 64.16 tons.

3.3.3 Natural Resources Utilization

As a leading CBM exploration and utilization company in China, we are committed to providing green energy and are willing to act as a pioneer of green and safe production. We always adhere to the adoption of advanced technologies and industrial standards to improve the utilization of natural resource and environmental performance.

公司推行生活污水再利用。生活污水通過生化處理系統，經兩級過濾後，進入軟化器和保安過濾器，再經反滲透系統處理後，用於綠化及道路灑水。

2018年，公司排採水處理量為128,310立方米，其中潘莊項目共處理排採水113,131立方米，馬必項目共處理排採水15,179立方米。較2017年下降了4.6%。

固體廢物管理

2018年，亞美能源進一步加強對固體廢棄物的管理，落實危險廢棄物規範化管理責任制，並與績效考核掛鉤；對危險廢棄物標誌進行核查建檔，做到出入有記錄、簽名可循；危險廢棄物嚴格進行分類儲存。危險廢棄物轉移按規定填寫轉移聯單，並統一交由有資質的承包商進行回收處置。

生產垃圾和生活垃圾會進行分類存放，轉移到指定地點進行處理。2018年，公司產生的各類危險廢棄物總量分別為：廢棄鑽井泥漿8,800立方米，鑽井岩屑4,650立方米，廢機油14.93噸；公司產生的無害廢棄物總量為26,140.2噸，其中一般工業固體廢棄物產生總量為26,076.04噸；生活垃圾產生總量為64.16噸。

3.3.3 自然資源利用

作為國內領先的煤層氣開發利用企業，我們以提供綠色能源為己任，更勇當綠色安全生產方式的先行者。始終堅持採用先進的科技和行業標準，提升項目的自然資源利用效率和環保表現。

3. Production Safety and Clean Operations 安全生產，清潔運營

The Company actively carried out environmental ecological management of the project surroundings through optimization of land utilization, vegetation recovery etc. according to the Management Plan for Ecological Environmental Protection and Recovery of Mines and environmental protection related regulations and minimized the impact of operations on surrounding ecological environment.

Optimizing Land Utilization

Through the optimization of well layout design, the single-well site is changed to shared-well site for multi-wells, which greatly reduces the land utilization area. In 2018, a total of 61 new wells were put into operation in Panzhuang concession, which were allocated into 13 well-sites after the layout design optimization. The total land-use area with multi-well layout design was reduced approximate 7,600 square meters compared with that of single-well site layout design.

Vegetation Restoration, Soil and Water Conservation

In 2018, in order to protect the natural environment, the Company planted vegetation on unused land around the well site to prevent water and soil erosion, and to green barren mountains. A total of 1,512 trees of *Pinus tabulaeformis*, 1,838 trees of *Forsythia suspensa* and 162 kg of grass seeds were planted around 5 well sites of the Mabi concession, with the plant spacing of 1.5 m width and a row spacing of 1.5 m.

公司根據《礦山生態環境保護與恢復治理方案》和環境保護等規定積極開展項目周圍環境生態治理工作，通過優化土地使用率、恢復植被等形式，保護項目周邊的生態健康，降低了因生產運營和自身活動對周邊生態環境造成的影響。

優化土地使用率

通過布井設計優化，將單井式井場改為多井共用一個井場的模式，大幅的降低了土地佔地面積，2018年潘莊項目新投產61口井，通過布井優化，將61口井分佈在13個井場。優化後的井場總面積比單井式井場佔地總面積減少約7,600平方米。

植被恢復，水土保持

2018年，組織人員對井場周邊未使用土地採取種植植被的措施防止水土流失，綠化荒山，保護自然環境。馬必項目5個井場按照株距1.5米、行距1.5米種植樹油松1,512棵、連翹1,838棵，並播種草籽162千克。



Vegetation Restoration
植被恢復



3. Production Safety and Clean Operations

安全生產，清潔運營

Barren Hills Greening

The barren mountains greening construction project was carried out in the area of Wohuzhuang in Jiafeng Town. The cost of greening the barren mountains totaled CNY418,000 with a total area of 30 mu (20,010m²), 166 strains of platycladus orientalis and 166 forsythias were planted per mu (667m²). A total of 4,976 strains of platycladus orientalis and 4,971 strains of forsythia were planted.

荒山綠化

在嘉峰鎮臥虎莊地段開展荒山綠化施工工程。此次荒山綠化費用共計人民幣41.8萬元，總面積30畝；每畝種植166株側柏、166株連翹，共計栽種側柏4,976株，連翹4,971株。



Barren Hills Greening
荒山綠化

Water consumptions

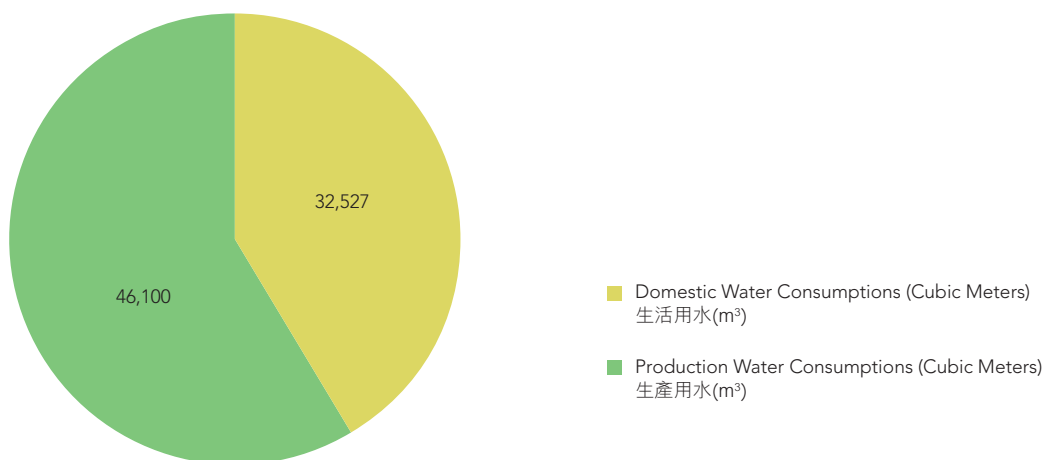
AAG Energy has continued to strengthen water saving management in the whole process of water resources protection, water supply and water consumption in residential and industrial areas. The Company endeavors to improve the efficiency of water resource utilization and comprehensive optimization of water resources management through technological upgrading, operation process optimization, sewage reutilization, water-saving promotion etc.

水資源使用

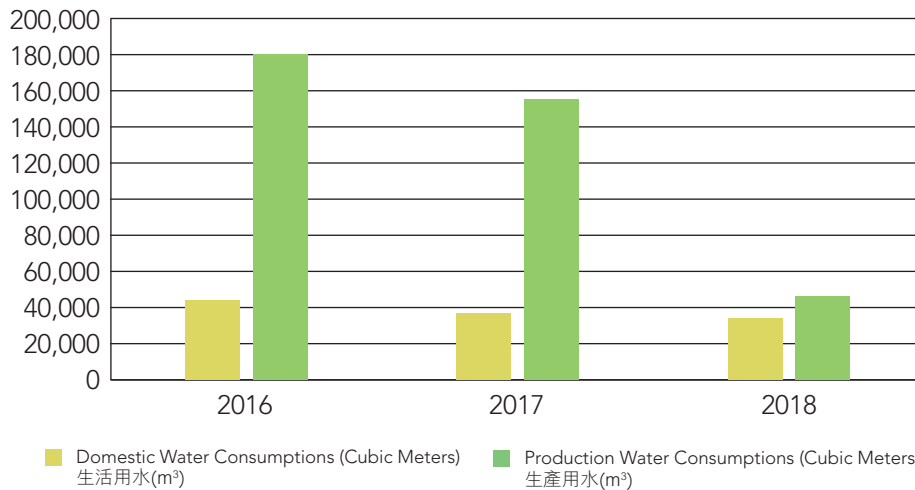
亞美能源持續強化對生活和生產區域水源、取水、用水的全過程節水管理，通過技術改造和工藝流程優化、推進污水二次利用、開展節水宣傳等措施，不斷提高水資源利用效率，全面加強水資源管理。

3. Production Safety and Clean Operations 安全生產，清潔運營

Total Water Consumption of AAG Energy in 2018
2018年亞美能源水消耗



3 years water consumptions of AAG Energy
亞美能源3年水資源使用情況



4. Creating Value and Going Forward Together 共創價值，攜手前進

We uphold a high standard of safety management for CBM exploration and business development. Together with our upstream and downstream partners including pipeline operators, suppliers and project contractors, we provide safe, reliable, clean and economic new energy to residents and industrial customers, thereby achieving comprehensive and sustainable development.

We regard our employees as the most valuable assets and are committed to creating favorable conditions for their career development and physical and mental health. We proactively pay taxes in production and operation to support local community development. Under the same conditions, we prefer local employees and suppliers to accelerate local employment and economic development.

4.1 Supply Chain Management

AAG Energy maintains long-term mutually beneficial cooperation with suppliers at all levels. In order to better standardize supplier management, the AAG Energy Supplier Management Policy and Procedures Manual was developed in 2018 to clarify the value drivers:

- Establish and maintain a healthy and reliable supplier base through an effective supplier prequalification program to ensure supply security.
- Achieve continuous improvement in supplier performance through systematic performance management to achieve operational excellence.
- Establish mutually beneficial partnerships for optimal cost effectiveness.

Our target is to comprehensively improve the management level of suppliers and contractors to gradually develop a dynamic and standardized integrated management model. We strive to maintain a win-win management principle of mutually beneficial relationships with suppliers to ensure our operations are sustainable, efficient and of high-quality, and guarantee our management reliability. We prioritize local suppliers on the basis of similar quality assurance and qualifications.

我們將高標準的安全管理貫穿在煤層氣商業開發所有業務環節，與渠道運營商、供應商和項目合作方等上下游合作夥伴共同努力，向居民和工業用戶提供安全可靠、清潔經濟的新型能源，並實現合作夥伴共同全面可持續發展。

我們視員工為最寶貴的公司財富，致力於為員工事業發展和身心健康創造良好條件。我們在生產運營中積極主動納稅，支援地方經濟發展；在同等條件下，優先選用當地員工和供應商，推進本地就業，促進當地發展。

4.1 供應商管理

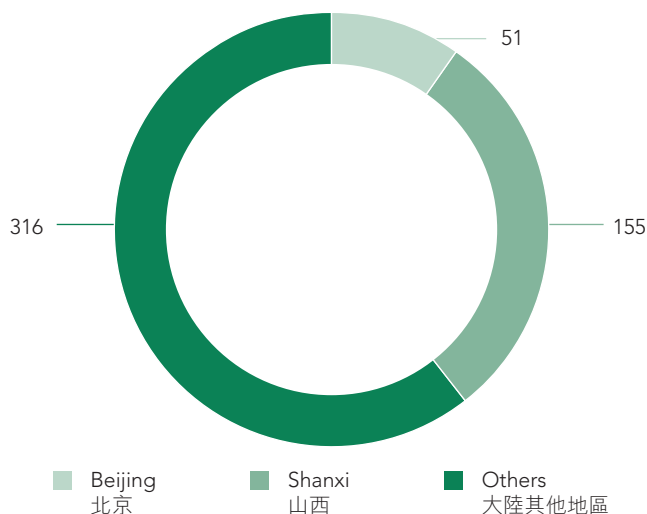
亞美能源與各級供應商保持長期互利共贏的合作關係。為了更加規範化管理供應商，2018年制訂了《亞美能源供應商管理政策和程式手冊》，明確價值驅動因素：

- 通過有效的供應商資格預審程式，建立和維護健康而可靠的供應商庫，確保供應安全。
- 通過系統性的績效管理實現供應商績效持續性提高，實現卓越運營。
- 建立雙贏的夥伴關係，實現最佳成本效益。

我們的目標是全面提升供應商和承包商管理水準，逐步形成動態規範的全面融入式管理模式，力爭保持與供應方的互利關係的雙贏管理原則，為企業長期、高效、優質開展生產經營管理活動提供可靠保障。在選擇供應商時，會在保證品質和資質完善的前提下優先選擇當地供應商。

4. Creating Value and Going Forward Together 共創價值，攜手前進

Geographical Distribution of Suppliers and Contractors
供應商和承包商地理分佈情況



4.2 Increasing Production to Ensure Steady Gas Supply in Winter

In 2018, the government took a number of environmental protection measures for air pollution prevention and control, which promoted the rapid growth of natural gas consumption. With these favorable policies and the market demand, the CBM output and sales of AAG Energy reached a new high in 2018.

With the execution of the "Coal to Gas" policy by government, the shortage of gas supply in Shanxi Province is particularly prominent. AAG Energy have strived to increase output under the premise of ensuring production safety and reasonable profits. We made great contribution to a high-quality CBM and supplied to local residents at preferential prices.

By the end of 2018, the cumulative gas supply of Panzhuang concession reached 349 million cubic meters, including:

4.2 提升產量，冬季保供

2018年，政府為大氣污染防治工作實施的多項環保政策促進了天然氣消耗量的快速增長。因政策及市場利好的因素影響，亞美能源在2018年產量和銷量均創到新高。

山西省在持續推進「煤改氣」政策的實施過程中，氣源短缺問題尤為突出。亞美能源在保證安全生產的前提下努力提高產量，保證企業經濟利益的情況下，以優惠的價格為當地政提供優質氣源，為山西省冬季保供做出極大貢獻。

截止2018年底，潘莊項目累積供氣量達到3.49億立方米。分別是：

Location 地區		Volume of gas supplied 供氣量 (Million cubic meter) (百萬立方米)
Jincheng, Zezhou, Gaoping	晉城、澤州、高平	73.11
Changzhi, Taiyuan, Jinzhong	長治、太原、晉中	150.00
Qinshui County	沁水縣	22.96
Yangcheng	陽城	103.00

4. Creating Value and Going Forward Together 共創價值，攜手前進

In 2018, zero customer complaints were reported in our products and services and the customer satisfaction rate reached 100% in the customer satisfaction survey.

2018年，在我們的產品及服務中，客戶投訴數量為零。在2018年所進行的客戶滿意度調查中，客戶滿意度達到100%。

4.3 People-Oriented Helps Talent Development

AAG Energy has always been believing that the business stability of the company relies on all of its employees. We insist on people-oriented sustainable development, respecting employees as partners, and training employees for their career development. We are committed to safeguarding the rights and interests of employees to secure their safety and care for their well-being with the vision of the Company sustainable development and with the growth and development of employees.

4.3 以人為本，助力人才發展

亞美能源始終清醒地認識到，一個企業的行穩致遠離不開每一名員工。我們堅持以人為本，尊重員工，培訓員工，視員工為自己的合作夥伴。維護員工權益，保障員工安全，關懷員工生活，以員工的可持續發展促進企業可持續發展。

4.3.1 Respecting the rights and interests of employees

AAG Energy strives to protect the legitimate rights and interests of all employees. We foster employees' talents and help them to recognize their potential through fair remuneration policies, scientific promotion channels and open communication.

4.3.1 尊重員工權益

亞美能源尊重和保護所有員工的合法權益，通過公平的薪酬政策，科學的晉升通道，靈活的溝通管理，協助員工發揮潛能，培育優秀人才。

As an employer who provides equal employment opportunities, we always adhere to the principle of respecting and developing talents. We seek to attract talents based on diverse cultural backgrounds and create tailored career development opportunities for employees. The recruitment selection and employment of the Company are conducted in a professional, open, fair and impartial manner, so as to ensure we recruit the most suitable talents.

亞美能源作為一家提供均等就業機會的僱主，始終秉承尊重人才和發展人才的原則，在多元化的文化中積極吸引優秀人才，並不斷為員工的職業發展創造機會。公司的招聘、選拔和錄用均以專業、公開、公平和公正的方式進行，以確保招聘到最合適的人才。

The Company strictly implements the Labor Law of the People's Republic of China, the Labor Contract Law of the People's Republic of China and other relevant laws and regulations. We not only attach great importance to attracting, motivating and cultivating employees through offering fulfilling roles, but also strongly oppose to using child labor and forced labor. We enforce anti-discrimination policies so that all employees, regardless of their gender, nationality, ethnicity, religion or cultural background, have equal opportunities and receive equal pay for equal work.

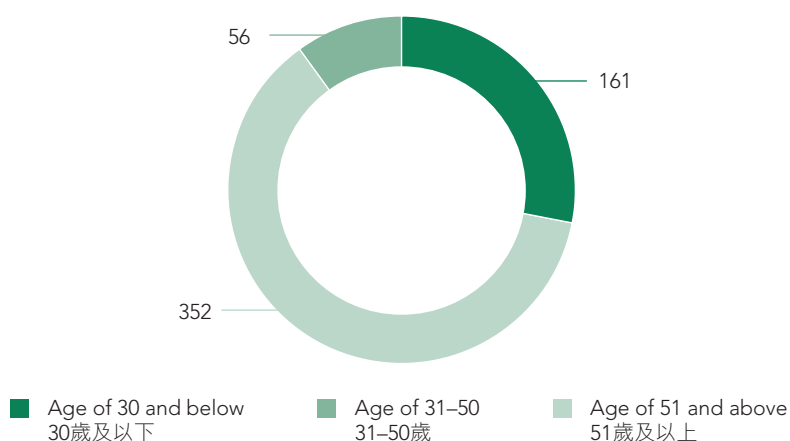
公司嚴格執行《中華人民共和國勞動法》，《中華人民共和國勞動合同法》等法律法規。高度重視員工管理，透過提供富有滿足感的工作，吸引和激勵員工。堅決反對使用童工和強制勞工，嚴格執行反歧視政策，所有員工不論性別、國籍、民族、宗教信仰和文化背景，均享有平等機會。

4. Creating Value and Going Forward Together 共創價值，攜手前進

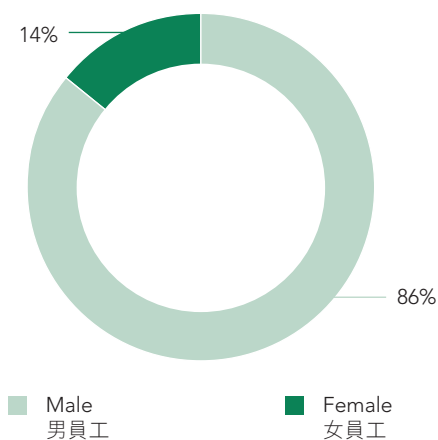
By the end of 2018, the Company has a total of 569 employees. With the new shareholders phasing in and AAG Energy management transition, the company has optimized its organization structure. During the relocation of Beijing headquarters to Jincheng of Shanxi Province, the employees who worked in Beijing had been properly settled. Through a series of job position reform and reorganization optimization, the company achieved a 16.75% job optimization rate in 2018.

截止2018年底，公司擁有員工569人。隨著新股東加入及公司管理層的變化，亞美能源的組織構架進行了優化。北京總部搬遷至山西晉城，原北京工作的僱員與公司的勞動關係都得到了妥善解決。公司通過系列崗位重組優化，2018年全年員工崗位優化率達到16.75%。

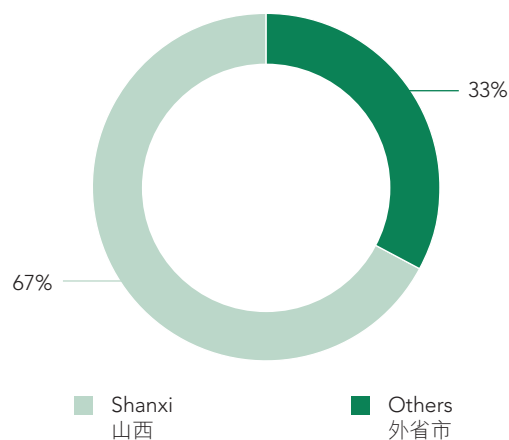
Number of Employees by Age
員工年齡結構



Number of Employees by Gender
員工性別組成



Number of Employees by Geographic Location
員工地區比例表



4. Creating Value and Going Forward Together 共創價值，攜手前進

4.3.2 Compensation and Benefits

AAG Energy is committed to establishing an incentive compensation mechanism in line with the market. The Company regularly reviews and adjusts its remuneration package according to the market and the business performance of the Company, and also continuously improves the remuneration and benefit policies. The Company strictly implements performance assessment, linking employees' performance with their annual bonus and remuneration to incentivize employees, which is also a way to recognize employees' efforts throughout a whole year. The Company pays various types of social insurance for employees, including endowment insurance, medical insurance, unemployment insurance, maternity insurance and employment injury insurance, as well as pays housing provident funds for employees.

4.3.3 Occupational Health

AAG Energy believes that employees' health and occupational hygiene are of vital importance to us. We have strictly implemented occupational health management program following the Occupational Disease Prevention and Control Law of the People's Republic of China, as well as other relevant laws and regulations. The Company enhanced occupational health and safety management in the workplace, regularly organized staff for health examination, strengthened the occupational health management of site operators, established personal health files and continuously improved the working environment in order to ensure their occupational health and safety.

In 2018, the Company's occupational health examination program covered all employees with possible exposure to health hazards. According to the "Administrative Measures for Occupational Health Surveillance and Supervision of Enterprises" issued by the National Production Safety Supervision Department, we conducted the occupational health hazards identification and took the samplings for analysis in the work place. In addition, employees had occupational health examinations according to the Technical Specifications for Occupational Health Surveillance (GBZ188-2014). The number of medical examinations for occupational diseases was 210, and the number of occupational diseases was zero.

4.3.2 薪酬福利

亞美能源致力於建立與市場接軌的薪酬激勵機制，定期根據市場情況和公司業務發展的需要調整薪酬機制，不斷完善薪酬福利制度。公司嚴格執行績效考核制度，考核結果與年終績效獎勵掛鉤以激勵和認可員工在當年的努力。公司按照國家規定為員工繳納包括養老、醫療、失業、生育、工傷及住房公積金等福利。

4.3.3 職業健康

亞美能源深信員工的健康和職業衛生至關重要，嚴格按照《中華人民共和國職業病防治法》等法律法規執行員工職業健康管理。定期組織員工進行健康體檢，加強現場作業人員的職業健康管理，並建立健康檔案，持續改善工作環境，保障員工職業健康安全。

2018年，本公司的職業病檢查覆蓋所有存在職業病風險崗位的員工。根據國家安監總局2012年49號令《用人單位職業健康監護監督管理辦法》，對工作場所產生的職業病危害因素進行調查分析，依據《職業健康監護技術規範》(GBZ188-2014)，進行了職業健康檢查，職業病體檢人數為210人，職業病發病人數為零。

4. Creating Value and Going Forward Together 共創價值，攜手前進

4.3.4 Supporting Employee Development

Considering the needs of employees' own development and business development, the Company provides targeted and diversified training and different types of career development channels for employees, and strives to provide a capacious career platform and development space for all kinds of talents, so as to promote the upgrading of enterprise capabilities through the improvement of employees' abilities. The Company adhere to the people-oriented talent development concept and strengthen the process management, hoping to build a talent system that connects different levels of personnel, all of whom share the responsibilities.

The Company has established a complete learning and development system to meet the requirements of rapid development of personnel and business. We have designed training and development plans related to employee responsibility and personal development from several dimensions, including the improvement of employees' professional skills, personal competence and quality, and high potential talent team management and the model of leadership. During their employment, AAG Energy will develop suitable training and development plans for employees according to their specific situations. Training includes development on professional qualities, job skills, production safety, management competences and other capabilities closely related to the employees' job responsibilities.

In 2018, the Company encouraged employees to actively take participation in the training. Employees spent a total of 9,030 hours for interdepartmental training and external training organized by headquarters. The average per capita training was 15.87 hours per year and 61.34% of staff participated in training.

In 2018, the Company organized training on leadership and outstanding performance coaching, which improved their comprehensive competence based on the training needs of employees, and provided necessary support for employee career development.

4.3.4 助力員工發展

公司綜合考慮員工自身發展和業務拓展需求，為員工提供有針對性的、多元化的培訓和不同類型的職業發展通道，努力為各類人才提供廣闊的事業平台和發展空間，以員工能力提升帶動企業能力升級。堅持以人為本的人才發展理念，強化過程管理，形成上下聯動，責任共擔的人才體系平台。

公司已建立起完整的學習與發展體系，來滿足人才及業務高速發展的要求，並從建設員工個人專業化技能、個人能力素質、高潛力人才團隊管理及領導力的模型幾個維度來制定與員工崗位職責及個人發展相關的培訓發展計劃。員工在職期間，亞美能源視具體情況為員工制定適合的培訓和發展計劃，包括職業素質、工作技能、安全生產、管理能力以及其他與員工崗位職責緊密相關的培訓發展內容。

2018年，公司鼓勵員工積極參加培訓，其中員工接受的由公司組織的跨部門一級培訓以及外部培訓共9,030小時，人均15.87小時，員工培訓百分比為61.34%。

2018年公司組織開展了關於領導力、傑出績效輔導等培訓，滿足員工的培訓需求，提升員工的綜合素質，為員工的職業發展提供必要支撐。

4. Creating Value and Going Forward Together 共創價值，攜手前進

Career Development

The Company proactively provides employees with developmental opportunities. We encourage employees to improve their professional knowledge, capabilities and experiences so as to improve the value of our employees as well as the Company. As for employees' occupational development, the Company has set up multiple promotion channels, ensuring that all employees on all positions will obtain independent, unimpeded and stable career development. The Company carries out annual evaluations for the promotion of employees and the valuation process is unified in company-wide to ensure that their promotions meet the needs of the Company's business development and are in accordance the principles of with fairness and justice.

職業發展

公司積極為員工提供發展的機會，鼓勵員工不斷提升自身專業知識、能力和經驗，以增加個人及對公司的價值。對於員工的職業發展，公司設立了多種晉升通道，確保不同崗位類型的員工都能獲得獨立、暢通、穩定的職業發展空間。公司每年進行晉升評估，該評估在全公司範圍內採取統一的流程，以確保晉升符合公司業務發展的需要以及公平、公正的原則。



Employees in Training
員工培訓



4. Creating Value and Going Forward Together 共創價值，攜手前進

4.3.5 Caring for the Lives of Employees

The Company encourages employees to maintain a healthy work-life balance. By organizing various recreational activities, the Company provides a platform where employees can express themselves and enhance communications with each other. At the same time, through providing the welfare and benefits and creating a warm working environment for employees, it leads them to pursue a better life. In 2018, the Company actively organized all kinds of recreational activities to enrich the daily life of employees, and advocated the healthy and upward work and lifestyle of employees.

Case: Employee Assistance Programme ("EAP")

The Company cares about the work and life of every employee and implements the Employee Assistance Programme ("EAP") to help every employee and his or her family in need to improve their physical and mental health, and make a better plan for healthy, efficient and happy life.

On March 8th 2018, the Company launched a women's caring workshop on Women's Day. A professional psychological consultant was invited to hold a special lecture on "Women, the Designers of Happy Life" for the female employees. In this workshop, some problems of different roles and orientations of female employees in the society and their families were answered.

On the Children's Day, the Company organized a parent-child education course with the theme of "Scenario Parents". Through cases, demonstration and games, the employees learned how to effectively communicate and how to create situations and build partnerships with children. It provided problem-solving techniques in a scientific and effective way for children education.

4.3.5 關愛員工生活

公司鼓勵員工保持工作與生活的平衡，通過開展豐富多彩的文體活動，為員工提供展示自我、增強溝通的平台。同時通過發放員工福利，營造溫馨的工作環境，引領員工追求美好生活。2018年，公司積極組織了各類文體活動，以豐富員工日常生活，倡導健康向上的工作和生活方式。

案例：幸福加油站

公司關心每一位員工的工作與生活，設立、推行了「幸福加油站」項目，旨在幫助有需要的員工及其家屬獲得身心一体的保障，更好地規劃未來健康、高效、幸福的生活。

三八婦女節，我們開展婦女節關愛活動，邀請專業的心理諮詢師為公司的女性員工進行了一場關於「女人，幸福生活設計者」專題講座，解答了女性員工在家庭和社會中不同角色和定位生活中遇到的一些困擾。

六一兒童節公司組織了「情景父母」為主題的親子教育課程，通過案例、小遊戲現身說法等方式，教授員工如何有效地與孩子交流溝通，如何與孩子建立融洽的親子關係等，為員工提供了科學有效的解決家庭子女教育方面問題的方法。

4. Creating Value and Going Forward Together 共創價值，攜手前進

Case: Climbing Jueshan Mountain in Summer

On 28 July 2018, the Company organized plans for the Jincheng office staff to climb Jueshan Mountain over the summer season in order to enrich their leisure life and to get them enjoy a healthy life in natural environment.

案例：盛夏珏山行

盛夏時節，為了豐富員工的業餘生活，同時親近大自然，暢享健康生活，2018年7月28日，晉城辦公室員工一起參與了「盛夏珏山行」活動。



Climbing Jueshan Mountain
盛夏珏山行

5. Benefiting Local Communities to Embrace a Fine Future Together 惠澤社群，共迎未來

AAG Energy has formulated a social policy of “Sustainable Development, Inclusiveness Community”. We carry out activities consistent with the said policy to protect our employees and communities against health and safety risk and to raise the living standards of the residents in the affected communities by taking and fulfilling the social responsibilities, and with particular attention to the vulnerable groups. We are committed to:

- Be consistent with the latest requirements of applicable People’s Republic of China laws and regulations, IFC Performance Standards and Equator Principles;
 - Undertake continuous social impact assessment and risk evaluations to effectively avoid and control health and safety hazards to protect employees and surrounding communities and coexist in a harmonious way with the local communities;
 - Maintain good relationships with the affected communities and broader stakeholders;
 - Adopt and implement human resources policies and procedures to keep consistent with national employment policies and labor laws and regulations and with international standards (e.g. IFC Performance Standards);
 - Avoid engaging in or supporting the use of child labor, forced labor or compulsory labor as defined in the ILO Convention;
 - Work with employees to maintain a healthy, hygienic and safe work environment, and proactively avoid occupational injury and illness risks, and promote employee health and well-being;
 - Avoid or minimize both physical and economic displacement to the local community; where avoidance is not possible, to extent possible collaborate with the local government to restore the livelihoods of the displaced persons and ensure informed participation of those affected;
 - Ensure that all employees are aware of their roles and responsibilities to comply with our social policy; and
 - Require the same of contractors to manage social performances in line with this social policy.
- 亞美能源制定了「可持續發展，包容性社區」的社會政策。我們持之以恆的貫徹實施該政策，以保護員工和社區的健康和安全，通過承擔和履行社會責任來改善受影響社區的生活水準，尤其是對弱勢群體的關注。我們致力於：
- 與中華人民共和國的法律法規、國際金融公司運行標準、赤道原則等最新版本的要求保持一致；
 - 持續開展社會影響力和風險評估，有效避免和控制給員工和周邊社區帶來健康與安全風險，保障與當地社區和諧相處；
 - 與受影響社區和更廣泛的利益相關方建立友好關係；
 - 採取和實施與國家就業和勞動法規以及國際標準（例如：國際金融運行標準）一致的人力資源政策和程式；
 - 杜絕國際勞工法禁止的僱傭童工和強迫勞動；
 - 與員工一起保持健康、衛生、安全的工作環境，積極避免職業傷害和患病風險，促進員工健康和幸福；
 - 避免或最小化當地社區的人員搬遷和經濟水準的下降。如果不可避免，盡可能的與當地政府協調來恢復遷居的生活，確保他們的知情和參與；
 - 確保所有員工明確他們的作業和職責，來遵守我們的社會政策；及
 - 要求承包商也遵守這些要求，根據本社會政策來管理其社會表現。

5. Benefiting Local Communities to Embrace a Fine Future Together 惠澤社群，共迎未來

In line with the planning and development of the community, AAG Energy spares no efforts in public services and volunteering activities and devoted to building inclusive communities to support the harmonious development of society. AAG Energy has contributed to the community for many years, and has been widely recognized and praised by the society since it settled in Qinshui County. In 2018, we continued to maintain good communication with the community and follow our excellent mode of society — business cooperation tradition. A total of CNY180,000 was invested for community public welfare, and the volunteers served up to 34 hours.

5.1 CBM Supply for Communities

In an effort to transform the way of residents' energy usage from coal to clean energy, the Company provided CBM gas to local communities at a favorable price. We continuously supplied CBM gas to Guobei Village, Douzhuang Village and Panhe Village of Jiafeng Town in Qinshui County, which greatly reduced their need for coal, and the emissions of carbon dioxide, sulphide and dusts so as to decrease air pollution accordingly. This effectively improved local air quality and helped create a cleaner and healthier living environment for the local residents.

By the end of 2018, a total volume of 16.55 million cubic meters gas has been supplied to Guobei and Douzhuang villages, and the annual gas supply has been gradually increasing in order to meet the gas demand of Guobei and Douzhuang villages. Panzhuang project supplied CBM gas with about 300,000 cubic meters to Panhe village to ensure the gas supply for the consumptions of local residents in 2018.

亞美能源積極配合社區規劃和發展，不遺餘力參與公益志願者事業，致力於建設包容性社區，助力社會和諧發展。亞美能源多年來盡心貢獻社區，自入駐沁水至今，深得社會的廣泛認可和一致好評。2018年，我們繼續與社區保持良好溝通，延續以往優秀的社企合作模式。全年共計為社區公益投入資金人民幣180,000元，義工服務34小時。

5.1 社區供氣

為轉變居民燃煤的能源使用方式，引導居民使用清潔能源，公司將煤層氣以優惠價格輸送給當地小區。2018年，我們繼續為沁水縣嘉峰鎮郭北村、竇莊村和潘河村輸送煤層氣，大大減少了當地居民的燃煤需求，降低了二氧化碳、硫化物和粉塵的排放，減少了大氣污染，有效改善了當地空氣質量，使當地居民擁有更潔淨和健康的生活環境。

截止2018年底，潘莊項目已向郭北和豆莊兩村供氣量累計約1,655萬立方米，為滿足郭北和豆莊兩村用氣需求，每年的供氣量在逐步增加。潘莊項目2018年向潘河村供氣約30萬立方米，保證當地村民用氣。

5. Benefiting Local Communities to Embrace a Fine Future Together 惠澤社群，共迎未來

5.2 Caring for the Elderly

We visited the nursing home of Qinshui County to devote loves to the elderly and enhance our corporate social responsibility.

AAG Energy takes care of the vulnerable groups and advocates employee volunteers to actively send warmth and cares to the elderly in the community nursing homes. In 2018, the Company employees visited elderly people living in the nursing home of Qinshui County with holiday blessings prior to the Chinese New Year, the Dragon Boat Festival and the Mid-Autumn Festival.

5.2 關愛老人

探訪沁水縣敬老院，關愛孤寡老人、奉獻員工愛心，增強企業社會責任感。

亞美能源關懷弱勢群體，倡導員工志願者積極走進社區敬老院，為老人們送去溫暖和愛心。2018年，春節、端午節和中秋節前，公司員工前往沁水縣康樂中心敬老院看望居住在這裏的老人們，給老人們送去節日祝福。



Caring for the Elderly
慰問敬老院



5. Benefiting Local Communities to Embrace a Fine Future Together 惠澤社群，共迎未來

5.3 Sponsoring Social Activities

We always pay attention to social public welfare undertakings. We make efforts to be excellent corporate citizens as an important part of our company culture, and we always take our actions to practice our social responsibilities. While creating enterprise value, we have actively carried out a variety of social public welfare activities so as to truly benefit the society while benefit from it.

In 2018, AAG Energy donated CNY20,000 to the Chinese Health Activities — Qinshui station, which was used for the poor people in Qinshui County to seek medical advice.

5.3 為愛助力

我們一直把關注社會公益事業、重視社會責任感、做優秀企業公民當做我們企業文化的重要組成部分，在創造企業價值的同時，積極開展各項社會公益活動，真正做到取之於社會，回饋於社會。

2018年亞美能源為健康中國基層行—沁水站捐贈人民幣2萬元，捐助金額用於沁水縣貧困人員就醫。



Healthy China Promotion — Qinshui
健康中國基層行 — 沁水站

5. Benefiting Local Communities to Embrace a Fine Future Together 惠澤社群，共迎未來

Case: Sponsored the 2nd Qinshui County Hiking Activity in Taihang National Forest Park

In 2018, AAG Energy sponsored CNY160,000 for Qinshui County hiking activity event in Taihang national forest park, where about 1,500 persons actively participated in including AAG Energy's employees. It boasted the development of the community sports and culture, improved enterprise reputation and embodied our corporate social responsibilities.

案例：贊助沁水縣第二屆太行洪穀徒步穿越賽

2018年亞美能源贊助人民幣16萬元用於沁水縣國家森林公園徒步穿越賽，該項賽事活動參與人員達1,500人。亞美能源員工的積極參與，既促進了當地體育文化運動的發展，又提升企業知名度，體現了企業的社會責任感。



Hiking Race in Taihang Mountain
太行洪穀徒步穿越賽

HKEX ESG Disclosures Index

香港聯交所ESG指標索引

Environmental, Social & Governance Indicator for Disclosure 環境、社會及管治指標		Page 頁碼
Scope: Environment 範疇： 環境		
A1: Emissions 排放物 General Disclosure Information on: (a) Policies; and (b) Compliance with relevant laws and regulations that have a significant impact on the issuer related to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste. 一般披露 有關廢氣及溫室氣體排放，向水及土地的排污、有害及無害廢棄物的產生等的： (a) 政策；及 (b) 遵守發行人有重大影響的相關法律及規例的資料。		P28–P30
A1.1	The types of emissions and respective emissions data. 排放物種類及相關排放資料。	P28
A1.2	Greenhouse gas emissions in total (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility) 溫室氣體總排放量(以噸計算)及(如適用)密度(如以每產量單位、每項設施計算)。	P28–P29
A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility) 所產生有害廢棄物總量(以噸計算)及(如適用)密度(如以每產量單位、每項設施計算)。	P30
A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility) 所產生無害廢棄物總量(以噸計算)及(如適用)密度(如以每產量單位、每項設施計算)。	P30
A1.5	Description of measures to mitigate emissions and results achieved 描述減低排放量的措施及所得成果。	P28–P29
A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved. 描述處理有害及無害廢棄物的方法、減低產生量的措施及所得成果。	P30

HKEX ESG Disclosures Index

香港聯交所ESG指標索引

Environmental, Social & Governance Indicator for Disclosure 環境、社會及管治指標		Page 頁碼
A2: Use of Resources 資源使用 General Disclosure Policies on the efficient use of resources, including energy, water, and other raw materials. 一般披露 有效使用資源(包括能源、水及其他原材料)的政策。		P25, P30–P33
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). 按類型劃分的直接及/或間接能源(如電、氣或油)總耗量(以每千秒千瓦時計算)及密度(如以每產量單位、每項設施計算)。	P25–P27
A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility) 總耗水量及密度(如以每產量單位、每項設施計算)。	P33
A2.3	Description of energy use efficiency initiatives and results achieved. 描述能源使用效益計畫及所得成果。	P25
A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved. 描述求取適用水源上可有任何問題，以及提升用水效益計畫及所得成果。	P32–P33
A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced. 製成品所用包裝材料的總量(以噸計算)及(如適用)每生產單位佔量。	Not Applicable 不適用
A3: The Environment and Natural Resources 環境及天然資源 General Disclosure Policies on minimising the issuer's significant impact on the environment and natural resources. 一般披露 減低發行人對環境及天然資源造成重大影響的政策。		P24
A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them. 描述業務活動對環境及天然資源的重大影響及已採取管理有關影響的行動。	P23–P24, P29 P31–P32

HKEX ESG Disclosures Index

香港聯交所ESG指標索引

Environmental, Social & Governance Indicator for Disclosure 環境、社會及管治指標		Page 頁碼
Scope: Social 範疇： 社會		
Employment and Labour Practices 僱傭與勞工常規		
B1: Employment 僱傭 General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment, and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare. 一般披露 有關薪酬及解僱、招聘及晉升、工作時數、假期、平等機會、多元化、反歧視以及其他待遇及福利的： (a) 政策；及 (b) 遵守對發行人有重大影響的相關法律及規例的資料。		P36, P38–P42
B1.1	Total workforce by gender, employment type, age group and geographical region 按性別、僱傭類型、年齡組別及地區劃分的僱員總數。	P37
B1.2	Employee turnover rate by gender, age group and geographical region 按年齡組別及地區劃分的僱員流失比率。	P37
B2: Health and Safety 健康與安全 General Disclosure Information on: (a) Policies; and (b) Compliance with relevant laws and regulations that have a significant impact on the issuer related to providing a safe working environment and protecting employees from occupational hazards. 一般披露 有關提供安全工作環境及保障僱員避免職業性危害的： (a) 政策；及 (b) 遵守對發行人有重大影響的相關法律及規例的資料。		P17–P23, P38
B2.1	Number and rate of work-related fatalities. 因工作關係而死亡的人數及比率。	P19
B2.2	Lost days due to work injury. 因工傷損失工作日數。	P19
B2.3	Description of occupational health and safety measures adopted, how they have been implemented and monitored. 描述所採納的職業健康與安全措施，以及相關執行及監察方法。	P18–P22

HKEX ESG Disclosures Index

香港聯交所ESG指標索引

Environmental, Social & Governance Indicator for Disclosure 環境、社會及管治指標		Page 頁碼
B3: Development and Training 發展與培訓 General Disclosure Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities. 一般披露 有關提升僱員履行工作職責的知識及技能的政策。描述培訓活動。		P39-P40
B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management). 按性別和僱員類別(如高級管理層、中級管理層等)劃分的受訓僱員百分比。	P39
B3.2	The average training hours completed per employee by gender and employee category. 按性別和僱員類別劃分，每名僱員完成受訓的平均時數。	P39
B4: Labour Standards 勞工準則 General Disclosure Information on: (a) Policies; and (b) Compliance with relevant laws and regulations that have a significant impact on the issuer related to preventing child and forced labour. 一般披露 有關防止童工或強制勞工的： <ul style="list-style-type: none"> (a) 政策；及 (b) 遵守對發行人有重大影響的相關法律及規例的資料。 		P36, P43
B4.1	Description of measures to review employment practices to avoid child and forced labour. 描述檢討招聘慣例的措施以避免童工及強制勞工。	P36
B4.2	Description of steps taken to eliminate such practices when discovered. 描述在發現違規情況時消除有關情況所採取的步驟。	P36
Operating Practices 營運慣例		
B5: Supply Chain Management 供應鏈管理 General Disclosure Policies on managing environmental and social risks of the supply chain. 一般披露 管理供應鏈的環境及社會風險政策		P34-P35
B5.1	Number of suppliers by geographical region 按地區劃分的供應商數目。	P35
B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored. 描述有關聘用供應商的慣例，向其執行有關慣例的供應商數目、以及有關慣例。	P34

HKEX ESG Disclosures Index

香港聯交所ESG指標索引

Environmental, Social & Governance Indicator for Disclosure 環境、社會及管治指標		Page 頁碼
B6: Product Responsibility 產品責任 General Disclosure Information on: (a) Policies; and (b) Compliance with relevant laws and regulations that have a significant impact on the issuer related to health and safety, advertising, labelling, and privacy matters relating to products and services provided and methods of redress. 一般披露 有關所提供產品和服務的健康與安全、廣告、標籤及私隱事宜以及補救方法的：		P35
B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons. 已售或已運送產品總數中因安全與健康理由而回收的百分比。	Not Applicable 不適用
B6.2	Number of products and service related complaints received and how they were dealt with. 接獲關於產品及服務的投訴數目以及應對方法。	P35
B6.3	Description of practices relating to observing and protecting intellectual property rights. 描述與維護及保障智慧財產權有關的慣例。	Not Applicable 不適用
B6.4	Description of quality assurance processes and recall procedures. 描述品質檢定過程及產品回收程式。	P35
B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored. 描述消費者資料保障及私隱政策，以及相關執行及監察方法。	Not Applicable 不適用
B7: Anti-corruption 反貪腐 General Disclosure Information on: (a) Policies; and (b) Compliance with relevant laws and regulations that have a significant impact on the issuer related to bribery, extortion, fraud, and money laundering. 一般披露 有關防止賄賂、勒索、欺詐及洗黑的：		P12
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. 於彙報期內對發行人或其僱員提出並已審結的貪腐訴訟案件的數目及訴訟結果。	P12
B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored. 描述防範措施及舉報程式，以及相關執行及監察方法。	P12

HKEX ESG Disclosures Index

香港聯交所ESG指標索引

Environmental, Social & Governance Indicator for Disclosure 環境、社會及管治指標		Page 頁碼
Community 社區		
B8: Community Investment 社區投資 General Disclosure Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take in to consideration the communities' interests. 一般披露 有關以社區參與來瞭解營運所在社區需要和確保其業務活動會考慮社區利益的政策。		P43–P47
B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport). 專注貢獻範疇(如教育、環境事宜、勞工需求、健康、文化、體育)。	P43–P47
B8.2	Resources contributed (e.g. money or time) to the focus area. 在專注範疇所動用資源(如金錢或時間)。	P44–P47

Feedback 讀者意見反饋表

Dear Reader:

Thank you for your interest and support in AAG Energy's sustainable development commitments. In order to deliver professional and valuable ESG information to you, as well as to further improve our Sustainable Development Report, your suggestions and feedback are very much appreciated.

1. Are you satisfied with this report? Please feel free to share your comments.
2. Does this report give you full visibility on our CSR platform?
3. Are you able to find the information that you were seeking in this report?
4. What are your suggestions for this report?

尊敬的讀者：

非常感謝您對亞美能源控股有限公司可持續發展的關注和支持，為向您提供我們更專業、更有價值的環境、社會及管治信息，進一步提升亞美能源可持續發展報告的質量，歡迎您回答意見反饋表中的相關問題。

1. 您對報告是否滿意？請作出您的評價。
2. 您認為我們履行企業社會責任的情況是否得到了完整披露？
3. 您希望瞭解的信息在報告中是否被完整披露？
4. 您對報告有哪些改進建議？

Your contact information 您的信息：

Name 姓名 _____

Company 工作單位 _____

Title 職務 _____

Fax 傳真 _____

Phone Number 聯繫電話 _____

E-mail 電子郵件 _____