



云南铝业股份有限公司

2022

社会责任暨ESG报告

云南铝业股份有限公司

Social Responsibility and Environmental,
Social and Governance (ESG) Report

Yunnan Aluminium Co., Ltd.



国家环境友好企业

绿色铝·在云铝

Green Aluminum · Made in Yunnan Aluminium

关于本报告 About the Report

本报告主要描述了云铝股份及其下属企业在环境、社会与管治及履行社会责任方面的表现，与各利益相关方进行的沟通，回应利益相关方需求。云铝股份董事会对本公司社会责任工作全面负责，且本报告已经公司董事会审阅及批准。

The Report mainly describes the ESG performance of Yunnan Aluminium and its subordinate companies, and their communications with various stakeholders to respond to the needs of the latter. The Board of Directors of Yunnan Aluminium is fully responsible for the social responsibility work of the Company, and the Report has been reviewed and approved by the Board of Directors of the Company.

时间范围 Scope of period

除非特别说明，本报告时限为 2022 年 1 月 1 日至 2022 年 12 月 31 日。

Unless otherwise specified, the Report covers the period from January 1, 2022 to December 31, 2022.

报告范围 Scope of the Report

除非特别说明，本报告涵盖云铝股份及其下属分子公司。Unless otherwise specified, the Report covers Yunnan Aluminium and its subsidiaries and branches.

报告周期 Report period

本报告为年度报告。

The Report is an annual report.

编制依据 Preparation basis

联合国 2030 可持续发展目标 (SDGs)

国务院国资委《关于国有企业更好履行社会责任的指导意见》

中国社会科学院《中国企业社会责任报告指南 (CASS-ESG5.0)》

全球报告倡议组织《可持续发展报告指南》(GRI Standards)

《深圳证券交易所上市公司自律监管指引第 1 号——主板上市公司规范运作》

United Nations 2030 Sustainable Development Goals (SDGs)

Guiding Opinions on Better Fulfilling Social Responsibilities of State-owned Enterprises issued by the SASAC of the State Council

Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-CSR5.0) issued by the Chinese Academy of Social Sciences

Sustainability Reporting Guidelines (GRI Standards) issued by the Global Reporting Initiative

Guidelines of the Shenzhen Stock Exchange for Self-regulation of Listed Companies No. 1 - Standardized Operation of Listed Companies on the Main Board Market

数据来源 Data source

本报告中的数据来源源于公司内部统计报告、公司文件及审计报告等资料，涉及财务方面的数据来自公司 2022 年年度报告，该部分数据已经普华永道中天会计师事务所（特殊普通合伙）审计。报告中的财务资料货币币种以人民币为单位，特别说明除外。

The data in the Report is sourced from the internal statistical reports, documents and audit statements of the Company. The financial data is cited from the 2022 Annual Report of the Company, which has been audited by Pricewaterhouse Coopers Zhong Tian LLP (Special General Partnership). The financial data in the Report is in RMB unless otherwise specified.

指代说明 Reference explanation

为便于表达和方便阅读，“云铝股份”“公司”“我们”表示云南铝业股份有限公司及其下属分子公司。

For the convenience of expression and reading, "Yunnan Aluminium", "Company" and "We" refer to Yunnan Aluminium Co., Ltd. and its subsidiaries and branches.

报告获取 Report acquisition

本报告以电子文档形式发布，包括中文 / 英文版本。您可在巨潮资讯网 (<http://www.cninfo.com.cn>) 或云南铝业股份有限公司网站 (<https://ylgf.chinalco.com.cn/>) 下载。为便于您更加全面具体地了解我们的环境绩效及经营业绩，请关注公司在深圳证券交易所官网及巨潮资讯网等媒体同步发布的《云南铝业股份有限公司 2022 年度报告》。

The Report is issued in electronic form, in both Chinese and English versions. You can download the Report from the website of CNINFO (<http://www.cninfo.com.cn>) or Yunnan Aluminium Co., Ltd. (<https://ylgf.chinalco.com.cn/>). For a more comprehensive and specific understanding of our environmental performance and business performance, please refer to the *2022 Annual Report of Yunnan Aluminium Co., Ltd.* simultaneously published on the official websites of media such as Shenzhen Stock Exchange and CNINFO.

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董事长致辞

2022 年是十四五规划的承上启下之年，也是迎接党的二十大隆重召开的喜庆之年。我们从党的二十大中感悟思想伟力、汲取前行力量，坚决贯彻落实上级决策部署，从容应对宏观经济形势多变和云南省能效管理，用实干和创新创造了骄人业绩，开创了公司高质量发展崭新局面。

这一年，我们精益求精、勇创佳绩。公司明确“争当高质量发展排头兵、树绿色低碳发展第一品牌、做铝基新材料引领者”的企业定位，扎实开展管理优化，企业发展效益显著提升。全年实现归属于母公司股东的净利润 45.69 亿元，同比增长了 37.07%，净资产收益率 22.32%，股东分红持续增加，实现经营业绩“四连增”，创历史最好水平。

这一年，我们务实笃行、攻坚克难。我们统筹推进改革发展、科技创新和产业升级，科学防范化解各种风险，深入开展全要素对标降本增效，公司成本竞争力大幅跃升，电解铝和铝合金产品产销量双双创出历史新高，各项生产经营目标任务圆满达成，持续保持质量、环境管理、职业健康安全等各项国际标准体系有效运行。

这一年，我们改革创新、锐意进取。我们持续深化改革，国企改革三年行动任务圆满收官，“三项制度”改革成效显著，主要产品劳动生产率大幅提升，员工收入明显增长。我们成立企业科协联合会，建成“科创中国”绿色铝基新材料创新基地等平台，实施了一批绿色低碳科技项目，突破了多项技术瓶颈，激发了企业发展的动力。

这一年，我们闯关夺隘、勇攀高峰。我们集中力量攻克难关，快速完成云铝海鑫二期 38 万吨电解铝产能投运和 1058 台电解槽复产，实现电解铝产能历史性满负荷运行。云铝浩鑫 3.5 万吨新能源动力电池箔等项目相继投产，建成首条 2 万吨石墨化阴极生产线，公司产业结构得到优化，云铝股份“3+3”园区经济模式基本形成。

这一年，我们绿色赋能、日趋日高。我们携手多方伙伴，共同致力于建设绿色化、智能化、数字化的智慧铝行业。我们努力打造循环经济，4 万吨铝电解固废资源综合利用示范项目流程顺利打通，分布式光伏项目发电总装机达 63.75 兆瓦，云铝润鑫等 6 个分布式光伏项目全面开工，云铝阳宗海光伏直流两次接入成功投运。公司获得南方区域首批绿色电力“双证”。

这一年，我们高质量发展、惠爱民生。我们成为中国第一家完成铝土矿、氧化铝、电解铝、铝加工全产业链 ASI 审核的企业，荣获 ESG 双碳先锋；始终关注员工发展，为员工提供成长发展的广阔舞台，鼓励员工与企业一同成长；不遗余力助力乡村振兴，与人民共享发展果实，以云铝力量助力实现中国式现代化和谐社会。

关山初度尘未洗，策马扬鞭再奋蹄。新的一年，我们将按照中铝集团“建设具有全球竞争力的世界一流有色金属企业”战略目标，主动担负起“当高质量发展排头兵、树绿色低碳发展第一品牌、做铝基新材料引领者”的使命，团结带领全体干部职工，以斗争精神迎接挑战，以奋进拼搏开辟未来，为云铝高质量发展开创新业绩，创造新荣光。

云铝股份党委书记、董事长



Message from the Chairman

The year 2022 is a connecting year of the 14th Five-Year Plan and a celebratory year for the grand opening of the 20th National Congress of the Communist Party of China. We have perceived the great power of thoughts of the 20th National Congress and drawn strength from it, resolutely implemented the decisions and deployment of the superior, calmly cope with severe tests, such as the changing macro situation and energy efficiency management to reduce load, created a remarkable performance through practical work and innovation, and ushered in a new era of high-quality development for the Company.

This year, we have strived for excellence and made great achievements. The Company has clearly positioned itself as "a vanguard of high-quality development, the No.1 brand of green low-carbon development and a leader in aluminium-based new material industry", carried out solid management optimization, and significantly improved the development efficiency. The annual net profit attributable to shareholders of parent company this year was RMB 4.569 billion, with a year-on-year increase of 37.07%, and the return on equity was 22.32%. The dividends of shareholders were increased continuously, achieving four consecutive increases in operating performance, a record high in history.

This year, we have worked perseveringly and overcome difficulties. We have systematically promoted reform and development, scientific and technological innovation and industrial upgrading, scientifically prevented and resolved various risks, carried out in-depth cost reduction and efficiency improvement by all-element benchmarking, significantly improved the cost competitiveness of the Company, achieved record high production and sales of both electrolytic aluminium and aluminium alloy products, successfully achieved all production and operation targets, and continuously maintained the effective operation of various international standard systems for quality, environmental management as well as occupational health and safety.

This year, we have enhanced reform and innovation and forged ahead. We have continued to deepen reforms, successfully completed the three-year reform of state-owned enterprises, achieved significant results in the reform of the "three systems", greatly increased labor productivity for major products, and obviously raised the income of employees. We have established the Association of Enterprise Science and Technology, built the "Innovation China" Green Aluminium-based New Materials Base, and implemented a number of green low-carbon technology projects, breaking through several technical bottlenecks and stimulating the momentum of enterprise development.

This year, we have broken through barriers and bravely scaled new heights. We have concentrated our efforts on overcoming difficulties and quickly completed the commissioning

of the Phase II 380,000t Electrolytic Aluminium Project of Yunnan Aluminium Haixin and the resumption of operation of 1,058 electrolytic cells, realizing the historic full-load production of electrolytic aluminium. We have successively put into operation the 35,000t New Energy Power Battery Foil Project of Yunnan Aluminium Haoxin and other projects, and built the first 20,000t graphitized cathode production line. We have optimized the industrial structure of the Company and basically formed the "3+3" park economy mode of Yunnan Aluminium.

This year, we have promoted green development and made increasing achievements. We have worked together with partners in an effort to build a green, intelligent and digital smart aluminium industry. We have endeavored to build a circular economy. Smooth progress was made with the 40,000t aluminum electrolysis solid waste resources comprehensive utilization demonstration project process. the total installed power generation capacity of distributed PV projects in the park reached 63.75 MW the six distributed PV projects including the Yunnan Aluminium Runxin Project were fully commenced, and the Yunnan Aluminium Yangzonghai PV Project successfully achieved DC access twice for operation. The Company was awarded the first "Dual Certificate" for green electricity in the southern region.

This year, we have made high-quality development and focused on people's livelihoods. We became the first enterprise in China to complete the ASI audit of the whole industrial chain of bauxite, aluminium oxide, electrolytic aluminium and aluminium processing, won the first "ESG Golden Bull Award · Pioneer of Dual Carbon". We have always attached importance to the development of our employees, providing them with a broad stage for growth, and encouraging them to grow together with the Company. We have spared no effort to promote rural vitalization, share the fruits of development with the people, and help realize a modern and harmonious society of Chinese style with the contribution of Yunnan Aluminium.

We are well prepared and ready to move quickly into our new work. In this new year, we will follow the strategic target of "building a world-class non-ferrous metal enterprise with global competitiveness" of Aluminum Corporation of China, actively take up the mission of making Yunnan Aluminium "a vanguard of high-quality development, the No.1 brand of green low-carbon development and a leader in aluminium-based new material industry", unite and lead all cadres and employees to meet the challenges with the spirit of struggle, open up the future through hard work, and create new performance and glory for the high-quality development of Yunnan Aluminium.

Secretary of the Party Committee and
Chairman of Yunnan Aluminium

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走进云铝股份

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公司简介

Company Profile

云南铝业股份有限公司（以下简称“云铝股份”，股票代码 000807）前身为云南铝厂，始建于 1970 年，2019 年加入中铝集团，是全国有色行业、中国西部省份工业企业中唯一一家“国家环境友好企业”、国家绿色工厂，连续六届荣获“全国文明单位”称号，拥有高新技术企业 9 户。

Yunnan Aluminium Co., Ltd. (hereinafter referred to as "Yunnan Aluminium", stock code: 000807), formerly known as Yunnan Aluminium Plant, was founded in 1970 and joined CHINALCO Group in 2019. It is the only "National Environmental Friendly Enterprise" and national green factory among industrial enterprises in the non-ferrous metal industry and western provinces of China. It has been honored as a "National Civilized Entity" for six consecutive years and owns 9 high-tech companies.

云铝股份围绕中铝集团“建设具有全球竞争力的世界一流企业”目标，深入贯彻落实云南省委、省政府打好“绿色能源牌”建设“中国绿色铝谷”战略部署，加快构建节能减排、清洁生产、循环利用为一体的绿色发展模式，建成了集铝土矿—氧化铝—炭素制品—铝冶炼—铝加工为一体的绿色低碳完整产业链，产业分布于云南省昆明市、曲靖市、昭通市、红河州、文山州、大理州等六个州市。公司经过多年的发展，已经形成年产氧化铝 140 万吨、绿色铝 305 万吨、阳极炭素 80 万吨、石墨化阴极 2 万吨、铝合金 157 万吨的绿色铝材一体化产业规模优势，总资产约 391 亿元。



Following the strategic target of "building a world-class enterprise with global competitiveness" of CHINALCO Group, Yunnan Aluminium has thoroughly implemented the strategic deployment of building a "Green Energy Brand" and "Green Aluminum Valley in China" of the Yunnan Provincial Party Committee and Provincial Government, accelerated the construction of a green development mode that integrates energy conservation, emission reduction, clean production and cyclic utilization, and built a complete green and low-carbon industrial chain integrating bauxite - alumina - carbon products - aluminum smelting - aluminum deep-processing, with businesses distributed in six cities in Yunnan Province, i.e. Kunming, Qujing, Zhaotong, Honghe, Wenshan and Dali. After years of development, the Company has established scale advantages in the green aluminum integration industry, with an annual production of 1,400,000t alumina, 3,050,000t green aluminum, 800,000t carbon anode, 20,000t graphitized cathode, and 1,570,000t aluminum alloy, with total assets of about RMB 39.1 billion.



公司积极推进各绿色铝产业基地经济发展，2022 年，云铝股份建成 15 万吨汽车轻量化合金材料、3.5 万吨新能源动力电池箔、4 万吨高性能铝合金线材等一批下游产业链延伸项目，新增自建产能 22.5 万吨，延链、强链效果加速凸显；建成文山歪山头采矿工程、铁厂采矿工程、2 万吨石墨化阴极新材料等项目，有效弥补自身发展短板。到 2025 年，将打造成“3+3”六大绿色铝材一体化产业集群，形成从铝水到终端产品的“1+N”全产业链绿色发展格局，争当中铝加快建设世界一流企业排头兵。

The Company has been actively promoting the economic development of each green aluminum industry base. In 2022, Yunnan Aluminium completed several downstream industry chain extensions projects such as 150,000 tons of lightweight alloy materials for automobiles, 35,000 tons of new energy-power battery foil and 40,000 tons of high-performance aluminum alloy wire, which added 225,000 tons of self-built production capacity and accelerated the prominence of the effect of chain extension and strengthening. It has completed the Wenshan Waishantou mining project, the ironworks mining project and 20,000 tons of graphitized cathode new materials, which effectively made up for its own development shortcomings. By 2025, the Company will create "3+3" six green low-carbon aluminum processing integration industry clusters, form a "1+N" green development pattern of the whole industrial chain from aluminum water to terminal products, and fight for the vanguard of Chinalco for the construction of the world-class enterprise.

核心理念 Core Concepts

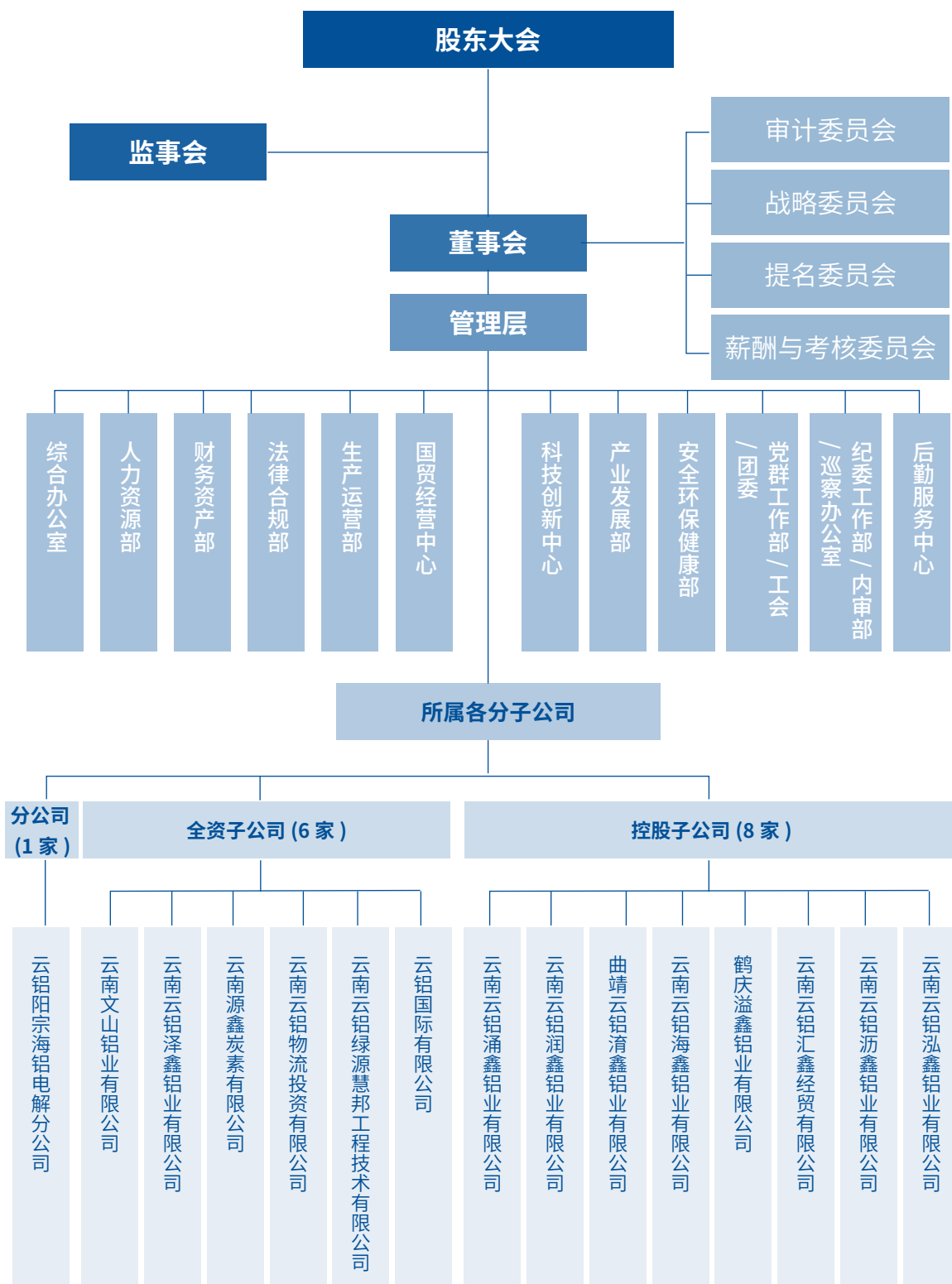
企业使命 Corporate Mission

强企 报国 富民
Strengthen the Enterprise, Serve the
Country, Enrich the People

企业文化 Corporate Culture

实干铸就云铝 创新引领未来
Practical Work Shapes Yunnan Aluminium,
Innovation Creates the Future

组织架构



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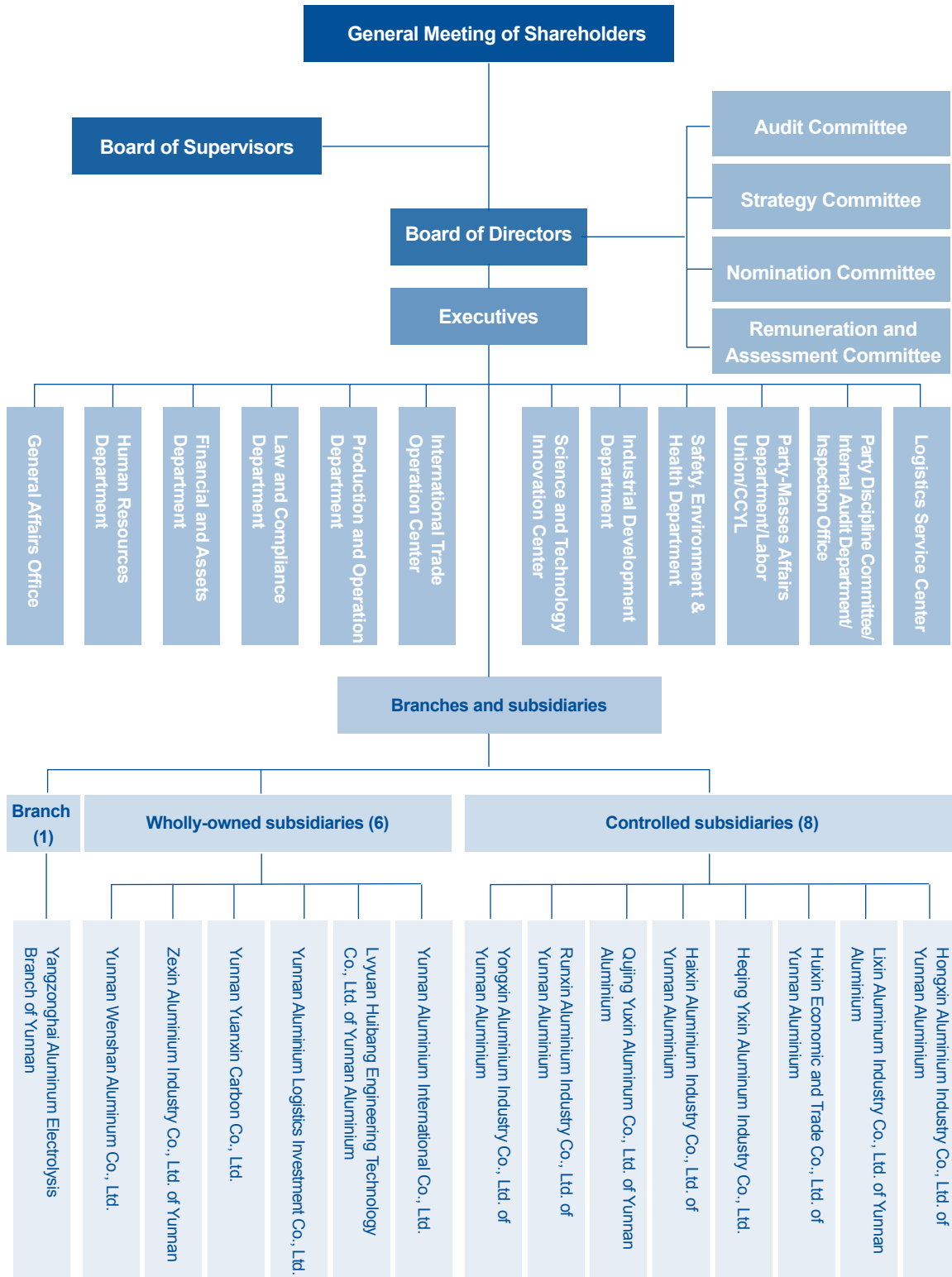
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Organizational Structure



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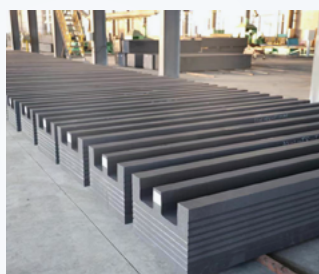
氧化铝
Alumina



阳极炭素
Carbon anode
block



石墨化阴极
Graphitized
cathode



重熔用铝锭
Aluminum ingots
for remelting



铸造铝合金棒
Cast aluminum
alloy ingots



铝合金扁锭
Aluminum alloy
slabs



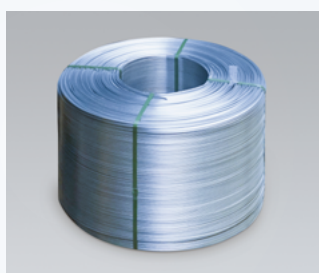
变形铝合金圆
铸锭
Deformed
aluminium alloy
round ingot



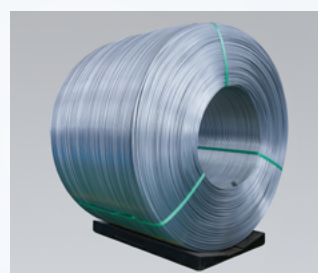
高精铝
High precision
aluminum



圆铝杆
Aluminum rods



铝合金焊材
Aluminum
alloy welding
wire



Responsibilities and Honors

责任荣誉



云铝股份蝉联六届“全国文明单位”

Yunnan Aluminium honored as "National Civilized Entity" for six consecutive times

云铝文山首次荣获“全国文明单位”

Yunnan Aluminium Wenshan honored as "National Civilized Entity" for the first time



鹤庆溢鑫铝业有限公司

国家绿色工厂

中华人民共和国工业和信息化部
二〇二二年一月

云铝溢鑫入选国家级“绿色工厂”

Yunnan Aluminium Yixin selected as one of the "National Green Factories"



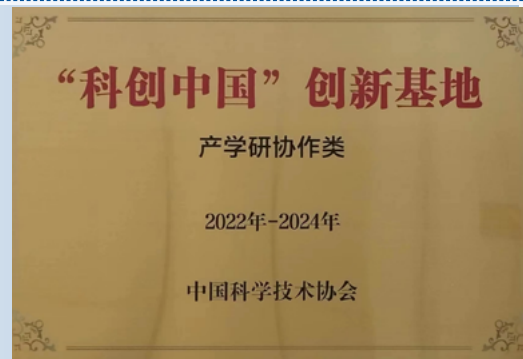
获评首届“ESG金牛奖·双碳先锋”

Won the first "ESG Golden Bull Award · Pioneer of Dual Carbon"



云铝股份党委书记、董事长张正基荣获“2021年度金牛企业领袖奖”

Zhang Zhengji, Secretary of the Party Committee and Chairman of Yunnan Aluminium, won the "2021 Golden Bull Enterprise Leader Award" in December



云铝股份成功入选首批“科创中国”创新基地

Yunnan Aluminium was successfully selected as one of the first batch of "Innovation China" innovation bases

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环境

ENVIRONMENT



环保投入

4.77 亿元

Investment in environmental protection:
RMB 477 million

全年能源消耗总量

599.93 万吨标煤

Total annual energy consumption:
5,999,300 tons of standard coal

清洁能源使用占比

88.6%

Proportion of clean energy use: 88.6%



固废安全处置率

100%

Safe disposal rate of solid waste: 100%

社会

SOCIAL



纳税总额

25.52 亿元

Total tax paid: RMB 2,552 million



研发投入

19.56 亿元

R&D investment: RMB 1.956 billion



新增专利申请

96 件

New patent applications: 96



产品交付合格率

100%

Rate of qualified product delivered: 100%



安全生产投入

17,877 万元

Investment in work safety: RMB 178.77 million



注册志愿者人数

5,104 人

Number of registered volunteers: 5,104

管治

GOVERNANCE



资产总额

390.59 亿元

Total assets: RMB 39,059 million



归属上市公司股东的净利润

45.69 亿元

Net profit attributable to shareholders of listed companies: RMB 4,569 million



加权平均资产收益率ROE

22.32%

Weighted average return on equity (ROE): 22.32%



营业收入

484.63 亿元

Operating revenue: RMB 48,463 million

利润总额

亿元

Total profit

RMB 100 million

2020 13.57

2021 47.04

2022 59.07

归属上市公司股东的净利润

亿元

Net profits attributable to shareholders of listed companies RMB 100 million

2020 9.03

2021 33.33

2022 45.69

资产负债率

%

Asset-liability ratio

2020 66.32

2021 44.48

2022 35.29

股东分红

亿元

Dividends to Shareholders

RMB 100 million

2020 0

2021 3.90

2022 5.55

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用好绿色基因，成就绿色事业

Making Good Use of Green Genes and Achieving Green Course

随着国家“碳达峰、碳中和”目标的提出，作为中国“绿色铝”企业的代表，云铝股份勇挑铝行业绿色发展重担，积极贯彻党中央、国务院关于做好碳达峰、碳中和工作的部署要求，推进绿色制造、生产绿色产品、发展绿色产业，打响“绿色铝·在云铝”品牌，奏响强企报国的时代强音。

With the proposal of the national goal of "Carbon Peak and Carbon Neutrality", Yunnan Aluminium, as a representative of China's "green aluminum" enterprises, has bravely shouldered the burden of green development in the aluminum industry, actively implemented the deployment requirements of the CPC Central Committee and the State Council on carbon peak and carbon neutrality, promoted green manufacturing, green product production and the development of green industries, and promoted the "Green Aluminum · Made in Yunnan Aluminium" brand, striving to make contributions to the country by strengthening itself.



2月，云南省省委书记王宁率调研组到云铝海鑫就绿色铝产业发展情况进行调研

In February, Wang Ning, secretary of Yunnan CPC Committee, led his research and survey team to Yunnan Aluminum Haixin to study and survey the development of the green aluminum industry

用好绿色基因

Making Good Use of Green Genes

位于云南省昆明市东郊阳宗湖畔的云铝股份，拥有着得天独厚的绿色能源优势，因此在成立伊始，绿色就已深植于云铝股份的发展基因。多年来，云铝股份着力构建节能减排、清洁生产、循环利用为一体的绿色发展模式，深耕环境友好型企业，在重点领域取得实质性突破。

Located on the bank of Yangzonghai Lake in the eastern suburbs of Kunming City, Yunnan Province, Yunnan Aluminium enjoys exceptional advantages of green energy, so its green spirit has been deeply rooted in the development gene from the very beginning of its establishment. Over the years, Yunnan Aluminium has strived to build a green development mode that integrates energy conservation and emission reduction, clean production and cyclic utilization, deeply cultivated an environment-friendly enterprise and achieved substantial breakthroughs in key areas.

扩大使用绿色电力

Expanding the use of green power

绿色电力交易是贯彻落实国家“双碳”战略的重要举措。云铝股份积极参与南方区域绿色电力交易，充分利用碳排放量仅为煤电 20% 的清洁“绿电”生产绿色铝，清洁能源使用占比达 88.6%，绘就企业绿色底色。

Green power trading is an important initiative to implement the national strategy of "Dual Carbon". Yunnan Aluminium has actively participated in the green power trading in the southern region produce green aluminium from clean "green power" that emits only 20% of coal power and proportion of clean energy use accounting for 88.6%, thus marking the green color of the enterprise.



获南方区域首批“绿色电力消费凭证”和“绿色电力”证书

Yunnan Aluminium was awarded the first batch of the "Green Power Consumption Certificate" and "Green Power" certificates in the southern region

加快布局绿色能源

Accelerating the layout of green energy

云铝股份加强新能源的开发利用，通过与专业发电企业合作，由发电企业投资建设现有企业分布式光伏发电项目，已建成并投用昆明阳宗海、鹤庆溢鑫两个分布式光伏项目，逐年提升新能源电量使用比例。2022 年，云铝股份开发的国内首例分布式光伏接入电解铝直流系统试验示范项目成功投运，为国内绿电转化和新型电力系统提供了经验和示范，充分实现绿色能源助力铝产业链低碳发展。

Yunnan Aluminium strengthened the development and utilization of new energy, cooperated with professional power generation enterprises, and the power generation enterprises invested in the construction of existing distributed PV power generation projects, and completed and put into operation the Yangzonghai and Heqing Yixin distributed PV projects in Kunming, which have increased the proportion of new energy power use year by year. In 2022, the first pilot demonstration project of distributed PV access to electrolytic aluminum DC system in China developed by Yunnan Aluminium was successfully put into operation, which provided experience and demonstration for domestic green power transformation and new power system and fully realized the low carbon development of aluminum industry chain by green energy.



绿电铸绿铝：云铝股份昆明阳宗海光伏发电项目

Green power forges green aluminum: Kunming Yangzonghai PV Power Generation Project of Yunnan Aluminium



绿电铸绿铝：云铝股份鹤庆溢鑫光伏发电项目

Green power forges green aluminum: Heqing Yixin PV Power Generation Project of Yunnan Aluminium

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成就绿色事业 Achieving Green Course

云铝股份不断加快推进绿色生产方式贯穿全产业链，努力突破节能降耗关键技术瓶颈，构建以电解铝为核心、上下游一体化发展的“绿色”产业价值链，做行业绿色发展的领跑者，“绿色铝·在云铝”的品牌影响力正转化为企业的价值创造力。

Yunnan Aluminium continuously accelerated the green production mode throughout the whole industrial chain and strived to break through the key technical bottlenecks of energy saving and consumption reduction to build a "green" industrial value chain with electrolytic aluminum as the core and integrated development of upstream and downstream, so as to be the leader of green development in the industry. The brand influence of "Green Aluminum · Made in Yunnan Aluminium" is transforming into the value creation of the enterprise.

实现全流程绿色生产 Realizing green production in the whole process

云铝股份不断加强生产现场精益化管理，全流程着眼、细小处着手，把绿色制造理念贯穿到生产全流程，实现更加低碳环保的生产与发展。

Yunnan Aluminium continuously strengthened the lean management of production sites, focused on the whole process and started from small places, and put the green manufacturing concept into the whole production process to achieve a more low-carbon and environmentally friendly production and development.



建成绿色铝产业链

Building a green aluminum industry chain

云铝股份准确把握铝行业发展规律，形成了以电解铝为核心，上下游一体化发展的“1+N”绿色产业链，有效发挥整体协同效应，减少中间环节碳排放，推动企业绿色发展。

Yunnan Aluminium accurately mastered the development law of the aluminum industry, formed a "1+N" green industrial chain with electrolytic aluminum as the core and integrated development of upstream and downstream, effectively exerted the overall synergy effect, reduced carbon emissions in intermediate links and promoted the green development of the enterprise.



云铝文山水电铝项目

Yunnan Aluminium Wenshan Hydropower Aluminum Project

研发绿色产品

Researching and developing green products

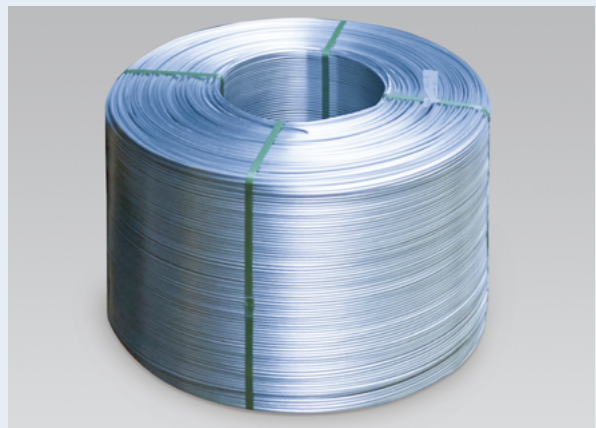
云铝股份集聚绿色能源、绿色技术优势，专注绿色产品研发，在轨道交通、航空用铝材等铝消费新兴领域破冰前行，在新型高端铝合金熔铸技术，超薄铝箔、动力电池用铝箔、变形铝合金等领域着重发力，主打产品铝合金扁锭已覆盖国内主要消费市场，超薄铝箔产品远销欧洲、东南亚等市场，成为行业内具有重要影响力的绿色铝材产品供应商。

Yunnan Aluminium gathered the advantages of green energy and green technology, focused on the research and development of green products, bust through in the emerging fields of aluminum consumption such as aluminum for rail transportation and aviation, and concentrated on the fields such as the new high-end aluminum alloy melting and casting technology, ultra-thin aluminum foil, power battery aluminum foil and wrought aluminum alloy. The main products such as aluminum alloy slabs have already extended to the main domestic consumption market, and the ultra-thin aluminum foil products have been exported to Europe and Southeast Asia, becoming a green low-carbon aluminum product supplier with important influence in the industry.



云铝润鑫生产的变形铝合金圆铸锭

Wrought aluminum alloy round ingots produced by Yunnan Aluminium Runxin



云铝股份生产的圆铝杆

Aluminum rods produced by Yunnan Aluminium



ENVIRONMENT

绿色云铝

Green Yunnan Aluminium

随着国家碳达峰、碳中和目标的提出，云铝股份主动扛起使命与担当，明确“争当高质量发展排头兵、树绿色低碳发展第一品牌、做铝基新材料引领者”的定位，坚持绿色低碳转型，全力打响“绿色铝·在云铝”品牌、建设中国铝行业绿色铝基材料示范基地。

With the proposal of the national goal of "Carbon Peak and Carbon Neutrality", Yunnan Aluminium clearly positioned itself as "a vanguard of high-quality development, the No.1 brand of green low-carbon development and a leader in the aluminum-based new material industry", adhered to the green and low-carbon transformation, made every effort to promote the brand of "Green Aluminum · Made in Yunnan Aluminium" and build a demonstration base of green aluminum-based materials in China's aluminum industry.





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应对气候变化

Addressing climate change

云铝股份切实履行企业碳排放管理责任，根据云南省生态环境厅关于碳排放报告的相关要求，严格落实下属企业温室气体排放管理；率先在国内铝行业开发建设了“LCA 产品全生命周期评价体系”，编制完成了生命周期评价报告和产品碳足迹报告；组织开展“双碳”主题等多项培训，提升下属企业碳排放管理能力；制定低碳评价标准，引领行业绿色发展。作为国内企业中首批获得产品碳足迹认证的企业之一，云铝股份主要产品碳足迹水平处于全球领先地位，已成为行业绿电新能源利用典范。

Yunnan Aluminium effectively fulfilled its carbon emission management responsibilities and strictly implemented the greenhouse gas emission management of its subordinate companies according to the relevant requirements of the Department of Ecological Environment of Yunnan Province on carbon emission reporting. The Company took the lead in developing and constructing the "Product Life Cycle Assessment (LCA) system" in the domestic aluminum industry and completed the life cycle assessment report and product carbon footprint report. It organized and carried out several times of training on the theme of "Dual Carbon" to improve the carbon emission management ability of its subordinate companies, and formulated low-carbon evaluation standards to lead the green development of the industry. As one of the first domestic enterprises to obtain the product carbon footprint certification, Yunnan Aluminium took the lead in the global carbon footprint level of its main products and became a model for the utilization of green power and new energy in the industry.

压实碳排放管理

Adhering to carbon emission management

组织云铝文山、云铝润鑫等

7家下属企业编制完成温室气体排放报告，并积极配合第三方单位开展碳排放数据核查和复查工作

Organized 7 subordinate companies, including Yunnan Aluminium Wenshan and Runxin, to prepare and complete greenhouse gas emission reports, and actively cooperated with third party units to carry out carbon emission data verification and review.



组织各下属企业编制完成《碳达峰行动方案》，并按要求报备属地生态环境主管部门

Organized all subordinate companies to prepare and complete the *Action Plan for Carbon Dioxide Peaking* and reported to the local competent department of ecology and environment as required.

组织各下属企业开展以“双碳”为主题的“云铝大讲堂”、产品生命周期评价专题培训以及碳交易员培训等活动，逐步在各下属企业培养起一批碳排放专业管理人员

Organized all subordinate companies to carry out activities such as the "Yunnan Aluminium Lecture" with the theme of "Dual Carbon", special training on product life cycle assessment and training on carbon traders, and gradually cultivated a number of professional carbon emission management personnel in subordinate companies.



制定低碳评价标准

Developing low-carbon evaluation criteria



组织人员编制完成《绿色低碳产品评价规范 电解铝产品》和《绿色低碳技术评价规范 电解铝技术》

Organized personnel to prepare the *Evaluation Specification for Green and Low-carbon Products - Electrolytic Aluminum Products* and the *Evaluation Specification for Green and Low-carbon Technology - Electrolytic Aluminum Technology*.



联合郑州有色金属研究院编制完成《低碳产品评价方法与要求 电解铝》

Prepared the *Evaluation Methods and Requirements for Low Carbon Products - Electrolytic Aluminum* by cooperating with China Aluminum Zhengzhou Nonferrous Metals Research Institute Co., Ltd.



云铝股份“打响‘绿色铝·在云铝’品牌”
获评中铝集团“降碳十大优秀案例”

The activity of "Building the brand 'Green Aluminum·Made in Yunnan Aluminium'" launched by Yunnan Aluminium was awarded the title of "Top Ten Excellent Cases of Carbon Reduction" by the CHINALCO Group



云铝文山“走在时代发展的前列”
获评中铝集团“降碳十大优秀案例”

The activity of "Walking in the Forefront of the Times" launched by Yunnan Aluminium Wenshan was awarded the title of "Top Ten Excellent Cases of Carbon Reduction" by the CHINALCO Group



小贴士 Tips

《有色金属行业碳达峰实施方案》要求：“十五五”期间，电解铝使用可再生能源比例达到30%以上，确保2030年前有色金属行业实现碳达峰。当前，云铝股份使用绿色可再生能源占比88.6%，处于行业领先地位。

It is specified in the *Implementation Plan for Carbon Peaking in the Non-ferrous Metals Industry* that the proportion of renewable energy used in electrolytic aluminum will reach more than 30% during the "15th Five-Year Plan" period, so as to ensure that the non-ferrous metal industry will achieve the carbon peak by 2030. The current proportion of green renewable energy use by Yunnan Aluminium is 88.6%, which takes the leading position in the industry.

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布局绿色能源

Laying out green energy

云铝股份充分发挥云南绿色清洁能源独特优势，积极布局绿色能源和循环经济，开展节能降碳项目和全流程节能项目改造，基本实现绿色能源贯通公司生产全流程；公司各下属企业每年评审、修订能源管理制度，制定本企业的节能目标、方案并考核，全力保证节能降耗目标的顺利达成。2022 年，公司清洁能源占比 88.6%。

Yunnan Aluminium gave full play to the unique advantages of green and clean energy in Yunnan, actively laid out green energy and circular economy, carried out energy saving and carbon reduction projects and the transformation of the whole process energy saving projects, and basically realized the green energy through the whole production process of the Company. Each subordinate company of the Company reviewed and revised the energy management system every year, formulated and assessed the energy conservation objectives and plans of the enterprise, and made every effort to ensure the smooth achievement of the energy conservation and consumption reduction objectives. In 2022, the proportion of clean energy use was 88.6%.

云铝股份大力发展推进清洁能源

案例 Case

Yunnan Aluminium vigorously developed and promoted clean energy

云铝股份秉承绿色低碳发展理念，与国电投云南国际等通力合作，由发电企业投资，大力推进分布式光伏、新能源运输车辆替代等绿电新能源项目建设，建成了云南省首个大型分布式光伏样板房示范项目，并被云南省确定为“用户侧分布式能源+储能示范样板项目”，直流直供提升了绿色能源使用效率。



云铝股份屋面光伏发电设施

Roof PV Power Generation Facilities of Yunnan Aluminium

Adhering to the concept of green and low-carbon development, Yunnan Aluminium cooperated fully with SPIC Yunnan International Power Investment Co., Ltd. with the investment of power generation enterprises, we will vigorously promote the construction of green electricity and new energy projects, such as distributed photovoltaic and new energy transport vehicle replacement. It built the first large-scale distributed PV model house demonstration project in Yunnan Province and was identified as the "user-side distributed energy + energy storage demonstration model project" in Yunnan Province, the direct DC power supply improves the efficiency of green energy use.

“

近年来，在国家积极推进电力体制改革的背景下，云铝股份大量采购华能水电绿色电力，积极布局绿色能源和循环经济，为云南绿色发展、行业低碳发展起到了良好的示范作用。

Under the background of China's active promotion of power system reform, Yunnan Aluminium has been purchasing a large number of green electricity from Huaneng and actively deploying green energy and circular economy in recent years, playing a good demonstration role for Yunnan's green development and low-carbon development of the industry.

——华能澜沧江水电股份有限公司

— Huaneng Lancang River Hydropower Inc.

”

践行绿色理念

Practicing the green concept

云铝股份严格遵守环境保护方面各项法律法规要求，坚持以文化为引领，以标准化管理为抓手，设立企业年度环保目标，层层压实治理责任，全面管控环境风险。2022 年，公司未发生环保事件，各下属企业污染物均达标排放，一般及以上突发环境事件为 0，重大负面环境舆情事件为 0。2022 年，公司环保投入共计 4.77 亿元。

Yunnan Aluminium strictly complied with the requirements of laws and regulations on environmental protection, insisted on leading by culture and standardized management, set up the annual environmental protection target of the enterprise, pressed down the responsibility of governance at all levels, and comprehensively controlled the environmental risks. In 2022, there were no environmental incidents occurred in the Company, and the pollutants of all subordinate companies were discharged in accordance with the standards. There were 0 sudden environmental incidents of general and above level and 0 major negative environmental opinion incidents. In 2022, the Company invested a total of RMB 477 million in environmental protection.

2022 年 (In 2022)

一般及以上突发环境事件为
重大负面环境舆情事件为

0

There were 0 sudden environmental incidents of general and above level and 0 major negative environmental opinion incidents.

公司环保投入共计

4.77 亿元

the Company invested a total of RMB 477 million in environmental protection.



制定顶层设计

Developing top-level design

完成“十四五”新能源发展利用专项规划、绿色低碳发展专项规划、绿色铝产业结构调整方案（2022—2025）等顶层设计

Completed top-level designs such as the special plan for new energy development and utilization, the special plan for green and low-carbon development and the green aluminum industry structure adjustment plan (2022-2025) during the “14th Five-Year Plan”.



压实环保责任

Adhering to environmental responsibility

组织签订 2022 年生态环境保护责任状，构建“横向到边、纵向到底”责任网络体系，进一步压实全员环境保护责任

Organized the signing of the 2022 Letter of Responsibility for Ecological Environmental Protection, built a responsibility network system of “horizontal to the edge and vertical to the end”, and further fulfilled the environmental protection responsibilities of all employees.



完善管理制度

Improving the management system

修订下发《生态环境保护责任制规定》《生态环境保护责任追究管理规定》等 20 个管理规定，并新制定《持续改进管理规定》《生态环境保护管理规定》2 个管理制度，扎紧制度牢笼

Revised and issued 20 management regulations such as the *Regulations on Responsibility System for Ecological Environment Protection* and the *Administrative Provisions on Accountability of Ecological Environment Protection*, and newly formulated 2 management systems, i.e. the *Regulations on Management of Continuous Improvement* and the *Regulations on Management of Ecological Environmental Protection*, to tighten the system.



防控环境风险

Preventing and controlling environmental risks

对照上级督察、各级环保部门检查问题，“举一反三”全面开展生态环境安全隐患排查治理，提升环境风险管控能力

Comprehensively carried out the investigation and management of potential risks of ecological and environmental safety according to the problems inspected by superior supervision and environmental protection departments at all levels, so as to improve the ability of environmental risk management and control.

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云铝股份作为唯一一家绿色铝生产企业亮相第 6 届南博会

案例 Case

Yunnan Aluminium attended the 6th China-South Asia Exposition as the only green aluminum producer

11 月，云铝股份作为唯一一家绿色铝生产企业代表亮相第 6 届中国—南亚博览会暨第 26 届中国昆明进出口商品交易会。展览现场，云铝股份结合自身“绿色铝材一体化”产业链的特征和优势，向公众充分展示了云铝股份全生命周期使用清洁能源、开发绿色技术、推进节能环保等方面的特征及云南省近年来绿色铝产业发展成果和市场前景。

In November, as the only representative of the green aluminum production enterprise, Yunnan Aluminium appeared at the 6th China-South Asia Exposition and the 26th China Kunming Import and Export Fair. At the exhibition, by combining the characteristics and advantages of its own "Green Low-carbon Aluminium Processing Integration" industrial chain, Yunnan Aluminium fully demonstrated to the public the characteristics of using clean energy, developing green technology, promoting energy conservation and environmental protection in the whole life cycle of Yunnan Aluminium, as well as the development achievements and market prospects of green aluminum industry in Yunnan Province in recent years.



云铝股份亮相第 6 届南博会

Yunnan Aluminium Presented at the 6th China-South Asia Exposition

抓实污染防治

Strengthening pollution prevention and control

云铝股份推动铝工业污染防治，解决多项行业污染物处理、资源化利用难题，推动铝工业固体废物减量化、无害化、资源化技术推广；积极推行清洁生产，实施了一批节能、节水、减排改造项目应用生产。

Yunnan Aluminium promoted pollution prevention and control in the aluminum industry, solved many problems in the treatment and resource utilization of pollutants in the industry, and promoted the promotion of technology for the reduction, harmlessness and resource utilization technology of solid waste in the aluminum industry. It actively promoted clean production and implemented a number of energy-saving, water-saving and emission-reduction transformation projects for application production.



落实污染防治管理措施

Implemented pollution prevention and control management measures



做好排污许可运行管理以及环保设施运行维护管理，保证环保设施与主体生产同步运行、各类污染物稳定达标排放。2022 年，公司废气排放达标率 100%、固废安全处置率 100%，废水零排放。

Did a good job in the operation management of pollutant discharge permits and the operation and maintenance management of environmental protection facilities to ensure the synchronous operation of environmental protection facilities and main production and the stable and up-to-standard discharge of various pollutants. In 2022, the Company's waste gas emission compliance rate was 100%, the safe disposal rate of solid waste was 100% and the wastewater discharge was zero.



持续提升无组织排放管控能力，加强生产设施密封，提升烟气收集能力，重点对云铝泽鑫、云铝涌鑫的阳极组装等收尘设施、残极密封运输等环节进行优化改造。

Continued to improve the control capacity of disorganized emissions, strengthen the sealing of production facilities and enhance the collection capacity of flue gas, focusing on the optimization and transformation of dust collection facilities such as anode assembly and sealed transportation of residual electrodes of Yunnan Aluminium Zexin and Yunnan Aluminum Yuxin.



强化固废贮存场防渗、分区隔断、截洪排水等设施管控，严格对照标准要求，规范固体废物管理。

Strengthened the control of anti-seepage, partition, flood interception and drainage facilities in the solid waste storage yard, and standardized the management of solid waste in strict accordance with the standard requirements.

云铝股份污染物排放情况 Pollutant Discharge of Yunnan Aluminium

企业类型 Enterprise type	主要污染物名称 Key pollutants	排放浓度 (mg/m ³) Emission concentration (mg/m ³)	排放总量 (t) Total discharge amount (t)
电解铝 Electrolytic aluminum	颗粒物 Particulate matters	5.84	894.6561
	二氧化硫 Sulfur dioxide	97.45	14884.009
	氟化物 Fluoride	0.23	49.8764
氧化铝 Alumina	颗粒物 Particulate matters	8.97	62.06
	二氧化硫 Sulfur dioxide	39.55	262.54
	氮氧化物 Nitric oxides	42.55	291.89
炭素 Carbon	颗粒物 Particulate matters	19.42	172.337
	二氧化硫 Sulfur dioxide	97.53	1237.043
	氮氧化物 Nitric oxides	141.19	1086.804

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率先研发、建成国内首条铝灰资源化利用生产线，彻底解决铝行业危险废弃物（铝灰）资源化利用问题，被中国有色金属工业协会评定为国际领先技术；

Took the lead in developing and building the first production line for recycling aluminum ash in China, thoroughly solving the problem of recycling hazardous waste (aluminum ash) in the aluminum industry, which was rated as an internationally leading technology by the China Nonferrous Metals Industry Association;

率先建成国内首条铝电解槽大修渣无害化、资源化处理生产线，率先解决困扰电解铝行业发展多年的危险废物处置难题；

Took the lead in building the first domestic production line for harmless and resource-based treatment of overhaul slag from aluminum electrolysis cells and became the first to solve the problem of hazardous waste disposal that plagued the development of the electrolytic aluminum industry for many years;

领先建成全流程二氧化硫烟治理产业化应用示范系统，实现超低排放。

Took the lead in building a demonstration system for the industrial application of full-process sulfur dioxide flue gas treatment to achieve ultra-low emissions.

云铝股份 筑牢污染防治绿色根基

Yunnan Aluminium built a firm green foundation for pollution prevention and control

特色固废综合治理独树一帜

案例 Case

Characteristic comprehensive treatment of solid wastes was unique

2022 年公司工业固体废物实现 100% 安全处置，一般固废综合利用率 23.17%，危险废物综合利用率 88.58%。赤泥依托赤泥选铁项目实现中和利用，脱硫石膏外卖利用实现综合利用。

云铝文山、云铝润鑫持续大力开展铝工业固体废物资源化利用关键技术研发，积极推进铝灰资源化利用提产改造至年处置 5 万吨项目、云铝润鑫 40kt/a 铝电解固废资源综合利用示范项目建设，进一步提升工业固体废物资源化利用规模和水平。

In 2022, the Company realized 100% safe disposal of industrial solid wastes, with a comprehensive utilization rate of general solid waste of 23.17% and a comprehensive utilization rate of hazardous waste of 88.58%. The red mud is neutralized and utilized by relying on the Red Mud Iron Separation Project, and the desulfurization gypsum is sold for comprehensive utilization.

Yunnan Aluminium Wenshan and Yunnan Aluminium Runxin have continued to vigorously carry out research and development of key technologies for resource utilization of solid waste in the aluminum industry and actively promoted the construction of the projects of Upgrading and Transformation of Aluminum Ash Resource Utilization to Annual Disposal of 50,000 tons and the Demonstration Project of Comprehensive Utilization of Aluminum Electrolysis Solid Waste Resources of 40kt/a of Yunnan Aluminium Runxin, which further enhanced the scale and level of resource utilization of industrial solid waste.



云铝润鑫废水零排放处理后的景观水池

Landscape Pool after Zero Discharge Treatment of Wastewater from Yunnan Aluminium Runxin

节约水资源

Saving water resources

云铝股份始终落实水资源管理各项制度，全面节约和有效保护水资源，以水资源优化为抓手，推动铝行业绿色发展。公司各下属企业生活污水、生产废水、初期雨水，均配套建设相应的治理设施，并保持正常运行；生活污水、初期雨水、生产废水经处理达到《城市污水再生利用 城市杂用水标准》《城市污水再生利用 工业用水标准》。2022 年，云铝股份先后有三家电解铝企业获得“节水型企业”荣誉称号。截至 2022 年底，云铝股份废水利用率 100%。

Yunnan Aluminium always strictly implemented various water resources management systems, comprehensively saved and effectively protected water resources, and promoted the green development of the aluminum industry by taking water resources optimization as the key. All the subordinate companies of the Company installed corresponding treatment facilities for domestic wastewater, production wastewater and initial rainwater, and have kept them in normal operation. The domestic sewage, initial rainwater and production wastewater were treated to meet the requirements of the *Reuse of Urban Recycling Water - Water Quality Standard for Urban Miscellaneous Use* and *Reuse of Urban Recycling Water - Water Quality Standard for Industrial Use*. In 2022, three companies of Yunnan Aluminium engaged in electrolytic aluminum were awarded the honorary title of "Water-Saving Enterprise". By the end of 2022, the wastewater utilization rate of Yunnan Aluminium reached 100%.

2022 年 (In 2022)

云铝股份先后有三家电解铝企业获得
“节水型企业”荣誉称号

three companies of Yunnan Aluminium engaged in electrolytic aluminum were awarded the honorary title of "Water-Saving Enterprise".

云铝文山获得“水效领跑者”称号

Yunnan Aluminium Wenshan was awarded the title of "Water Saving and Energy Efficiency Leader"

云铝股份废水利用率

100%

the wastewater utilization rate of Yunnan Aluminium reached 100%

云铝溢鑫研发建成雨水收集系统、生活污水和生产废水处理系统

案例 Case

Yunnan Aluminium Yixin developed and built a rainwater collection, domestic sewage and production wastewater treatment system



云铝溢鑫荣获“国家绿色工厂”称号

Yunnan Aluminium Yixin won the title of "National Green Factory"

云铝股份及下属生产型企业均建成初期雨水收集系统、生活污水和生产废水处理系统，通过净化处理达标后，生活污水用于冲厕、厂区绿化，初期雨水和生产废水用于脱硫，实现水资源循环利用，零外排。

Yunnan Aluminium and its subordinate production-oriented companies have built an initial rainwater collection, domestic sewage and production wastewater treatment system. After purification and treatment to meet the standards, the domestic sewage is used for toilet flushing and plant greening, and the initial rainwater and production wastewater are used for desulfurization, thus realizing the recycling of water resources and zero external discharge.

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加强生态保护

Strengthening the ecological protection

云铝股份严守生态保护红线，将生态文明与绿色工厂建设融合推进，坚持不懈植绿造绿、养绿护绿，全力实施矿山复垦及矿山保护、治理工程，开展生态绿色矿山建设，形成“绿色生态、固碳储能”的可持续发展模式。2022 年，云铝股份全资子公司云铝文山矿山复垦率 100%，成为矿山复垦典范，实现了“开发一片矿山，归还一片绿地，造福一方百姓”，打造网红打卡地。

Yunnan Aluminium strictly adhered to the red line of ecological protection, integrated ecological civilization with green factory construction, persisted in green planting and green conservation, made fully effort to implement mine reclamation and mine protection and management projects, carried out ecological green mine construction, and formed a sustainable development mode of "green ecology, carbon sequestration and energy storage". In 2022, the mine reclamation rate of Yunnan Aluminium Wenshan, a wholly-owned subsidiary of Yunnan Aluminium, was 100%, became a model of mine reclamation, realized "developing a mine, reclaiming a green land, and became an internet-famous site."



云铝文山矿山复垦区甘蔗地远景图
Prospect of Sugarcane Field in
Wenshan Mine Reclamation Area of
Yunnan Aluminium Wenshan

推行绿色办公

Implementing the green office work

云铝股份深入贯彻习近平生态文明思想，积极推进绿色办公，通过张贴节电节水标识、推广办公无纸化，以及开展“每人每天节约一度电”专项活动等方式，提升员工环保意识，共建绿色办公环境。

Yunnan Aluminium thoroughly implemented Xi Jinping's thought of ecological civilization, actively promoted green office work, enhanced employees' awareness of environmental protection and jointly built a green office work environment by posting power and water-saving signs, promoting paperless office, and carrying out special activities of "saving one kilowatt-hour of electricity per person per day".



云铝股份办公环境
Office Environment of Yunnan Aluminium

【文明云铝】“厉行节约 反对浪费”倡议书

云铝股份 2022-07-29 16:59

公司全体员工及家属：

勤俭节约是中华民族的传统美德。为深入贯彻落实习近平总书记对制止浪费行为的重要指示精神，倡导节约光荣、浪费可耻的新时代风尚，从我做起，从每一件小事做起，公司全体员工及家属发出如下倡议：

一、转变思想，树立正确的价值观。

崇尚节约，增强节约意识，做到身体力行，自觉杜绝浪费行为。

二、大力宣传，积极宣传节约的典型事迹，弘扬节约风气。

立足本职，从我做起，将勤俭节约的美德自觉贯穿到日常工作中去，人人争做节约风尚的传播者、实践者、示范者。

三、落实行动，从自身做起，从身边事做起，从小事做起，自觉争当节约的模范。

7 月，云铝股份发起“厉行节约 反对浪费”倡议书

In July, Yunnan Aluminium launched the initiative "Advocating Economy and Opposing Waste".

培育绿色文化

Cultivating a green culture

云铝股份通过发起“厉行节约 反对浪费”倡议、组织开展“六五”环境日和全国低碳日系列宣传活动、号召员工低碳出行等方式，宣传环保理念，开展环保教育。

Yunnan Aluminium promoted the concept of environmental protection and carried out environmental protection education by launching the initiative of "Advocating Economy and Opposing Waste", organizing a series of publicity activities for the "June 5" Environment Day and National Low Carbon Day and calling on employees to travel with low carbon emission.



3月，公司举办第一期“云铝论坛”碳达峰、碳中和专题讲座

In March, the Company held the first "Yunnan Aluminium Forum" Special Lecture on carbon peak and carbon neutrality



6月，公司开展环保设施公众开放日活动

In June, the Company carried out the public opening day of environmental protection facilities



6月，公司开展环保设施公众开放日活动

In June, the Company carried out the public opening day of environmental protection facilities



云铝股份推进“节约一度电、多产一吨铝”专项活动

Yunnan Aluminum promoted the "Saving one kilowatt-hour of electricity, Producing one ton of aluminum" special activity



SOCIAL

和谐云铝

Harmonious Yunnan Aluminium

人民幸福是企业最高的价值追求。云铝股份重视倾听各利益相关方的声音，关爱员工实现共同成长，保障健康落实安全生产，科技创新助力匠心品质，携手伙伴共促行业发展，奉献社会增进民生福祉，牢记使命践行企业担当，为打造和谐云铝而不懈努力。

The people's well-being is the highest value pursuit of the enterprise. Yunnan Aluminium attached great importance to listening to the voices of all stakeholders, caring for employees to achieve common growth, ensuring healthy implementation of work safety, contributing to craftsmanship and quality through scientific and technological innovation, working together with partners to promote the development of the industry, contributing to society and improving people's well-being, keeping in mind its mission and responsibilities, and making unremitting efforts to build a harmonious Yunnan Aluminium.

公司2022年职工文艺晚会

传承奋进新征程



1 无贫穷



2 零饥饿



3 良好健康与福祉



10 减少不平等



4 优质教育



11 可持续城市和社区



5 性别平等



12 负责任消费和生产



8 体面工作和经济增长



17 促进目标实现的伙伴关系



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助力员工发展

Boosting employee development

云铝股份坚持“人才是第一资源”的理念，充分尊重和员工权益、为员工搭建成长平台、加强对员工的人文关怀，努力实现企业发展与员工价值共同提升，打造幸福职场。

Adhering to the concept of "Talent is the First Resource", Yunnan Aluminium fully respected and safeguarded the rights and interests of employees, built a growth platform for employees, strengthened the humanistic care for employees, strived to realize the joint improvement of enterprise development and employee value, and created a happy workplace.

保障权益

Safeguarding rights and interests

云铝股份严格遵守《劳动法》《劳动合同法》《未成年人保护法》《工会法》等相关法律法规，并结合公司运行实际修订完善《云南铝业股份有限公司劳动合同管理办法》，为员工提供平等就业机会和有行业竞争力的薪酬待遇，充分保障员工民主权益，与员工建立和谐、稳定的劳动关系。

Yunnan Aluminium strictly abided by the *Labor Law*, *Labor Contract Law*, the *Law on the Protection of Minors*, *Trade Union Law* and other relevant laws and regulations, and revised and improved the *Measures for the Administration of Labor Contracts of Yunnan Aluminium Co., Ltd.* in combination with the actual operation of the Company, so as to provide employees with equal employment opportunities and competitive remuneration in the industry, fully protect the democratic rights and interests of employees, and establish a harmonious and stable labor relationship with them.

2022 年云铝股份员工情况 Employees of Yunnan Aluminium in 2022

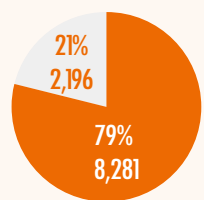
员工总人数：10,477

Total number of employees: 10,477

单位：人

Unit: Person

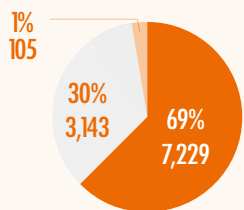
按性别划分的员工人数
Number of employees by gender



■ 女性员工
Female employees

■ 男性员工
Male employees

按年龄划分的员工人数
Number of employees by age

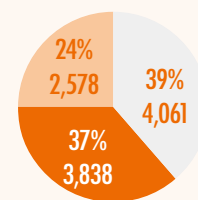


■ 小于 30 岁的员工占比
Employees aged under 30

■ 大于等于 30 岁、小于 50 岁的员工占比
Employees aged over 30, under 50

■ 大于等于 50 岁的员工占比
Employees aged over 50

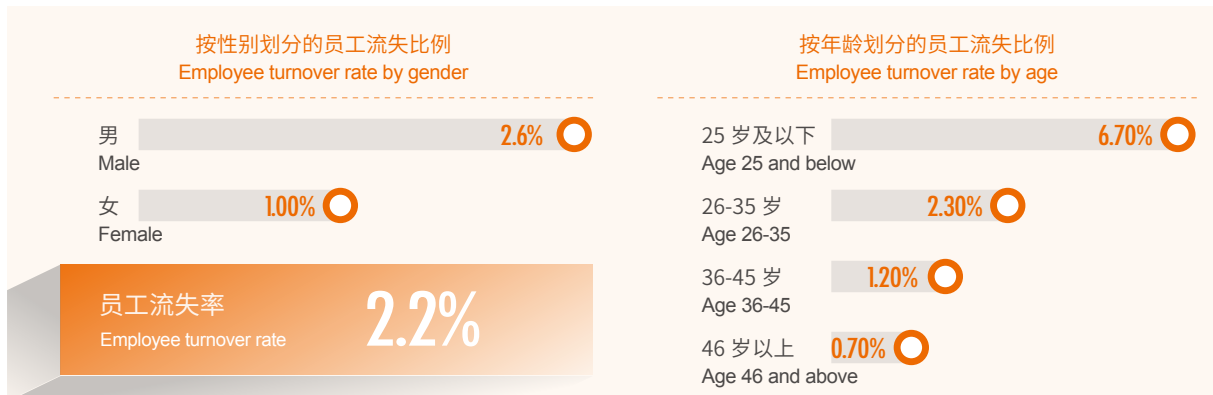
按学历划分的员工人数
Number of employees by diploma



■ 中专及以下学历员工人数
Employees with secondary graduates or below

■ 大专（专科）学历员工人数
Employees with college (junior college) degree

■ 本科及以上学历员工人数
Employees with bachelor's degree or above



平等雇佣

Fair employment

公司倡导平等雇佣原则，在就业、薪酬、培训、晋升时，秉承公开、公平、公正的原则，对不同国籍、民族、种族、性别、宗教信仰和文化背景的员工一视同仁；公司杜绝雇用童工与其他强迫性劳动，若发现童工劳动及强迫劳动情况时，人力资源部马上组织停止童工工作及强迫劳动，立即足额发放童工及强迫劳动全部应得的法定工资 / 福利，组织健康检查等补救行动。

Advocating the principle of equal employment, the company adheres to the principle of openness, fairness and justice in employment, compensation, training and promotion, and treats employees of different nationalities, ethnic groups, races, genders, religious beliefs and cultural backgrounds equally, so as to create a diverse, inclusive, fair and reasonable working environment for employees. The company prohibits the employment of child labor and other forced labor. If child labor or forced labor is found, the Human Resources Department will immediately stop it, pay all the legal salaries/benefits due to the child labor and forced labor and organize remedial actions such as health examination.

薪酬福利

Remuneration and benefits

公司根据实际情况和管理需求，持续优化薪酬福利体系，充分发挥薪酬激励、福利保障作用。

The Company continued to optimize the compensation and benefit system according to the actual situation and management needs and gave full play to the role of compensation incentives and welfare protection.

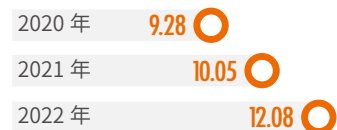
薪酬管理

Remuneration management

公司出台《薪酬管理暂行办法》《经理层成员考核评价及薪酬分配管理办法》；持续完善薪酬激励机制，对企业员工工资总额、领导班子的薪酬分配均设立专门的管理办法，将薪酬与成本、利润等指标挂钩；推进薪酬分配改革，使薪酬分配向生产一线、科研人员及高价值创造者倾斜。2020—2022 年，公司员工人均工资水平实现连续增长。

The Company issued *Interim Measures for Salary Management* and the *Management Measures for Assessment, Evaluation and Salary Distribution of Management Members*; continuously improved the salary incentive mechanism, set up special management measures for the total salary of employees and the salary distribution of the leading group, and linked the salary with indicators such as cost and profit; promoted the reform of salary distribution, so that the salary distribution was inclined to the front line of production, scientific research personnel and high-value creators. From 2020 to 2022, the per capita wage level of employees of the Company achieved continuous growth.

在岗员工人均工资（万元）
Per capita salary of on-the-job employees (RMB 10,000)



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福利保障

Benefits

公司建立完善的福利保障体系，为员工提供六险两金。除此之外，公司还提供各类法律要求外的福利，包括为高学历人才发放安家费、为员工购买补充医疗保险和团体意外伤害保险、为残疾员工发放残疾补贴、为女性员工发放卫生费等，加强员工福利保障。

The company establishes a sound benefits system and provides seven social insurances and two funds for the employees. In addition, the company also provides settling-in allowance for highly educated talents, disability subsidy for disabled employees and health expense for female employees to strengthen employee benefits guarantee.

民主管理

Democratic management

公司不断优化民主管理、民主监督机制，保障员工的知情权、建议权和参与权。公司建立以职工代表大会为基本形式的民主管理制度，涉及企业重大决策和事项提交公司职工代表大会审议决定，鼓励员工为公司发展建言献策。

The Company continuously optimized democratic management and democratic supervision mechanisms to protect employees' rights to know, make suggestions and participate. The Company established a democratic management system based on the Employees' Assembly, submitted major decisions and matters related to the Company to the Employees' Assembly for deliberation and decision, and encouraged employees to make suggestions for the development of the Company.



1月，云铝股份五届四次职代会召开

In January, the Fourth Session of the Fifth Employees' Assembly of Yunnan Aluminium was held

职业发展

Career development

公司注重员工长期的发展与成长，组织开展各类培训活动，帮助员工畅通职业发展通道，着力为员工提供学习、交流与成长平台。

The Company attached great importance to the long-term development and growth of employees, organized various training activities, helped employees to smooth career development channels, and focused on providing a learning, communication and growth platform for employees.

员工培训

Employee training

公司针对各类员工提供个性化培训，针对不同职级员工针对性举办提升培训班，组织“雁翎计划”“新锐计划”“精锐计划”等活动；组织开展招投标管理、“双碳”知识学习等 35 个专业技术培训。2022 年，员工培训投入 658 万元，培训员工 6.10 万人次。

The Company provided personalized training for various types of employees, held targeted upgrading training courses for employees of different ranks, and organized activities such as the "Yanling Plan", "New Talent Plan" and "Elite Plan". The Company organized 35 times of professional and technical training, such as bidding management and "Dual Carbon" knowledge learning. In 2022, the Company invested RMB 6.58 million in employee training and trained employees 61,000 person-time.

人均培训小时数（小时） Hours of training per capita (hours)



按性别划分员工培训比例（%） Proportion of employee training by gender (%)



云铝股份组织干部培训，提升管理队伍水平

案例 Case

Yunnan Aluminium organized cadre training to improve the management team

为建设一支“站位高、视野广、思维新、能力强”的管理队伍，2022 年云铝股份与中铝党校合作，开展“雁翎计划”培训，公司所属企业班子成员、本部职能部门负责人参加培训，干部人才管理理念和思维得到显著提升。

In order to build a management team with "high orientation, wide vision, new thinking and strong ability", Yunnan Aluminium cooperated with the Party School of Chinalco in 2022 to carry out "Yanling Plan" training, in which the team members of the companies affiliated to the Company and the heads of functional departments of the Headquarters participated in the training. The training updated the management concept and thinking of cadres and talents.



9 月，云铝股份“雁翎计划”第一期开班
In September, the first phase of the "Yanling Plan" of Yunnan Aluminium was launched

晋升通道

Promotion channel

云铝股份结合企业运营实际，在企业内部搭建公平竞争的晋升渠道，制定下发《企业领导人员末等调整和不胜任退出实施办法》《本部部门岗位竞聘方案》《本部部门岗位竞聘富余员工分流安置方案》，努力创造各类人才脱颖而出、人尽其才的良好环境和氛围。2022 年，公司全面组织完成本部及所属企业两级基层干部、普通管理人员全员竞聘上岗工作，畅通员工“能进能出”通道，畅通干部“能上能下”通道。

In combination with the actual operation of the enterprise, Yunnan Aluminium built a promotion channel for fair competition within the enterprise, formulated and issued the *Implementation Measures for Final Adjustment and Incompetent Withdrawal of Enterprise Leaders*, the *Post Competition Plan of Headquarters Department*, and the *Scheme for Diversion and Resettlement of Surplus Employees for Post Competition in Headquarters*, and strived to create a good environment and atmosphere for all kinds of talents to stand out and make the best use of their talents. In 2022, the Company organized and completed the work of competing for positions of cadre at the basic level and general management staff at both levels of the headquarters and subordinate companies, so as to open up the channel for employees to enter and leave and for cadres to go up and go down.

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幸福职场 Happy workplace

公司关心爱护每一位员工,积极回应员工关切,常态化开展“我为群众办实事”实践活动,解决员工“急难愁盼”问题,组织多样化的活动,打造温暖和谐的工作氛围,增强公司凝聚力和员工认同感。

The Company cared for every employee, responded positively to the concerns of the employees, carried out the practice activity of "Bringing Tangible Benefits to the Masses" on a regular basis, solved problems for employees, organized diversified activities, created a warm and harmonious working atmosphere, and enhanced the cohesion and sense of identity of employees.

平衡工作生活 Balancing work and life

公司提倡员工工作与生活协调平衡,通过策划季度文体活动方案,组织各级工会广泛开展体育类、文艺类、趣味类、传统文化类等活动,充实员工业余文化生活,营造健康向上、团结友爱、幸福和谐的良好企业氛围。

The Company advocated the coordination and balance between employees' work and life and organized trade unions at all levels to carry out sports, literature and art, fun, traditional culture and other activities extensively by planning quarterly cultural and sports activities to enrich the amateur cultural life of employees and create a good corporate atmosphere of health, unity and love, happiness and harmony.



1月,云铝股份举办职工文艺晚会

In January, Yunnan Aluminium held a staff cultural show



6月,云铝股份端午节组织员工包粽子

In June, Yunnan Aluminium organized employees to make rice dumplings for the Dragon Boat Festival



6月,云铝股份举办职工系列文体活动

In June, Yunnan Aluminium held a series of cultural and sports activities for employees



6月,云铝股份开展户外亲子活动

In June, Yunnan Aluminium carried out outdoor parents-child campaigns

关心关爱员工

Caring for every employee

公司根据《员工关怀管理办法》，在元旦、中秋等节日给员工发放慰问品，在员工生日、结婚生育、退休等时刻关怀员工，走访慰问困难员工，关心呵护女性员工，帮助员工解决工作和生活困难，全方位落实员工关爱。2022年，公司帮扶困难员工、慰问生病员工 1,000 余人次，支出帮扶、慰问金 41 万元。

The Company, according to the *Management Measures for Employee Care*, distributed offerings to employees on New Year's Day and Mid-Autumn Festival, cared for employees for their birthdays, weddings, childbirth and retirement, visited employees in difficulty, cared for female employees, helped employees solve work and life difficulties, so as to implement employee care in all aspects. In 2022, the Company helped employees in difficulties and comforted sick employees by more than 1,000 person-times, and spent RMB 410,000 on assistance and offerings.

2022 年 (In 2022)

帮扶困难员工、慰问生病员工

1,000 余人次

helped employees in difficulties and comforted sick employees by more than 1,000 person-times

支出帮扶、慰问金

41 万元

spent RMB 410,000 on assistance and offerings



1 月，云铝股份走访慰问困难员工

In January, Yunnan Aluminium visited employees with difficulty



2 月，云铝股份春节慰问一线员工

In February, Yunnan Aluminium conveyed greetings to front-line employees during the Spring Festival



3 月，云铝股份开展女员工健康知识讲座

In March, Yunnan Aluminium carried out health knowledge lectures for female employees



云铝源鑫推进“六好”食堂建设

Yunnan Aluminium Yuanxin promoted the construction of "Six Good" canteens

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保障健康安全

Safeguarding health and safety

公司高度重视员工的健康安全，保障员工职业健康；树立先进的安全生产管理理念，推动安全生产各项工作纵深发展，为员工职业健康和生命安全保驾护航。

The Company attached great importance to the health and safety of its employees and to safeguarding their occupational health. The Company established an advanced work safety management concept to promote the deep development of work safety and protect the occupational health and life safety of employees.

职业健康

Occupational health

公司严格执行国家职业病相关政策和法规，建立员工职业健康档案，定期组织员工健康体检；积极开展职业病防治主题宣传和专项培训，并组织针对铝加工深井铸造、粉尘防爆等重点事项的专项培训，提升员工对职业病的关注意识。2022 年，公司接触职业危害因素作业人员职业健康体检实检率 100%。

The Company strictly implemented national policies and regulations related to occupational diseases, established occupational health files for employees, and regularly organized physical examinations for employees; actively carried out publicity and special training on the theme of occupational disease prevention and control, and organized special training on key matters such as deep-well casting and dust explosion prevention in aluminum processing to enhance employees' awareness of occupational diseases. In 2022, the actual rate of occupational health examination for employees exposed to occupational hazard factors was 100%.

2022 年 (In 2022)



公司接触职业危害因素
作业人员职业健康体检
实检率

100%

the actual rate of occupational
health examination for employees
exposed to occupational hazard
factors was 100%



4 月，“《职业病防治法》宣传周进企业活动”在云铝股份举办

In April, the "Publicity Week of the Law on Prevention and Control of Occupational Diseases" was held in Yunnan Aluminium

安全生产

Work safety

公司坚持“一切风险皆可控，一切事故皆可预防”的理念，持续健全安全管理体系、提升安全风险防控能力、营造安全生产氛围，坚持企业发展与安全生产同频共振。截至 2022 年底，云铝股份及下属 11 家生产运营型企业全部通过国家职业健康安全管理体系（ISO 45001）认证。

The Company adhered to the concept of "all risks are controllable and all accidents are preventable", continuously improved the safety management system, improved the ability to prevent and control safety risks, created a work safety atmosphere, and adhered to the same frequency of enterprise development and work safety. By the end of 2022, Yunnan Aluminium and its 11 production and operation-oriented companies have all passed the certification of the national occupational health and safety management system (ISO 45001).

截至 2022 年底 By the end of 2022

云铝股份及下属 11 家生产运营型企业全部通过国家职业健康安全管理体系 (ISO 45001) 认证

Yunnan Aluminium and its 11 production and operation-oriented companies have all passed the certification of the national occupational health and safety management system (ISO 45001)

安全生产管理

Work safety management

公司深入推进安全生产标准化与中国铝业集团职业健康安全环保精准管理体系（CAHSE）融合，修订更新《公司本部全员安全生产责任制》《安全环保党政同责、一岗双责规定》《矿山安全风险分级管控管理规定》等制度；实行全员安全责任制，落实全员生产安全责任；利用数字化、信息化技术改进设备，努力从根本上防止安全事故发生。2022 年，公司未发生重伤及以上事故。

The Company further promoted the integration of work safety standardization and the Chinalco Occupational Health, Safety and Environmental Protection Precision Management System, and revised and updated the *Work Safety Responsibility System for All Employees of the Company Headquarters*, the *Provisions on the Equal Responsibility of the Party and Government for Safety and Environmental Protection*, the *Provisions on Two Responsibilities for One Post*, and the *Provisions on Hierarchical Management and Control of Mine Safety Risks*; implemented the safety responsibility system for all employees and executed the work safety responsibilities for all employees; and improved its equipment with digital and information technology and strived to prevent safety accidents from occurring at the root. In 2022, the Company had no accidents of serious injury or above.

2022 年，公司安全生产标准化建设亮点成效
Highlights of the work safety standardization of the Company in 2022

云铝文山、云铝海鑫二期通过安全生产标准化二级现场考评

Yunnan Aluminium Wenshan and Yunnan Aluminium Haixin Phase II passed the Level II on-site assessment of work safety standardization

各企业全面开展安全生产标准化班组建设、验收工作，全年达标率 94.8%

All the companies comprehensively carried out the construction and acceptance of work safety standardization teams, with an annual compliance rate of 94.8%

在巩固 ISO14001、ISO45001 体系运行成效基础上，深度融合中铝集团职业健康安全环保精准管理体系，优化“职业健康安全标准化”体系

On the basis of consolidating the operation results of ISO14001 and ISO45001 systems, the Company deeply integrated the accurate management system of occupational health, safety and environmental protection of CHINALCO Group and optimized the system of "Occupational Health and work safety standardization"

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云铝股份 2023 年 安全生产目标 Work safety goals for 2023 for Yunnan Aluminium

公司生产安全工亡事故为
0 fatal accidents

0

接触职业危害因素作业人员职业
健康体检实检率

100% actual rate of occupational health
check-ups for employees exposed to
occupational hazards

100%

企业全员安全持证上岗率
100% of all employees in the
enterprise are certified to work in
safety

100%

深井铸造企业安全生产风险监测
预警系统建设完成率

100% completion rate of construction
of work safety risk monitoring and early
warning system for deep-well casting
enterprises

100%

企业全员安全生产责任书签订率
100% signing rate of work safety
responsibility statement of the enterprise

100%

安全风险防控

Safety risk prevention and control

公司持续优化安全监管手段，全面加强风险辨识防控，扎实开展事故隐患排查整治，实现安全风险总体可控。

The Company continued to optimize safety supervision means, comprehensively strengthened risk identification, prevention and control, and solidly carried out potential risks identification and rectification to achieve overall controllable safety risks.

风险管控

Risk control

云铝股份风险管控机制

建立安全风险分级管控清单，按安全风险管控责任的划分，实行分级管控；

Established a hierarchical control list of safety risks, and implemented hierarchical control according to the division of safety risk control responsibilities;

建立安全风险数据库，并组织分层级绘制“红橙黄蓝”四色安全风险空间分布图，并进行公布；

Established and published a security risk database and organized a hierarchical drawing of the spatial distribution map of "red, orange, yellow and blue" safety risks at different levels;

全面分析各级安全风险（点）潜在的危险因素和可能造成的事故，分企业级、厂矿（部门）级、车间级、岗位班组级制定相应的控制内容和检查要求，形成检查表格或检查清单，由各级责任人定期进行检查和落实；

Comprehensively analyzed the potential risk factors and possible accidents of safety risks (points) at all levels, formulated corresponding control contents and inspection requirements at the enterprise level, factory (department) level, workshop level and post-team level, and formed inspection forms or inspection lists, which were regularly checked and implemented by responsible persons at all levels;

摸清风险底数，设定年度风险值降低目标，每年对同口径风险总值控制情况进行考核。

Identified the risk base, set the annual risk value reduction target and assessed the control of the total risk value of the same caliber every year.

隐患排查

Potential risk identification

公司持续建立完善安全环保督察机制，进一步规范督察计划、督察执行、问题督办整改、回头看验证等环节；全面分析企业安全环保短板或弱项，采取定期或随机（专项）督察、飞检等形式进行督察；建立“专业化”督察队伍，快速提升督察质量与效率；有效融入公司“大监督”体系，形成强大的合力，提升督察质效、减轻基层负担，及时消除各类事故隐患。

The Company continued to establish and improve the safety and environmental protection inspection mechanism, and further standardized the supervision plan, supervision implementation, problem handling and rectification, and review and verification; comprehensively analyzed the shortcomings or weaknesses of safety and environmental protection of the enterprise, and carried out the regular or random (special) inspection, unannounced inspection and other forms of inspection; established a "specialized" inspection team to quickly improve the quality and efficiency of inspection; effectively integrated into the Company's "overall supervision" system, formed a strong joint force, improved the quality and efficiency of supervision, reduced the burden on the grass-roots, and eliminated various potential risks of accidents in a timely manner.



云铝股份党委书记、董事长张正基到下属企业开展安全隐患大排查

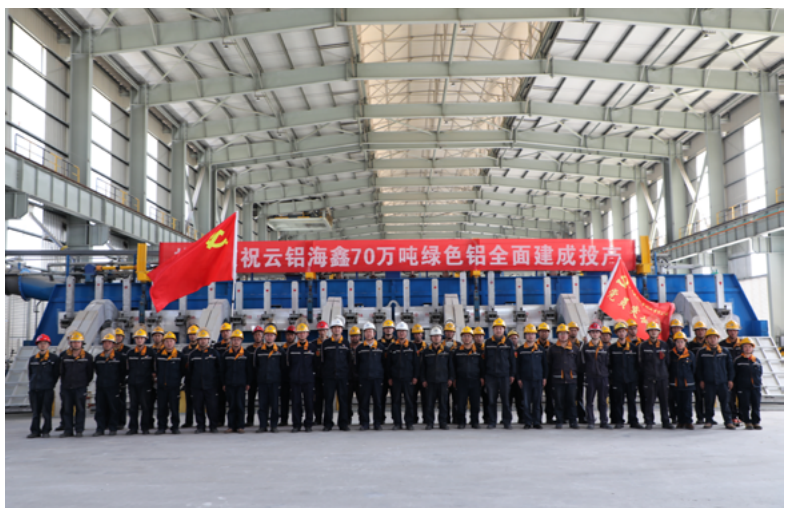
Zhang Zhengji, Secretary of the Party Committee and Chairman of Yunnan Aluminium, carried out the identification of the potential risks in its subsidiaries

稳定生产

Stabilize production

面对宏观经济形势多变给企业生产经营带来的不确定性，云铝股份坚持勇于担当作为，攻坚克难，强化协力协同，不断完善稳产保供应急机制，以坚决、有力、精准的举措保障生产经营平稳运行。

Faced with the uncertainty brought by the changing macroeconomic situation to the production and operation of enterprises, Yunnan Aluminum insists on taking responsibility bravely, overcomes difficulties and challenges, strengthens cooperation, constantly improves the mechanism of stable production and urgent supply, and guarantees the stable operation of production and management with firm, powerful and accurate measures.



2022年3月24日，云铝海鑫70万吨绿色铝项目全面投产

March 24, 2022, Yunnan Aluminum Haixin 700,000-ton green aluminum project went into full operation

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4月，云铝文山志愿者引导员工检测核酸

Yunnan Aluminium Wenshan volunteers led employees for nucleic acid test in April

应急管理机制

Emergency management mechanism

公司及所属企业编制下发《生产安全事故综合应急预案》《突发环境事件应急预案》，按计划开展预案演练和培训，持续提升公司各级人员应急响应及应急处置能力。2022年，公司开展应急演练323次，11,568人次参加。

The Company and its subordinate companies prepared and issued the *Comprehensive Emergency Response Plan for Production Safety Accidents* and the *Emergency Response Plans for Environmental Emergencies*, and carried out drills and training on the plan to continuously improve the emergency response and emergency handling capabilities of the employees at all levels. In 2022, the Company carried out 323 emergency drills with 11,568 participants.



云铝股份员工参加“云南省工伤预防主题应急演练”活动

Employees of Yunnan Aluminium participated in "Emergency Drill on the theme of work injury prevention in Yunnan Province"

营造安全氛围

Creating a safe atmosphere

公司通过组织安全生产专项培训、制作安全生产考试题库、开展“安全生产月”等活动，全面提升安全生产履职能力和一线员工安全意识，营造浓厚的安全生产氛围。2022 年，公司参加安全教育培训员工数为 16,650 人次。

The Company comprehensively improved the ability to perform duties in work safety and the safety awareness of front-line employees by organizing special training on work safety, making a work safety examination question bank and carrying out activities such as "Work Safety Month", so as to create a strong atmosphere of work safety. In 2022, there were 16,650 employees participating in safety education and training.

云铝股份开展“安全生产月”活动

案例 III Case

Yunnan Aluminium carried out "Work Safety Month" activities

6 月，云铝股份及各企业紧紧围绕“遵守安全生产法，当好第一责任人”活动主题，以“安全生产月”活动为载体，开展内容新颖、形式多样、员工广泛参与的活动，不断强化安全意识。

In June, Yunnan Aluminium and its subsidiaries carried out activities with novel contents, various forms and extensive participation of employees with the theme of "abiding by the work safety law and being the first responsible person" and taking the "work safety month" as the carrier to continuously strengthen safety awareness.



云铝文山开展宣传咨询日活动

Yunnan Aluminium Wenshan Holds Publicity and Consultation Day



云铝消鑫开展消防装备实操培训

Yunnan Aluminium Yuxin Conducts Practical Training on Fire Fighting Equipment

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强化创新驱动

Strengthening innovation-driven development

云铝股份坚持以创新为基，不断加强科研与生产的紧密融合，提升公司科技创新水平；推动智能化与企业生产运营深度融合，推动企业数字化转型，助力公司实现高质量可持续发展。

Yunnan Aluminium insisted on taking innovation as the base, constantly strengthened the close integration of scientific research and production, and enhanced the level of scientific and technological innovation of the Company; Promoted the deep integration of intelligence and enterprise production and operation, pushed the digital transformation of enterprises, and facilitated the Company to achieve high-quality sustainable development.

科技创新

Technological innovation

公司秉承创新驱动、科技引领的可持续发展战略，通过强化创新管理，加快平台建设与创新型人才大力培养，积极组织开展核心技术攻关、成果转化与知识产权保护等举措，提升科技创新水平，为公司获得竞争优势。2022 年，公司全年研发投入 19.56 亿元，研发投入强度 4.04%。

Adhering to the sustainable development strategy of innovation-driven and technology-led, the Company accelerated platform construction and vigorously cultivated innovative talents by strengthening innovation management, and actively organized measures such as core technology research, achievement transformation and intellectual property protection to improve the level of scientific and technological innovation and obtain competitive advantages for the Company. In 2022, the Company invested RMB 1.956 billion in R&D for the year, with an R&D investment intensity of 4.04%.

加强创新管理

Strengthening innovation management

公司持续加大各项科研资源投入，优化和完善科技创新制度体系，积极打造创新平台，通过开展一系列活动营造良好创新生态，激发创新活力。

The Company continuously increased the investment in various scientific research resources, optimized and improved the system of scientific and technological innovation, actively created an innovation platform, created a good innovation ecology through a series of activities, and stimulated innovation vitality.

完善制度体系

Improving the systems

公司持续健全以市场为导向、以科创团队为主体、产学研相结合的技术创新体系，建立科技委员会统筹，各单位、各部门参与的协同管理机制；制定下发《科技项目管理办法》《科研经费管理办法》《公司关键核心技术规范管理规定》等制定，形成了科技项目、科研经费、成果转化、知识产权保护等较完整的科技创新管理制度。

The Company continuously improved the technological innovation system which is market-oriented, science and innovation team as the main body, and the combination of industry, academia and research, and established a collaborative management mechanism coordinated by the Science and Technology Committee with the participation of all units and departments. formulated and issued the *Management Measures for Scientific and Technological Projects*, the *Management Measures for Scientific Research Funds* and the *Management Regulations for Key Core Technical Specifications of the Company*, forming a relatively complete management system for scientific and technological innovation such as scientific and technological projects, scientific research funds, achievement transformation and intellectual property protection.

科技平台建设

Building technological platforms

公司组织完成“云南省绿色铝基新材料重点实验室”“科创中国”绿色铝基新材料创新基地等科技创新平台批复建设；与上海交大等知名高校，中科院过程所、中铝材料院等科研机构合作开展多项国家级、省部级科技项目的研发。

The Company organized and completed the construction of science and technology innovation platforms such as "Yunnan Key Laboratory of Green Aluminum-based New Materials" and "Innovation China" Green Aluminum-based New Materials Innovation Base. The Company cooperated with well-known universities such as Shanghai Jiaotong University, and scientific research institutions such as the Institute of process engineering, Chinese Academy of Sciences and Chinalco Material Application Research Institute to carry out research and development of many scientific and technological projects at national and provincial levels.



营造科技氛围

Creating an atmosphere of science and technology

公司通过组织召开科技大会、成立科协联合会、搭建中国知网“云铝股份铝冶金知识服务平台”等形式，为科技工作者营造学习与创新的良好氛围，为公司科技创新事业的发展提供有力的支撑。

The Company created a favorable learning and innovation atmosphere for technological workers and provided strong support for the development of the Company's technological innovation through such forms as organizing technology conferences, establishing the Association of Science & Technology, and building the China National Knowledge Infrastructure "Aluminum Metallurgy Knowledge Service Platform of Yunnan Aluminium".

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云铝股份举办首届科技创新大会

案例 Case

Yunnan Aluminium held the First Technology Innovation Conference

1月，云铝股份首届科技创新大会圆满召开。会议全面梳理科技工作成效及存在的问题，部署“十四五”科技创新思路、目标和任务，对16项科技成果、3个“科技创新杰出团队”和4个“科技英模”进行表彰奖励，为公司全面提升科技创新实力、开创高质量发展新局面奠定坚实基础。

In January, Yunnan Aluminium successfully held its first Technology Innovation Conference. The conference comprehensively reviewed the achievements and problems in science and technology work, deployed the ideas, goals, and tasks for the "14th Five-Year Plan" regarding science and technology innovation, and awarded commendations to 16 scientific and technological achievements, three "Outstanding Scientific and Technological Innovation Teams" and four "Science and Technology Models", laying a solid foundation for the company's comprehensive enhancement of its science and technology innovation strength and the creation of a new era of high-quality development.



首届科技创新大会现场

Scene of the First Science and Technology Innovation Conference



11月，云铝股份召开科协联合会成立暨第一届会员代表大会，加快打造原创技术“策源地”

In November, Yunnan Aluminium held the inaugural meeting of the Association of Science & Technology and the first member representative conference, to accelerate the establishment of an original technology "origin".

培养创新人才

Cultivating innovative talents

公司重视科技人才力量，着力完善人才引进、培养、使用机制，研究建立独立科技研发及薪酬体系，加大精准激励力度；实施“1112”科技人才工程，打造科技创新人才高地。截至2022年底，公司拥有各类专业技术人员3,881人，其中，高级职称235人，中级职称803人，初级职称2,843人，12人入选省级科技创新人才、产业创新人才。

The company attached great importance to the strength of technology talents, strived to improve the mechanism of talent introduction, training and utilization, researched and established an independent technology research and development and salary system, and increased precise incentive efforts. The Company implemented the "1112" Technology Talent Project, aiming to build a highland for technological innovation talents. By the end of 2022, the Company had 3,881 professionals with various technical backgrounds, including 235 senior title holders, 803 intermediate title holders, and 2,843 junior title holders. Twelve of them were selected as provincial scientific and technological innovation talents and industrial innovation talents.



5月，云铝股份组织科技成果评价会

In May, Yunnan Aluminum organizing scientific and technological achievements evaluation meetings

加大技术研发

Enhancing technology research and development

公司紧跟国家政策，聚焦绿色铝基新材料研发等关键领域，加快关键核心技术开发和重大技术成果产业化应用与推广。2022年，公司组织开展重点科研项目62项，成功策划组织申报国家、云南省及中铝科技项目10项，项目按计划完成率达95%。

The Company kept up with national policies, focused on key areas such as the research and development of green aluminum-based new materials, and accelerated the development of key core technologies and the industrial application and promotion of major technological achievements. In 2022, the Company took the lead to carry out 62 key scientific research projects, and successfully planned and organized the declaration of 10 national, Yunnan Provincial and CHINALCO science and technology projects. The completion rate of the projects as planned reached 95%.



11月，云铝股份第四届创新创意大赛决赛

In November, the final of the fourth Innovation and Creativity Competition of Yunnan Aluminum

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节能环保技术攻关 Energy-saving and environmental protection technology breakthrough

积极推进“节能环保型阳极的开发与应用”项目的攻关和实施，重点开展阳极外形优化、开槽阳极、自主阳极涂层及节能钢爪等技术的开发与使用

Actively promoted the research and implementation of the "development and application of energy-saving and environmentally friendly anode" projects, especially the development and application of anode shape optimization, slotted anode, independent anode coating, energy-saving steel claw and other technologies



开展实施石墨化阴极技术等节能降耗措施，全面推进公司各电解企业节能技术的攻关与实施

Took energy-saving and consumption-reducing measures such as the implementation of the graphitized cathode technology, and comprehensively promoted the research and implementation of energy-saving technology in the electrolytic enterprises of the Company



聚焦降本工作，制定氟化铝的合理使用机制，开展中间合金、铝钛硼丝、精炼剂、锰剂等试验与应用

Focused on reducing costs, formulated the rational use mechanism of aluminum fluoride, and carried out the tests and application of intermediate alloys, aluminum-titanium boron wire, refining agents and manganese agents



加大赤泥综合利用技术的开发，开展赤泥烧砖、水泥掺烧、选铁及脱钠等技术研发

Strengthened the development of red mud comprehensive utilization technology, and conducted the research and development of red mud baking bricks, cement co-combustion, iron selection and de-sodium technology

云铝润鑫 4 万吨电解固废资源综合利用项目已建成，技术成果通过权威机构鉴定

Yunnan Aluminium Runxin completed the 40,000t electrolytic solid waste resources comprehensive utilization project, with technical achievements passing the appraisal by authoritative institutions





获奖情况

Awards

- 参与实施科技成果“阳极炭块仓储与转运无人化关键技术研究及应用”获 2022 年中国有色金属工业协会科技进步一等奖；

Participated in the implementation of the scientific and technological achievement "the research and application of the anode carbon block storage and transshipment unmanned key technology", and won the first prize of science and technology progress of China Nonferrous Metal Industry Association in 2022;



- “电解铝‘三废’深度治理与高效利用关键技术及示范”与“绿色高端铝基材料产业化关键技术开发”两项科技成果通过云南省科技厅组织鉴定，分别达到国际领先水平及国际先进水平；

The two scientific and technological achievements, i.e. "key technologies and demonstration of advanced treatment and efficient utilization of electrolytic aluminum "three waste" and "development of key technologies for the industrialization of green high-end aluminum-based materials", passed the appraisal by the Yunnan Provincial Department of Science and Technology, reaching the international leading level and the international advanced level respectively;

- 组织参加 2022 年中国创新方法大赛，云铝文山“基于 TRIZ 理论的两段法铝灰资源化综合利用新工艺”获得全国总决赛三等奖，云铝股份“基于理论的降低铝电解阳极炭块氧化消耗”获全国总决赛优胜奖。

Organized to participate in the 2022 China Innovation Method Competition, the "new process of two-stage aluminum ash resource comprehensive utilization based on TRIZ theory" of Yunnan Aluminium Wenshan won the third prize in the national finals, and the "reduced aluminum electrolytic anode carbon block oxidation consumption based on the theory" of Yunnan Aluminium got the winning prize in the national finals.

云铝股份聚焦绿色铝基新材料，突破多项关键应用技术

案例 III Case

Yunnan Aluminium focused on new green aluminum-based materials and made breakthroughs in a number of key application technologies

云铝股份充分利用绿色铝资源，开展铝合金生产低耗、低成本生产技术攻关，在汽车、轨道交通、船舶、航空等领域，从研发到应用实现多项重大技术创新突破，形成“高效节能短流程汽车用高性能铝合金”等 17 项科技成果。

Yunnan Aluminium made full use of green aluminum resources to break through low-consumption and low-cost production technology of aluminum alloys, achieving a number of major technological innovation breakthroughs from research and development of application in the fields such as automobiles, rail transit, vessels and aviation, and developing 17 scientific and technological achievements such as "high-performance aluminum alloy used for high-efficiency and energy-saving short-process automobile production".

知识产权保护

Intellectual property protection

公司持续加强专有技术和专利技术保护，制定《云南铝业股份有限公司知识产权管理办法》《云南铝业股份有限公司专利管理办法》《公司关键核心技术规范管理规定》等制度；确定 8 项公司关键核心技术，加强自主核心知识产权保护。2022 年，云铝股份获得专利授权 80 件，其中发明专利 11 件，实用新型专利 69 件；3 家单位获“国家知识产权优势企业”称号。

The Company continued to strengthen the protection of proprietary technologies and patent technologies, and formulated the *Administrative Measures for the Intellectual Property Rights of Yunnan Aluminium Co., Ltd.*, the *Administrative Measures for Patents of Yunnan Aluminium Co., Ltd.*, *Regulations on the Management of Key and Core Technologies Specification of the Company*, etc. The Company determined 8 key and core technologies and strengthened the protection of independent core intellectual property rights. In 2022, Yunnan Aluminium obtained 80 patents, including 11 inventions, and 69 utility models; 3 units obtained the title of "National Intellectual Property Advantage Enterprise".

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数智赋能

Digital & intelligent empowerment

公司全面推进信息化、数字化、智能化与生产运营管理的深度融合，提升企业管理信息化水平，实现资源优化配置；加快智能工厂建设，坚定走以技术为先导、质量效益型的企业发展道路。

The Company comprehensively promoted the deep integration of informatization, digitalization, intelligence and production and operation management, improved the level of enterprise management informatization, and realized the optimal allocation of resources; The Company accelerated the construction of intelligent factories, and firmly took the quality and efficiency-oriented enterprise development path with technologies as the lead.

建设智慧企业

Building a smart enterprise

公司紧抓数字化转型机遇，完善信息化平台建设、筑牢信息安全防线，全力打造智慧企业。

The Company seized the opportunities of digital transformation, perfected the construction of information platforms, built a strong information security defense line, and made every efforts to build a smart enterprise.

信息化平台

Information platform

公司注重管理系统信息化建设，不断完善 OA 系统、电子商务采购管理平台等信息化系统应用。2022 年，云铝股份大数据中心建成投运，推动公司在操作标准化、运营数据化、生产智能化方面迈上新台阶。

The Company paid attention to the information construction of the management system, and constantly improved the application of information systems such as OA system, e-commerce procurement management platform. In 2022, the big data center of Yunnan Aluminium was completed and put into operation, pushing the Company to a new level in operation standardization, operation datalization and production intelligence.



9 月，云铝股份大数据中心建成投运

In September, the big data center of Yunnan Aluminium was completed and put into operation

信息安全管理

Information security management

公司持续加强信息安全管理，成立网络安全及信息化工作领导机构，主要领导签订《网络安全责任书》；编制《计算机网络及信息系统安全管理制度》等制度，逐步建立完善网络安全监督审查和检查工作机制；编制网络安全事件应急预案，下发加强网络安全学习等相关通知，持续提升公司网络与信息安全保障能力。

The Company continued to strengthen information security management and set up a leading agency for network security and informatization, and main leaders signed the *Cyber Security Responsibility Letter*. The Company prepared the *Computer Network and Information System Security Management System* and other systems, and gradually established and improved the cyber security supervision, review and inspection mechanism. The Company prepared cyber security incident emergency response plan, issued relevant notices to strengthen cyber security learning, and continuously promoted its cyber and information security capabilities.

打造智慧工厂

Building a smart factory

公司以“标准化、智能化、生态化”建设理念，充分吸收国内外电解铝及相关行业先进的自动化、数字化和智能化技术，着力推进“5G+ 智能工厂”建设，努力打造中铝电解铝智能制造标杆。

With the construction concept of "standardization, intelligence and ecology", the Company fully grasped the advanced automation, digital and intelligent technologies of electrolytic aluminum and related industries at home and abroad, endeavored to promote the construction of "5G+ intelligent factory", and managed to set up a benchmark for CHINALCO electrolytic aluminum intelligent manufacturing.

“5G + 智能工厂” 助力数字化转型

案例 Case

"5G+ Smart Factory" facilitated digital transformation

云铝文山聚焦生产管控、业务协同、数据共享等领域，着力打造“优质、低耗、绿色、安全、高效”智慧工厂。截至 2022 年，“5G+ 智能工厂”项目已完成工业互联网平台、5G 专网以及部分 5G 应用场景等建设，助力打造具有国际一流水平的信息化、智能化、零碳能源智慧绿色铝企业，获得第五届“绽放杯”标杆赛全国赛银奖。

Yunnan Aluminium Wenshan focused on production control, business collaboration, data sharing and other fields, and tried to build a "high-quality, low-consumption, green, safe and efficient" smart factory. As of 2022, the construction of an industrial Internet platform, 5G private network, and some 5G application scenarios in the "5G+ Intelligent Factory" project has been completed, helping to build a world-class informatization, intelligent and zero-carbon energy smart green aluminum enterprise.



10 月，“5G+ 智能工厂”项目获第四届“绽放杯”5G 应用征集全国赛三等奖
In October, "5G+ Intelligent Factory" project won the third prize of the 4th "Bloom Cup" 5G Application Competition



云铝文山获得第五届“绽放杯”标杆赛全国赛银奖

Yunnan Aluminium Wenshan won the silver medal in the fifth "Bloom Cup" Benchmark Contest National Competition

云铝股份2022年质量管理重点工作

产品质量管理

Product quality management

公司持续加强质量管理体系建设，制定《物资采购管理办法（试行）》《质量管理办法》等制度，严格过程质量控制，不断提升质量管理科学化、规范化、体系化，质量管理流程不断优化完善，质量管理水平稳步提升。

The Company continued to strengthen the construction of quality management system, formulated the *Administrative Measures for Material Procurement (Trial)*, *Administrative Measures for Quality* and other systems, strictly controlled the quality, and constantly improved the scientific, standardized and systematic quality management. The quality management process has been continuously optimized and improved, and the quality management level has been steadily improved.

03

积极组织推进群众性质量管理活动

Actively organizing and promoting mass quality management activities

策划开展 90 个 QC 小组活动，多项 QC 成果获得省部级奖励，其中，3 个 QC 小组入选全国有色金属行业优秀质量管理小组，1 个小组荣获全国有色金属行业优秀制作奖；3 个 QC 小组获得云南省优秀成果；3 个 QC 小组获得集团奖励。

The Company planned and organized 90 QC groups, many of QC achievements won provincial and ministerial awards, 3 QC groups were selected into the national non-ferrous metal industry excellent quality management groups, and 1 group won the national non-ferrous metal industry excellent manufacturing award; 3 QC groups won Yunnan excellent results; 3 QC groups obtained rewards from the Group.

铸造铝合金生产线推行的“一五零”质量管理模式入选中铝集团十大质量提升先进典型案例，得到全球知名企业高度的评价。

The "One-Five-Zero" quality management model implemented by the casting aluminum alloy production line was selected as one of the top ten advanced typical cases of quality improvement of the CHINALCO Group, which was highly praised by world-renowned enterprises.

获“2022 年全国企业员工全面质量管理知识竞赛”优秀组织奖。

The Company won the excellent organization award of the "2022 National Enterprise Employee Comprehensive Quality Management Knowledge Contest".

04

多家企业获得低碳产品认证证书

Many enterprises obtained the low-carbon product authentication certificate

云铝阳宗海、云铝文山、云铝润鑫取得认证，进一步发挥公司低碳铝绿色铝品牌优势。

Yunnan Aluminium Yangzonghai, Yunnan Aluminium Wenshan, and Yunnan Aluminium Runxin obtained certification to further give full play to the advantages of the Company's low-carbon green aluminum brand.

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云铝股份开展 2022 年“质量月”系列活动

案例 III Case

Yunnan Aluminium carried out "Quality Month" series activities in 2022

9月，云铝股份以“提升质量效益，建设质量强企”为主题，开展一系列“质量月”活动，持续提升公司质量管理水平。

In September, Yunnan Aluminium carried out a series of "Quality Month" activities with the theme of "improving quality efficiency and building a strong quality enterprise", and continuously improved the Company's quality management level.

- 加大宣传“质量月”活动主题和质量品牌口号，营造浓厚活动氛围；

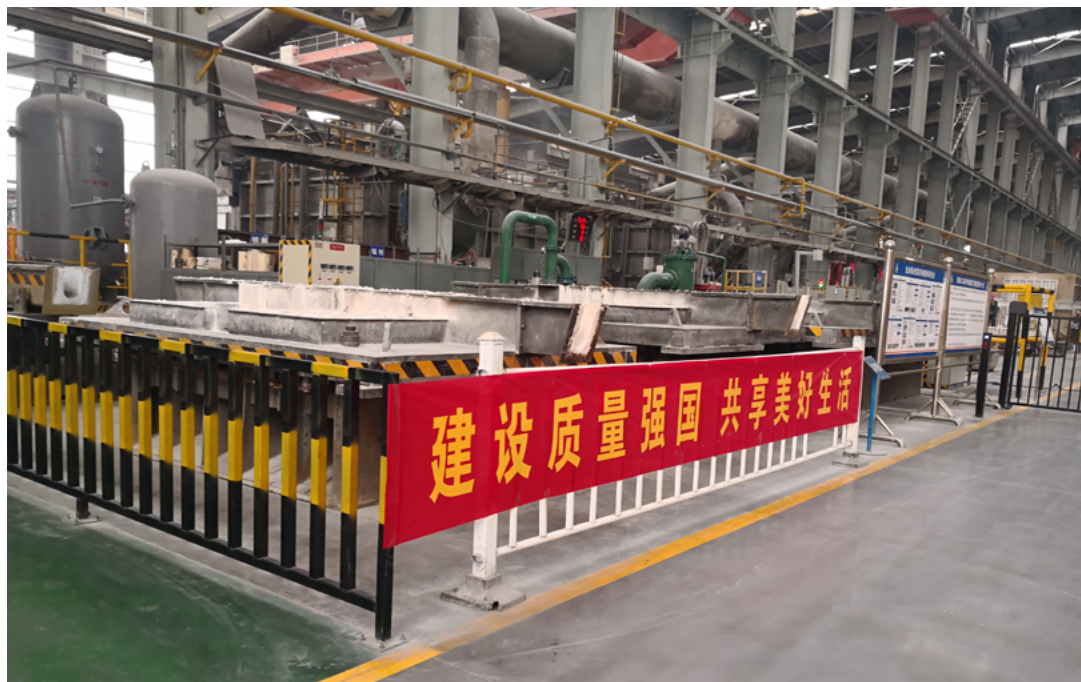
Facilitate the promotion of the activity theme of "Quality Month" and the quality brand slogan to create a strong atmosphere of the activity;
- 开展 QC 活动，为创造精品保驾护航；

Carry out QC activities to help the creation of high-quality products;
- 组织 2022 年质量管理能力提升培训，全面提高公司体系管理水平；

Organize quality management ability improvement training in 2022 to comprehensively improve the management level of the Company's system;
- 启动质量收益倍增专项行动，筑牢质量防线；

Launch a special action to double the quality revenue and build a strong quality defense line;
- 组织全面质量管理知识竞赛，提升员工质量意识。

Organize a comprehensive quality management knowledge contest to improve employee quality awareness.



云铝股份“质量月”活动期间悬挂横幅

The banner was hung during the "Quality Month" activity of Yunnan Aluminium

提供优质服务

Offering high-quality services

公司不断优化客户服务体系，建立售后服务反馈处理机制，根据顾客对产品的需求，加大定制化产品的研发和生产，以满足客户差异化的需求；积极响应客户差异化需求，快速妥善处理客户投诉；高度重视客户权益保护，严格保密客户隐私，不断提升客户服务质量和满意度。2022年，客户满意度较上年提升1.5%。

The Company continuously optimized the customer service system, established an after-sale service feedback processing mechanism, and increased the R&D and production of customized products in accordance with the customer's demand for products to meet the differentiated needs of customers; actively responded to customer differentiated needs and quickly and properly handled customer complaints; attached great importance to the protection of customer rights and interests, strictly kept customer privacy confidential, and constantly improved the quality and satisfaction of customer services. In 2022, customer satisfaction increased by 1.5% compared with the previous year.

2022 年 (In 2022)



客户满意度较上年提升

1.5%

Customer satisfaction increased
by 1.5% compared with the
previous year

建设责任供应链

Building a responsibility supply chain

云铝股份不断结合企业实际发展需要，修订完善供应商管理制度，实行总量控制原则，加强对于供应商的采购、考评与清退管理，并将 ESG 因素纳入对供应商的审核之中，加强供应商培训，完善对于供应商的环保管理制度与措施，致力于打造绿色可持续的负责任供应链。

Yunnan Aluminium constantly revised and improved the supplier management system in accordance with the actual development of the enterprise, implemented the total quantity control principle, strengthened the procurement, assessment, evaluation and return management for suppliers, and incorporated ESG factors into the audit of suppliers. The Company strengthened supplier training, improved the environmental protection management system and measures for suppliers and was committed to building a green, sustainable and responsible supply chain.

供应商管理

Supplier management

云铝股份持续修订、完善《云南铝业股份有限公司采购管理办法》《云南铝业股份有限公司供应商管理办法》，细化供应商管理原则，完善供应商管理机构及职责、供应商采购、考核、评价及清退规章制度。

Yunnan Aluminium continued to revise and improve the *Administrative Measures for the Procurement of Yunnan Aluminium Co., Ltd.* and the *Administrative Measures for Suppliers of Yunnan Aluminium Co., Ltd.*, refined the principles of supplier management, improved the supplier management institutions and their responsibilities, supplier procurement, assessment, evaluation and return rules and regulations.

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供应商采购

Supplier procurement

云铝股份建立并不断完善供应商日常审核和整改机制，采购人员在初步核实所有评价资料、供应商资质后，由风控人员确认无误后认可其合格供应商资格，供应商才可报价；针对物资采购，搭建数字化的阳光采购管理平台，并逐渐将大宗商品、非标采购物品等产品类别纳入平台产品类别，有效提升了采购的效率、便捷性与透明度。2022 年，公司新增供应商 94 家，压减供应商 129 家。

Yunnan Aluminium established and continuously improved the daily review and rectification mechanism of suppliers. The procurement personnel initially verified all evaluation materials and supplier qualifications, then the risk control personnel recognized qualifications of qualified suppliers after confirmation, and eventually the suppliers can quote. For material procurement, a digital open procurement management platform was built, and product categories such as bulk commodities and non-standard purchases were gradually included in the platform product categories, effectively improving the efficiency, convenience and transparency of procurement. In 2022, the Company added 94 new suppliers and reduced 129 suppliers.

2022 年 (In 2022)

新增供应商

94 家

Added 94 new suppliers

淘汰供应商

129 家

Eliminated 129 suppliers

云铝股份供应商准入条件

Access conditions for suppliers of Yunnan Aluminium



未被列入中铝集团禁止交易企业名单、负面清单、承包商黑名单

The supplier is not included in CHINALCO Group's list of prohibited trading enterprises, negative lists and blacklists of the Contractor



合法有效的基本证明文件

The supplier has legal and valid basic supporting documents



涉及特种行业的供应商须提交相应的资质证明材料

The supplier involved in the special industry must submit corresponding qualification certification materials



最近两个自然年度（含准入年度）经营活动中无重大违法记录和重大法律纠纷

The supplier had no major illegal records nor major legal disputes in the business activities of the last two natural years (including the access year)



具备履行合同能力、良好的经营业绩和售后服务能力

The supplier has the ability to fulfill the contract, good business performance and excellent after-sales service



自觉遵守云铝股份供应商网络相关保密条款

The supplier consciously abides by the relevant confidentiality clauses of supplier network of Yunnan Aluminium



符合云铝股份社会责任管理体系政策要求

The supplier meets the policy requirements for social responsibility management system of Yunnan Aluminium

供应商考评

Supplier assessment

对于进入供应商库的供应商，云铝股份坚持严格管理与落实供应商考核制度，制定《合作方诚信管理办法》等文件，考核评价包括但不限于诚信、质量、价格、商业贿赂等方面的不良行为。2022年，顺利通过考核评价的供应商共446家。

For suppliers entering the supplier database, Yunnan Aluminium adhered to the strict management and implementation of the supplier assessment system, and formulated the *Administrative Measures for Supplier Integrity* and other documents. The assessment and evaluation included but was not limited to bad behaviors in integrity, quality, price, commercial bribery, etc. In 2022, a total of 446 suppliers successfully passed the assessment.

供应商清退

Supplier return

云铝股份对供应商实行统一管理、动态考核、扶优劣汰原则，对于考评结果良好的供应商，签订续约合同，对于考评不合格的供应商，严格执行清退规定。

Yunnan Aluminium implemented the principles of unified management, dynamic assessment, and fostering the good and eliminating the bad for suppliers. For suppliers with good evaluation results, sign a renewal contract, otherwise strictly conduct the return regulations.

云铝股份供应商清退规则 Return regulations for suppliers of Yunnan Aluminium



对于社会责任表现较差、且已经造成不良社会影响的供应商予以降级；

Suppliers who performed poorly in social responsibility and have caused adverse social impact shall be degraded;



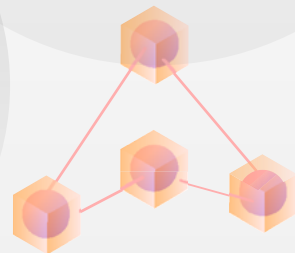
对于社会责任表现极差、且已造成极其恶劣不良社会影响的供应商，取消其供应资格，并对其作退出处理，五年内不得准入。

Suppliers who performed extremely poorly in social responsibility and have caused extremely bad social impact shall be disqualified from supply and be returned. They shall not be admitted for 5 years.



对于造成严重恶劣不良影响的供应商，终止交易且限期整改，并在公司系统中做冻结处理，依问题严重程度，中止期为一至二年；

For suppliers who caused serious adverse impact, the transaction shall be terminated, rectified within a time limit, and frozen in the Company's system. According to the severity of the circumstance, the suspension period shall be one to two years;



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供应商沟通

Supplier communication

云铝股份积极组织开展对于主要供应商的培训与沟通维护工作，逐一对所有供应商及时宣贯修订后的供应商管理要求，坚持资源共享，降低成本，践行长期稳定合作的经营理念。

Yunnan Aluminium actively organized the training, communication and maintenance of major suppliers, timely publicized the revised supplier management requirements to all suppliers one by one, adhered to resource sharing, reduced costs, and practiced the business philosophy of long-term and stable cooperation.

云铝汇鑫加强对供应商的管理与沟通

案例 Case

Yunnan Aluminium Huixin strengthened management on and communication with suppliers

春节期间，云铝汇鑫采购业务部人员坚守岗位、积极协调，加强与供应商的双向交流，及时组织采购物资的发运，确保节日期间生产经营物资安全、稳定保供。

During the Spring Festival, the purchasing department personnel of Yunnan Aluminium Huixin stuck to their posts, actively coordinated to strengthen two-way communication with suppliers, and organized the shipment of purchased materials in a timely manner, to ensure the safe and stable supply of production and operation materials.



云铝汇鑫采购部门加强与供应商双向沟通

The purchasing department of Yunnan Aluminium Huixin strengthened two-way communication with suppliers

绿色供应链 Green supply chain

公司针对供应商建立了专门的环境管理要求，严格要求供应商按国家相关法律法规要求，做好相应的能耗指标、环境指标和生产排放等控制，致力于打造绿色供应链。

The Company established special environmental management requirements for suppliers, strictly required suppliers to control the corresponding energy consumption indicators, environmental indicators and production emissions indicators in accordance with the requirements of relevant national laws and regulations, and was committed to building a green supply chain.



完善管理制度

Improving the management system

- 针对供应商建立专门的环境管理要求，包括但不限于煤炭验收标准，特别针对硫含量设置较严格的考核标准，在合同中明确约束条款；在供货过程中，若发现硫分异常情况，及时与供应商或者煤矿沟通并调整。

The Company established special environmental management requirements for suppliers, including but not limited to coal acceptance standards, especially setting strict assessment standards for sulfur content, and clarified binding terms in the contract; in the process of supply, if sulfur abnormalities are found, communicate with suppliers or coal mines in time and make adjustments.

- 云铝股份相应的用煤单位，均配置专门的脱硫设施，并按要求进行脱硫工作。

The corresponding coal units of Yunnan Aluminium were equipped with special desulfurization facilities and carried out desulfurization work as required.



采用绿色包装

Using green packaging

- 积极推进氧化铝供应商的散装化改造，降低综合成本，实现双方共赢，并形成以汽车散装、火车干散箱为主的发运方式。2022 年，云铝股份完成氧化铝散装发运 172 万吨，散装化率 41%。

Actively promote the bulk transformation of aluminum oxide suppliers, reduce comprehensive costs, and achieve win-win for both sides, and had formed the shipping mode based on bulk shipment with automobiles and dry bulk container shipment with trains. In 2022, Yunnan Aluminium completed the bulk shipment of 1.72 million tons of aluminum oxide, with a bulk rate of 41%.



保障绿色运输

Ensuring green transportation

- 针对运营中的运输环节制定强制要求，对于采购物资的质量技术要求、运输中的防潮问题以及安全、环保、职业健康等事项均作明确的责权范围划分，保障运输环节的绿色安全。

Mandatory requirements were formulated for the transportation links in operation, and the scope of responsibilities and rights were clearly divided for the quality and technical requirements of materials purchased and moisture-proof problems, safety, environmental protection, occupational health and other matters in transportation, so as to ensure the transportation link is green and safe.

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携手伙伴共赢

Cooperating with partners for win-win development

云铝股份秉承诚信开放、公平竞争的经营原则，充分利用各方优势资源，积极探索多元合作方式，同上下游客户、投资者及高校、科研院所等相关方建立战略伙伴关系，构建利益共同体，实现合作共赢；坚决扛起行业责任，助力铝产业转型升级、良性循环发展。

Yunnan Aluminium adhered to the business principle of integrity, openness and fair competition, made full use of the superior resources of all parties, actively explored diversified cooperation modes, established strategic partnerships with upstream and downstream customers, investors, universities, scientific research institutes and other relevant parties, built a community of interests, and achieved win-win cooperation. The Company resolutely shouldered the industry responsibility and facilitated the transformation, upgrading, and virtuous circle development of the aluminum industry.

战略合作

Strategic Cooperation

云铝股份本着优势互补、相互促进的原则，有效利用中铝集团资源，加大对外开放合作力度，整合政策资源，加强政企通力合作，推进校企深度合作，借助不同企业的优势资源，不断探索更多业务合作方式，助力公司高质量发展。截至 2022 年底，云铝股份与 10 余家行业头部企业建立了战略合作伙伴关系。

Based on the principle of complementary advantages and mutual promotion, Yunnan Aluminium effectively made use of CHINALCO Group's resources, strengthened cooperation in opening up to the outside world, integrated policy resources, promoted government-enterprise cooperation, and deepen cooperation between universities and enterprises. Taking advantage of superior resources of different enterprises, the Company continuously explored more business cooperation methods to facilitate the Company's high-quality development. By the end of 2022, Yunnan Aluminium had established strategic partnerships with more than 10 leading enterprises in the industry.



云铝股份与合作企业签订《“5G+ 智慧铝业” 联合创新中心合作框架协议》

案例 Case

Yunnan Aluminium and cooperative enterprises signed the *Cooperation Framework Agreement on "5G+ Smart Aluminum Industry" Joint Innovation Center*

3月，云铝股份与国家电投集团云南国际电力投资有限公司、中铝智能科技发展有限公司等四家企业签署《“5G+ 智慧铝业” 联合创新中心合作框架协议》。这项合作的开展，为助力云铝股份抢占铝产业智能制造发展先机、打造具有国际一流水平的信息化、智能化、零碳能源智慧绿色铝企业奠定了发展基础。

In March, Yunnan Aluminium signed the *Cooperation Framework Agreement on "5G+ Smart Aluminum Industry" Joint Innovation Center* with four enterprises, including SPIC Yunnan International Power Investment Co., Ltd. and Chinalco Intelligent Technology Development Co., Ltd. This action laid the development foundation for helping Yunnan Aluminium to seize the opportunity of intelligent manufacturing in the aluminum industry and building a world-class informatization, intelligent and zero-carbon energy smart green aluminum enterprise.



云铝股份与合作企业签订《“5G+ 智慧铝业” 联合创新中心合作框架协议》
Yunnan Aluminium and cooperative enterprises signed the *Cooperation Framework Agreement on "5G+ Smart Aluminum Industry" Joint Innovation Center*

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多年来，云铝股份深入推进绿色能源与绿色先进制造深度融合，持续为我公司提供绿色铝产品，双方已建立良好的合作关系，成为行业内绿色铝材一体化产业合作的成功典范，希望未来双方继续携手同行，互惠共赢。

Yunnan Aluminium has been deeply promoting the deep integration of green energy and green advanced manufacturing and continued to provide green aluminum products for us in recent years. We have established a good cooperation relationship and become a successful example of green aluminum integration industry cooperation in the industry. It is hoped that both parties will continue to work together in the future and achieve mutual benefit and win-win results.

——中信戴卡股份有限公司
—CITIC Dicastal Co., Ltd.

云铝始终坚持走绿色低碳发展之路，致力打造成‘科技领先、资源节约、环境友好、管理科学’的责任型和谐企业……一直以来，珀然与云铝合作良好……希望双方进一步发挥各自资源和优势，扩大战略合作和上下游协同的紧密关系，共同致力打造低碳产业链及成为行业绿色升级发展的产业链合作典范。

Having always adhered to the path of green and low-carbon development, Yunnan Aluminium is committed to building a responsible and harmonious enterprise with 'leading technology, resource conservation, environmental friendliness and scientific management...' Pomlead has been cooperating well with Yunnan Aluminium... It is hoped that both parties will further exert their respective resources and advantages, expand the close relationship between strategic cooperation and upstream and downstream collaboration, and work together to build a low-carbon industrial chain and become a model of industrial chain cooperation for green upgrading and development of the industry.

——江苏珀然股份有限公司
— Jiangsu Pomlead Co., Ltd.

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助力行业 Helping industries

作为中国绿色铝的头部企业，云铝股份充分发挥行业引领作用，积极参加行业会议，了解同行发展，宣传绿色铝产品；利用规模优势，稳定铝市场价格；以科技创新为抓手，不断健全行业产业链；同时通过招商引资积极与下游优势企业合作等方式研发铝合金项目，推动绿色铝产业上、下游一体化发展，进一步延链补链强链，引领行业可持续发展。

As the head enterprise of green aluminum in China, Yunnan Aluminium gave full play to the leading role of the industry, actively participated in industry meetings, understood the development of peers, and publicized green aluminum products; utilized scale advantages to stabilize the market price of aluminum; took scientific and technological innovation as the driving force to continuously perfect the industry chain; at the same time, through attracting investment and actively cooperating with downstream superior enterprises, developed aluminum alloy projects, promoted the integrated development of the upstream and downstream of the green aluminum industry, further extended, expanded and strengthen the supply chain to lead the sustainable development of the industry.



云铝股份成为铝业管理倡议 ASI 正式会员

案例 Case

Yunnan Aluminium became a full member of the Aluminium Stewardship Initiative (ASI)

5月，铝业管理倡议 ASI 官网公布，云铝股份加入铝业管理倡议 ASI，成为 ASI 正式会员，在此之下，云铝股份绿色铝绿色供应链优势将更加凸显。通过 ASI 认证，对于云铝股份进入全球 ASI 采购供应链、开发全球优质客户、开拓高端市场、推动全球铝行业发展具有重大意义。

In May, the official website of the Aluminium Stewardship Initiative (ASI) announced that Yunnan Aluminium joined the Aluminium Stewardship Initiative (ASI) and became a full member of ASI. Therefore, the advantages of the green supply chain of green aluminum of Yunnan Aluminium would be more prominent. Passing ASI certification is of great significance for Yunnan Aluminium to enter the global ASI procurement supply chain, develop global high-quality customers, explore high-end markets, and promote the development of the global aluminum industry.

小贴士 Tips:

ASI (Aluminium Stewardship Initiative) 是致力于铝价值链标准制定和认证的非营利性组织，其愿景是实现铝对可持续性社会贡献的最大化，使命是认同并协作推动铝的负责任生产、负责任采购和企业治理。

ASI (Aluminium Stewardship Initiative) is a non-profit organization committed to the standard formulation and certification of aluminum value chains. Its vision is to maximize the contribution of aluminum to the sustainable society. Its mission is to recognize and cooperate to promote the responsible production and procurement of aluminum, as well as corporate governance.

云铝股份参加阿拉丁 2022 年（第十七届）中国铝业峰会

案例 Case

Yunnan Aluminium attended Aladdin 2022 (17th) China Aluminum Summit

9 月，阿拉丁 2022 年（第十七届）中国铝业峰会在昆明举行，云铝股份党委书记、董事长张正基应邀出席并在开幕式上致辞。张正基对云铝股份作为央企的履责担当进行整体介绍，并表示开放发展、合作共赢是云铝股份一贯秉承的发展理念，期待与各方携手，共同推动中国铝工业高质量发展。

In September, the Aladdin 2022 (17th) China Aluminum Summit was held in Kunming. Zhang Zhengji, Secretary of the Party Committee and Chairman of Yunnan Aluminium attended the summit by invitation and delivered a speech at the opening ceremony. Zhang Zhengji gave an overall introduction to the responsibility of Yunnan Aluminium as a central enterprise. He said that open development and win-win cooperation are the development concepts that Yunnan Aluminium has always adhered to, and looked forward to working with all parties to jointly promote the high-quality development of China's aluminum industry.



阿拉丁 2022 年（第十七届）中国铝业峰会现场

Aladdin 2022 (17th) China Aluminum Summit

云铝股份承办第十五届全国有色金属行业职业技能竞赛决赛开幕式

案例 Case

Yunnan Aluminium hosted the opening ceremony of the final of the 15th National Nonferrous Metals Industry Professional Skills Competition

11 月，“中国铝业杯”第十五届全国有色金属行业职业技能竞赛决赛开幕式在云铝股份隆重举行。作为承办单位，云铝股份各工作组积极筹备、通力合作，有力保证了竞赛的顺利举行。本次赛事的承办，为全国有色金属行业企业提供了充分沟通交流、学习行业先进技术与经验的平台。

In November, the opening ceremony of the final of the "China Aluminum Cup" 15th National Nonferrous Metals Industry Professional Skills Competition was held in Yunnan Aluminium. The working groups of Yunnan Aluminium, the organizer, actively prepared and cooperated with each other, which effectively ensured the smooth holding of the competition. This competition provided a platform for enterprises in the non-ferrous metal industry to fully exchange and learn advanced technology and experience in the industry.



第十五届全国有色金属行业职业技能竞赛决赛开幕式现场

The opening ceremony scene of the final of the 15th National Nonferrous Metals Industry Professional Skills Competition

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增益民生福祉

Improving people's wellbeing

云铝股份肩负“强企、报国、富民”使命，稳步推进乡村振兴；推动公益慈善事业发展，鼓励员工参与志愿者活动，谱写企地互信互助的动人故事，为和谐社会贡献云铝力量。

Yunnan Aluminium shouldered the mission of "strengthening enterprises, serving the country, and enriching the people" and steadily promoted rural vitalization; promoted the development of public welfare and charity, encouraged employees to participate in volunteer activities, wrote moving stories of mutual trust and assistance between enterprises and localities, and contributed to the harmonious society.

乡村振兴

Rural vitalization

云铝股份积极响应乡村振兴的号召，持续在产业帮扶、教育帮扶、促进消费等方面做实事、下功夫，为乡村振兴提供不竭动力，展现新时代云铝人的责任担当。

Yunnan Aluminium actively responded to the call for rural vitalization, and continued to make practical efforts in industrial assistance, education assistance, consumption promotion, etc., to provide inexhaustible impetus for rural revitalization and show the responsibility of Yunnan Aluminium people in the new era.

产业帮扶

Industrial assistance

产业是发展的根基。公司依托各乡镇优势，通过产业+就业帮扶等方式，解决就业问题，增加农户收入，实现“造血式”帮扶振兴。

Industry is the foundation of development. Relying on the advantages of each township, the Company solved the employment problem, increased the income of farmers, and realized the vitalization by "blood-making" assistance through industry + employment assistance and other methods.

云铝海鑫产业帮扶项目

Yunnan Aluminium Haixin industrial assistance project

深耕乡村事业，不负时代使命

案例 III Case

Deeply cultivating the rural cause and living up to the mission of the times

云南省文山州地处国家 14 个集中连片特困地区，是左右江革命老区和中国对越南自卫反击战战后恢复地区，是典型的集“老、少、边、穷”为一体的国家级深度贫困地区，云铝文山坐落于此，持续助力当地乡村事业，与当地村民共享发展成果。

近十年来，云铝文山先后投入 1,783 万元改造道路，途经 46 个村组，覆盖 6 万余名群众；通过“一村一品”特色产业扶持，带动 88 户、382 人增收；以“企业用工 + 贫困户就业”的帮扶模式，为 160 余名贫困群众提供就业岗位；开办帮扶“西畴班”，55 名学生现已成为云铝文山员工等，在产业帮扶方面持续发力，多方面展现云铝文山高度的社会责任感。

2022 年，云铝文山绿色铝项目建成并达产达标，为带动当地产业发展、促进经济增长持续贡献力量。

Wenshan Prefecture, Yunnan Province, is located in 14 contiguous areas of extreme poverty in the country. It is an old revolutionary base of the Zuojiang and Youjiang and a post-war recovery area of Counterattack against Vietnam in Self-Defense. It is a typical national area in deep poverty integrating "old revolutionary base, ethnic minority autonomous region, outlying area and poverty-stricken area". Yunnan Aluminium Wenshan is located here, which continuously supported the local rural undertakings and shares the development fruits with local villagers.

In the past decade, Yunnan Aluminium Wenshan has invested RMB 17.83 million to transform the road, which passes through 46 villages, covering more than 60,000 people. The support of "One Village, One Product" characteristic industries has driven 88 households and 382 people to increase their income. With the assistance model of "enterprise recruitment + employment for poor households", Yunnan Aluminium Wenshan provided employment for more than 160 poor people. The Yunnan Aluminium Wenshan set up a "Xichou Class" for assistance, and 55 students have now become employees of Yunnan Aluminium Wenshan. It continued to make efforts in industrial assistance, showing a high sense of social responsibility of Yunnan Aluminium Wenshan in many aspects.

In 2022, the green aluminum project of Yunnan Aluminium Wenshan was completed and reached the production standard, continuously contributing to driving local industrial development and promoting economic growth.



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12月，
云铝文山员工为大法克村搬运花苗，
建设洁美村庄

In December, employees of Yunnan Aluminium Wenshan carried flowers and seedlings for Dafake Village, to build a clean and beautiful village

云铝海鑫多措并举助力乡村振兴

案例 III Case

Yunnan Aluminium Haixin took multiple measures to help rural vitalization

云铝海鑫是云铝股份积极贯彻落实国务院国资委和云南省委、省政府的部署安排，承担着“鲁甸 6.5 级地震灾后恢复重建 70 万吨水电铝一体化项目”的建设和实施任务，是乡村振兴重点工程。

自建成以来，云铝海鑫心系周边，多次采用倾斜政策，招录当地建档立卡户、昭通籍大学生员工，本地化用工比例达到 64.6%；每年 300 万吨的物流运输及其他外包业务，带动近千人就业；投资 30 余万元建设储水池、敷设管路，解决沈家沟村人畜饮水问题等，企地共建助力乡村振兴。

Yunnan Aluminium actively implemented the deployment arrangements of the SASAC of the State Council, Party Committee of Yunnan Province, and the Yunnan Provincial government, to establish Yunnan Aluminium Haixin. Haixi undertook the construction and implementation task of the "700,000 tons of hydropower aluminum integration project for recovery and reconstruction after Ludian magnitude-6.5 earthquake," which is a key project of rural vitalization.

Since its establishment, Yunnan Aluminium Haixin has been concerned about its surroundings and adopted a preferential policy for many times, to recruit local households with poverty registration and college graduates from Zhaotong. The proportion of localized employment reached 64.6%. Every year, there are 3 million tons of logistics and transportation and other outsourcing businesses, which drive the employment of nearly 1,000 people. It invested more than RMB 300,000 for water storage tanks building and roads lying to solve the problem of drinking water for people and animals in Shenjiagou Village, and Enterprises and localities jointly contributed to rural vitalization.

“

公司参与云铝股份实施的‘云南云铝海鑫铝业有限公司鲁甸 6.5 级地震灾后恢复重建水电铝项目’‘云南文山铝业有限公司绿色低碳水电铝材一体化项目’两项产业扶贫项目的非公开发行股票，项目运行良好，持续保障股东权益，不仅成为资本市场上的典型成功案例，同时也为国家乡村振兴事业注入更多资源与力量。

The Company participated in the Non-public issuance of stocks of the two industrial poverty alleviation projects of 'Hydropower Aluminum Project for Recovery and Reconstruction after Ludian Magnitude-6.5 Earthquake of Yunnan Aluminium Haixin Co., Ltd.' and 'Green and Low-Carbon Hydropower Aluminum Integration Project of Yunnan Aluminium Wenshan Co., Ltd.' implemented by Yunnan Aluminium. Both projects ran well and continued to protect shareholders' rights and interests, which not only became typical successful cases in the capital market, but also injected more resources and strength into the national rural vitalization.

——中央企业乡村产业投资基金股份有限公司
— Central Enterprise Rural Industry Investment Fund Co., Ltd.

”

教育帮扶

Education assistance

公司持续向贫困乡村小学捐赠教育设施及文化用品，为困难学生提供资助和奖金，助力帮扶地区教育事业的发展。

The Company continued to donate educational facilities and cultural supplies to poor rural primary schools, provided subsidies and scholarships for students in need, and helped the development of education in the assisted region.



11月，云铝文山到麻栗坡矿业开展“点亮微心愿”活动

In November, Yunnan Aluminium Wenshan carried out the "Lighting up micro wishes" activity in Malipo Mining

消费帮扶

Consumption assistance

公司积极推广以购代捐、以买代帮等帮扶方式，充分调动社会各界力量，不断探索消费帮扶新业态新模式，大力实施消费帮扶。

The Company actively promoted assistance methods such as procurement instead of donation and helping others by purchase, fully mobilized the strength of all sectors of society, constantly explored new business models of consumption assistance, and vigorously implemented consumption assistance.



4月，云铝文山帮助村民在公司内销售樱桃
Yunnan Aluminium Wenshan assisted villagers sell cherries in the Company in April

云铝涌鑫为偏远乡村学生带去温暖

案例 Case

Yunnan Aluminium Yongxin brought warmth to students in remote villages

6月，云铝涌鑫为长坡脚小学贫困学生捐赠图书、文具等爱心物资200余件，并安排党员给孩子们讲述红色党史故事，点亮孩子们内心的希望之光。

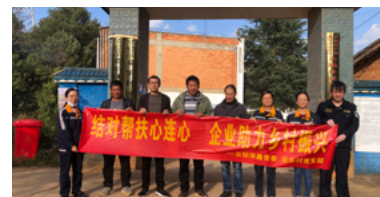
In June, Yunnan Aluminium Yongxin donated more than 200 pieces of books, stationery and other love materials to the poor students of Changpojiao Primary School, and arranged party members to tell the story of the red party history to the children, lighting up the light of hope in the children's hearts.

云铝涌鑫谱写消费帮扶新篇章

案例 Case

Yunnan Aluminium Yuxin wrote a new chapter of consumption assistance

云铝涌鑫认真落实乡村振兴工作，积极协助妥乐村深化消费帮扶，以“政府引导、市场运作、社会参与”为原则，发动员工购买土特产；通过网络、电商进行宣传，拓宽农产品销路，增加农民收入。2022年，公司代购代销板栗2.8吨。



云铝涌鑫协助妥乐村深化消费帮扶
Yunnan Aluminium Yuxin assisted Tuole Village to deepen consumption assistance

In addition to conscientiously implementing the rural vitalization, Yunnan Aluminium Yuxin actively assisted Tuole Village to deepen consumption assistance and mobilized employees to purchase local specialties based on the principle of "government guidance, market operation and social participation". The selling channels of agricultural products were broadened by Internet and e-commerce publicity to increase farmers' income. The Company commissioned on buying and selling 2.8t chestnuts in 2022.

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志愿服务

Volunteer services

云铝股份常态化开展志愿服务活动，每年开展“三五”学雷锋、保护阳宗海、到敬老院看望孤寡老人等活动，并加入“阳管会慈善协会”，用实际行动反哺社会、造福桑梓，展现央企责任担当。2022年，公司注册志愿者 5,104 人，全年志愿者服务 106,068 小时。

To show the responsibility of central enterprises, Yunnan Aluminium regularly organized volunteer service activities, such as learning from Lei Feng on March 5, protecting Yangzonghai, visiting the widows and elderly in nursing homes and joining the "Yangzonghai National Tourist Resort Charity Association" to feed back the society and benefit the native place with practical actions. The Company registered 5,104 volunteers in 2022, providing 106,068 hours of volunteer service throughout the year.

2022 年 (In 2022)

公司注册志愿者

5,104 人

The Company registered 5,104 volunteers

全年志愿者服务

106,068 小时

Providing 106,068 hours of volunteer service throughout the year

云铝涌鑫关爱孤寡老人

案例 Case

Yunnan Aluminium Yongxin cared for the elderly persons of no family

2022 年，云铝涌鑫持续开展“关爱老人，传承家风，我为群众办实事”主题志愿活动，用募集来的 2,370 元为建水县福利院孤寡老人们购买生活必需品，帮助老人打扫房间、擦拭门窗，弘扬敬老爱老传统美德。

In addition to continuing the themed volunteer activities of "Caring for the Elderly, Inheriting Family Traditions, and Doing Practical Things for the Masses" in 2022, Yunnan Aluminium Yongxin purchased daily necessities for the elderly persons of no family in the Jianshui County Welfare Institute with RMB 2,370 raised, helped the elderly clean their rooms and wipe doors and windows to carry forward the traditional virtues of respecting and loving the elderly.



云铝涌鑫为孤寡老人送温暖

Yunnan Aluminium Yongxin sent warmth to the elderly persons of no family

云铝文山志愿服务传递温暖

案例 III Case

Yunnan Aluminium Wenshan volunteers sent warmth

截至 2022 年,云铝文山在乡村振兴、防疫卡点、爱心公益等方面持续开展志愿服务活动 1,700 余场,参与人数 4,300 余人次,被中铝集团授予“优秀志愿服务队”荣誉称号、被文山州评为“无偿献血”先进单位。

By the end of 2022, Yunnan Aluminium Wenshan has continued to carry out more than 1,700 volunteer service activities in rural vitalization, COVID-19 prevention checkpoints, love public, etc., participated by more than 4,300 people. For the above activities, Yunnan Aluminium Wenshan was awarded the honorary title of "Excellent Volunteer Service Team" by CHINALCO Group and the advanced unit of "Free Blood Donation" by Wenshan Prefecture.



云铝文山
Yunnan
Aluminium
Wenshan

被中铝集团授予“优秀志愿服务队”荣誉称号
awarded the honorary title of "Excellent Volunteer Service
Team" by CHINALCO Group

被文山州评为“无偿献血”先进单位
the advanced unit of "Free Blood Donation" by Wenshan
Prefecture

截至 2022 年 (By the end of 2022)



开展志愿服务活动

1,700 余场

Carry out more than 1,700
volunteer service activities



参与人数

4,300 余人次

Participated by more than
4,300 people



12 月,云铝文山开展无偿献血活动

Yunnan Aluminium Wenshan organized a free blood donation activity in December



GOVERNANCE

卓越云铝

Excellent Yunnan Aluminium

云铝股份把抓好企业治理作为履行责任的基础和前提，全面统筹董事会建设、信息披露、投资者关系管理、合规管理、完善内控、风险防范、党的建设、反腐倡廉等各项工作，致力于凭借高水平的企业治理能力有效领导企业高质量发展。

Regarding corporate governance as the basis and premise for fulfilling its responsibilities, Yunnan Aluminium comprehensively coordinated the establishment of the Board of Directors, information disclosure, investor relations management, compliance management, improvement of internal control, risk prevention, party building and anti-corruption and clean government while committed to effectively leading the high-quality development of enterprises with high-level corporate governance capabilities.



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完善公司治理

Improving corporate governance

云铝股份持续优化公司管治，以建立权责明确、管理科学的现代企业制度为方向，积极适应新发展格局，完善董事会建设，依法规范权责，有效防控风险，健全各司其职、各负其责、协调运转、有效制衡的企业法人治理结构。

Yunnan Aluminium continued to optimize the corporate governance. With the establishment of a modern enterprise system with clear rights and responsibilities and scientific management as the direction, Yunnan Aluminium actively adapted to the new development pattern, improved the establishment of the Board of Directors, standardized rights and responsibilities according to law, effectively prevented and controlled risks, and improved the corporate legal person governance structure of each performing their own duties, taking their own responsibilities, coordinating operation, and effectively checking and balancing.

规范企业运作

Standardizing corporate operation

云铝股份规范党委会、董事会、经理层决策边界，严格按照上市规则及规范履行决策程序，持续重视完善公司治理体系，保持公司治理合规、运营高效，以良好业绩回报股东与社会。

In addition to strictly implementing decision-making procedures in accordance with the listing rules and norms, Yunnan Aluminium regulated the decision-making boundaries of the Party Committee, Board of Directors and the Management, continuously attached importance to improving the corporate governance system, maintained corporate governance compliance and efficient operation, and returned shareholders and society with good performance.

董事会建设

Establishing the Board of Directors

公司严格按照《公司法》《公司章程》《董事会议事规则》等相关法律法规规范董事会建设，修订完善了《公司章程》《公司董事会授权管理办法》，新制定了《董事长专题会议事规则》《落实董事会职权实施方案》等制度，并督导下属企业完成公司治理相关制度建设，组织各下属企业制定工作方案及制度清单。公司还加强专职董事和外部董事的沟通交流。

公司董事会下设审计委员会、战略委员会、提名委员会、薪酬与考核委员会，其成员组成结构科学合理，各委员会在公司治理中充分发挥了专业作用。公司独立董事严格遵守《独立董事议事规则》，认真负责地履行各自职责。公司董事会的召集、召开和表决程序符合相关法律法规的要求，在公司重大事项决策上起到关键性作用。截至 2022 年底，公司董事会由 11 名成员组成，其中独立董事 4 名，独立董事占比 36%。

The Company standardized the establishment of the Board of Directors in strict accordance with the relevant laws and regulations such as the *Company Law*, the *Articles of Association*, the *Rules of Procedure of the Board of Directors*, revised and improved the *Articles of Association* and the *Measures for the Management of the Authorization of the Board of Directors*, newly formulated the *Rules of Procedure of the Special Meeting of the Chairman of the Board of Directors* and the *Implementation Plan for the Implementation of the Powers of the Board of Directors*, supervised the subordinate enterprises to complete the construction of the relevant systems of corporate governance, and organized all subordinate enterprises to formulate work plans and system lists. The Company intensified the communication between full-time directors and external directors.

The Board of Directors of the Company consisted of Audit Committee, Strategy Committee, Nomination Committee, and Remuneration and Assessment Committee in scientific and reasonable whose membership structure, and each committee has given full play to its professional role in corporate governance. While strictly abiding by the *Rules of Procedure for Independent Directors*, the independent directors of the Company earnestly and responsibly performed their respective duties. The calling, convening and voting procedures of the Company's Board of Directors complied with the requirements of relevant laws and regulations, and played a key role in the decision-making of major matters of the Company. As of the end of 2022, the Company's Board of Directors consisted of 11 members, including 4 independent directors, accounting for 36%.

董事会多元化

Diversifying the Board of Directors

公司董事会成员专业多元，结构科学合理，充分满足职务所需的知识技能与专业素养。截至 2022 年底，公司有女性董事 2 名，女性董事占比 18%。

The members of the Board of Directors of the Company, with diverse backgrounds, scientific and reasonable professional structure, they fully met the knowledge, skills and professional qualities required for their positions. By the end of 2022, the Company had 2 female directors, accounting for 18%.

薪酬考核

Assessing remuneration

公司设立薪酬与考核委员会，持续修订完善《董事会薪酬与考核委员会实施细则》，激发董事、监事和高管人员积极性与责任感，完善公司治理。

The Company established the Remuneration and Assessment Committee and continuously revised and improved the *Implementation Rules of the Remuneration and Assessment Committee of the Board of Directors* to stimulate the enthusiasm and sense of responsibility of directors, supervisors and senior executives, and improve corporate governance.

保障股东权益

Protecting shareholders' rights and interests

股东大会是云铝股份的最高权力机构，行使着决定公司的经营方针和投资计划、审议批准公司的利润分配方案和弥补亏损方案以及修订公司章程、股东大会议事规则等权力，并持续努力提升股东收益，以实际行动回报股东，全力保障股东权益。及时针对投资者问询释惑答疑，打消投资者疑虑，提振市场信心。

As the highest authority of Yunnan Aluminium, the general meeting of shareholders exercised the power to decide the Company's business policy and investment plan, deliberate and approve the Company's profit distribution plan and loss recovery plan, amend the Company's Articles of Association and the rules of procedure of the shareholders' meeting, and continue to strive to improve the shareholders' returns, return shareholders with practical actions, and fully protect the rights and interests of shareholders. Through the general meeting of shareholders, the Company promptly answered questions from investors to dispel their doubts and boost market confidence.

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细化信息披露

Refining information disclosure

公司严格按照《证券法》《上市公司信息披露管理办法》《深圳证券交易所股票上市规则》等法律、法规和规范性文件开展信息披露工作，信息披露真实、准确、完整，有效保障投资者知情权。2022 年，云铝股份共召开 8 次董事会、4 次监事会、5 次股东大会，披露公告及相关文件 125 篇。

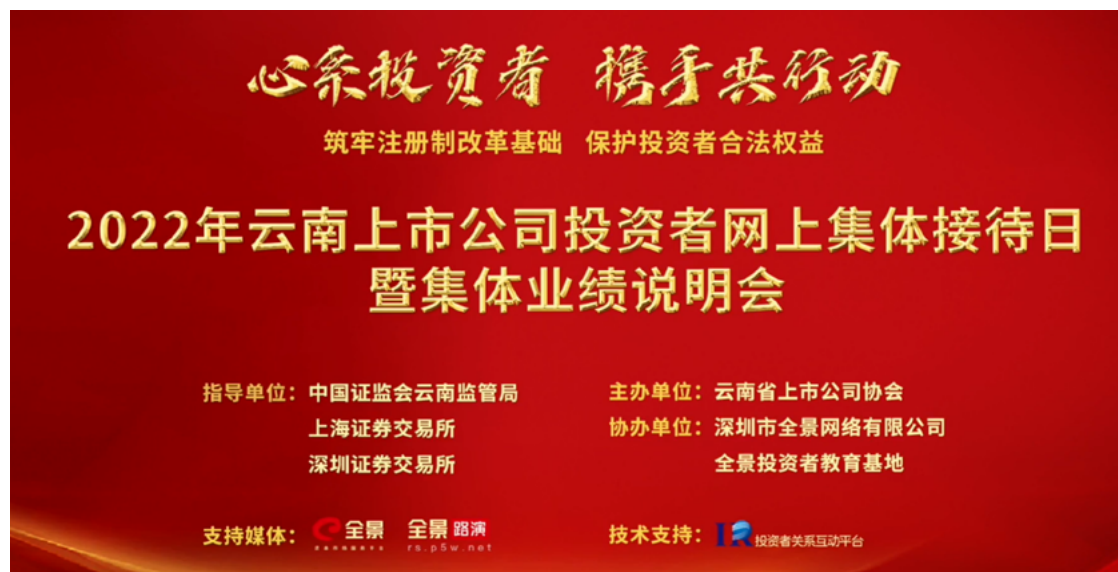
The Company disclosed information in strict accordance with the laws, regulations and normative documents such as the *Securities Law*, the *Administrative Measures for the Disclosure of Information of Listed Companies*, the *Shenzhen Stock Exchange of Issuing the Stock Listing Rules of the Shenzhen Stock Exchange* in true, accurate and complete manner and effectively protecting investors' right to know. Yunnan Aluminium held a total of 8 meetings of the Board of Directors, 4 meetings of the Board of Supervisors and 5 general meetings of shareholders and disclosed 125 announcements and related documents in 2022.

维护投资者关系

Maintaining investor relations

公司高度重视投资者利益与沟通，持续通过现场、网络、电话等多种方式接待投资者来访，积极组织线上业绩说明会、参加投资者网上集体接待日活动。2022 年，云铝股份通过深交所“互动易”平台回复投资者提问 165 条，投资者提问回复及时率 100%，投资者全年零投诉，有力地维护了投资者利益，提升了公司在资本市场的形象和地位。

Attaching great importance to the interests and communication of investors, the Company continued to receive investor visits through on-site, Internet and telephone visits, actively organized online performance briefings, and participated in online collective reception days for investors. Yunnan Aluminium replied to 165 investor questions through cninfo.com.cn of the Shenzhen Stock Exchange in 2022, with a 100% timeliness rate of investor question responses, and zero complaints from investors throughout the year, which effectively safeguarded the interests of investors and enhanced the Company's image and status in the capital market.



5 月，云铝股份参加云南辖区上市公司投资者网上集体接待日活动，在线回复投资者提问 51 条

Yunnan Aluminium participated in the online collective reception day for investors of listed companies in Yunnan jurisdiction, and answered 51 questions from investors online in May



6月，云铝股份举行2021年度网上业绩说明会，在线回复投资者提问71条

Yunnan Aluminium held its 2021 annual online performance briefing and answered 71 questions from investors online in June

合规管理

Managing in compliance

公司建立健全“强内控、防风险、促合规”的长效机制，持续完善内控体系，强化合规管理工作，促进公司依法合规经营、稳健发展。

The Company established and improved the long-term mechanism of "strong internal control, risk prevention and compliance promotion", continuously improved the internal control system, strengthened compliance management, and promoted the Company to operate according to law and develop steadily.

完善内控建设

Improving internal control construction

云铝股份不断加强内控体系建设以强化公司合规运营，全面防范经营风险。2022年云铝股份修订完善了《云南铝业有限公司内部控制评价管理办法》《云南铝业股份有限公司内部控制体系建设与监督管理办法》等管理制度，进一步规范公司内部控制体系建设、评价与监督管理工作；此外，公司定期组织全级次企业开展内控自评价工作，对下属企业开展自主采购、销售、检维修等内控专项检查，缺陷整改完成率100%。

Yunnan Aluminium continuously strengthened the construction of internal control system to strengthen the Company's compliance operation and comprehensively prevent business risks. Yunnan Aluminium revised and improved the management systems such as the *Administrative Measures for the Evaluation of Internal Control of Yunnan Aluminium Co., Ltd.* and *Administrative Measures for the Construction and Supervision of the Internal Control System of Yunnan Aluminium Co., Ltd.* to further standardize the construction, evaluation, supervision and management of the Company's internal control system in 2022. In addition, the Company regularly organized all sub-enterprises for internal control self-evaluation and special internal control inspections such as independent procurement, sales, inspection and maintenance for subordinate enterprises, with the completion rate of defect rectification reaching 100%.

强化合规建设

Strengthening compliance construction

公司坚持常态化监管合规工作，强化公司各层级合规意识，严格依法依规决策，不断修订和完善合规管理制度，保证制度的适用性，以依法合规经营保障公司高质量发展。

The Company adhered to the normalization of regulatory compliance work, strengthened the compliance awareness at all levels of the Company, made decisions strictly in accordance with laws and regulations, constantly revised and improved the compliance management system, ensured the applicability of the system and operated in compliance with laws and regulations to ensure its high-quality development.

云铝股份合规管理举措

Compliance management measures of Yunnan Aluminium

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成立公司法治建设与合规管理工作领导小组，制定《云南铝业股份有限公司合规管理办法》《云南铝业股份有限公司行为准则》，印发《云南铝业股份有限公司进一步落实综合治理专项行动方案》，在公司及所属企业设立兼职合规管理员，全面贯彻落实“管业务必须管合规”要求；
A legal construction and compliance management leading group of the Company was established, the *Measures for the Compliance Management of Yunnan Aluminium Co., Ltd.* and the *Code of Conduct of Yunnan Aluminium Co., Ltd.* were developed, the *Special Action Plan for the Further Implementation of Comprehensive Governance of Yunnan Aluminium Co., Ltd.* was issued, part-time compliance administrators were set up in the Company and its affiliated enterprises, the requirements that "the compliance management shall be a part of the business management" was fully implemented;



组织公司领导干部开展公司规范运作、合规治理等方面的普法培训，并进行制度宣贯；
Leaders of the Company were organized to be trained on the legal popularization in terms of standardized operation, compliance governance and other aspects of the Company, and carry out publicity and implementation of systems;



发挥法律中心的作用，实现“云铝规章制度管理系统”的成功定制开发，并在云铝本部及下属企业全面推广应用，促进各部门、各企业密切关注法律法规与监管动态，并及时转化为公司治理和管理的内在要求；

Gave play to the role of the Law Center, the successful customization and development of the "Rules and Regulations Management System of Yunnan Aluminium" was realized, and are comprehensively promoted and applied in the headquarter and subordinate enterprises of Yunnan Aluminium to promote all departments and enterprises to pay close attention to the laws, regulations and regulatory dynamics, and timely transform them into the internal requirements for corporate governance and management;



聘用外部专业中介机构，组织编制覆盖公司各部门的合规清单和合规风险防范手册。
External professional intermediaries, were engaged to organize the preparation of compliance lists and compliance risk prevention manuals covering all departments of the Company.



4月，云铝股份召开法治建设与合规管理工作领导小组2022年第1次会议暨“合规管理强化年”推进会议

In April, Yunnan Aluminium held its first meeting of the legal construction and compliance management leading group in 2022 and the promotion meeting of "compliance management enhancement year"



9月，云铝股份召开2022年第三期“云铝论坛”上市公司规范运作专题讲座

In September, Yunnan Aluminium held its third "Yunnan Aluminium Forum" in 2022 - Special Lecture on Normative Operation of Listed Companies

风险识别防范

Risk identification and prevention

云铝股份扎实推进风险识别与防范工作，组织开展重大风险和专项风险排查，建立风险快速报告机制与风险闭环管理机制，筑牢风险防线。2022 年，云铝股份认真总结 2021 年风险管理工作，开展合规专项风险整改排查，整改率 100%。在公司的严格管控下，未发生重大风险事件。

Yunnan Aluminium solidly promoted the risk identification and prevention work, organized major and special risk investigations, and established a rapid risk reporting mechanism and a closed-loop risk management mechanism to strengthen the risk defense line. In 2022, Yunnan Aluminium carefully summarized the risk management work in 2021, and carried out special compliance risk rectification and investigation, with the rectification rate of 100%. There was no major risk events occurred due to the strict control of the Company.

2022 年 (In 2022)

风险整改率

100%

The rectification rate of 100%

云铝股份全流程把控风险 Full-Process Risk Control of Yunnan Aluminium



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坚持党建引领

Adhering to the Party's leadership

云铝股份落实国有企业党建工作会议精神，创新党建工作方式，以“五融入、五提升”为抓手，全面推进党建工作与生产经营“双向融合”，进一步提升党的建设科学化水平。

In the spirit of the party building work conference for state-owned enterprises, Yunnan Aluminium innovated its working methods in party building, focused on "Five Integrations and Five Improvements", and comprehensively promoted the "Two-way Integration" between party building work and operations to further improve the scientific level of party building.

云铝股份“五融入、五提升”具体措施
Specific Measures for "Five Integrations and Five Improvements" of Yunnan Aluminium

● 党建融入思想建设，提升凝聚力

Integrating the party building into the ideological construction to increase the cohesive force

建立党委会“第一议题”、干部培训“第一课程”制度，把学习成果转化为推进企业高质量发展的工作成效；定期组织开展云铝论坛和党建大课堂，将党史学习教育学思践悟有机结合，凝聚全员思想共识。

The system of "the first agenda" for the Party committee and "the first course" for training of carders was established to transform the learning results into the work results of promoting the high-quality development of enterprises. Yunnan Aluminium Forum and the big Party building class were conducted on a regular basis to organically combine the learning, pedagogy, thinking and practice of the party history to achieve a common understanding of the whole staff.

● 党建融入中心工作，提升引领力

Integrating the party building into the central task to increase the leadership

全面完成“党建进章程”工作，两级主要领导实现“双向进入、交叉任职”，修订完善公司“三重一大”决策制度，党委会、董事会、监事会和经理层各司其职、各负其责，形成合力。

The work of "incorporating the Party building into the Articles of Association" was fully completed. The main leaders at the two levels have achieved "two-way entry and cross-service", and the company's "three majors and one big" decision-making system has been revised and improved. The party committee, the Board of Directors, the Board of Supervisors and the Management performed their respective duties and responsibilities and made an concerted effort.

● 党建融入基层基础，提升保障力

Integrating the party building into the gross-roots units to increase the supportability

选优配强基层党组织书记，实行“党政一肩挑”，推动党建工作与行政工作同时同效；建立领导干部“双联系点”和五级责任清单，深化“一训一考”基层书记管理模式，有效提高其政治素养和履职能力；推进标准化党支部建设工作，不断完善动态管理和量化考核方式，全面提升基层党支部建设水平。

Excellent secretaries were appointed for the grass-root party organizations, and the system of "one person acting as chief leaders of the Party and the administration at the same time" was implemented to promote the party building work and administrative work at the same time; The "double contact points" and a five-level responsibility list for leading cadres were established, the management mode of "one examination for one training" for the secretaries of grass-root organization was deepened to effectively improve their political literacy and ability to perform their duties; The construction of standardized party branches was promoted to constantly improve the dynamic management and quantitative assessment methods, and comprehensively improve the construction level of grass-roots party branches.



公司党委庆祝建党 101 周年暨“七一”表彰大会

The Party Committee of the company celebrated the 101st anniversary of the founding of the Party and the "July 1" commendation conference



云铝股份党委与云南国际党委“联合共建”签约仪式

Yunnan Aluminum Party Committee with Yunnan International Party Committee "Combined Construction" signing ceremony

● 党建融入工作实践，提升组织力

Integrating the party building into the work practice to increase the organization force



“党建 + 平台建设”
"Party building + platform
construction"

加快两级“科协”组建，
推进铝合金材料领域
技术中心建设；

Accelerated the
establishment of two-level
"Association for Science
and Technology" and
promoted the construction
of Technical Center in the
field of aluminum alloy
materials;



“党建 + 科技创新”
"Party building + scientific
and technological
innovation"

攻克危废固废综合利
用、电解铝绿色能源、
智能制造、铝材料新
产品开发等科技难题；

Tackled scientific and
technological problems
such as comprehensive
utilization of hazardous
waste and solid waste,
green energy of electrolytic
aluminum, intelligent
manufacturing, and new
product development of
aluminum materials;



“党建 + 文明创建”
"Party building +
civilization construction"

组织道德讲堂、网络
文明传播等线上线下
活动；

Organized online and
offline activities such as
moral class and internet
civilization transmission;



“党建 + 服务”
"Party building + services"

开展“党群服务零距
离”专项活动，有效
提升各级党务人员解
决问题能力。

Carried out the special
activity of "zero distance
service of party to the
mass" to effectively
improve the problem
solving ability of party
affair staffs at all levels.

● 党建融入创先争优，提升执行力

Integrating the party building into the activity of striving to be the best to increase the executive force

各级党组织以典型引路，广泛开展评优树模活动；开设“云铝榜样”等特色专栏，通过多渠道、高频次宣传，掀起学习先进、争当先进热潮。

By setting models, the party organizations at all levels extensively conducted excellent employee election activities; Special columns such as Yunnan Aluminium Models were established to set off the upsurge of learning from and striving to be advanced through the multi-channels and high-frequency publicity.

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恪守商业道德

Abiding by business ethics

公司致力于按照所有适用法律、法规和最高的道德标准开展业务，承诺在所有商业交易和关系中以专业、诚实和正直的态度开展业务。

The Company is committed to conducting business in a professional, honest and upright manner in all business transactions and relationships in accordance with all applicable laws, regulations and the highest ethical standards.

反腐败

Anti-corruption

公司坚持以案促改、以案促治，完善制度、堵塞漏洞，梳理党章党纪党规和相关规章制度，形成“不能腐”制度汇编；开展规章制度“立改废”工作，全年组织修订完善《云南铝业股份有限公司廉政合同管理办法》《责任约谈工作办法》等 12 项监督管理制度，以及 104 项业务管理制度，进一步扎紧“不能腐”的制度牢笼。2022 年，公司未发生贪腐事件。

The Company adheres to promoting reform and governance with cases, improving the system, stopping leaks, sorting out the constitution, disciplines and rules of the party and relevant rules and regulations to form a collection of "anti-corruption" systems; Carried out the "establishment, revision and abolishing" work of the rules and regulations, and organized the revision and improvement of 12 supervision and management systems in the whole year, including the *Measures for the Administration of Incorruptible Contracts of Yunnan Aluminium Co., Ltd.*, the *Measures for the Work of Responsibility Interviews*, and 104 business management systems throughout the year to further tighten the system cage of "no corruption". In 2022, no corruption event occurred in the Company.



云铝文山开展廉洁文化活动

Yunnan Aluminium Wenshan is conducting a cultural activity on integrity



云铝涌鑫警示教育巡回讲堂

Yunnan Aluminium Yongxin Warning Education Class on Tour

反不正当竞争

Anti-Unfair Competition

公司严格遵守《反不正当竞争法》《中华人民共和国合同法》等法律法规，持续建立诚信公平的竞争机制，避免不正当竞争发生。

The Company strictly complies with *Law of the People's Republic of China Against Unfair Competition*, the *Contract Law of the People's Republic of China* and other laws and regulations, and continuously establishes a fair and honest competition mechanism to avoid improper competition.

ESG 治理

ESG governance

为更好地管理公司各项社会责任和 ESG 工作，云铝股份董事会战略委员会统筹管理 ESG 管治工作，负责对公司 ESG 工作各层面全面监督和指导；公司经营层负责推动执行董事会及下属委员会制定 ESG 战略性工作并提升 ESG 实践绩效；公司各部门按照 ESG 工作职能分工，有序开展社会责任及 ESG 实践工作，高效推进公司可持续发展。

For a better management of the social responsibilities and ESG work of the Company, the Board of Directors and the Strategy Committee of Yunnan Aluminium managed the ESG governance work as a whole, and comprehensively supervised and guided the ESG work of the Company at all levels; The Management of the Company promoted the implementation of strategic work in ESG formulated by the executive Board of Directors and its subordinate committees and improving the ESG practice performance; All departments of the Company carried out social responsibility and ESG practice work in an orderly manner according to the division of ESG work functions, and effectively promoted the sustainable development of the Company.

公司治理 Corporate governance	财务资产部 Financial and Assets Department	人力资源部 Human Resources Department	综合办公室 General Affairs Office	产业发展部 Industrial Development Department
环境管理 Environmental management	安全环保健康部 Safety, Environment & Health Department	生产运营部 Production and Operation Department	科技创新中心 Science and Technology Innovation Center	
员工权益 Employees' rights and interests	人力资源部 Human Resources Department	党群工作部 / 工会 / 团委 Party-Masses Affairs Department/ Labor Union/CCYL Committee	法律合规部 Law and Compliance Department	
公平运营 Fair operation	国贸经营中心 International Trade Operation Center	纪委工作部 / 内审部 / 巡察办公室 Party Discipline Committee/Internal Audit Department/Inspection Office		
社区 Community	党群工作部 / 工会 / 团委 Party-Masses Affairs Department/ Labor Union/CCYL Committee		后勤服务中心 Logistics Service Center	



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ESG 重点议题

Key ESG issues

为确保 ESG 理念有效融入企业管理和业务运营，云铝股份综合分析国际、国内 ESG 主流标准与指南要求、政府政策法规等，开展同行业 ESG 对标工作，结合业务发展情况，识别与筛选对自身发展影响重大、利益相关方普遍关注的实质性议题。

In order to ensure the effective integration of ESG concept into enterprise management and business operation, Yunnan Aluminium comprehensively analyzed the international and domestic mainstream ESG standards and guidelines, policies and regulations issued by the government, etc., carried out ESG benchmarking work in the same industry, and identified and screened the substantive issues that have a significant impact on its own development and are the common concerns of stakeholders in combination with business development.

云铝股份 ESG 议题库 ESG issue bank of Yunnan Aluminium

科技创新及成果转化 Technological innovation and achievement transformation	健康与安全 Health and Safety	ESG 管治 ESG governance
节能减排 Energy-saving and emission-reduction	人才培养 Talent cultivation	助力行业进步 Helping industry progress
员工权益 Employees' rights and interests	加强党建 Strengthening party building	反腐倡廉 Anti-corruption
绿色供应链 Green supply chain	守法合规 Legal compliance	环境保护 Environmental protection
深化改革 Deepening reform	绿色生产 Green production	乡村振兴 Rural vitalization
污染防治 Pollution prevention and control	信息化建设 Informatization construction	公益慈善 Public welfare & charity

ESG 风险管理

ESG risk management

2022 年度，云铝股份识别了人员健康风险、环保风险、安全生产风险、双碳及产业结构风险等 ESG 相关风险，公司全面风险领导小组研究重大风险管理策略和应对措施，指导重大风险监测和重点领域风险事件处理，逐项制定防控措施，定期监督检查，各类风险得到有效控制。

In 2022, Yunnan Aluminium identified ESG-related risks such as human health risk, environmental risk, safety production risk, double-carbon and industrial structure risk. The comprehensive risk leading group of the Company studied major risk management strategies and countermeasures, guided major risk monitoring and handling of risk events in key areas, formulated prevention and control measures one by one, regularly supervised and inspected, and effectively controlled various risks.

ESG 实践

ESG practices

2022 年，云铝股份积极践行 ESG 理念，通过编制并披露 ESG 报告、开展 ESG 专项培训以提升员工 ESG 意识，多措并举将 ESG 目标落地落实，推动企业可持续发展。

In 2022, Yunnan Aluminium actively practiced the ESG concept and take multiple measures to implement the ESG goals, such as preparing and issuing ESG report, carrying out ESG special training to improve the ESG awareness of employees, so as to promote the sustainable development of enterprises.

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- 公司自 2008 年编制发布第一本社会责任报告，已连续十五年编制发布社会责任报告。
The Company has prepared and published the social responsibility report for 15 consecutive years since 2008 when it prepared and published its first social responsibility report.
- 公司召开 2022 年度 ESG 报告编制项目启动培训会，邀请 ESG 领域专家对 ESG 的概念、国内外发展、重点议题、时代价值等内容进行深入细致讲解，公司各部门社会责任暨 ESG 工作小组成员参加了培训会。
The company held a kick-off training meeting for the 2022 annual ESG report preparation project, inviting experts in the field of ESG to give a deep and detailed explanation of the concept of ESG, domestic and international development, key issues, values of the times and other contents. Members from the social responsibility and ESG working groups of all departments of the Company attended the training meeting.



利益相关方沟通

Communication with stakeholders

云铝股份重视与利益相关方的沟通，主动识别各利益相关方，搭建完善多元化沟通平台，与政府、股东、客户、合作伙伴、员工等内外部利益相关方积极交流、增进理解。在深入了解利益相关方期望与诉求的基础上，以实际行动积极回应，携手各方共同成长。

Yunnan Aluminium attaches importance to communication with stakeholders, actively identified all stakeholders, built and improved a diversified communication platform, actively communicated with the government, shareholders, customers, partners, employees and other internal and external stakeholders to enhance understanding. On the basis of in-depth understanding of the expectations and demands of stakeholders, the Company actively responded with practical actions and worked with all parties to grow together.



合作伙伴
Partners

- 诚实守信合作
- 创造共赢价值
- 落实责任采购

- Honesty, trustworthiness and cooperation
- Creation of win-win values
- Implementation of responsible procurement

- 战略合作
- 商务互访
- 会议交流

- Strategic Cooperation
- Business exchange visits
- Meetings



客户
Clients

- 创新产品
- 优质服务
- 畅通沟通渠道

- Innovative products
- First-rate service
- Smooth communication channels

- 商务沟通
- 客户回访
- 日常联络沟通

- Business Communication
- Return visit to clients
- Daily contact and communication



潜在投资者与金融机构
Potential investors and financial institutions

- 及时准确披露相关信息
- 提升经营业绩
- 进行利润分配

- Timely disclosures of relevant and accurate information
- Promoting operating performance
- Profit distribution

- 信息披露
- 投资者说明会
- 路演

- Information disclosure
- Investor briefing
- Roadshow



环境
Environment

- 节能减排
- 绿色技术和产品
- 应对气候变化

- Energy-saving and emission-reduction
- Green technologies and products
- Response to climate change

- 公开报道
- 配合环保部门检查
- 网站、微信、内刊
- 参加活动

- Public reporting
- Cooperation with environmental protection department for inspection
- Website, WeChat, Internal Bulletin
- Participating in activities



社区
Community

- 积极融入社区
- 开展志愿活动
- 助力乡村振兴

- Actively integrating into communities
- Conducting volunteer activities
- Promoting rural vitalization

- 社区共建活动
- 社会公益活动
- 开展帮扶行动

- Community co-building activities
- Public welfare activities
- Take helping actions



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踔厉奋发风正劲，勇毅前行再出发。

Let's work hard, go ahead bravely and start again.

2023 年是全面贯彻落实党的二十大精神的首开之年，也是公司“十四五”发展的关键一年。站在新的起点上，云铝股份以党的二十大精神为指引，瞄准“争当中铝加快建设世界一流企业排头兵”的发展定位，紧紧围绕“稳生产、强管理、促升级、提效能”的工作主题，团结一致向前看、凝心聚力谋发展，以斗争精神迎接挑战，以奋进拼搏开辟未来，争创一流新业绩，争做行业新标杆，一步一个脚印朝着打造“中国全产业链绿色低碳铝基新材料基地”目标迈进。

2023 marks the first year to fully implement the spirit of the 20th National Congress of the Communist Party of China and also a key year for the development of the Company in the "14th Five-Year Plan" period. From a new starting point, in the spirit of the 20th National Congress of Communist Party of China, by aiming at the development orientation of "striving to be the pacesetter of the Aluminum Corporation of China in accelerating the construction of world-class enterprises", and closely around the work theme of "stabilizing production, strengthening management, promoting upgrading, and improving efficiency", Yunnan Aluminium hanged together, looked forward, worked together, met challenges, went gall out in work to strive for first-class new performance and a new benchmark in the industry, striding forward toward the goal of "green low-carbon new material base for aluminium in the whole industrial chain of China".

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关键绩效表

Table of Key Performance

经济绩效 Economic performance				
指标名称 Name of indicator	单位 Unit	2020 年	2021 年	2022 年
资产总额 Total assets	亿元 RMB 100 million	408.55	376.94	390.59
归属上市公司股东的净资产 Net assets attributable to the shareholders of the listed company	亿元 RMB 100 million	118.06	182.05	223.51
资产负债率 Asset-liability ratio	%	66.32	44.48	35.29
加权平均资产收益率 ROE Weighted average return on equity (ROE)	%	7.94	24.65	22.32
营业收入 Operating revenue	亿元 RMB 100 million	295.73	417.51	484.63
归属上市公司股东的净利润 Net profits attributable to shareholders of listed companies	亿元 RMB 100 million	9.03	33.33	45.69
经营活动产生的现金流量净额 Net cash flow from operating activities	亿元 RMB 100 million	49.81	69.62	69.14
研发投入 R&D Investment	亿元 RMB 100 million	11.79	14.92	19.56
科技人员总数 Total number of scientific and technical personnel	人 Person	1,375	1,515	1,731
新增专利申请 New patent applications	件 No.	89	88	96
产品交付合格率 Qualified rate of products delivered	%	100	100	100
客户满意度 Customer satisfaction	%	95.97	96.56	97.99
客户投诉数 Number of customer complaints	起 No.	59	17	44
客户投诉解决率 Rate of resolution of customer complaints	%	100	100	100

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社会绩效 Social performance				
指标名称 Name of indicator	单位 Unit	2020 年	2021 年	2022 年
纳税总额 Total tax	亿元 RMB 100 million	10.09	21.25	25.52
注册志愿者人数 Number of registered volunteers	人 Person	3,841	4,852	5,104
报告期内吸纳就业人数 Number of employed persons in the reporting period	人 Person	735	2	42
员工总数 Total number of employees	人 Person	12,375	12,382	10,477
劳动合同签订率 Signing rate of employment contract	%	100	100	100
社会保险覆盖率 Coverage of social insurance	%	100	100	100
员工培训投入 Investment in employee training	万元 RMB 10,000	770	532	658
员工培训人次 Person-times of employee training	万人次 10,000 person-times	5.90	5.80	6.10
安全生产投入 Investment in work safety	万元 RMB 10,000	10,232.08	9,840.49	17,877
安全生产培训覆盖率 Coverage rate of work safety training	%	100	100	100
新增职业病数量 Number of new occupational diseases	人 Person	0	0	0
工亡事故数 Number of work deaths	件 No.	0	0	0
因工伤损失工作日数 Lost working days due to work injury	天 Day	380	125	230

董事长致辞
Message from
the Chairman

走进
云铝股份
About Yunnan
Aluminium

责任荣誉
Responsibilities
and Honors

责任数据
Responsibility
Data

责任专题
Responsibility
Topic

绿色云铝
Green Yunnan
Aluminium

和谐云铝
Harmonious
Yunnan
Aluminium

卓越云铝
Excellent Yunnan
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未来展望
Future outlook

附录
Appendix

环境绩效 Environmental performance

指标名称 Name of indicator	单位 Unit	2020 年	2021 年	2022 年
环保投入 Investment in environmental protection	亿元 RMB 100 million	6.23	5.38	4.77
环保技术研发投入 Investment in research and development of environmental protection technologies	万元 RMB 10,000	258.73	1,594.75	3,713.77
环保培训投入 Investment in environmental protection training	万元 RMB 10,000	5	16.4	13
环保培训人次 Person-times of environmental protection training	人次 Person-time	5,280	6,600	6,700
环保培训时长 Duration of environmental protection training	小时 Hour	192	384	324
一般及以上环境突发事件 General and above environmental emergency events	件 No.	0	0	0
全年能源消耗总量 Total annual energy consumption	万吨标煤 10,000 tons of standard coal	563.79	548.77	599.93
万元产值综合能耗 Comprehensive energy consumption per RMB 10,000 of output value	吨标准煤 / 万元 Tons of standard coal / RMB10,000	1.43	1.07	0.98
全年电力消耗总量 Total annual power consumption	万千瓦时 kWh	3,057,753.63	3,277,859.39	3,618,167.13
全年天然气消耗总量 Total annual natural gas consumption	万立方米 10,000m ³	10,274.38	11,576.33	10,751.74
清洁能源使用占比 Proportion of clean energy use	%	75	84	88.6
年度新鲜水用水量 Annual fresh water consumption	万吨 10,000 tons	790	821.70	839.57
万元营收新鲜水耗 Fresh water consumption per RMB 10,000 of revenue	吨 / 万元 Tons/RMB 10,000 tons	2.67	1.97	1.73

环境绩效 Environmental performance				
指标名称 Name of indicator	单位 Unit	2020 年	2021 年	2022 年
循环用水量 Circulating water consumption	万吨 10, 000 tons	33,967.63	32,675.22	33,107.40
二氧化硫排放量 Sulfur dioxide emissions	万吨 10, 000 tons	1.90	1.31	1.64
氮氧化物排放量 Nitrogen oxide emissions	万吨 10, 000 tons	0.14	0.11	0.14
颗粒物 Particulate matters	万吨 10, 000 tons	0.13	0.11	0.11
废气排放达标率 Qualified rate of waste gas emission	%	100	100	100
废水排放量 Sewage discharge	吨 ton	0	0	0
一般固体废物产生量 General solid wastes generated	万吨 10, 000 tons	416.94	336.57	347.42
一般废弃物排放量 General wastes discharged	万吨 10, 000 tons	0	0	0
一般固体废物综合利用率 Comprehensive utilization ratio of general solid wastes	%	13.21	19.46	23.17
一般固体废物综合利用量 Comprehensive utilization of general solid wastes	万吨 10, 000 tons	55.09	65.63	81.36
危险废弃物排放量 Hazardous wastes discharged	万吨 10, 000 tons	0	0	0
固废安全处置率 Safe disposal rate of solid waste	%	100	100	100

意见反馈 Feedback



尊敬的读者：

Dear readers,

感谢您阅读《云铝股份 2022 年社会责任暨 ESG 报告》，为了不断改进报告编制工作，我们特别希望倾听您的意见和建议。请您协助完成反馈意见表中提出的相关问题。

Thank you for reading the *2022 Social Responsibility and ESG Report of Yunnan Aluminium*. In order to continuously improve the preparation of the report, we particularly hope to listen to your opinions and suggestions. We would like you to assist in answering the questions in this feedback form.

1. 本报告全面、准确地反映公司对经济、社会、环境的重大影响

The report comprehensively and accurately reflects the significant influence of the Company on the economy, society and environment

☐ 很好 Very good

☐ 合理 Good

☐ 一般 General

☐ 差 Poor

2. 本报告对利益相关方所关心问题的回应和披露

The responses to and disclosure of the concerns of stakeholders in the Report

☐ 很好 Very good

☐ 合理 Good

☐ 一般 General

☐ 差 Poor

3. 本报告披露的信息、指标、数据清晰、准确、完整

The information, indicators and data disclosed in the Report are clear, accurate and complete

☐ 很好 Very good

☐ 合理 Good

☐ 一般 General

☐ 差 Poor

4. 本报告的可读性，即报告的逻辑主线、内容设计、语言文字和版式设计

The readability of the Report, namely its logic, content design, wording and format

☐ 很好 Very good

☐ 合理 Good

☐ 一般 General

☐ 差 Poor

5. 您认为本报告最让您满意的方面是什么？

What do you think is the most satisfying part of the Report?

6. 您认为还有哪些您需要了解的信息在本报告中没有反映？

What kinds of information do you think is not disclosed in the Report?

7. 您对我们今后编制社会责任暨 ESG 报告有何建议？

Do you have any suggestions and advices for our future social responsibility and ESG reports?

您可以选择以下方式将建议反馈给我们

You may give your suggestions to us in the following ways



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