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Technical Consultant: JJL Value and Risk Advisory

Deeprock Group



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Imposing potential threats to the development of human society, climate change has become a topic of global concern. With the development of global industry, greenhouse gas emissions mainly including carbon dioxide have constantly expanded in scale, leading to a rise in the global temperature, which in turn has caused a series of environmental and ecological problems such as rising sea levels, frequent occurrence of extreme weather and destruction of biodiversity, and threatened the global environment, on which humankind depends for its survival. In order to realize the goals in the Paris Agreement and fulfill relevant responsibilities as a big country, China proposed the goal of "peaking carbon dioxide emissions by 2030 and achieving carbon neutrality by 2060", showing our ambition to promote green and low-carbon development to the whole world.

" $VX = Fundamentals \times Service \land Technology"$ is the formula of VX's development strategy, and the dualcarbon era has given a new interpretation of this formula: First of all, the "fundamentals" of self-development VX has built over the past few years by building a modern logistics infrastructure network will integrate the green building concept, requirements and standardized design in the future, so as to achieve the full coverage of green buildings in the "fundamentals"; secondly, with the help of the "fundamental", VX has actively built a green supply chain platform, utilized green power to provide integrated green supply chain solutions for customers and help enterprises enhance the supply chain efficiency, with an aim to providing more diversified and better services to customers in terms of carbon neutrality; finally, VX has promoted intelligent management methods and the most advanced and efficient technology among all its logistics parks, which not only realizes efficient management and quality service, but also promotes low-carbon campaigns by means of technology.

In the dual-carbon era, VX is willing to assume more social responsibilities, implement the corporate development strategy under the new background, and accelerate the replacement of fossil energy with clean energy in active response to the national objective of low -carbon energy structure. As an outstanding multi-temperature zone integrated logistics solution provider in China, we are well aware of the adverse impacts of the

logistics industry on the environment, especially the high energy consumption and high-carbon emission cold chain warehouse logistics, so we have always emphasized and promoted green and low-carbon work, put forward the carbon neutrality concept of " leading intelligent carbon neutrality in the park with science and technology", and formulated the carbon neutrality path for our future, aiming to enhance the energy-saving and consumption reduction in the park operation. At present, VX's several parks have already obtained the LEED Platinum and Green Warehouse Three-star certifications. The demonstration parks have already realized intelligent equipment, modules and systems with the ability of continuous iteration, and are able to provide guidance for energy-saving and consumption reduction in the park with a self-developed smart IoT management platform. In addition, we have installed rooftop distributed photovoltaic power plants in pilot parks to offset carbon emissions during park operations through local renewable energy supply, successfully realizing zerocarbon logistics parks.

We know that it is impossible for VX to promote carbon neutrality in the industry, society and even the country on our own. VX has set up the ESG platform with the intention of strengthening coordination and cooperation between VX and its clients and partners, promoting exchanges and learning, and jointly exploring the carbon neutrality path. While continuously improving our own work, VX hopes to cooperate with partners in the industry and supply chain to promote carbon neutrality and create a green and low-carbon future together.

Carbon neutrality cannot be achieved overnight. It is a long marathon with many challenges. Having displayed our original intention of carbon neutrality above, we will push ourselves forward and expect more companions to join us.

Chairman of VX Logistics
Zhang Xu

Carbon Neutrality Era





National Strategy

Climate change has brought forth great challenges to all human communities. Countries all over the world have made active responses to the increasingly urgent call for global carbon neutrality. China has also set the goal of striving to peak CO2 emissions before 2030 and achieve carbon neutrality before 2060. At the two national sessions in 2022, the national leadership reaffirmed that the realization of carbon peaking and carbon neutrality are inherent requirements to apply the new development philosophy, create a new development dynamic, and promote high-quality development.

Here are several inspirations from the dual carbon goals and paths in terms of enterprise development:



Increasingly urgent demands for enterprise low-carbon. Due to the tight schedule and heavy task of emission reduction, various local governments have offered obviously favorable policies. Affected by rigid carbon reduction policies, high-carbon enterprises have increasingly urgent demands for low-carbon transformation, while low-carbon enterprises will receive policy support in various aspects.



Increasing scale of capital market investment in green enterprises. According to the strategic goal of carbon neutrality, China will invest about 70 trillion yuan in infrastructure construction in the future, which will give rise to new industries and stimulate new domestic demands. With the accelerated development of the green finance market, green enterprises will be favored by such capital as suitable targets.

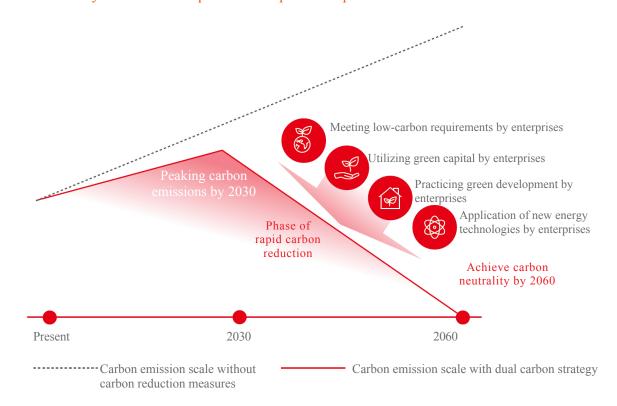


"Fulfilling green development of enterprises" has become a social consensus. Economic development has enhanced the changes in the consumption concept, which has made "fulfilling green development of enterprises" a new social consensus, and thus realized the green transformation of enterprise management models and cooperation models among enterprises.



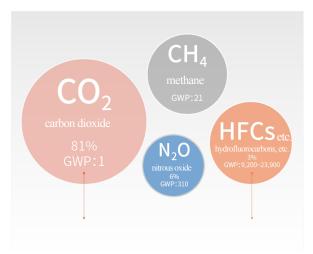
Possibility of wide-range application of some new energy technologies. China has formed a cumulative effect in the field of new energy technologies, among which PV has broken through the cost bottleneck. In 2020, the cost of PV power generation nationwide reduced by 83% compared with that in 2010, forming price competition with coal power. Enterprises can realize cost reduction and efficiency enhancement through the mass application of PV products.

Carbon Neutrality Path and Enterprise Development Inspirations



Industrial Prospects

▶ Types of greenhouse gas



Data source: WRI (World Resources Institute)

Note: GWP (Global warming potential) is a means adopted to measure the effect of greenhouse gasses on global warming.

Challenges and Opportunities of the Cold Chain Logistics Industry against the Backdrop of Carbon Neutrality

Due to the high energy consumption of existing cold storage warehouses in China, the cold chain logistics industry is faced with a contradiction between the demand for business expansion and the limited scale of carbon emissions.

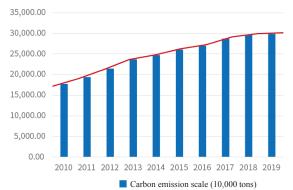
Under the dual carbon background, low-carbon transformation of hardware facilities and management modes has become two major paths for reducing the energy consumption level of cold chain logistics enterprises, with both challenges and opportunities in each path.

Status of the Cold Chain Logistics Industry in Carbon Neutrality Strategy

The warehouse logistics industry is an important part of the modern supply chain system, and a main node linking the supply side and the demand side with many links, therefore, energy saving and emission reduction in the industry is of great significance in realizing the national goal of carbon neutrality. Under such a background, giants in the warehouse logistics industry have further developed carbon neutrality projects and explored the construction of zero-carbon demonstration parks; building integrated photovoltaics (BIPV) and other fields have ushered in the golden age.

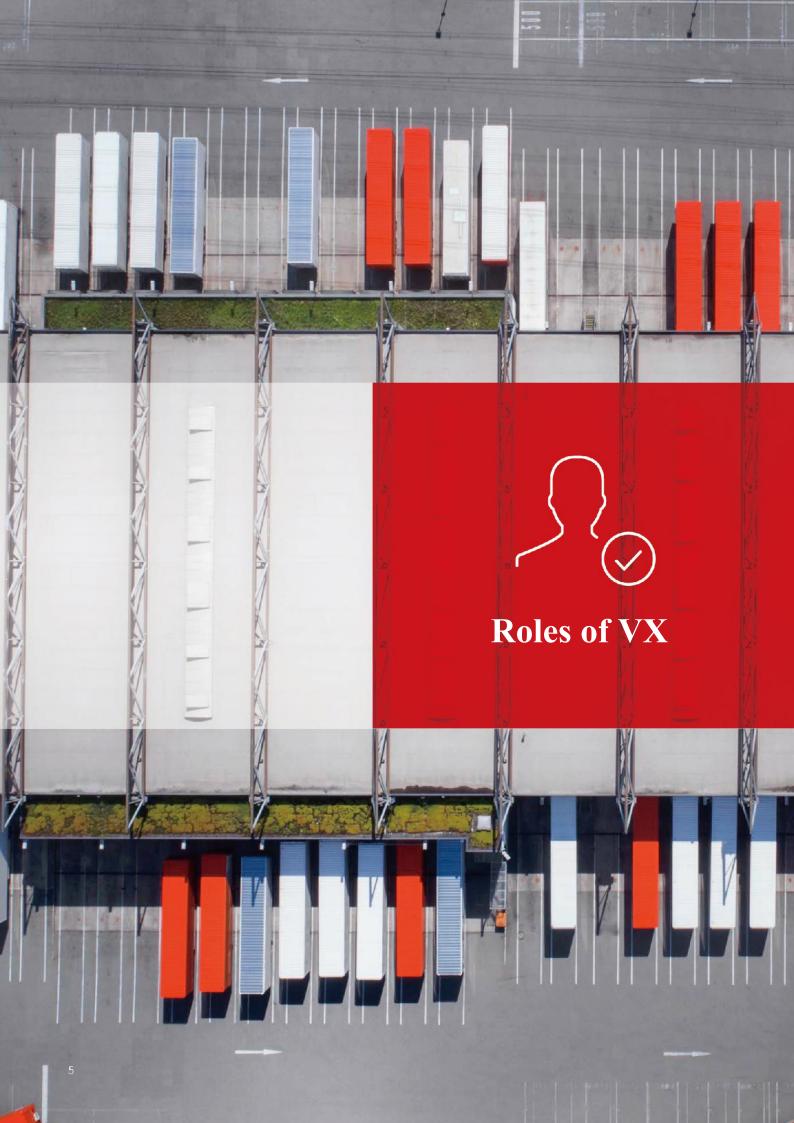
Based on different business carriers, warehouse logistics can be divided into high-standard warehouse and cold-chain warehouse. Among them, high energy consumption equipment and facilities and refrigerants are extensively used in the cold chain warehouse logistics with the cold storage warehouses as the carrier, which leads to higher emissions of greenhouse gasses such as CO₂ and HFCs than the high-standard warehouse logistics with the high-standard dry warehouse, becoming the major source of carbon emission in the warehouse logistics industry.

Carbon emission scale of the warehouse logistics industry (10,000 tons)



Data source: Calculated as per data in China Statistical Yearbook

	Data source: Calculated as per data in China Statistical Yearbook			
Low-carbon transformation	Key challenges	Examples	Examples	
	High energy consumption and large carbon emissions from refrigeration equipment	Rooftop distributed PV power generation	PV equipment is laid on roofs of "high-standard warehouses + cold storage warehouses" to generate power for refrigeration houses	
		Refrigeration system /equipment optimization	Replacement of traditional Freon refrigeration system with dual-cycle refrigeration with low GWP refrigerants	
Hardware facilities	High consumption of fossil fuel by traditional transport vehicles	Enhancement of new energy permeability	Electrification of forklifts and trucks	
Hardware facilities	High energy consumption in the construction and operation of traditional buildings	Low-carbon green buildings	Passing green certifications such as green warehouse /LEED/BRE, and promoting the application of new power and water-saving equipment	
	Low level of integrated operation of cold chain transport	 Extending business chains, strengthening service capability 	Providing service of "trunk transport + regional allocation + urban distribution"	
Management modes	Low operation efficiency of refrigeration system	Energy consumption detection system/carbon management platform	Monitoring energy efficiency of refrigeration system to master power/electricity consumption parameters and achieve overall energy conservation in the park	
	Low warehouse management level and operation efficiency	 Establishing a smart warehouse system with deep perception 	Replacing the manpower with automated high-rise warehouses to enhance the operation efficiency by 2-3 times	
	Inadequate linkage between supply chain parts and low efficiency of information interface	 Establishing a professional cold chain logistics information platform 	Establishing the integrated Order, Transport, Warehouse and Billing system (OTWB) for automatic data collection and transmission in the cargo inspection, warehousing, ex-warehouse, allocation, position alteration, stocktaking, etc.	



As of October 2022, VX's warehouse logistics business the industry (2021) covered 47 cities nationwide, of which the operable area of cold chain projects reached 2.09 million square meters.

Covering nationwide first-tier cities, major second-tier cities and core inland port cities, VX's cold chain warehouse logistics parks can provide one-stop temperature-control logistics solutions.

▶ Proportion of cold chain warehouse area of VX Logistics in the industry (2021)



Data source: Compiled according to public information

Business Layout



Distribution region of high-standard warehouse projects

Entry cities of cold chain warehouse projects

▶ Supply Chain Integration Layout



Upstream: Warehouses in ports/places of origin

Midstream: Transaction

warehouses

Downstream:

Allocation/distribution warehouses



164 warehouse logistics projects with an area of 12,000,000+m², ranking top in the industry



47 cold chain warehouse logistics projects with an operable area of $2,090,000\,\mathrm{m}^2$

High-standard warehouse logistics projects in 47 cities Cold chain warehouse logistics projects in 28 cities



Trunk transport +urban distribution service, various value-added services in warehouses

Note: Data by October 2022

Service Level **Sense of Responsibility Smart Operation** Integrated warehousing and distribution service Construction of integrated Order, Undertaking social responsibilities Transport, Warehouse and Billing system VX has dispatched 79,000 tons of daily (OTWB) necessities in total from four cold chain Its own information team is devoted to logistics parks, i.e. Haigang, Nanqiao, Warehouse service Cold chain Value-added building OTWB system, self-developed Xinqiao and Xinbang in Shanghai and made transport processing warehouse management system (WMS), order delivery for over 15,000 times since October management system (OMS), transport 2022, in active response to the government's management system (TMS), etc., in order to appeal of ensuring provision. promote the cold chain business development. Integration of carbon emission awareness One-stop supply chain solutions IoT platform into development Realizing functions such as the management Processing VX's green buildings covered an area of 4.9 Regional Urban distribution of equipment (refrigerator) operation status, in place of million m² by October 2022. In the future, allocation consumption management energy origin VX's newly built logistics parks will fully optimization, headquarters satisfy the construction standards of green management, etc. buildings.

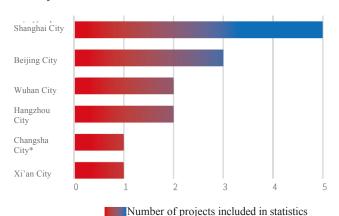
VX's Carbon Emission

According to the Greenhouse Gas Protocol jointly developed by the World Resources Institute and the World Business Council For Sustainable Development, VX has classified 23 cold chain logistics parks that have been put into operation in 15 cities such as Beijing, Shanghai, Nanjing and Xiamen into the statistical boundary.

Total greenhouse Gas Ending Total greenhouse gas emissions

Total greenhouse gas emissions

*

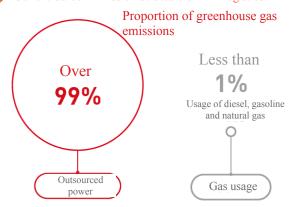


*Cities with one project include:

Jiaxing, Ningbo, Guangzhou, Langfang, Chengdu. Shenyang, Suzhou, Xi'an and Changsha

At present, VX's carbon emissions are mainly calculated as per actual emission behavior. This is the first time we have checked our own carbon emissions. During the process, we realized that under current conditions, there were still problems such as a narrower scope of accounting for carbon emissions, lack of accounting for emission behavior, and lack of accuracy in the accounting data. In this regard, we have included a more comprehensive and accurate carbon inventory as a priority in our work in the near future.

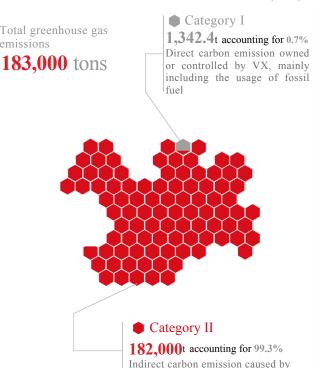
Current Carbon Emission Structure of VX Logistics



As for the current carbon emission structure centered on energy usage, we will divide the corresponding carbon reduction methods into direct carbon reduction and indirect carbon reduction.

Direct carbon reduction includes carbon reduction during use and operation. Direct carbon reduction methods are targeted for carbon emission behavior inside VX Logistics Park, while indirect carbon reduction refers to the reduction of carbon emissions by external means from the perspective of carbon reduction strategies, such as carbon offset (or compensation).

Greenhouse Gas Emissions of VX in Various Areas (2021)



We believe that direct carbon reduction can not only directly reduce VX Logistics' carbon emissions, but also motivate us to continuously and actively conduct technological and operational innovations, which is in line with the practical concepts and action guidelines of VX Logistics' carbon neutrality mentioned previously; indirect carbon reduction is relatively passive and can easily lead to inertia, though it also reflects VX Logistics' concern and responsibility for social issues.

outsourced power of VX

Therefore, if conditions permit, VX will give priority to direct carbon reduction with the greatest endeavor, supplemented by indirect carbon reduction. Considering the indirect carbon reduction, VX's short-term goal is to realize "near-zero carbon".

Direct carbon reduction



Indirect carbon reduction



VX's Carbon Neutrality Concept



Leading Smart Carbon Neutrality in the Park with Science & Technology Empowered

As a leader in the logistics industry, especially in the field of cold chain logistics, VX pays close attention to the development trend of the industry. At present, the accelerated development of national carbon neutrality has brought both opportunities and challenges to VX. To this end, VX has formulated the guiding principle of "empowering the smart operation in the park with science & technology, adhering to carbon neutrality guidelines, realizing the targeted emission reduction as scheduled, and establishing a benchmark in the cold chain logistics industry, guided by VX's overall strategy of carbon neutrality".

"Guided by VX's overall strategy of carbon neutrality" is the strategic positioning of carbon neutrality in VX; "empowering the smart operation in the park with science & technology" is the development foundation of VX and the fundamental method to realize the goal of carbon neutrality; "adhering to carbon neutrality guidelines, realizing the targeted emission reduction as scheduled" is the basic guarantee for the implementation of VX's carbon neutrality strategy and steady development in the carbon neutrality path; "establishing a benchmark in the cold chain logistics industry" is not an end but a beginning. VX will devote itself to transforming the benchmark into the standard, and turning its advantages into strengths, in order to lead the smart carbon neutrality in the park.



Responsibility

The most important guideline of VX is to undertake the relevant responsibility in the carbon neutrality era. VX is willing to assume social responsibilities as much as possible, and invest in cold chain warehouse for both financial and social benefits. Considering and evaluating several aspects beyond the traditional investment concept and framework based on financial indexes, including the impacts of the enterprise on the environment, coordination and balance between the enterprise and stakeholders, and standards on the board structure, shareholding structure, management remuneration and business ethics, VX has brought long-term stable and good returns to the society and investors.



Innovation

VX divides innovation into internal and external innovation. For the warehouse logistics industry, external innovation is the main source of new hardware equipment and warehousing technology, while internal innovation mostly enhances the improvement in the "soft power" including management mechanisms and business models. The two types of innovation are of great importance to the realization of carbon neutrality objectives. On one hand, we will continue to focus on the innovation in the refrigerating and energy-saving equipment and facilities, make proper investments and proactively promote external innovation; on the other hand, we will comprehensively promote the lean operation and model reform in the park in response to the tendency of carbon neutrality, in order to make carbon neutrality information become an important reference that fully reflects the operation performance of VX and its subordinate parks.





Becoming the Leading and Trustworthy Low-carbon Warehousing Service Provider in China

Based on the macro-market analysis, industrial positioning analysis, professional and technical judgment, internal and external enterprise research, in combination with the analysis of strengths and weaknesses in sustainable development, VX has set the vision in the carbon neutrality campaign as "becoming the leading and trustworthy low-carbon warehousing service provider in China". During the process towards the vision, VX will not only complete the low-carbon transformation, but also become an enterprise with comprehensive ESG competitiveness, realizing "sustainable development" in four aspects:

- Continuously leading the low-carbon development concept in the industry
- Continuously providing safe and reliable service for customers
- Continuously providing safe and healthy positions with great prospects for employees
- Creating continuously increasing earnings for investors



"3+4+N" Path Planning





E

Creating industry-leading "low-carbon" warehousing and cold chain service.



S

Empowering safety management with science and technology, and continuously enhancing employees' growth.



G

Improving the transparency of corporate governance, and obtaining attention from more related parties.



Transformation of management concept is a long-term guarantee for the smooth implementation of carbon neutrality action and a dynamic process of ideological transformation. Only by realizing comprehensive and in-depth transformation of operation concepts can VX efficiently achieve the goal of carbon reduction.

Popularization of green buildings can gradually expand the coverage of green buildings in VX logistics parks by newly building or transforming from the angle of emission reduction during development.

Smart cold chain management is iterative and deepening smart transformation of VX's subordinate logistics parks from the angle of emission reduction in daily operation, with an aim of finally reducing carbon in terms of supply chain.

VX "zero-carbon circle" is a nationwide carbon reduction strategy created by VX based on its business characteristics and centered on the distributed PV technology, characterized by "regional piloting and nationwide planning".



Interpretations of Important Means

Transformation of management concept Short-term goal



continuously improved in the near future. concepts in the industry. round of carbon inventory, and will carry with the common values of low-carbon out a more comprehensive carbon operation, in order to realize the carbon the situations of newly increased parks.

Enhancing the industrial influence. VX will cooperate with authoritative departments in the industry to enhance its influence. Currently, it has decided to participate in the formulation of industrial standards including carbon Evaluation Indexes for Cold Warehouses¹, Storage **Technical** Specification for Developing Evaluating Zero-Carbon Logistics Park² and Requirements and Evaluation for Green Warehousing and Distribution ³

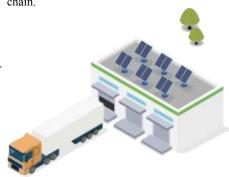
Conducting internal ESG training. VX hopes to promote ESG concepts internally through long-term and regular training. In 2022, VX organized three internal ESG training sessions.

Advocating low-carbon concepts to customers. VX will take various measures to popularize its low-carbon concepts to customers and track and guarantee the publicity effect by means of questionnaires, etc.

Medium and long-term goal

Improving ESG working mechanism. Establishing a zero-carbon park evaluation VX has established an ESG team, system. On the basis of the low-carbon responsible for research, formulation, operation transformation in most VX parks, implementation and coordination of ESG VX has constructed a multi-level and multiand carbon neutrality work. Relevant index evaluation system for zero-carbon mechanisms of overall planning will be parks, leading the development of green

Comprehensively carrying out carbon Building green influence circle. VX will **inventory.** VX has completed the first build a self-centered green influence circle inventory regularly in combination with neutrality goal with partners in the supply chain.



Smart cold chain management



Short-term goal

Piloting smart parks. In the near Promoting the mode of the smart park. VX low-carbon smart warehouse parks in number of smart parks. terms of equipment, facilities and Deepening the smart degree of cold chain. operation modes as VX Smart Park 1.0. platform. VX will build a carbon facilities, information energy consumption and production which VX belongs will be deepened. capacity during the operation, and ensure Exploring the feasibility of carbon trade. carbon operation. At present, VX has management and energy-saving carbon built the first benchmark project of a reduction technology, VX is expected to be replicated and promoted in other enter the carbon trade market. projects in the future.

Medium and long-term goal

future, VX will implement several pilot will explore the replicable and promotable projects of smart parks. The pilot mode of smart park management by carrying projects will define the new-generation out pilot projects, in order to increase the

VX will upgrade the smart park to 2.0, 3.0 or Establishing a carbon management even higher versions by updating equipment, management platform by digital means algorithms. By then, the smart degree of the to scientifically monitor the data of entire cold chain logistics supply chain to

that the park can continue with low- With the improvement in the level of smart carbon management platform, which will produce green power and carbon sink, and

- Low-carbon Evaluation Indexes for Cold Storage Warehouses are formulated by the Specialized Committee of Cold Chain Logistics of China Federation of Logistics & Purchasing.
- Technical Specification for Developing and Evaluating Zero-Carbon Logistics Park is formulated by Shanghai Association of Energy-saving and Environmental Protection Service Industry.
- National standard GB/T 41243-2022 Requirements and Evaluation for Green Warehousing and Distribution was put forward and combined by the Ministry of Commerce, promulgated on March 9, 2022 and implemented as of October 1, 2022.

Interpretations of Important Means

Popularization of green buildings











Short-term goal

independently formulated the international versions, which can meet construct the needs for high-quality construction preliminary design. and operation of green cold storage products at home and abroad. VX will improve the standard in the near future, providing detailed instructions and professional interpretations on the design and construction of green cold storage warehouses, purchase of raw materials, Selection and application of technology.

Promoting green building certification.

VX has completed a green investigation of all the warehouses under construction. basically satisfying the requirements of the three-star green warehouse or LEED Gold. In the first half of 2022, VX passed the LEED platinum pre-certification of Shanghai Fengxian Lingang Park and certification of BRE Net-Zero Carbon Buildings: as of October 2022, VX's 8 projects passed the LEED Platinum or Gold certification (6 Platinum and 2 Gold). 58 projects passed certification of three-star warehouse, and 3 projects are under LEED certification.

Medium and long-term goal

Improving VX's standards for green Comprehensively promoting VX's green cold storage warehouses. VX has warehouse standards. VX will popularize VX the bottom-line design standards for cold Bottom Line Standards for Green Cold storage products comprehensively in the Storage Products with both domestic and newly built logistics parks, and begin to buildings green

> 100 coverage of green buildings in newly built projects. VX requires that all the newly built or to-be-built projects shall be designed as per three-star green warehouse/LEED

> of delivered projects certification. As for park projects that have been delivered for over one year, VX will explore the part of buildings that may pass the green building certification, and try to select the domestic and international certifications related to zero carbon.

VX "Zero-Carbon Circle"



Short-term goal

Determine the implementation plan of "Zero-Carbon Circle". Due to the wide coverage and a great number of parks involved in VX "Zero-Carbon Circle", it is necessary to formulate detailed implementation plans according to available resources and market conditions in different regions. At present, VX has determined that all new projects will reserve installation conditions for distributed PV systems.

Piloting "Zero-Carbon Circle" in Shanghai. VX will first conduct a pilot project of "Zero Carbon Circle" in Shanghai. On one hand, it will verify the deviation between the actual carbon reduction of distributed PV systems and internal calculation results. On the one hand, it will provide a sample for the construction of "Zero-Carbon Circle" in other regions. At present, Shanghai Fengxian Lingang Park, which is VX's near-zero carbon benchmark, has successfully realized the grid-connected power generation of distributed PV systems.

Medium and long-term goal

Realizing full coverage of distributed PV systems. VX will summarize the experience of the benchmark park and establish a standardized construction system distributed PV systems in the park. VX requires that 100% of the newly built projects shall reserve conditions for PV installation; as for delivered projects, VX plans to gradually renovate and add distributed PV systems. Eventually, it will realize the full coverage of distributed PV systems in VX logistics parks all over the country.

Building a nationwide VX "Zero-Carbon Circle". Following the principle of "regional piloting and overall planning", VX has divided nationwide parks into zero-carbon circles of different regions. According to piloting situations, VX will expand the "Zero-Carbon Circle" in a planned and organized manner, until the final formation of a unified national VX "Zero Carbon Circle". According to estimation results, VX will achieve overall "net-zero carbon" within the nationwide "zero carbon circle",

Key Carbon Reduction Campaigns

Smart Management

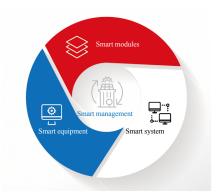
Smart management is not only an important means to achieve energy-saving and carbon reduction goals, but also a core method to build smart parks, which includes three levels:

First, most of the machines and equipment in VX Logistics Park, including security equipment, fire-fighting equipment, cold chain equipment, temperature control equipment and transportation equipment, will go through smart upgrades. The purpose of smart equipment is to minimize manual operation, shorten the response time while reducing the error rate, and improve the operational efficiency of individual equipment. For example, VX Logistics Park introduced a smart forklift system, which can collect forklift operation, abnormality and battery data through automated IOT technology, and realize functions such as management of forklift utilization rate, operation efficiency, battery, maintenance, etc.; automated high-rise warehouses were adopted in VX Cold Chain Park in Dongxihu, Wuhan with the average operation efficiency of 76 pallets/hour and a peak of 114 trolleys/hour, which is 2-3 times of the manual operation efficiency.

Secondly, VX will build smart modules for logistics parks with the four themes of safety guarantee, quality assurance, reduction of energy consumption and efficiency enhancement. Modules are the organic organization used to realize various functions in VX Logistics Park, which include interdependent single equipment, as well as staff analyzing the equipment information and maintaining the module operation. Smart modules mean the coordination, harmony and orderly cooperation between machines, equipment and manpower inside modules. For example, the IoT platform independently built by VX can collect real-time data of refrigerators and energy consumption through IoT technology, conduct intelligent analysis and display, and provide decision-making support for fault location analysis and energy consumption optimization.

Thirdly, VX will build an overall management system in the park and continuously improve the smart level of the park's "brain". VX Logistics Park gathers all the links, scenarios and functions of logistics and warehousing. The smooth linkage between different elements can be achieved only through unified deployment of the control system, which will thus efficiently conduct business procedures and structurally reduce the overall level of carbon emission in the park. Therefore, the smart degree of the control system determines the overall operation efficiency of the park.

During the long-term carbon reduction, VX will continue to upgrade the smart equipment, modules and systems of the park, and enhance the energy-saving and carbon reduction level through smart management.



Digital Carbon Management

VX believes digital means will be used throughout the carbon neutrality path. VX can only formulate the best carbon neutrality policies by understanding and comprehensively monitoring the carbon generation and reduction based on the digital platform, and integrating measures including energy-saving, emission reduction, carbon sequestration, and carbon sinks.

This not only tests VX's ability to collect and manage carbon neutrality data, but also puts forward high requirements for data mining, analysis and eventual management deployment. At present, VX High-standard and Cold Chain Logistics Park has developed and introduced a zero-carbon management system, which can conduct real-time statistics and tracking of overall carbon emission of the park, and give a visual display of the carbon neutrality, which is favorable for carbon neutrality management decisions and dual control of carbon reduction.



Coverage of Distributed PV

VX will gradually increase the proportion of power generated with renewable energy to the power consumption structure by combining outsourced power and self-generated power, in a bid to finally realize the zero-carbon emission of power.

In the near future, VX will popularize distributed PV technology and increase the coverage of distributed PV in its subordinate logistics parks. Through internal research and calculations, VX has verified the feasibility of realizing zero carbon emission from power through this campaign, and proposed the conception of "a zero-carbon circle".

At present, VX has determined that all the newly built projects will reserve conditions for the installation of distributed PV systems. The distributed PV systems in the subordinate nearzero carbon benchmark park have been successfully combined to the grid, and the newly built projects will achieve 100% coverage of distributed PV systems. As for delivered parks, VX will carry out a feasibility study on the application of distributed PV systems, add new facilities to qualified projects, and carry out reform planning on unqualified projects as soon as possible. VX will establish a standardized construction system of distributed PV systems in the park (involving technical requirements, construction period, inspection requirements, bid invitation list and procedures) by summarizing the experience of the benchmark park, activate roof resources in various parks based on VX's nationwide network, gradually realize the full coverage of rooftop distributed PV in all park buildings, and build industry-leading rooftop distributed PV power stations with a high return rate in terms of power generation efficiency, project quality and operation maintenance level, in order to promote energy-saving and emission reduction.

In addition, VX won't consider adjusting the power source structure by outsourcing green power before the green power market and policy and system development become relatively mature.

Low-Carbon Buildings

VX has two major measures in terms of low-carbon buildings. On one hand, VX is currently promoting the green building certification of its subordinate logistics parks. At present, it has conducted a comprehensive investigation of warehouses under construction in China, all of which meet the requirements of domestic three-star green warehouses or international LEED Gold. Among the two representative pilot parks subordinate to VX, Shanghai Fengxian Lingang Park is the first to pass the BRE Net-zero Carbon Certification and LEED Platinum precertification, and Hangzhou Ditong Park has passed the final certification of LEED Platinum. In addition, LEED certification of three other projects is under progress. As of October 2022, the green building area of VX Logistics reached 4.9 million m², with 8 projects passing LEED Platinum or Gold certification (including six LEED Platinum and two LEED Gold), and 59 projects passing the certification of three-star green warehouse. In the future, 100% of newly built VX logistics parks will satisfy the construction standards of green buildings.

On the other hand, VX has studied the building scheme covering the life cycle of green low-carbon warehouses, and formulated VX Bottom Line Standards for Green Cold Storage Products starting from site selection. Currently, the standard has both domestic and international versions, which can satisfy the demand for high-quality construction and operation of green cold storage products at home and abroad. In the future, VX will design and formulate some standards on such basis with the three-star green warehouse as the bottom line, which will serve as higher-level standards and requirements for products of VX Logistics Park; and build a zero-carbon park evaluation system, which will not only help new projects to mature quickly, but also set up reference for the domestic cold chain logistics industry.



8 LEED Platinum or Gold certification projects





59 three-star green warehouses

Electrified terminal power consumption

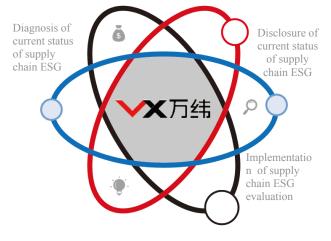
VX plans to conduct electrified transformation or replacement of the usage of various fossil energy. At present, VX has achieved 100% electrification of forklifts. As for self-owned diesel or gasoline-driven trucks, it will also actively explore the possibility of replacement of traditional trucks with new-energy trucks.

Green Influence

VX Logistics Park provides an information exchange platform for many enterprises in the logistics supply chain. Based on the core backstage algorithm, VX strives to promote collaboration between enterprises on the platform and create a supply chain ecosystem. Under the theme of carbon neutrality, VX will establish a closer relationship with enterprises with the green operation concept, which will further strengthen and spread VX's green influence through the platform.

Specifically, as a service provider of low-carbon parks, VX can deeply explore low-carbon operation strategies and provide low carbon operation suggestions based on the understanding of carbon emissions of its customers in leasing or daily operation, in combination with business characteristics of customers. Since many VX's customers are leaders in the relevant industry with similar demands for ESG and carbon neutrality, it is easier for VX to cooperate with them for a win-win result. At present, VX plans to discuss with some customers about the establishment of communication channels based on respective carbon neutrality goals, and establish an initial cooperation mechanism. In the future, VX will strive to include more partners in the green ecosystem, lift the cooperation from the project level to the enterprise level, expand logistics parks to the whole supply chain, and promote ESG of the supply chain.

In addition, exploring the feasibility of carbon trade and realizing the production of carbon sinks as soon as possible are also VX's potential schemes to expand its green influence. For example, in order to build a nationwide "zero-carbon circle", VX has been extensively promoting distributed PV facilities. After the self-sufficiency rate of electricity reaches 100%, PV facilities will continue to generate electricity, and the remaining electricity will become carbon sinks that will be output by VX.



Improvement in supply chain ESG management



Waste Management (Zero Waste)

VX is studying an action plan aiming at increasing the waste recycling rate and achieving zero waste in the park. At present, most waste in VX parks is from logistics and warehousing process. According to such a waste structure, VX plans to cooperate with relevant enterprises on the logistics platform to establish a whole-cycle management model of "production-use -recycling", in order to realize a closed-loop waste footprint in the park.



Advocation of employees' green behavior

Advocating green behavior among employees is required for implementing the carbon neutrality strategy and embracing the guidelines of new green pattern. VX advocates green behavior among employees in an all-round and penetrating way from three aspects, i.e. perspective, work and life.

In terms of perspective, in addition to adding an ESG team to the original organizational structure to In 2021, online running show employees VX's emphasis on carbon neutrality, VX also participated in the organization of with the theme of "run for "Healthy Running" with the theme of promoting a low-carbon and healthy lifestyle, which attracted fun across the about 780,000 participants from all over the country, including employees. The activity conveyed the low-carbon concept through a series of innovative modes such as encouraging participants to use only one paper cup from the beginning to the end, and establishing zero waste exhibition booths and VX's employees. They classified garbage bins on the site to guide runners to sort out garbage before littering and realize were divided into 45 "zero waste" in the whole process.

In terms of work, VX will formulate assessment indicators for important and clear emission reduction targets in phases, involving every employee. At the same time, VX will actively implement measures such as paperless office/production, green package for office/production supplies, and games. The joy of sports usage of office/production supplies made of recyclable materials. All the above measures can enable and low-carbon concepts employees to realize the arrival of the carbon neutrality era and understand the determination of VX were spread in each park in implementing the green model.

In terms of life, VX encourages employees to take carbon emission measures such as low-carbon traveling. For instance, in subordinate parks, senior leaders lead employees to reduce the usage of private vehicles, especially non-clean energy vehicles.

city" attracted over groups, who completed more than **100** group PK



No Littering and Zero Waste in Run for Run



Advocating "one cup from beginning to end" and "zero waste" in whole process

"Zero waste runners" are required to take foldable cups rather than disposable cups

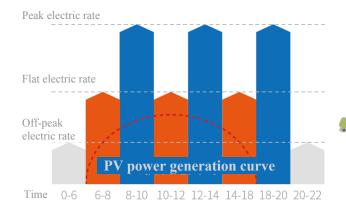
Key Technology

Distributed PV

Distributed PV power generation is a relatively mature technology, but it is difficult to find suitable application modes which shall be technologically and economically feasible for the popularization in industrial parks.

To this end, VX's internal technical team selected some cold chain logistics parks that have been put into operation, and conducted an in-depth comparison and analysis between their actual power consumption curves and the daily power generation curves of distributed PV. The result showed that distributed PV could provide a certain proportion of electricity for cold chain logistics parks with a consumption rate close to 100%. On such basis, the technical team proposed that if distributed PV systems could be widely installed in VX's cold chain and non-cold chain logistics parks, the proportion of outsourced electricity would continuously decrease with the increase in the proportion of self-generated electricity, judging from the overall structure of power source.

On one hand, the technical team calculated the building roof area used for installing distributed PV systems in order to realize "zero carbon emission" from electricity; on the other hand, it estimated the economic returns of distributed PV power plants in different project locations across the country, which involved regional light resources, electricity prices, project operation characteristics, and financial subsidies. On the basis of the complete revenue calculation, in combination with the development and expansion plan of the park, VX internally verified the feasibility of installing distributed PV power plants to realize "zero carbon emission" of the electricity, and came up with the concept of VX "Zero Carbon Circle".



100% newly built projects reserve installation conditions

Long-term coverage 100%

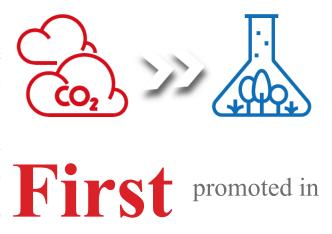
Long-term () carbon emission from electricity

Carbon Dioxide Refrigerating System

In VX's entire business chain, the carbon emission caused by the usage of traditional refrigerants accounts for the largest proportion. Since the carbon dioxide refrigerating technology is characterized by high security and stability due to its direct consumption of greenhouse gas and obvious reduction of carbon emission, VX is vigorously promoting this technology so that it will become a more regular internal technical application.

In recent years, CO2 refrigerating systems have aroused much attention and discussion in the cold chain logistics industry, but few enterprises are willing to promote them on a large scale. On one hand, it needs a high cost of investment in the initial period; on the other hand, the first attempt will be faced with unpredictable risks since there are not any application cases in the industry for reference.

Under the background of carbon neutrality, VX believes that CO2 refrigerating technology will definitely become one of the key technologies in the cold chain logistics industry. Meanwhile, VX has the ability and confidence to lead industrial development as a pioneer. Therefore, despite certain risks and challenges, VX still takes the initiative to incorporate CO2 refrigerating technology into the construction standards of newly built cold storage warehouses in the future, as one of the main technologies to be promoted for cold storage products.



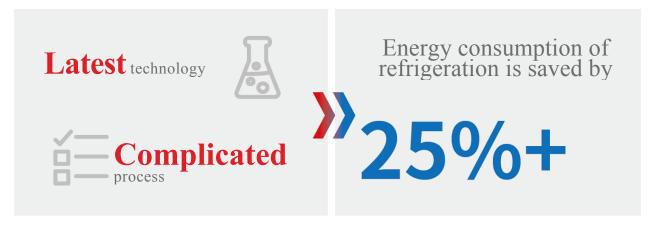
the industry

Core Components of Screw Compressors

Screw compressors are widely used in the cold chain logistics industry, and their core components have been updated several times, with large differences in COP (coefficient of performance) between generations. In addition, the selection of gas compression methods (single-stage and two-stage compression) will have a significant impact on the energy consumption of refrigeration.

At present, VX has introduced the latest and most advanced screw compressor technology recently developed by German technical team, which has covered all its cold chain parks. At the same time, in order to minimize energy consumption, VX adopts the "double-cycle refrigeration" compression method with higher cost, greater risks and more complicated technology rather than the single-stage compression adopted by most enterprises, which creates a precedent of high-difficulty application system combo in the industry. It is estimated that, with the help of advanced technology and processes, the energy consumption of refrigeration in VX parks can be saved by more than 25%.

In the future, VX will continue to introduce the latest refrigerating technology and process in the industry, and continuously enhance the COP level of screw compressors.



IoT Platform

The IoT platform is a smart power consumption monitoring system independently developed by VX, capable of realizing the whole-process data services, including raw data collection, processing, and intelligent output suggestions, which will be gradually promoted in VX parks and eventually reach 100% coverage.

Different from IoT platform products provided by third-party equipment providers, the core competitiveness of VX IoT platform lies in the development of backstage algorithms with VX's management characteristics from the angle of the park operator, which are used for vertical comparative analysis inside the park and horizontal comparative analysis between the parks. It can trace back to the substantive problems from the operation presentation of VX parks, and provide predictive suggestions rather than a simple display of data and indexes of equipment operation. For instance, VX's employees can obtain corresponding data permission and operation status reminder according to their posts, or provide a theoretical basis for the operation adjustment of threshold values or switch data; the management may make a horizontal comparison of the energy consumption performance of different parks through the system.

VXs 'IoT platform will continuously maximize energy-saving space in cold chain parks, with the ultimate goal of controlling production and service equipment, maintaining the health of the cold storage system, and reducing energy consumption. It is expected that by 2022, VX will utilize this system to save 5% of the operation energy consumption. With the continuous optimization of the technology and algorithms of the power consumption system, the energy-saving level of VX parks will continue to rise.



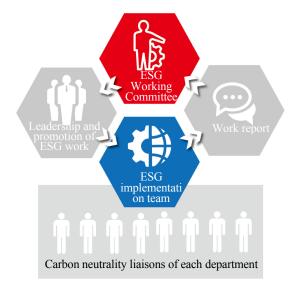
Overall Arrangement

In order to promote the implementation of the carbon neutrality strategy, VX plans to make innovations in the management mechanism, including optimizing the governance structure and adjusting the performance policy.

VX's ESG Working Committee, as the leading department of carbon neutrality strategy, will gradually include emission reduction problems into the Company's agenda, make an overall arrangement and supervision of various work, and take charge of carbon neutrality. The responsible people are composed of the senior management and relevant functional superintendents of the enterprise. At present, the ESG Working Committee has completed the overall planning, stage goals and implementation paths of carbon neutrality. Next, it will continue to identify opportunities and risks, improve ESG-related management systems and processes, determine detailed work plans and work evaluation contents, and plan to implement trans-departmental carbon reduction campaigns.

In order to ensure the smooth implementation of ESG work, VX has set up special liaisons in ESG-related departments to form an ESG implementation team, which is mainly responsible for the promotion and implementation of the carbon neutrality plan in respective departments, reporting work to the leading team on a regular basis, and participating in the improvement of the plan or scheme.

In addition, VX is exploring the possibility of linking the remuneration of managers and employees to the emission reduction target, with a view to mobilizing all employees to reduce emissions.



In terms of implementation and supervision of emission reduction, VX requires four "clears" in terms of projects, personnel, communication and handling:



Clear projects. As for the projects and schemes formulated in the carbon neutral strategy, it is necessary to determine the priority according to the importance and feasibility; to clarify the sequence according to the articulation and logic; and to clarify the allocation of enterprise resources according to the project cycle.





Clear personnel. The responsibilities of controllers, executors and supervisory personnel of each project carried out or planned shall be respectively assigned according to the overall planning and arrangement.





Clear communication. In the course of the project, the analysis principles, nature, types and priorities of specific issues involving coordination should be clearly determined. Meanwhile, the general superintendent needs to clarify the way and frequency of progress communication and set up internal coordination mechanisms if necessary.





Clear handling. A clearer way of handling supervisory results shall be gradually formed by establishing and improving the supervisory and management mechanism, in order to conduct effective supervision and incentive to relevant project staff.

Introduction of Near-Zero Carbon Smart Demonstration Park of Shanghai Fengxian Lingang Park



Basic Information of the Park				
Product type	Three-storey ramp			
Land area (m²)	77,901.6 (around 117 mu)			
Total floor area (m²)	111,461.88			
Building information	No.3 Warehouse of No.1 Comprehensive Building			
Density	56.29%			
Plot ratio	1.79			
Current major customers	Enterprises in the new energy and fruit industry			



Park Characteristics

Green warehouse benchmark

- All the warehouse buildings satisfy the requirements of LEED Platinum certification
- BRE's pioneer net-zero carbon building certification project
- Sample park of the Bottom Line Standards for VX Three-star Green Cold Storage Products



Management concept benchmark

- VX's first logistics park built in full compliance with ESG concepts
- Pilot park of VX carbon neutrality campaign
- VX's pilot park of green influence platform
- Important reference for "zero-carbon park evaluation system"



VX Near-zero Carbon Smart Demonstration Park



Near-zero carbon benchmark

- 100% coverage of rooftop distributed PV facilities
- Near-zero carbon emission from electricity in the park



Smart operation benchmark

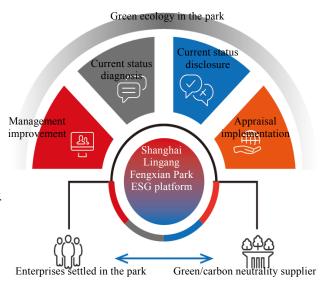
- 4 themes of operation optimization
- 13 smart product modules
- Self-developed cold chain IoT platform
- Real-time carbon emission monitoring
- Hourly PV energy efficiency tracking



Management Concept Benchmark

Shanghai Fengxian Lingang Park has an important position in VX's carbon neutrality strategy, and is a key carrier for VX to establish green and new management concepts. As the forerunner of most of VX's carbon neutrality actions, the park is the first to try out the application of new technologies and modes, and will also carry out the most comprehensive and systematic carbon inventory to date, in order to accumulate experience for VX's nationwide carbon inventory. The park will also cooperate with enterprises in the park in carbon neutrality, and establish VX's first green influence platform.

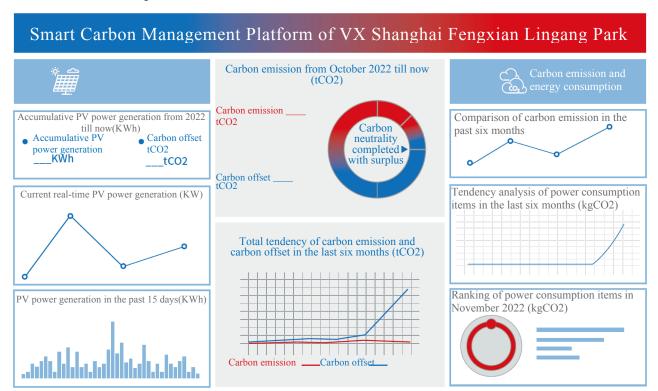
Through the implementation of the concept, Shanghai Fengxian Lingang Park will create a new mode of park operation in the carbon neutrality era, and provide a reference for VX to build a "zero-carbon park evaluation system" from the perspective of management.



Smart Operation Benchmark

Shanghai Fengxian Lingang Park subordinate to VX boasts the most extensive layout of smart equipment, the most complete smart system applications and the highest smart degree, which will be continuously upgraded. Based on 13 smart product modules, the park has built a smart operation system centered on four operation optimization themes, i.e. safety, efficiency, quality and energy-saving. Among them, the energy-saving segment provides total solutions for the collection, analysis and optimization of the energy consumption data of the park based on the self-developed cold chain IoT platform.

As for carbon emission management, the park has set up a digital carbon management platform, which can not only conduct real-time monitoring on carbon emissions in the park, but also have hourly tracking of the energy efficiency of distributed PV for formulation of emission reduction strategies.



Note: The above charts are only for reference rather than real project data

Green Warehouse Benchmark

Fully implementing green building concepts and standards, and conducting overall planning for the whole life cycle of buildings from design to demolition, VX Shanghai Fengxian Lingang Park has become BRE's pioneer net-zero carbon building certification project with all the warehouses passing the LEED Platinum certification. It is the first VX park that requires that all the buildings shall reach high-quality green building standards.

During the promotion of green buildings, VX Shanghai Fengxian Lingang Park has accumulated rich experience in park development and operation, which will become a reference sample for the Bottom Line Standards for VX Three-star Green Cold Storage Products internally compiled by VX, and help to explore a promotable and replicable park model.

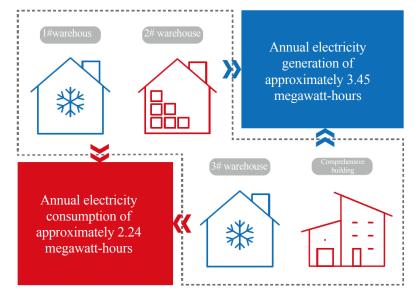




Near-zero Carbon Benchmark

VX Shanghai Fengxian Lingang Park is a mixed park of high-standard dry warehouses and cold storage warehouses. The distributed PV system installed on roofs of high-standard dry warehouses can not only satisfy its own power demand, but also transmit excessive power to cold storage warehouses. In combination with the power generation capacity of the rooftop distributed PV system of cold storage warehouses, VX Shanghai Fengxian Lingang Park will form a power structure completely different from the previous parks.

According to VX's internal calculations, if the coverage of distributed PV facilities reaches 100%, Shanghai Fengxian Lingang Park can basically realize near-zero carbon emissions from electricity.



Energy and consumption saved during equipment lifecycle:

About 26,000t standard coal

About 68,000t CO₂

So₂ Over 200t SO₂

(NOx) Over 1,200t NOx

Over 23,000t dust



Greenhouse Gas Accounting Boundaries and Methods

▶ Calculation Methods of Greenhouse Gas Emission

Scope	Definition	Emission Source	Emission Behavior	Accounting Basis	Accounting Methods
Direct greenhouse		Usage of diesel	IPCC Guidelines for National Greenhouse Gas Inventories Measurement Methods of Greenhouse Gas Emissions for Express Industry	Calculated as per the gasoline and diesel consumption data and	
Category	gas emission from emission	Self-owned equipment	Usage of gasoline	Measurement Methods of Greenhouse Gas Emissions for Express Industry	corresponding emission factors
I	sources owned or controlled by the enterprise	Salf owned	Usage of natural gas	IPCC Guidelines for National Greenhouse Gas Inventories Measurement Methods of Greenhouse Gas Emissions for Express Industry	Calculated as per the natural gas consumption data and corresponding emission factors
Category II	Indirect greenhouse gas emissions from outsourced power	Self-owned cold storage warehouses Self-owned office building	Outsourced power	Measurement Methods of Greenhouse Gas Emissions for Express Industry	Calculated as per the electricity purchase data and corresponding emission factors

▶ Interpretations of Relevant Terms



Warehouse logistics

Warehouse logistics refers to storing, keeping, handling, transporting and distributing goods in self-built or rented warehouses and sites. It is a logistics activity or a process involving the planning, implementation and control of goods entry and exit, inventory, sorting, packaging, distribution and information with modern technology in the specific tangible or intangible sites with an aim of satisfying the demands of the upstream and downstream supply chain.



Cold chain warehouse

logistics

It refers to the professional logistics with cold chain warehouse logistics temperature control, preservation and other technical processes, and equipment and facilities such as cold storage warehouse, refrigerated trucks, refrigerated containers, etc., which can ensure that the cold chain products are always under a temperature with stipulated temperature during the whole process including the initial processing stage, storage, transportation, circulation processing, sales and distribution.



High-standard dry warehouses

They are generally referred to as high-standard warehouses without unified definitions in the industry. Generally, high-standard dry warehouses refer to those with a large area (\geq 8,000m2), a high storey height (F1-2 \geq 9m, F3 \geq 7 m), a heavy weight (F1 \geq 3T, F2 and above \geq 2-2.5T), high-quality steel structure or steel-concrete structure, standard platforms and adjustable platforms, corresponding fire facilities, complete hardware facilities and 24h security protection.



Cold storage warehouses

According to industrial experts, the construction standards of cold storage warehouses are basically in line with those of high-standard dry warehouses, but cold storage warehouses have higher requirements on the compliance, refrigeration technology and informatization. The compliance mainly includes land compliance, environmental assessment compliance, license compliance, fire control compliance and clear ownership; refrigeration technology is mainly represented as efficient refrigeration technology, energy conservation and environmental protection; informatization mainly includes the information-based means and management capability of information tracing.





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