

Weiqiao Pioneering Group Carbon Neutrality Goals and Action Report



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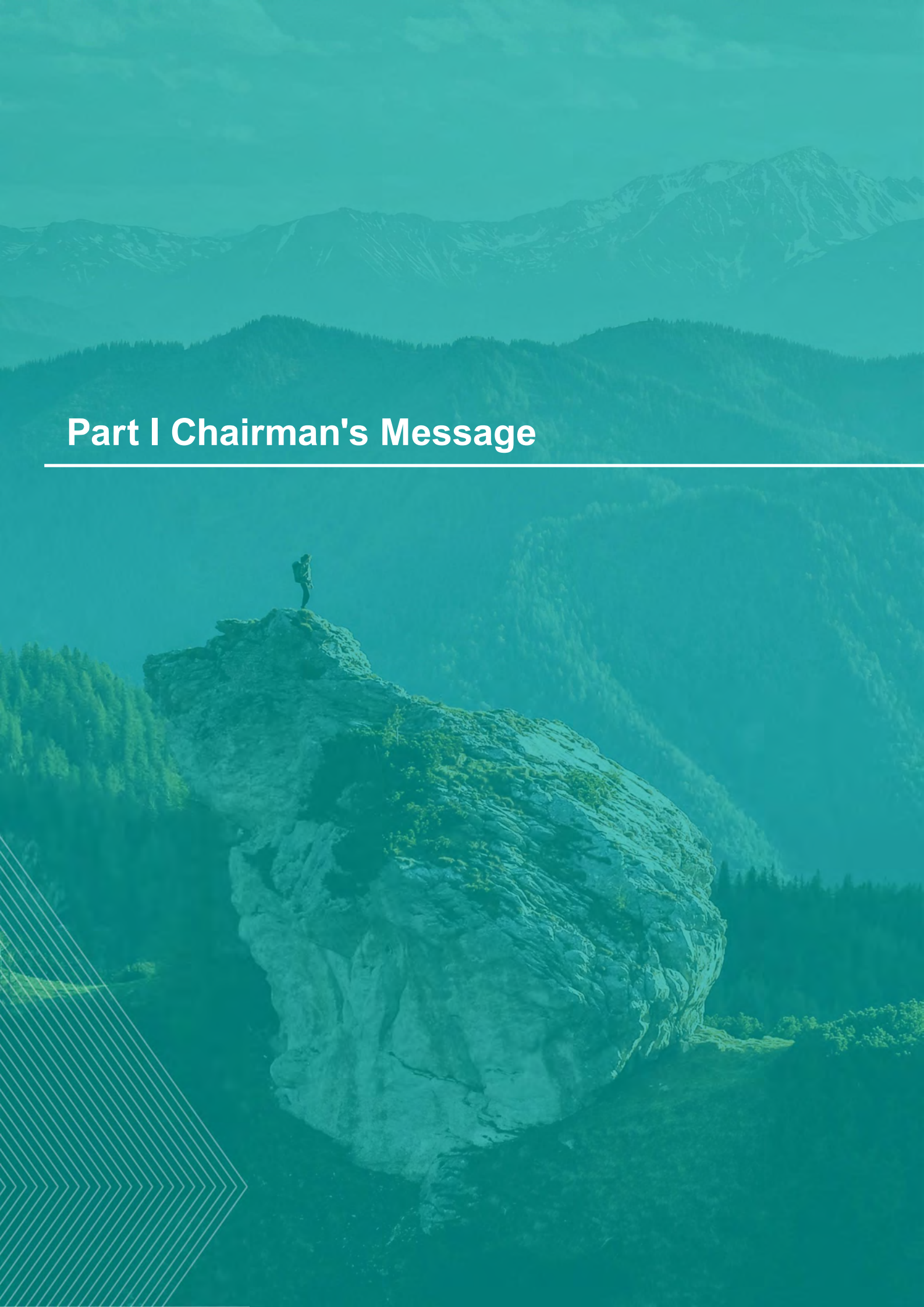
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Part I Chairman's Message



Towards a Green Low-carbon Future

Weiqiao is determined to achieve its carbon neutrality goals and elevate climate-compatible productivity. We also pledge to make good use of our influence along the industrial chain, inviting all partners and friends to join our decarbonization efforts and pursue green and low-carbon development.



Zhang Bo

Chairman
Weiqiao Pioneering Group

Climate change is posing a significant challenge to humanity. As the world's largest developing country, China is playing a crucial role in addressing climate change while, at the same time, keeping its economy growing. In September 2020, President Xi Jinping announced that China will strive to peak carbon dioxide emissions before 2030 and achieve carbon neutrality before 2060. Such commitments provide China's contribution to the global fight against climate change.

As a large-scale private manufacturing company based in China and serving the world, for decades Weiqiao Pioneering Group has been committed to manufacturing for the better life of our global customers. Over the years, we have been deeply involved in the textile industry and in the aluminum industry. We have gradually become the global leader in these two industries. Using China's climate goals as a framework, Weiqiao has been proactive in accelerating our green transition and exploring the path towards a sustainable future. We have found our way, which is to achieve high-quality and sustainable development through decarbonization and innovation, and to contribute to the harmonious coexistence between economy and ecology. We will keep committing to the creation of better lives.

We would like to hereby announce Weiqiao's carbon neutrality goals and action plan. We will strive to peak carbon emissions before 2025 and to achieve net-zero emissions in Scope 1 and 2 before 2055. As a pioneer in decarbonization, our textile sector strives to peak carbon emissions in 2023 and achieve net-zero emissions in Scope 1 and 2 before 2049.

We make these green commitments to the society and to the future. To realize them, Weiqiao has already developed our roadmap and timetable. Transforming the energy structure, boosting technological innovation, developing circular economy, launching eco-friendly brands, and putting forward a low-carbon agenda across industries and regions are all among our 10 initiatives to keep our carbon neutrality efforts on track.

We understand that green and low-carbon development matters a lot. It matters to the future of the community with a shared future for mankind and relates to the ecological protection of countries and regions. It increasingly shapes how competitiveness is defined in the manufacturing industry and among companies. And, it drives innovation within companies and in the industry. Weiqiao is determined to achieve its carbon neutrality goals and elevate climate-compatible productivity. We also pledge to make good use of our influence along the industrial chain, inviting all partners and friends to join our decarbonization efforts and pursue green and low-carbon development. Let us join hands to ensure a greener, better and more sustainable future!

Part II Our Understanding of Decarbonization



The global vision of decarbonization, which is now deemed as a high-profile mission closely related to the fate of all mankind, is progressing at an unstoppable pace. Countries around the globe are embarking on the 1.5°C/2°C temperature limit based on *The Paris Agreement*. The 26th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP26) held in November 2021 has reinforced unanimous agreement that all parties shall keep revisiting emission-cutting plans and take immediate moves to keep the 1.5°C limit within our reach. China is doing its full part to mitigate climate change, pledging in September 2020 that "China will strive to peak carbon dioxide emissions before 2030 and achieve carbon neutrality before 2060" with a roadmap and detailed measures towards realizing the goals already rolled out.

The transition towards a green future is well underway in the business sector. China's national carbon market, officially launched in July 2021, has included thermal power plants in the first batch of trading parties, with electrolytic aluminum expected to join in a year or two. The European Union's Carbon Border Adjustment Mechanism (CBAM), once implemented, may also influence global trading activities. For publicly listed companies, more regulators in the capital markets are starting to mandate ESG disclosures, imposing stricter disclosure standards on carbon emission goals and performances. Driven by carbon-pricing regime, intensity of carbon emission will become a key metric in asset valuation.



At Weiqiao, we are committed to our own decarbonization goals and we understand the necessity for bold actions. Therefore, we wish to share the following five thoughts here:



We will do our part to tackle climate change

We are deeply aware that decarbonization shall be executed with unwavering determination and steadfast commitment. This is also how we put into practice our long-time core values, "serving the country and benefiting the people", that we hold dear. Textile is among the first few industries to publicly declare carbon neutrality ambition. In December 2019, China National Textile and Apparel Council (CNTAC) took the lead in the "Climate Innovation 2030 Initiative for Chinese Fashion Brands" with over 40 companies and organizations pledged to reduce GHG emissions by 40% by 2030. In addition, the aluminum industry in China is embracing the preliminary deadlines of 2025 for carbon peaking and 2060 for carbon neutrality, according to an implementation plan drafted by the China Non-ferrous Metals Industry Association (CNIA). A carbon peaking action plan regarding electrolytic aluminum is now taking shape with the collective efforts from the government and the association. As an industry leader, it is our inherent responsibility to act in concert with the national and industrial efforts to reach carbon peak and achieve carbon neutrality.



We will take the opportunity to transform ourselves

Embracing a greener future under the context of carbon neutrality is a strategic move guided by our production management policy prioritizing "endeavor for superior quality in pursuit of customer satisfaction". Underpinned by the waves of green production and carbon reduction, sustainable and ecofriendly products with carbon footprint certification are gaining a larger edge among downstream consumption. As decarbonization is being increasingly highlighted in international competition, Weiqiao shall spare no efforts in complying with the trend of low-carbon development to enhance competitiveness in textile and aluminum industries globally and further set an exemplary low-carbon model with high-quality development.



We will improve our internal governance

Weiqiao's transition to a net-zero future will be accompanied by our continuous efforts to improve our governance capacity. We are committed to realizing "speed, efficiency and excellence", Weiqiao's enterprise spirit, through relentless efforts. On the one hand, energy transition, highlighted by replacing fossil fuels with a greater share of renewable in our energy structure, remains a critical element to achieve carbon neutrality. On the other hand, we are committed to adopting improved technologies and enhancing efficiency across operational stages via deliberate management. It is to these ends that we are seeking to continuously improve internal governance towards real solutions and lasting change.



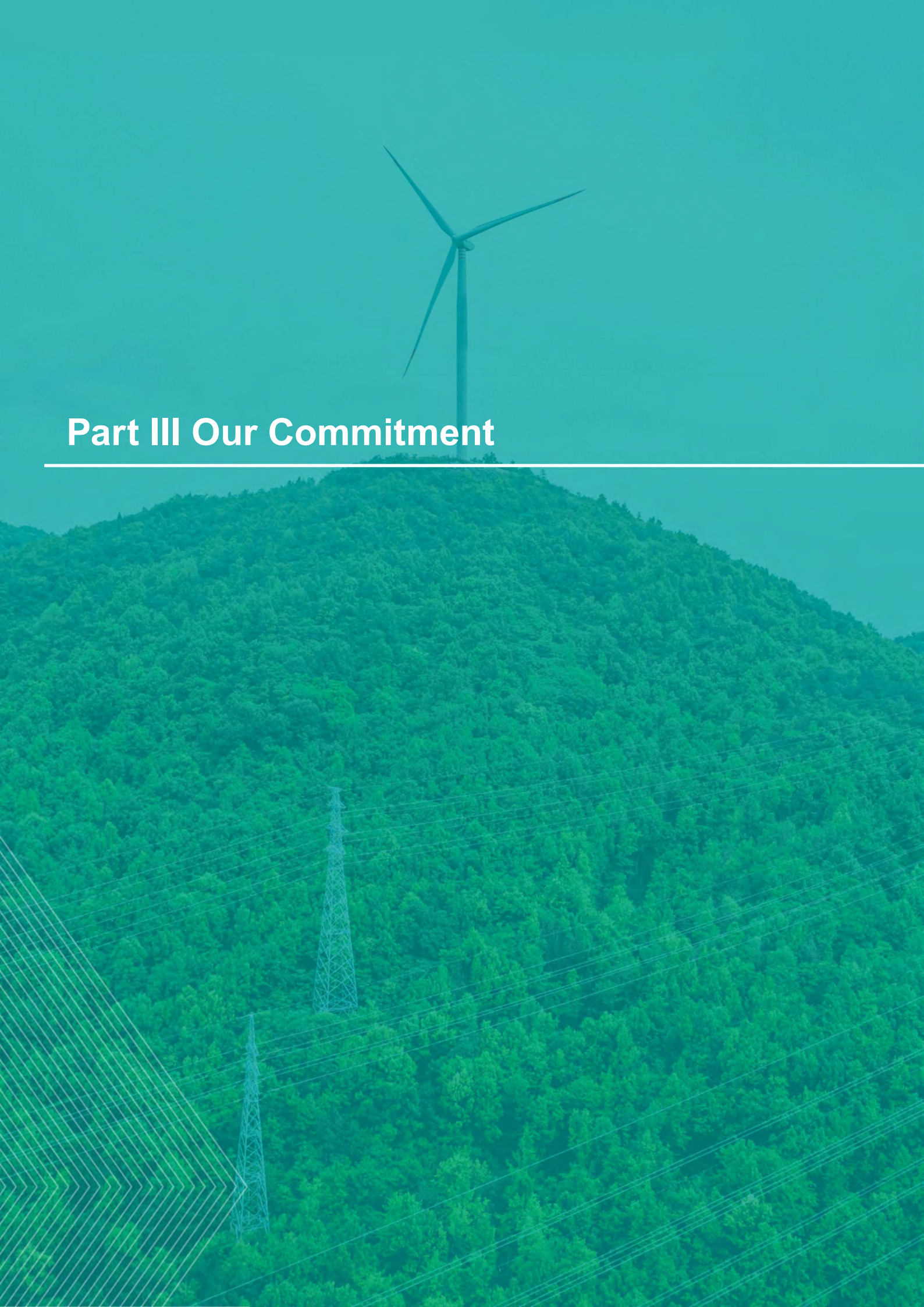
We will collaborate with others

Achieving carbon neutrality will be a systematic and transformational revolution, requiring far-reaching collaboration among multiple sectors across the society. As the world's largest cotton textile manufacturer and a global leader in the aluminum industry, Weiqiao will reach across governmental departments, research and academic institutes, and various industries to ensure sufficient cohesion and unity in pursuit of a shared vision in carbon neutrality.



We will engage in rigorous planning

In collaboration with Roland Berger, a globally renowned consulting company, we are making our first ever carbon neutrality report public, aiming to provide a contour of our decarbonization goals and roadmap with pragmatic and rigorous spirits. We understand how important it is to uphold the dedicated attitude in the implementation of actions and it is our responsibility to deliver solid carbon reduction progress that resonates with the interest of the country, the community, and the industry. Going forward, we will continue to refine our carbon neutrality action plan based on the state-of-the-art scientific research and the advancement of scientific findings.



Part III Our Commitment

1. Carbon Peaking and Carbon Neutrality Goals

Our Commitment

“

Weiqiao will strive to peak carbon emissions before 2025 and reach net-zero emissions in Scope 1 and 2 before 2055.

Weiqiao Textile will strive to peak carbon emissions by 2023 and to achieve net-zero emissions in Scope 1 and 2 before 2049.

Meanwhile, Weiqiao is committed to take the lead in greening the value chain.

We will engage actively in accelerating supply chain decarbonization and offering a great variety of low-carbon products and services.

”

Our goal-setting is in alignment with following considerations:

Ambitious

We endeavor to aim higher.

To pioneer the carbon reduction in the regional aluminum industry, we benchmark with the country's and our leading peers' goals, upon which we make the determination to reach peak carbon emissions and carbon neutrality within a timeframe that is shorter and earlier than the national “30/60” decarbonization goals.

Pragmatic

We fully recognize that the journey ahead will be difficult.

At present, the global textile and aluminum industries are facing the dual challenges of reducing total carbon emissions and unit carbon emissions. As an industry leader, we understand that our decarbonization efforts will have a profound impact on the local economy and people's livelihoods. Therefore, we must remain down-to-earth and set our goals in a pragmatic manner.

Rigorous

We rigorously apply a science-based methodology in setting our decarbonization targets.

In planning Weiqiao's carbon neutrality strategy, we follow the most rigorous science-based methodologies, which consider the economic, environmental and technological realities of the sectors in which our business lines operate, to make sure our goals are set in a reliable and objective manner.

2. Implementation Roadmap

Baseline of Carbon Emissions

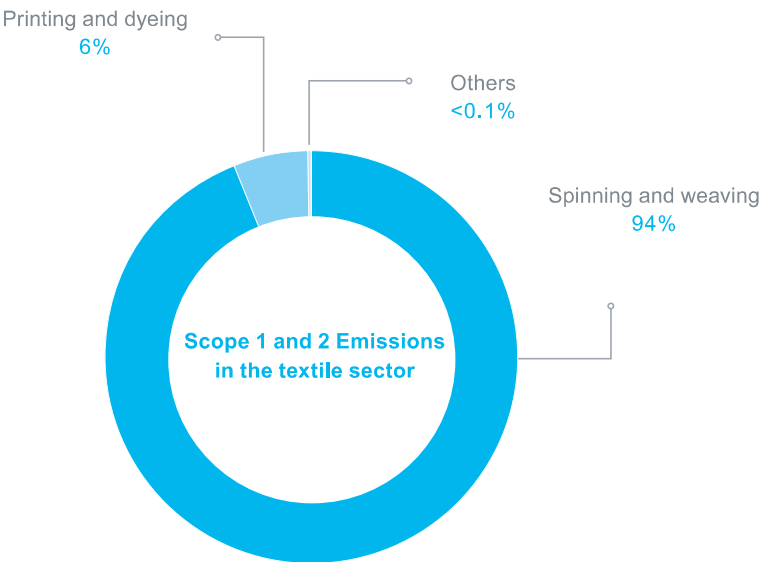
We set levels in 2020 as the baseline of Weiqiao's carbon emissions. In the baseline year, fossil fuel forms the majority of our energy consumption.

■ Scope 1 and 2

Scope 1 refers to direct GHG emissions that occur from sources that are owned or controlled by Weiqiao. Scope 2 accounts for GHG emissions from the generation of purchased electricity, heat or steam consumed by Weiqiao.

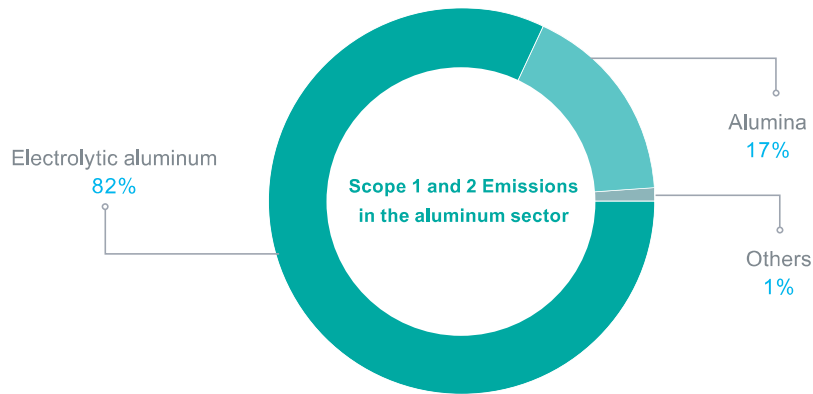
Weiqiao's Scope 1 and 2 emissions amounted to 104.66 Mt CO₂e (million tonnes of carbon dioxide equivalent). This mainly includes the combustion of fossil fuels like coal and natural gas, mobile combustion of diesel oil and gasoline from vehicles owned by us, process emissions from carbon anode and anode effect, fugitive emissions from refrigerants, and consumption of purchased electricity, heat or steam. Among them, emissions from the combustion of fossil fuels account for approximately 90%.

In the textile, emissions from spinning and weaving account for approximately 94%, printing and dyeing account for approximately 6% and others account for less than 0.1%.



The textile sector breakdown

In the aluminum, emissions from alumina account for 17%, electrolytic aluminum accounts for 82% and the rest accounts for 1%.

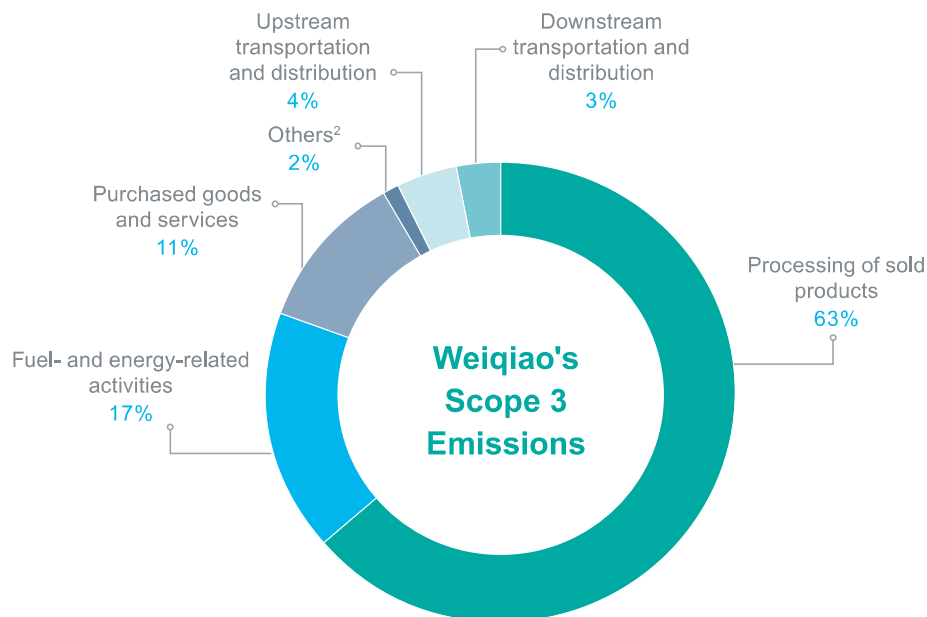


The aluminum sector breakdown

■ Scope 3

Scope 3 refers to other indirect emissions as a consequence of the activities along upstream and downstream value chain. Our Scope 3 emissions were 97.11 Mt CO₂e, which mainly occurred from sources other than leased assets, use of sold products or franchises¹.

Of the Scope 3 emissions, the largest share goes to the processing of sold products, which account for 63%; the second-largest share is the fuel- and energy-related activities, which account for 17%; purchased goods and services account for 11%.



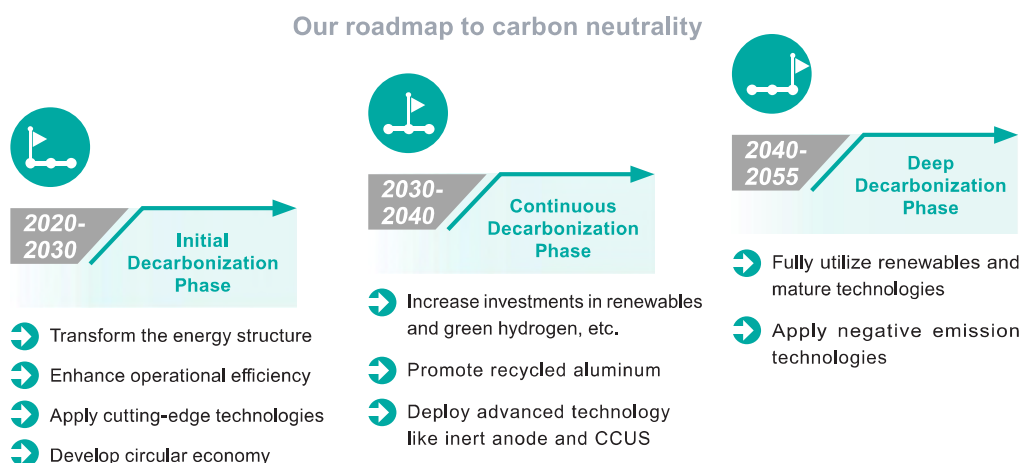
Weiqiao's Scope 3 emissions breakdown by category

¹ Given that Weiqiao manufactures mainly intermediate products, data of the end products is not viable and thus we exclude the category of sold products. The categories of leased assets and franchises are excluded given the lack of relevant activities in Weiqiao.

² Others include mainly emissions from capital goods, waste generated in operations, business travel, employee commuting, end of life treatment of sold products and investments.

Strategy Implementation Roadmap

Weiqiao will adhere to the general principle of **"prioritize direct carbon reduction and take carbon removal and carbon offsets as auxiliary measures"** in the course of achieving carbon neutrality. Given that the combustion of fossil fuels dominates Weiqiao's carbon emission, we will take energy transition as the first step and phase out fossil fuels via greater share of renewables. Next comes product upgrading focused around circular economy and downstream processing, based upon which product portfolios with lower carbon intensity will be further promoted. Moreover, we will also pay close attention to operational efficiency enhancement and cutting-edge technologies that could jointly drive our carbon reduction to the next level. Lastly, carbon removal and carbon offsets may be deployed upon needs for the realization of carbon neutrality.



From 2020 to 2030, we embark on the Initial Decarbonization Phase. At the current stage, Weiqiao has conducted a comprehensive carbon accounting and decarbonization strategy design, after which we set forth systematic carbon reduction. We will start with rigorous energy transition given the high proportion of fossil fuels in our energy mix. Capacity relocation of electrolytic aluminum to the integrated aluminum and hydropower production base, combined with direct investments in wind and solar power, will fundamentally transform our energy structure in Shandong and Yunnan, turning the energy mix from brown to green. Equally important is to enhance our operational efficiency, where we will accelerate the transformation to, among others, smart textile factories and smart control of aluminum electrolytic cells. Meanwhile, additional focus will also be placed on upgrading processing technologies in textile and aluminum production, and we intend to further our exploration in circular economy with an emphasis on recycled aluminum.

From 2030 to 2040, we get into the Continuous Decarbonization Phase. Within this stage, forefront renewable energy options like green hydrogen and cutting-edge processing technologies like inert anode will become technically and commercially viable. We will launch three initiatives to consolidate the achievements reached in last period. To begin with, we will further invest in wind and solar power while deploying technically mature renewables like green hydrogen. Next, we intend to further evolve downstream offerings by launching low-carbon-intensity products

like recycled aluminum and actively extending to downstream processing. Last but not least, we intend to apply advanced processing technologies like inert anode, besides which we will pilot negative emission technologies like CCUS to lay a solid foundation for carbon neutrality.

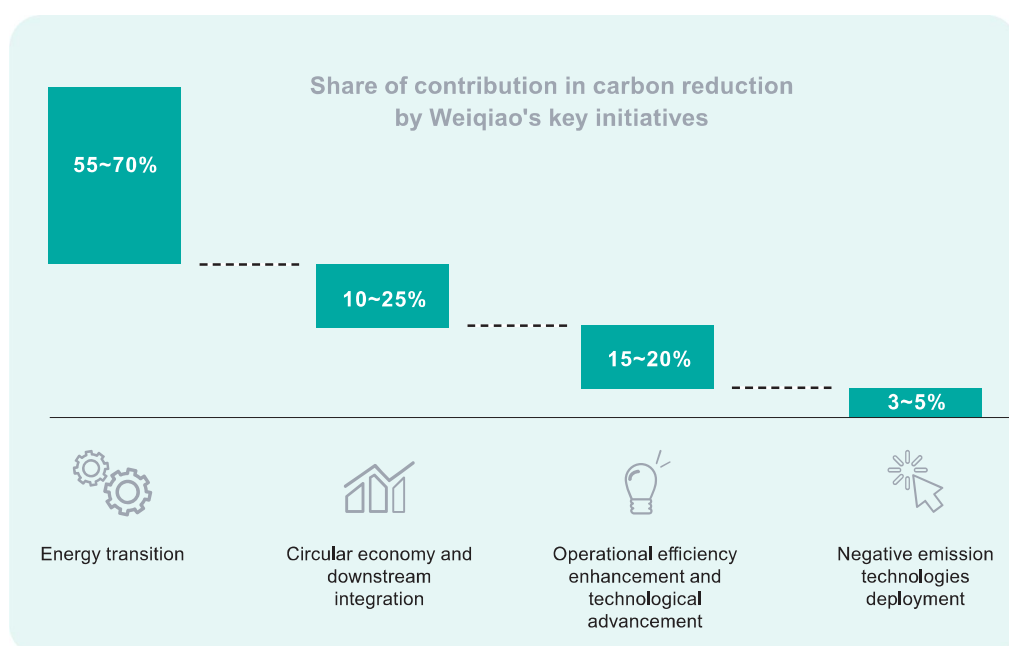
From 2040 to 2055, we enter the Deep Decarbonization phase. Over and above focusing renewables and cutting-edge technologies in the first two phases, in this new phase we will pay greater attention to the abatement of emissions hard to tackle. We will deploy critical negative emission technologies like CCUS to offset the most challenging carbon emissions and achieve carbon neutrality eventually.

Core Data on Carbon Intensity and Share of Renewable Electricity

Carbon intensity of primary aluminum drops by 40% by 2040 and the share of renewable electricity increases from less than 5% in the baseline year to 70%

Carbon intensity of primary aluminum drops to approximately zero by 2055 and the share of renewable electricity increases to 90%

To achieve carbon neutrality in 2055, energy transition will contribute 55-70% to the total reduction, circular economy and downstream integration will bring down 10-25%, operational efficiency enhancement and technological innovation will abate another 15-20%, and negative emission technologies deployment will serve as an auxiliary measure to reduce the remaining 3-5% of carbon emissions.





Part IV Our Key Initiatives for Carbon Neutrality

To deliver the promised net-zero future, we are embarking on actions in alignment with our strategy.

Carbon reduction will be a system overhaul that requires transformational efforts. Based on the profound insights over global decarbonization practices as well as considering both Weiqiao's own and industrial circumstances, we have laid out 10 initiatives that fall into three categories: business transitions as strategic actions, operational transitions as necessary moves, and organizational transitions and social impact as a critical pillar.





1. Transform the Energy Structure

The energy transition, featuring the phase-out of fossil fuels and accelerated uptake of renewables, is the cornerstone in fundamentally reducing carbon emissions and achieving carbon neutrality.

End-use electrification evolves to be an irreversible trend underpinned by the waves of energy transition. Traditional thermal power plants will seek improvement of efficiency and integration with renewables, which render room of opportunities for flexibility enhancement and coal-biomass co-firing technologies in short- to mid-term. In the meantime, wind and solar power, two major energy resources for the future, are rapidly gaining momentum being more cost-competitive. In addition, mechanisms like electricity storage systems and virtual power plants can further add reliability to the renewables-based energy systems.

Weiqiao's own energy structure also has certain particularities. High proportion of fossil fuels, as well as the need of self-reliance in energy transition with an independent power grid system, has together posed great challenges, urging us to take comprehensive and thorough thoughts over capacity distribution for energy-intensive products, boundaries of our internal capabilities and business model design.

Considering the above-mentioned factors, **Weiqiao regards transforming the energy structure as a cornerstone measure. We are determined to change the current distribution of production capacity, expand the existing capacity boundaries, upgrade our business model, make full use of available renewables and market mechanisms under the evolving power system, and accelerate the pace towards a cleaner and more flexible energy structure.** This set of measures, driven by the ambition to achieve carbon neutrality, will holistically bring a major transformation to the group's strategy and business operations..

Sample 1: The relocation of electrolytic aluminum capacity

To fully utilize clean energy resources, Weiqiao has taken the initiative to relocate part of our electrolytic aluminum smelting capacity to Yunnan Province and established a green aluminum industrial park. The move has remarkably changed the history of over-reliance on coal-fired power and formed a renewable electricity supply pattern in which hydropower, wind power, and solar energy coexist to reduce the combustion of fossil fuels.

CASE

The Green and Low-carbon Demonstration Industrial Park in Honghe, Yunnan Province

In December 2021, the contract of developing the Green and Low-carbon Demonstration Industrial Park was officially signed in Kunming, Yunnan Province. The project is jointly built by Honghe Prefecture People's Government, Luxi County People's Government and Weiqiao. Through the coordinated layout of "wind, solar, hydropower, storage, and forests" and investment in carbon reduction projects, the park will build a world-leading industrial park with an annual capacity of 1.93 million tonnes of aluminum with low carbon footprint.

CASE



The Green Aluminum Industrial Park in Wenshan, Yunnan Province

In September 2020, Weiqiao's 2.03 million-tonne green aluminum project in the Green Aluminum Industrial Park, located in Yanshan County, Wenshan Prefecture, Yunnan Province, was officially put into production. The project mainly utilizes the rich hydropower resources and clean energies in Wenshan Prefecture.



Aerial view of the industrial park in Wenshan, Yunnan Province

Sample 2: Direct investment in renewable electricity generation systems

Weiqiao strives to make full use of the rooftops of textile and aluminum factories in various production sites. We have installed distributed photovoltaic power generation systems with a total installed capacity of 300MW, mainly located in Zouping National Economic & Technological Development Zone, Binzhou Economic & Technological Development Zone, Weiqiao Town, Beihai, Xinyang and Boxing. Relevant power systems have been on-grid since November 2021.

The share of renewables rises rapidly in Weiqiao's energy structure thanks to the transfer



Aerial view of the solar photovoltaic systems on the rooftop of Weiqiao's plants

underway of nearly 4 million tonnes of aluminum production to hydropower and solar power projects. Going forward, Weiqiao will further increase our investment in renewable energies, including tidal flat photovoltaic and wind power projects in Beihai, Shandong Province, solar photovoltaic projects in Yunnan Province, etc., and continue to reform the energy structure in Shandong Province and Yunnan Province.



2. Develop Circular Economy

Circular economy can not only save resources but also contribute to green production, thus benefiting the sustainable development of the entire industry.

The adjustment of offerings and operations, triggered by circular economy, rises to be a strategic measure for carbon neutrality. The idea of circular economy generates a critical coupling point for the low-carbon vision and long-term strategy. Take the aluminum industry as an example, the market demand for aluminum products will maintain steady growth in the long run, which may bring about sizable carbon emissions followed by greater pressure for carbon reduction. Under such context, we believe that recycled aluminum will become the key to meeting the long-term demand growth for aluminum products, and its low carbon footprint will become increasingly prominent.

Sample 1: Textile recycling

Weiqiao adheres to the principle of "reduce, reuse and recycle". At present, our recycled cotton department is the main body of recycling and reusing the fibers. Certified by environmental standards like GRS (Global Recycled Standards), our products are marked by both high quality and minimalized raw materials consumption.



GRS Certificate of Weiqiao's textile products

Recycled Cotton

Recycled cotton converts cotton fabric during production processes into cotton fiber that can be reused in textile products. At the current stage, due to the shortage of resources, conventional cotton textile raw materials are subject to multiple constraints while the cost continues to rise. Recycled cotton can make full use of raw materials at hand, making it a sustainable option to improve efficiency and prevent additional textile waste.

Sample 2: Aluminum recycling

Recycled aluminum is the focal point of circular economy in the aluminum sector. The per-unit carbon emission of recycled aluminum is merely 3%-4% of that of the primary aluminum, making recycled products the key to fulfilling market demand and reducing the overall carbon emissions of the aluminum industry. In May 2020, Weiqiao's aluminum alloy recycling project, with an annual output of 100,000 tonnes, was officially put into production as a pilot for circular economy. In May 2021, the Sino-German Hongshun Recycling Technology Project, a recycling industrial park jointly constructed by Weiqiao and Scholz Recycling, officially laid the foundation in Binzhou, Shandong Province. Focusing on the "3+N" model (i.e. the recycling of scrapped motor vehicles, aluminum, and lithium-ion batteries plus the supporting industrial chains), the project aims to construct the best-in-class circular technology industrial park with the highest domestic and international standards, and lay solid foundation for recycled aluminum business in future.

CASE

The Sino-German Hongshun Recycling Technology Industrial Park

The Sino-German Hongshun Recycling Technology Project is a recycling industrial park jointly constructed by Weiqiao and Scholz Recycling GmbH. With an investment of 1.5 billion yuan and a coverage of 523.9 mu (0.35 square kilometers), it is estimated that the project could dismantle and dispose 100,000 scrapped motor vehicles a year, and the annual processing scale of recycled aluminum will reach 500,000 tonnes. At the same time, a project that could recycle 30,000 tonnes of lithium battery for electric vehicles has been launched. The industrial park is expected to cut down carbon emissions by an average of 1.9 million tonnes per year after completion.



Production line of recycled aluminum in Sino-German Hongshun Recycling Technology Project

Looking ahead, Weiqiao will continuously strengthen investment in recycled aluminum, accumulating operational experiences in recycled aluminum. We will also expand cooperation in the field of recycling with the commitment to building and promoting circular economy.



3. Integrate Downstream Processing

Integrating downstream processing can not only prolong our presence along the value chain and increase the added value for our products, but also play a significant part in decarbonization. On one hand, the extension downstream can reduce the carbon intensity of the general business. Take the aluminum industry as an example, the carbon emission intensity of unit-per-ton processed aluminum products is approximately 2-3% of that of electrolytic aluminum. On the other hand, aluminum products are gaining momentum in replacing steel under the wave of energy saving. Strengthening downstream integration will effectively reduce carbon emissions downstream.

Weiqiao's lightweight sector was launched in August 2019. After nearly three years of development, a systematic business layout has been formed with the four core industrial bases in Zouping, Binzhou, East China and Central China. The planned production capacity includes 3 million units of forgings, 17 million units of castings, 200,000 tonnes of extruded products, 50,000 tonnes of plates, 500,000 sets of stamping, 1 million sets of body and assembly parts, and a total production capacity of 30,000 cubic meters of aluminum foam. We will strengthen cooperation with domestic and foreign research institutions and leading producers and give full play to the advantages of our complete industry chain from liquid aluminum (hot metal) to vehicle assembly. We strive to build the largest lightweight production base in China that integrates R&D, testing, and manufacturing.

We aim to take an ambitious step forward, planning a broader presence in the realm of lightweight materials. Our diversified expansion will have automotive application and aluminum products as the foundation, and include high-end extension of current aluminum processing parts, the expansion of non-aluminum materials such as carbon fiber that are highly synergistic with aluminum assembly parts, and the extension to integrated solutions of design and services based on aluminum components and vehicle assembly. Weiqiao's exploration into the lightweight sector is not just about reducing our own carbon emissions. It is also an attempt to practice high-quality development along the industrial value chain.



The Weiqiao Lightweight Base



4. Enhance Operational Efficiency

By producing efficiently, we reduce total energy consumption and therefore total carbon emissions. **As a Chinese saying goes, "A journey of a thousand miles starts beneath one's feet." As the world's largest cotton textile manufacturer and a global leader in the aluminum industry, every improvement, however slight, in our operational efficiency will translate into a remarkable step in carbon reduction.**

At the current stage, our smart textile factory can increase the average production efficiency by 37% and improve the average energy consumption utilization rate by 20%, which significantly benefits both comprehensive manufacturing efficiency and energy saving. In 2020, our textile sector was enlisted as green factories, according to the *Announcement of the Fifth Batch of Green Manufacturing Enterprises* released by Ministry of Industry and Information Technology.

In addition, we initiated a 3-year-long benchmarking project in the aluminum sector in June 2019, during which we compared ourselves with world-class standards on energy consumption and identified gaps. Specifically, we improved our key technical and economic metrics in accordance with national standards such as *The Norm of Energy Consumption Per Unit Products of Alumina*, *The Norm of Energy Consumption Per Unit Products of Electrolyzed Aluminum Enterprise*, etc. With relentless efforts, we keep elevating our operational efficiency and aim to become the role model of energy saving and carbon reduction under national standards.

Going forward, Weiqiao will keep applying advanced technology and optimizing internal management. We will do our best to reduce incremental energy consumption and improve energy consumption efficiency.



Smart textile workshop in Weiqiao

CASE

Weiqiao's online quality inspection robot

Weiqiao cooperated with Donghua University to jointly develop an online quality inspection robot for textile manufacturing, which can substitute traditional manual inspection and reduce the waste of defective products and the correspondent loss of equipment energy consumption. With the robot applied in Weiqiao's textile factory, the rate of defective products has decreased by nearly 30%, and the utilization rate of energy consumption, including water and electricity, has greatly improved.



5. Boost Technological Innovation

The energy transition cannot address all carbon emissions in the production process. Therefore, we need to continuously optimize and innovate our production technologies to reduce emissions.

Innovation in manufacturing is a necessary step in decarbonization. We will be focusing on tackling global technical conundrums and leading the industrial innovation in production technology. For the textile sector, we prioritize energy saving and carbon reduction in the areas of spinning, fabric weaving, and dyeing and finishing for their high energy intensity. Through intelligent upgrades and advanced technologies, we will improve and promote the deployment of smart factories and keep introducing updated processing technologies. For the aluminum industry, we will emphasize four critical parts of the production process, i.e. the heat consumption of alumina, power consumption of electrolytic aluminum, anode reaction and anode effect. We will comprehensively consider the potential performance, technological maturity, and cost-effectivity to deploy correspondent technologies step by step.

Sample 1: The innovation of manufacturing technologies in the textile sector

In January 2020, Weiqiao invested 220 million RMB for the upgrading of our rotor spinners, with 552 outdated ones planned to be shut down. The new rotor spinners featuring sustainability and eco-friendliness can save 7,173 tonnes of standard coal per year. At the same time, the printing and dyeing business has also kicked off the upgrading project towards smart factories.

CASE

Weiqiao's upgradation project in printing and dyeing business

The investment in the printing and dyeing upgrading project totaled 250 million RMB. The project intends to phase out the outdated equipment and adopt a streamlined production process with lower energy consumption, which can save 30% of the labor and energy consumed. The project targets the development of green, eco-friendly, low-carbon, and pollution-free printing technology, bringing up level of intelligence and automation.



The construction site of smart printing and dyeing upgradation project

Sample 2: Carbon reduction in the aluminum sector

In the aluminum sector, Weiqiao deploys a set of nationally leading steam recycling facilities for alumina, with technologies like seven-effect evaporator and cathode material optimization being progressively applied. In November 2021, Weiqiao signed a letter of intent for technical cooperation with Central South University, targeting to carry out extensive and in-depth cooperation on key technologies including carbon-free aluminum electrolysis based on inert anodes, intelligent and efficient aluminum electrolysis, and comprehensive utilization of red mud.

CASE



Weiqiao's super-large pre-baked anode cell

Since 2014, Weiqiao has developed and put into practice the world's first full series 600kA super-large anode pre-baked electrolytic cell, leading the industry in completing its transformation towards ultra-low emission. All key metrics are far superior to the *Emission Standard of Pollutants for Aluminum Industry*, rendering it the leading position in the globe.



Weiqiao's 600kA super-large anode pre-baked electrolytic cell

In the future, technological innovation will continue to be an important strategic engine for Weiqiao. We will pay close attention to the advancement of cutting-edge technologies and accelerate the comprehensive deployment of innovative technologies via indigenous innovation, joint R&D, pilot demonstration and business model innovation.



6. Apply Negative Emission Technology

We intend to offset the carbon emissions that are difficult to eliminate **with negative emission technology to complete the "last mile" towards carbon neutrality.**

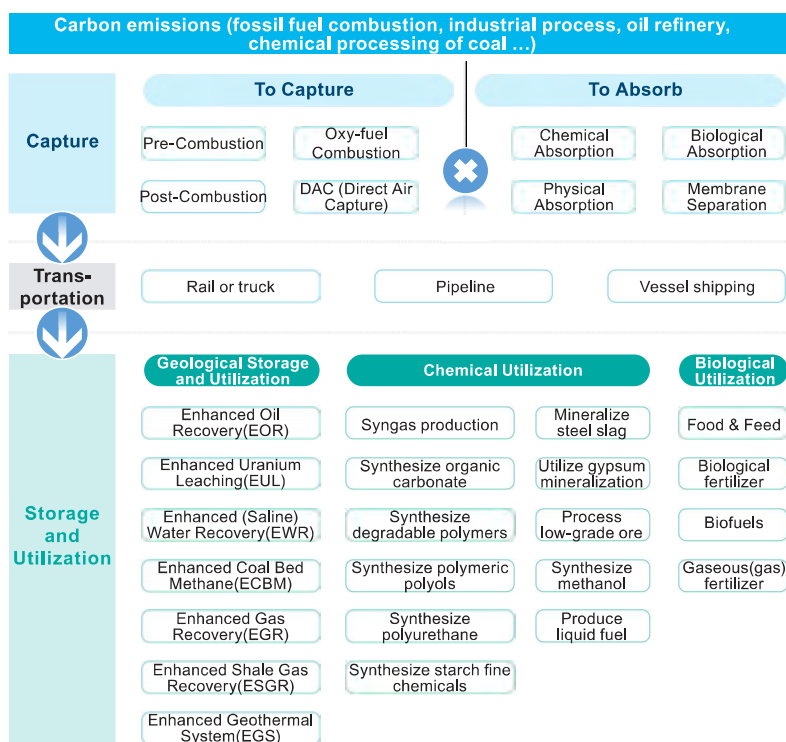
In the vicinity of the Green Aluminum Industrial Park in Wenshan Prefecture, Yunnan Province, we proactively commit ourselves into afforestation and forest reservation efforts to sequester or store carbon. In the Green and Low-carbon Demonstration Industrial Park in Honghe Prefecture, Yunnan Province, we focus on investing carbon reduction and removal projects while directly deploying renewables, striving to build the first carbon-neutral industrial park in China.

In the future, Weiqiao will continue to pay close attention to the development of CCUS technologies, especially the cutting-edge application of new facilities and advanced processing technologies, and actively carry out pilots and demonstrations to lay a solid foundation for the realization of the net-zero future.

The CCUS as negative carbon technologies

The process of Carbon Capture, Utilization and Storage (CCUS) is one of the key technologies to tackle with global climate change. The CCUS encompasses methods to purify and capture the carbon emitted during industrial process, for re-use or storage.

CCUS technologies and Weiqiao's planning



Weiqiao will start with CCUS pilots in advanced thermal power plants, and consider CCUS in direct emissions from fossil fuel combustion during industrial process

Weiqiao will prioritize Enhanced Oil Recovery (EOR) as the main type of utilization and explore other applications such as Enhanced Uranium Leaching (EUL) and syngas production



7. Accelerate Organizational and Cultural Transition

Along Weiqiao's journey of planning and implementing the decarbonization strategy, **a systematic and holistic functional system plays a vital supporting role.**

Weiqiao has set up a leading committee for our carbon peaking and carbon neutrality strategy. Led by senior management with a number of business heads as the core members, the committee is established to be a team spanning multiple departments and subsidiaries. As decarbonization has become a major topic in internal governance, the steering committee and the Roland Berger team collaborated and conducted effective communication and discussions on the top-down planning and implementation strategy on the basis of vigorous and solid analysis.

The decarbonization strategy is not only a vision planted in the minds of the group's leadership level, but also a set of actions linked to the work and life of every employee. We encourage the broad participation of our employees to jointly build a low-carbon culture of Weiqiao. Green behaviors need to be implemented in all aspects of the production process, and a low-carbon mindset shall embed in every bit of employee behavior. Therefore, our factories regularly provide training sessions to workers on-site and periodically review education results. In addition, we call on all employees to commute through low-carbon transportation, and care about daily energy savings, e.g. saving power, gas and water, around them.

In the future, our internal carbon asset management system is also taking shape progressively following the launch of the thermal power carbon market.



Weiqiao's leading committee and the Roland Berger consulting team



Actively strengthening the culture of low carbon

With years of rich experience in production management, we have issued a green office manual to guide the low-carbon working style among every Weiqiao employee. At the same time, Weiqiao continues to refine the business travel policies, encouraging employees to bring their toiletries, etc. to achieve green and low-carbon business travel.

Weiqiao also pays attention to optimizing employee commuting patterns, encouraging everyone to walk more and drive less. The company has held many walking activities and "steps donation" activities to encourage everyone to adopt a low-carbon transportation style.



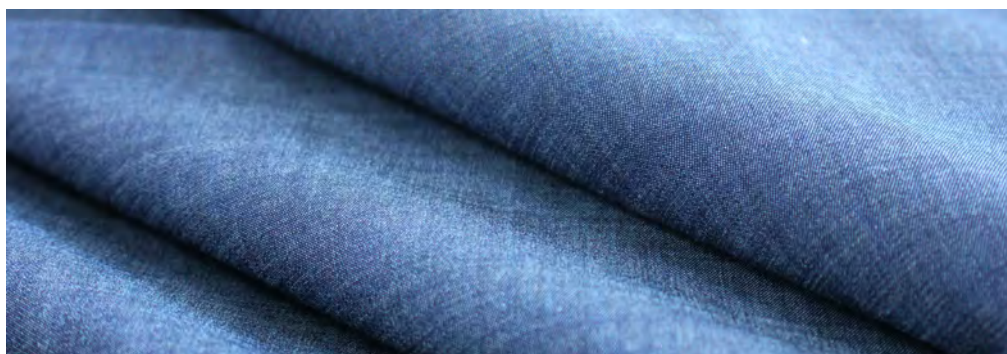
Weiqiao employees actively participating in fun-walk sports event



8. Launch Eco-friendly Brands

Under the global waves of low-carbon consumption, eco-friendly market positioning can not only enhance product competitiveness, but also well demonstrate a company's ambition in decarbonization.

Our textile sector keeps launching low-carbon products. In 2021, we introduced an innovative lyocell denim fabric product. Made 100% of recyclable natural fibers, this product is 100% biodegradable and compostable with little environmental footprint. In addition, we are also expecting products like low-carbon, bio-based textiles to roll out in the coming future.



Weiqiao's innovative lyocell denim fabric

We have now two green and low-carbon aluminum brands, HQALight for the low-carbon primary aluminum products utilizing hydropower and other renewable energy sources, HQALoop for the recycled aluminum products. The trademarks for these two brands have also been successfully registered in China and Germany.



Weiqiao's trademarks HQALight and HQALoop with product application display

Looking forward, we will continue to pay close attention to demands regarding ecosystem and sustainability. With inclusive mindsets and a proactive low-carbon product pipeline, we are committed to contributing to a healthy and pleasant lifestyle.



9. Deepen Cooperation Home and Abroad

Carbon neutrality is a comprehensive transition involving all aspects of economic and social development, which asks for far-reaching inter-connection among different market players. **As an industry leader, Weiqiao adheres to the spirit of "uniting all forces" and an attitude of openness and inclusiveness, actively carrying out cooperation home and abroad to construct a sustainable and low-carbon ecosystem.**

Sample 1: Forming strategic cooperation with universities and research institutes

In August 2019, Weiqiao signed a strategic cooperation agreement with CITIC Trust and the University of Chinese Academy of Sciences to jointly build an innovation research institute. The collaboration aims to create an open scientific research platform, promote the transfer and



Weiqiao formed strategic partnership with CITIC Trust and University of the Chinese Academy of Sciences

transformation of scientific achievements, integrate global resources, and play a guiding and exemplary role in developing emerging technologies and exploring industry-university-research cooperation mechanisms.

In June 2021, Weiqiao signed a comprehensive strategic cooperation framework agreement with Central South University. The two parties will give full play to their respective advantages in education, technology, talents, industry, etc. Based on the jointly-built interactive industry-university-research platform, we intend to carry out comprehensive strategic cooperation in technological innovation, platform co-construction, talent training, and consultation etc., striving to benefit both academia and the industry.

In July 2021, Weiqiao was successfully admitted as a full member of the aluminum research cluster of RWTH Aachen University in Germany. Efforts such as joint research projects based on commissioned research and interdisciplinary collaboration will help Weiqiao's technological innovation and advancement. Furthermore, given that lightweight business is getting increasingly crucial in saving energy and reaching the carbon neutrality goal, the German subsidiary of Weiqiao formed a partnership with Leichtbau BW, the state agency for economic and scientific development of Baden-Württemberg, Germany. Through this collaboration, both parties intend to carry out in-depth cooperation in developing lightweight technology and market opportunities, while introducing lightweight projects to China and Germany and facilitating their implementation.

Sample 2: Actively reaching out to partners in professional organizations

In June 2021, Weiqiao joined hands with the Social Responsibility Office of the China National Textile and Apparel Council (CNTAC). We participated in the "Climate Innovation 2030 Initiative for Chinese Fashion Brands" campaign held by CNTAC and jointly carried out the "30-60 Carbon Neutral Acceleration Plan for Climate Innovation of Chinese Fashion Brands" in textile field. At the 2021 Climate Innovation Summit, Weiqiao's textile sector was licensed by the plan.

In July 2021, we became a member of the Aluminium Stewardship Initiative (ASI), a global non-profit standards setting and certification organization. Weiqiao intends to accelerate the progress towards carbon neutrality and sustainable development via extensive international connection. Through reaching out to partners around the globe, we are determined to promote the responsible production in the aluminum industry.

Looking ahead, Weiqiao will accelerate all forms of cooperation and co-creation in areas such as carbon reduction and sustainable technologies. Therefore, we aim to reach across governmental departments, research and academic institutes and industries to ensure sufficient cohesion and unity in pursuit of a shared vision of carbon neutrality.



10. Pioneer Decarbonization along the Value Chain

China has made the solemn climate pledge to the international community. The pledge signals a landmark transition that needs active contributions of every participant. As a responsible industry leader, **Weiqiao will not only achieve neutrality within its scope of operations, but also respond to external expectations by taking the initiative to drive low-carbon development of the industry and facilitate carbon neutrality in the society as a whole.**

In the textile sector, we consistently play a leading role in orienting scientific decarbonization. Ever since Weiqiao joined the life-cycle-assessment working group in CNTAC (CNTAC-LCA in short) as a senior contributor, we have jointly developed the performance data of the LCA along the industrial chain, and promoted the construction of the sustainability disclosure standards for textile industry based on LCA methodology. Besides, we are committed to scientifically optimizing the supply chain management and harvesting energy-saving potential together with our suppliers to take the lead in industry-wide decarbonization.

As for the aluminum sector, we actively call for the low-carbon transition of the industry. In 2021, Weiqiao and Aluminum Corporation of China jointly issued the *Accelerating Aluminum Industrial Green and Low-carbon Development Joint Proposal* to shoulder our own social responsibility and further mobilize the industry to promote decarbonization. In addition, Weiqiao spares no effort in assisting upstream and downstream partners. By supplying renewables, enhancing energy-efficiency and putting forward green shipping, we are assisting the industry-wide decarbonization.

Going forward, with the support of Weiqiao & UCAS Research Academy, we plan to invest and participate in research and development of three sectors: sustainable smart manufacturing, marine energy resources and circular economy. We aim to incubate about 200 to 300 science and innovation enterprises and commit ourselves to decarbonizing the industrial value chain as well as the society as a whole.

Part V Epilogue

The world today is marked by changes unseen in a century. As sustainability rises to be the key agenda of all mankind, decarbonization increasingly represents the irreversible trends of social development and will lead the way to high-quality growth in the industry.

To accelerate our decarbonization efforts, Weiqiao has laid out 10 initiatives in three layers through holistic planning. We strive to fulfill our social responsibilities and act in concert with the national strategy. In addition, we emphasize the collaboration within the low-carbon ecosystem and are poised to take the initiative to lead effective carbon reduction along the industrial chain.

Immediate actions shall be taken to pave the way forward. As the target year of carbon neutrality draws nearer, Weiqiao as a responsible industry leader is striving to be an exemplar in the industry. Furthermore, as carbon neutrality cannot be achieved overnight, we will uphold unwavering dedication and keep recalibrating ourselves to reach the final ambition.

The journey towards carbon neutrality is undoubtedly a long one. Weiqiao is determined to lean in and commit to the shared vision with an earnest, united and unbending mind.

Appendix

Appendix 1: Disclaimer

Information referenced in this report, including other internet sites and third-party reports and publications, is not incorporated into the report.

For more comprehensive information about our financial performance and operations, including risks that could adversely affect our results of operations and financial condition, please refer to our annual reports and other announcements.

Appendix 2: Glossary of Terms

The Paris Agreement: The Paris Agreement is a legally binding international treaty on climate change. It was adopted by 196 Parties and its goal is to limit global warming to well below 2, preferably to 1.5 degrees Celsius, compared to pre-industrial levels.

The 1.5°C/2°C temperature limit: It refers to the goal to hold global warming to well below 2°C, and preferably limit it to 1.5°C, compared to pre-industrial levels.

Carbon emission trading: Emission trading for carbon dioxide and other greenhouse gases is an approach to limit climate change by creating a market with limited allowances for emissions. It works by setting a quantitative total limit on the emissions produced by all participating emitters.

Carbon Border Adjustment Mechanism (CBAM): CBAM is an environmental trade policy that consists of charges on imports, and sometimes rebates on exports. It imposes a cost equivalent to domestic climate regulatory costs on otherwise unregulated imports.

Environmental, Social, and Governance (ESG): ESG is an approach to evaluating the extent to which a corporation works on behalf of social goals that go beyond the role of a corporation to maximize profits on behalf of the corporation's shareholders.

China National Textile and Apparel Council (CNTAC): CNTAC, formerly as the Ministry of Textile industry of People's Republic of China, is the national federation of all textile-related industries.

Climate Innovation 2030 Initiative for Chinese Fashion Brands: Initiated by CNTAC in December, 2019 with participation from over 40 companies and organizations, the campaign aims to reduce GHG emissions by 40% by 2030.

Renewable electricity: Renewable electricity is defined as electricity produced from renewable energies like hydropower, wind, solar, geothermal, eligible biomass, etc.

Green hydrogen: Green hydrogen is hydrogen generated by renewable energy (e.g. wind or solar power) or from low-

carbon power. It has significantly low carbon emissions during production.

Inert anode technology: This is a kind of technology in which inert anodes replace standard carbon anodes with inert, non-consumable materials, which results in a major reduction of emissions from the smelting process.

Carbon Capture, Utilization and Storage (CCUS): CCUS refers to a suite of technologies that can play an important and diverse role in meeting global energy and climate goals through carbon removal.

Virtual power plant: A virtual power plant integrates intermittent power sources to give a reliable overall power supply by reacting to load and generation fluctuations; this can include wind power, photovoltaics, run-of-river hydroelectricity and biomass, etc.

Global Recycled Standard (GRS): Global Recycled Standard. The GRS is an international, voluntary, full product standard that sets requirements for third-party certification of recycled content, chain of custody, social and environmental practices, and chemical restrictions. The goal of the GRS is to increase use of Recycled materials in products and reduce/eliminate the harm caused by its production.

Aluminum foam: Aluminum foam is a kind of engineering materials made of aluminum or aluminum alloy. It is both extremely durable and lightweight, which brings it excellent physical, chemical and mechanical properties and recyclability.

Aluminium Stewardship Initiative (ASI): ASI is a global non-profit standards setting and certification organization. Its vision is to bring together producers, users and stakeholders in the aluminium value chain with a commitment to maximize the contribution of aluminium to a sustainable society.

Appendix 3: Greenhouse Gas Emissions Inventory Standards

Methodology: Weiqiao refers to the Greenhouse Gas Protocol (GHGP), a set of greenhouse gas accounting and reporting standards published by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD) for accounting and reporting.

Period covered in the baseline year: December 25, 2019~December 24, 2020.

Organizational boundaries: Operational control approach, i.e. the subsidiaries under direct control of the company will be reported in Scope 1 and Scope 2, while other non-directly controlled subsidiaries will be reported in Scope 3.



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