2024

Compilation of Policies on Shanghai Large-Scale Equipment Renewals

Shanghai Municipal Development & Reform Commission

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Notice on the Issuance and Implementation of the Shanghai Action Plan for Promoting Large-Scale Equipment Renewals and Trade-ins of Consumer Goods (2024-2027)

Hu Fu Fa [2024] No. 5

To All District People's Governments, all Commissions, Offices and Bureaus (Administrations) of the Municipal People's Government, and Relevant Entities:

The Shanghai Action Plan for Promoting Large-Scale Equipment Renewals and Trade-ins of Consumer Goods (2024-2027) is hereby issued to you. You are required to conscientiously implement the directives outlined in this plan.

Shanghai Municipal People's Government

April 23, 2024

Shanghai Action Plan for Promoting Large-Scale Equipment Renewals and Trade-ins of Consumer Goods (2024-2027)

To implement the directives outlined in the State Council's Action Plan for Promoting Large-scale Equipment Renewals and Trade-ins of Consumer Goods (Guo Fa [2024] No.7), this plan has been developed and tailored to the specific needs and circumstances of Shanghai. The plan aims to enhance standard-setting and policy support, advance the industrial transformation towards high-end, intelligent, and sustainable development, elevate the safety and smart capabilities of urban infrastructure, increase the penetration of high-quality durable consumer goods into everyday life, and streamline the resource recycling process. By 2027, Shanghai aims to be at the forefront of national efforts in renewing equipment across ten sectors—such as industry, energy, construction, and transportation—and in driving trade-ins for key consumer goods categories, including automobiles, home appliances, and home furnishings.

I. Driving Equipment Renewals

(I) Accelerating the digital and intelligent upgrades of production equipment. We will intensify efforts to advance the digital transformation and technological modernization of industrial enterprises. We will make sure the intelligent upgrades of enterprises above designated size are fully

completed, with an accelerated push towards the broader adoption of intelligent manufacturing equipment, medical devices, testing equipment, basic software, and industrial software. Additionally, we will promote the pilot testing and application of new materials. A key focus will be on demonstrating the first deployments of high-end intelligent equipment, initial editions of software products, and initial batches of new materials. We will also enhance the promotion and utilization of innovative products in government procurement processes and government-funded projects, while encouraging state-owned enterprises to significantly increase their procurement of these innovative products. (Responsible agencies: Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Development & Reform Commission, Shanghai Municipal State-owned Assets Supervision and Administration Commission, and district governments)

(II) Advancing green and low-carbon upgrades for energy-consuming equipment. To drive energy conservation, carbon reduction, and ultra-low emissions, we will promote the widespread adoption of new green and low-carbon technologies, processes, equipment, and materials. Through the “Hundred and One” initiative targeting industrial enterprises, we will significantly advance technological system upgrades, promote the use of energy-efficient products, eliminate outdated equipment, and optimize energy management practices. These efforts aim to achieve a 1% annual

reduction in industrial energy consumption. We will also expedite the optimization and quality enhancements of processes within the city's petrochemical, chemical, and steel industries. (Responsible agencies: Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Development & Reform Commission, and district governments)

(III) Promoting green and low-carbon transformation of data centers. We will holistically plan and systematically promote the construction of data centers with a focus on efficiency, controlling overall scale while prioritizing support for smart computing power data centers with essential functions. The energy efficiency standards for new data center projects will be set higher, requiring a power usage effectiveness (PUE) of no more than 1.25. For existing data centers, we will accelerate upgrading and transformation efforts, focusing on small, scattered, outdated, inefficient, and high-energy-consuming facilities, which will be identified for restriction or phase-out. We will enhance the promotion of high-efficiency cooling technologies and renewable energy sources, aiming for a post-upgrade PUE of 1.4 or lower. These efforts are expected to save over 50,000 tons of standard coal annually. (Responsible agencies: Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Development & Reform Commission, and district governments)

(IV) Enhancing energy and power infrastructure. We will undertake energy efficiency and flexibility improvements for coal-fired power plants, targeting the transformation of 2 million kilowatts and 7 million kilowatts, respectively. The initiative will also focus on renewing outdated wind and solar power generation equipment and modernizing high-energy-consumption transformers. In addition, we aim to replace and upgrade 20,000 existing non-smart private charging stations. Further, we plan to renovate 2,500 kilometers of aging gas pipelines and upgrade gas risers for 100,000 households annually. (Responsible agencies: Shanghai Municipal Development & Reform Commission, Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Commission of Housing and Urban-Rural Development, and district governments)

(V) Accelerating renewals in municipal infrastructure. We will undertake comprehensive deep treatment upgrades at all water treatment plants across the city. We will renew 700 kilometers of aging water supply networks, modernize secondary water supply facilities in 300 old residential communities, and implement water-saving transformations. Additionally, 400 kilometers of drainage networks will be restored and upgraded, with a full separation of stormwater and sewage systems, supported by a robust long-term regulatory and maintenance framework. To improve household waste management, over 8,000 household waste

disposal sites will be specially renewed, and 480 sanitation compression stations along with 10 transfer stations will undergo modernization. We will advance the development of IoT-enabled smart sensing equipment for critical urban infrastructure such as underground pipelines, bridges, and tunnels. Planned upgrades will be made to urban infrastructure, with a focus on renewing and transforming key facilities like urban expressways (including river-crossing bridges and tunnels), flood control pump stations in central urban areas, and traffic signal systems and street lights under municipal administration. Additionally, we will accelerate the smart upgrade of security equipment, including video surveillance systems in key public areas and roads. (Responsible agencies: Shanghai Water Authority, Shanghai Municipal Commission of Housing and Urban-Rural Development, Shanghai Municipal Transportation Commission, Shanghai Landscaping & City Appearance Administrative Bureau, Shanghai Public Security Bureau, Shanghai Municipal Housing Administration, and district governments)

(VI) Facilitating equipment upgrades in the building sector. We will promote energy-efficient upgrades in existing buildings by prioritizing the adoption of high-efficiency air conditioning units, renewable energy systems, exterior wall insulation materials, and energy-saving windows and doors. The goal is to complete energy efficiency renovations across 32 million square meters of existing building space, with 2 million square

meters achieving an average energy savings rate of 15% or higher. Additionally, a rolling program will be implemented to assess the safety and condition of elevators in residential buildings that have been in use for over 15 years, followed by categorized renewals and renovations. We will also systematically advance the installation of elevators in existing multi-story residential buildings. (Responsible agencies: Shanghai Municipal Commission of Housing and Urban-Rural Development, Shanghai Municipal Administration for Market Regulation, Shanghai Municipal Housing Administration, Government Offices Administration of the Shanghai Municipal People's Government, and district governments)

(VII) Moving faster to eliminate and renew equipment in the transportation sector. We will expedite the upgrading of transportation tools towards electrified, low-carbon, and intelligent solutions. All new or replacement vehicles in public sectors—such as party and government agencies, state-owned enterprises, public institutions, sanitation services, postal services, public buses, and taxis—should, in principle, use new energy sources. Efforts will also be made to phase out China IV diesel vehicles and China II non-road mobile machinery ahead of schedule, with incentives to replace them with new energy alternatives. Additionally, we will accelerate the phasing out and renewal of outdated agricultural machinery based on agricultural production needs. We will continue to

guide the swift removal of old, highly polluting, and energy-intensive ships from the market. Furthermore, we will support pilot programs for new-fuel vessels, including those powered by green methanol, as well as intelligent ships, while also accelerating the adoption and promotion of fully electric vessels for inland waterway transportation. (Responsible agencies: Shanghai Municipal Transportation Commission, Shanghai Municipal Bureau of Ecology and Environment, Shanghai Municipal Agriculture Commission, Shanghai Landscaping & City Appearance Administrative Bureau, Government Offices Administration of the Shanghai Municipal People's Government, Shanghai Municipal State-owned Assets Supervision and Administration Commission, Shanghai Municipal Postal Administration, and district governments)

(VIII) Enhancing educational and research equipment in the education sector. We will encourage colleges and universities, vocational institutions, and secondary schools to upgrade their teaching and research equipment, with a focus on accelerating the adoption of advanced teaching tools. This initiative seeks to enhance the digitalization and automation of educational and training facilities. For vocational institutions, we will implement professional training standards, ensuring that teaching instruments and equipment are both adequately provided and promptly updated. This will lead to improved conditions for internships and practical training. In addition, we will promote the

development of artificial intelligence (AI)-related hardware within the education sector, facilitating the integration of AI to advance the modernization of educational practices. (Responsible agencies: Shanghai Municipal Education Commission and district governments)

(IX) Promoting equipment upgrades in the cultural and tourism sector. We will address safety hazards, improve energy efficiency, reduce carbon emissions, and enhance the visitor experience in the cultural and tourism sector by renewing or upgrading cultural and tourism equipment. This includes cable cars, amusement rides, performance equipment, and other facilities that are nearing the end of their service life, have reached mandatory decommissioning age, or exhibit reduced safety performance. These efforts aim to elevate the overall quality and functionality of cultural and tourism facilities. (Responsible agencies: Publicity Department of the CPC Shanghai Committee, Shanghai Municipal Administration of Culture and Tourism, and district governments)

(X) Enhancing equipment upgrades and renovations in the healthcare sector. We will strengthen the development of a high-quality and efficient healthcare service system by advancing the iterative upgrading of equipment and IT infrastructure in healthcare institutions. Qualified medical facilities are encouraged to expedite the upgrade of critical medical equipment, including imaging systems, radiotherapy equipment, telemedicine platforms, and surgical robotics. Additionally, we will

promote the renovation and upgrade of hospital wards, outpatient and emergency departments, operating rooms, and energy support systems. This includes intensifying efforts to modify existing medical buildings to be more elderly-friendly and accessible, improving the humanization and intelligence of healthcare spaces, and addressing deficiencies in ward environments and related facilities. (Responsible agencies: Shanghai Municipal Health Commission, Shanghai Hospital Development Center, and district governments)

II. Continuing Consumer Goods Trade-In Programs

(XI) Promoting vehicle trade-ins. We will introduce a new phase of subsidies for trading in old vehicles and purchasing new energy vehicles. All districts will be encouraged to offer incentives to used car dealerships for making new sales, further facilitating the vehicle recycling process. Additionally, automotive brands, dealerships, and industry associations are urged to organize campaigns to promote vehicle replacement and purchases. We will phase out old vehicles in accordance with laws and regulations, improve the automotive market environment, and facilitate the export of used cars in a well-planned way. (Responsible agencies: Shanghai Municipal Commission of Commerce, Shanghai Municipal Development & Reform Commission, Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Finance Bureau, Shanghai Public Security Bureau, Shanghai Municipal Bureau of Ecology

and Environment, and district governments)

(XII) Supporting home appliance trade-ins. We will implement a new round of subsidies for green and smart home appliances. We encourage home appliance retailers to collaborate with manufacturers and recycling companies to establish dedicated online and offline spaces for trading in old appliances for new ones. Efforts will be made to cultivate leading home appliance retailers, strengthen the offline sales network, and improve the convenience of trade-in services. Additionally, we will optimize the trade-in process, including dismantling, collection, delivery, and installation, and implement initiatives to improve after-sales service for home appliances. (Responsible agencies: Shanghai Municipal Commission of Commerce, Shanghai Municipal Development & Reform Commission, Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Administration for Market Regulation, Shanghai Municipal Finance Bureau, and district governments)

(XIII) Promoting the renewal of home decoration products. We will step up efforts to promote innovative models for home decoration and renovation by encouraging shopping malls and communities to collaborate with home decoration companies to establish modular and micro-renovation showrooms. These showrooms will offer a wide range of whole-house decoration products and services to cater to the varying

needs of consumers. We will facilitate and promote consumption in areas such as home renovation services and smart home products, while also encouraging the recycling of large furniture through various channels. Furthermore, we will expand the selection of products for elderly-friendly home modifications as part of our continued efforts to advance home modifications for the elderly. (Responsible agencies: Shanghai Municipal Commission of Commerce, Shanghai Municipal Commission of Housing and Urban-Rural Development, Shanghai Landscaping & City Appearance Administrative Bureau, Shanghai Municipal Housing Administration, Shanghai Civil Affairs Bureau, and district governments)

(XIV) Implementing the electric bicycle trade-in program in an orderly manner. We will develop and enforce guidelines for the city's electric bicycle trade-in program and guide electric bicycle manufacturers and retailers in actively carrying out trade-in promotions. We will also encourage citizens to opt for electric bicycles with replaceable batteries and accelerate the phasing out of outdated electric bicycles and their batteries. (Responsible agencies: Shanghai Municipal Commission of Commerce, Shanghai Municipal Administration for Market Regulation, Shanghai Municipal Commission of Economy and Informatization, Shanghai Public Security Bureau, Shanghai Municipal Bureau of Ecology and Environment, Shanghai Municipal Development & Reform Commission, Shanghai Municipal Finance Bureau, and district

governments)

III. Enhancing the Recycling System

(XV) Improving the recycling network for discarded products and equipment. We will rationally plan the layout of “Two Networks Integration” recycling service points and support the construction of a batch of centralized sorting and processing centers to further enhance the renewable resource recycling network. We will accelerate the development of logistics systems and new models for “Trade-in + Recycling”, and support durable consumer goods manufacturers and retailers in establishing reverse logistics systems or partnering with professional recycling companies to provide door-to-door recycling services for discarded consumer goods. Additionally, we will optimize the distribution of enterprises involved in scrapped automobile recycling and dismantling, and promote door-to-door vehicle collection services. We will encourage manufacturers of electronics & electrical appliances and automobiles to independently or jointly build intelligent, automated, and other innovative recycling systems and improve the recycling channels for office equipment in public institutions. We will also support the creation of online trading platforms for discarded products and equipment. (Responsible agencies: Shanghai Municipal Commission of Commerce, Shanghai Municipal Development & Reform Commission, Shanghai Municipal Commission of Economy and Informatization, Shanghai

Municipal Bureau of Planning and Natural Resources, Shanghai Landscaping & City Appearance Administrative Bureau, Government Offices Administration of the Shanghai Municipal People's Government, and district governments)

(XVI) Supporting the circulation and trade of second-hand goods. We will continue to optimize the registration management of second-hand vehicle transactions to facilitate convenient transactions. We will promote the standardization of transactions for second-hand electronic products, and work on establishing standards for clearing electronic product information to prevent data leakage and unauthorized recovery. We will support the development of online platforms and offline markets for second-hand goods, and encourage districts with suitable conditions to set up centralized and regulated markets and trading zones for second-hand vehicles, home appliances, mobile phones, furniture, clothing, and other goods. We will regulate the circulation and trading practices of second-hand goods, and strengthen market supervision and law enforcement inspections. Additionally, we will support electronic product manufacturers in developing businesses for second-hand trading, refurbishing, and repair. (Responsible agencies: Shanghai Municipal Commission of Commerce, Shanghai Municipal Administration for Market Regulation, Shanghai Municipal Commission of Economy and Informatization, and district governments)

(XVII) Promoting remanufacturing and cascading utilization steadily. We will advance high-end intelligent remanufacturing in key product areas such as automotive components, aircraft engines, marine machinery, and precision instruments. This will involve promoting the application of technologies and processes such as non-destructive testing, additive manufacturing, and flexible processing to enhance remanufacturing capabilities. We will also explore developing high-end equipment remanufacturing in emerging fields such as wind power and photovoltaics. We will accelerate the research and development of residual life assessment technologies for wind power, photovoltaic, and power battery products and equipment, and advance the orderly cascading utilization of products, equipment, and key components. (Responsible agencies: Shanghai Municipal Commission of Economy and Informatization and Shanghai Municipal Development & Reform Commission)

(XVIII) Advancing high-level resource recycling and utilization. We will accelerate the development of high-level resource recycling bases in areas such as Laogang and Lin-gang, improve the waste and used material recycling system, and continuously enhance the technological standards and industrial capacity for processing and utilizing renewable resources. We will promote the production of biofuels from waste oils, biogas, and agricultural and forestry waste. Additionally, we will advance the demonstration and application of cutting-edge dismantling and utilization

technologies in sectors such as scrapped motor vehicles, waste electronics and electrical products, and used power batteries. We will intensify research on high-level utilization technologies for low-value recyclables. Additionally, we will explore the establishment of an information-based traceability system for recycled material usage that aligns with international standards and showcases Shanghai's unique characteristics. (Responsible agencies: Shanghai Municipal Development & Reform Commission, Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Commission of Commerce, Shanghai Landscaping & City Appearance Administrative Bureau, Shanghai Municipal Agriculture Commission, and district governments)

IV. Strengthening Policy Support

(XIX) Enhancing standardization support. We will intensify efforts to implement national standards for energy conservation, environmental protection, and product quality and safety, providing support for the upgrading of equipment and consumer goods. We will support relevant entities in benchmarking against advanced domestic and international standards in key areas. This includes researching, developing, and revising local standards, enterprise standards, and group standards related to energy consumption limits, carbon emission management, pollution control, and renewable resource utilization. We will promote product carbon footprint management and the development of a green,

low-carbon supply chain system in the city, including organizing pilot projects for product carbon labeling certification. (Responsible agencies: Shanghai Municipal Administration for Market Regulation, Shanghai Municipal Development & Reform Commission, Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Bureau of Ecology and Environment, Shanghai Municipal Commission of Commerce, Shanghai Municipal Transportation Commission, and Shanghai Municipal Commission of Housing and Urban-Rural Development)

(XX) Increasing financial and tax policy support. We will actively seek support from central government budgetary investments, ultra-long-term special government bonds, and various central special funds. We will coordinate the effective use of municipal construction funds, special funds for energy conservation and emission reduction, and other related fiscal resources, while encouraging districts to enhance their financial support. We will promote the implementation of government green procurement policies and increase the procurement of green products. We will enhance training on publicizing and implementing tax support policies and apply preferential VAT and corporate income tax policies related to comprehensive resource utilization. We will promote the practice of resource recovery enterprises issuing reverse invoices to individuals who sell scrapped products. We will strictly enforce financial

discipline, strengthen comprehensive oversight of fiscal fund management throughout the entire process and across all aspects, and improve the precision and effectiveness of fiscal fund utilization. (Responsible agencies: Shanghai Municipal Finance Bureau, Shanghai Municipal Tax Service, Shanghai Municipal Development & Reform Commission, and district governments)

(XXI) Strengthening financial support. We will effectively utilize national re-lending policies and leverage mechanisms to expand medium- and long-term loans in the manufacturing sector. We will guide financial institutions to reasonably increase their credit resources for equipment renewal and technological upgrades. We will encourage banks to appropriately lower the down payment ratio for auto loans and to set reasonable loan terms and credit limits. We will actively explore the use of financing leases and other models to attract private capital for equipment renewal. We will fully leverage the role of green finance service platforms and further promote the “government-banks-insurance companies-guarantee companies-enterprises” coordination mechanism to support financial institutions in providing green finance and transition finance services. (Responsible agencies: Financial Commission Office of the CPC Shanghai Municipal Committee, Shanghai Municipal Development & Reform Commission, Shanghai Municipal Bureau of Ecology and Environment, Shanghai Head Office of the People’s Bank of

China, and Shanghai Municipal Financial Regulatory Bureau)

(XXII) Bolstering the support for essential elements. We will enhance support for essential elements, such as land use, for enterprise technological transformation projects. For “zero land addition” technological transformations, we will explore the implementation of a commitment filing system, compile a list of items requiring government review, establish a written commitment mechanism, and carry out comprehensive project acceptance. We will support the steady development of the city’s resource recycling industry by implementing dynamic list management for resource recycling enterprises and a 1% industrial land guarantee system. We will ensure land use for classification and collection facilities, such as transfer stations and distribution centers for recyclable materials from household sources, by treating them as urban infrastructure. (Responsible agencies: Shanghai Municipal Bureau of Planning and Natural Resources, Shanghai Municipal Development & Reform Commission, Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Bureau of Ecology and Environment, Shanghai Municipal Commission of Housing and Urban-Rural Development, Shanghai Landscaping & City Appearance Administrative Bureau, and district governments)

(XXIII) Strengthening innovation support. We will leverage the strengths of local universities and research institutes to address critical challenges

in the industrial foundation and key technical equipment that hinder the transformation and upgrading of traditional industries. We will actively pursue technological breakthroughs. This includes enhancing open competition mechanisms and innovation product iteration processes, strengthening support for pilot-scale programs in the manufacturing sector, and accelerating the industrial application of innovative achievements. (Responsible agencies: Science and Technology Commission of Shanghai Municipality, Shanghai Municipal Education Commission, Shanghai Municipal Commission of Economy and Informatization, and Shanghai Municipal Development & Reform Commission)

(XXIV) Increasing efforts to promote progress. We will establish a working mechanism for large-scale equipment renewal and trade-ins of consumer goods, with the Shanghai Municipal Development & Reform Commission taking the lead in overall coordination and deployment. Relevant departments will formulate specific plans and supporting policies in accordance with their responsibilities, clearly communicate these policies, and actively involve industry associations, chambers of commerce, businesses, and residents to foster a supportive social atmosphere for large-scale equipment renewal and consumer goods trade-ins. All departments and districts will strengthen tracking and analysis, ensure that all tasks are fully implemented, and promptly report

major issues through the appropriate procedures.

Notice on the Issuance of the Shanghai Special Action for Promoting Large-Scale Equipment Renewals and Broader Application of Innovative Products in the Industrial Sector

Hu Jing Xin Ji [2024] No. 355

To All District People's Governments, all Commissions, Offices and Bureaus (Administrations) of the Municipal People's Government, and Relevant Entities:

The Shanghai Special Action for Promoting Large-Scale Equipment Renewals and Broader Application of Innovative Products in the Industrial Sector is hereby issued to you. You are required to conscientiously implement the directives outlined in this plan.

Shanghai Municipal Commission of Economy and Informatization

Shanghai Municipal Development & Reform Commission

Shanghai Municipal Finance Bureau

Shanghai Branch of the People's Bank of China

Shanghai Municipal Tax Service, State Taxation Administration

Shanghai Municipal Administration for Market Regulation

Shanghai Municipal Financial Regulatory Bureau, National Financial Regulatory Administration

May 31, 2024

Shanghai Special Action Plan for Promoting Large-Scale Equipment Renewals and Broader Application of Innovative Products in the Industrial Sector

Promoting large-scale equipment renewals and broader application of innovative products is a crucial initiative to accelerate new industrialization and drive the high-end, intelligent, and green development of the manufacturing sector. This initiative is of great significance for the rapid establishment of a modern industrial system. In response to the directives of the Action Plan for Promoting Large-scale Equipment Renewals and Trade-ins of Consumer Goods (Guo Fa [2024] No. 7) and the Implementation Plan for Equipment Renewal in the Industrial Sector (MIIT Lian Gui [2024] No. 53), this special action plan has been formulated. It aims to advance large-scale equipment renewal in key areas, ensure the security and controllability of industrial and supply chains, and accelerate the promotion and application of innovative products.

By 2027, Shanghai is set to achieve a cumulative equipment renewal scale of RMB200 billion in the industrial sector, with equipment investment increasing by more than 25% compared to 2023. The penetration rate of digital R&D and design tools and the numerical control rate of key processes in industrial enterprises above the

designated size will exceed 95% and 77%, respectively. Digital transformation will be fully implemented across all such enterprises. Production capacity below the energy efficiency benchmark in key industries will be largely phased out, with the energy efficiency of major equipment meeting basic energy-saving standards. Additionally, the intrinsic safety level will be significantly improved, the municipal catalog of recommended innovative products will exceed 1,500 entries, and the proportion of advanced production capacity will continue to rise.

I. Advanced Equipment Renewal in Key Areas

(I) Maintaining a list of key innovative products. We will establish a list of 50 categories of flagship products, with a focus on high-end equipment sectors, including intelligent manufacturing equipment, energy equipment, specialized equipment, and major equipment. This list will be periodically updated following its initial release. We will accelerate the upgrading and transformation of safety emergency monitoring and early warning systems, fire protection systems and equipment, and intelligent safety emergency equipment. We will promote the application of innovative products in key areas such as integrated circuits, aerospace, shipbuilding and marine engineering, automotive manufacturing, energy equipment, and advanced materials. We will advance the innovation substitution plan, aiming to increase the proportion of investment in innovative equipment by 5 percentage points. (Responsible agencies:

Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Development & Reform Commission, Shanghai Emergency Management Bureau, and district governments)

(II) Bringing intelligent manufacturing equipment into factories. By 2027, we will create 500 intelligent manufacturing demonstration scenarios. To advance full-scenario intelligent manufacturing, we will implement initiatives such as “High-End Machine Tools+” and “Robots+”. These initiatives aim to encourage enterprises to pursue intelligent transformation and upgrades by industrial robots, machine tools, sensors and control equipment, intelligent warehousing and logistics equipment, and integrated intelligent manufacturing systems. We will innovate in the installation and integration of components and guide enterprises in materials, parts, components, and specialized software to collaborate seamlessly with complete machine enterprises. The aim is to foster coordinated efforts across the entire industrial chain. Additionally, we will leverage successful case studies from the Yangtze River Delta region’s robot industry chain to significantly boost the market application of high-quality foundational products. (Responsible agencies: Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Development & Reform Commission, and district governments)

(III) Integrating testing equipment into production lines. We will develop a series of flagship innovative products in instruments, meters, and intelligent testing equipment. We will promote the demonstration and application of intelligent testing equipment in exemplary scenarios, focusing on key stages in manufacturing processes across critical sectors. We will support the localization of key instruments and equipment urgently needed for new materials and guide R&D and testing units with strong technical capabilities to adopt innovative testing instruments and devices. We will compile and publish a catalog of key instruments and devices urgently needed for new material development. Additionally, we will release a supply list of over 20 key innovative scientific instruments and support universities and research institutions in upgrading and replacing advanced scientific instruments and devices. (Responsible agencies: Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Development & Reform Commission, Science and Technology Commission of Shanghai Municipality, Shanghai Municipal Education Commission, Shanghai Municipal Administration for Market Regulation, and district governments)

(IV) Introducing medical equipment into hospitals. We will support the R&D of innovative medical devices and accelerate their clinical application through demonstration projects. We will also facilitate the

inclusion of innovative medical devices within the medical insurance payment system. For products that have obtained national medical insurance consumables codes and meet the city's management regulations for separately chargeable consumables, enterprises can directly apply for online procurement. This helps enhance review efficiency through a single-window acceptance process. Medical devices listed in the city's catalog of recommended innovative products will be allowed for direct hospital use in accordance with regulations. We will publish a supply list of over 20 key innovative medical device products and encourage qualified medical institutions to expedite the upgrade and renewal of medical equipment, including medical imaging, radiotherapy, telemedicine, and surgical robots. (Responsible agencies: Shanghai Municipal Health Commission, Shenkang Hospital Development Center, Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Development & Reform Commission, Science and Technology Commission of Shanghai Municipality, Shanghai Municipal Healthcare Security Administration, and district governments)

(V) Establishing pilot testing services for new materials at dedicated bases. By 2027, we will establish 12 pilot testing bases and implement over 50 pilot projects. We will encourage these bases to offer public pilot testing services and make available to the public information about their specialized facilities and equipment and other capacities for testing new

materials. Indicators such as the number of enterprises served and the number of technological achievements commercialized at pilot testing bases within industrial parks will be included in the resource utilization efficiency evaluation system. We will also encourage city-level enterprise technology centers and CNAS-accredited materials R&D, production, and testing units to lead in the application of urgently needed key instruments and equipment. Each year, we will support approximately 10 new material application certification projects, covering up to 30% of the certification and testing contract amounts, with a maximum support of RMB1 million per product. (Responsible agencies: Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Development & Reform Commission, Shanghai Municipal Finance Bureau, Shanghai Municipal Bureau of Ecology and Environment, Shanghai Municipal Administration for Market Regulation, and district governments)

(VI) Integrating innovative chips into equipment. We will advance the large-scale application of key chips in critical industries and develop innovative high-end chips. We will support the initial deployment of automotive-grade chips, server chips, main control chips for mobile phones and personal PCs, industrial control MCUs, FPGAs, single Beidou chips, and high-end analog chips. The adoption of innovative chips in homegrown new energy vehicles will steadily increase.

(Responsible agencies: Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Development & Reform Commission, Shanghai Municipal State-owned Assets Supervision and Administration Commission, and district governments)

II. Technological Transformation and Equipment Renewal

(VII) Driving a new wave of high-level technological transformation. We will guide enterprises to speed up equipment renewal, enhance production capacity, and upgrade products. By 2027, the cumulative equipment investment in the city's industrial sector is expected to reach RMB400 billion, with approximately 50% allocated to equipment renewal. For eligible technological upgrade projects with investments exceeding RMB20 million, we will provide prioritized support through loan interest subsidies and financing lease subsidies. Qualified bank loan projects will receive an annual interest subsidy of 50% for three consecutive years, with a cumulative cap of RMB20 million. Financing lease projects that meet the criteria will be eligible for subsidies of up to 5% of the equipment investment in the lease contract, with a maximum support of RMB20 million. For particularly significant projects, we will offer support equivalent to 10% of the approved project investment, up to RMB100 million. We will also support financial institutions and enterprises in actively seeking national innovation and technological upgrade relending and long-term loans for the manufacturing sector.

Additionally, we encourage financial institutions to introduce dedicated financial products such as “Renewal Loans”, “Tech-Upgrade Loans”, and “Equipment Mortgages”. (Responsible agencies: Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Finance Bureau, Shanghai Municipal State-owned Assets Supervision and Administration Commission, Financial Commission Office of the CPC Shanghai Municipal Committee, Shanghai Municipal Financial Regulatory Bureau, National Financial Regulatory Administration, Shanghai Branch of the People’s Bank of China, and district governments)

(VIII) Enhancing resource allocation for technological upgrade projects. For “zero land addition” technological upgrade projects focused primarily on equipment renewal, we will explore the implementation of a commitment filing system. For non-critical processes that do not compromise quality or safety, we will adopt methods such as “allowing deficiencies to be remedied later” and “deferring non-essential items” to facilitate full-process online handling and shorten the approval cycle. Key industrial technological upgrade projects at the municipal and district levels will be incorporated into the “green channel” for environmental impact assessment (EIA) approval. This will involve early involvement of technical assessments, acceptance of incomplete application materials, and the simultaneous conduct of public notifications and reviews to

expedite the approval process. (Responsible agencies: Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Bureau of Planning and Natural Resources, Shanghai Municipal Commission of Housing and Urban-Rural Development, Shanghai Municipal Bureau of Ecology and Environment, Shanghai Municipal Development & Reform Commission, Shanghai Emergency Management Bureau, and Office of Shanghai Municipal Leading Group for the Reform of the Administrative Examination and Approval System)

(IX) Improving full lifecycle services. We will establish a coordinated mechanism for technological upgrades by bringing together departments responsible for the reform of the administrative examination and approval system, development and reform, economy and informatization, planning, environmental protection, urban-rural development, and finance. This initiative will strengthen city-district collaboration and improve coordination across the entry, approval, construction, and acceptance stages. We will establish a comprehensive project database for equipment renewal and technological upgrades. This database will integrate information from the inventory, resource, and policy databases, and will feature a list-based rolling promotion mechanism. The goal is to align with supportive policies, including low-interest loans, industrial subsidies, accelerated depreciation, and tax exemptions for imported equipment. Additionally, we will explore tailored support plans under the “one policy

for one enterprise" approach to expedite equipment renewal efforts. (Responsible agencies: Shanghai Municipal Commission of Economy and Informatization, Office of Shanghai Municipal Leading Group for the Reform of the Administrative Examination and Approval System, Shanghai Municipal Bureau of Planning and Natural Resources, Shanghai Municipal Commission of Housing and Urban-Rural Development, Shanghai Municipal Bureau of Ecology and Environment, Shanghai Municipal Development & Reform Commission, Shanghai Emergency Management Bureau, Shanghai Municipal Tax Service, district governments, and key industrial park management committees)

III. Digital Economy Empowerment

(X) Developing and promoting basic and industrial software. We will focus on key industries and ease restrictions on new investment quotas and support ratios for major R&D projects, including basic and industrial software. The support ratio may reach up to 30% of the new investment in each project, with the total support amount generally capped at RMB100 million. To foster research through practical application, we will offer subsidies to user entities that purchase and implement key software products developed in our city, based on the sales amount of the software. (Responsible agencies: Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Development &

Reform Commission, Shanghai Municipal Finance Bureau, and district governments)

(XI) Development of metaverse application scenarios. We will promote the R&D and application of innovative products in key areas, including large-scale AI models, spatial computing, cloud rendering, digital humans, and graphics engines. To address the needs of major sectors like industry, culture, business, tourism, education, healthcare, and collaborative office environments, we will develop a series of industry-specific solutions, such as city information models, building information modeling, digital twins, digital sandbox simulations, spatial computing, and extended reality. Efforts will be intensified to accelerate the large-scale deployment of new network infrastructure, including the industrial internet, Internet of Things, 5G, and gigabit optical networks. Through the "open competition" initiative, we aim to introduce 20 new metaverse application scenarios to the public annually by 2027. (Responsible agencies: Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Development & Reform Commission, Shanghai Municipal Data Bureau, and district governments)

(XII) Intelligent factory pilot program. We will accelerate the development of high-level intelligent factories, aiming to cultivate at least 20 benchmark and 300 exemplary intelligent factories by 2027. We will also intensify efforts to facilitate the intelligent transformation of

enterprises above designated size citywide. We will assess intelligent factories and analyze their challenges, tailoring our approach to the unique needs of the six key industries undergoing intelligent transformation and upgrading. By promoting the orderly construction of intelligent factories with industry-specific policies, grading, and classification, we aim to drive equipment renewal and foster the broader adoption of innovative products. Under the intelligent factory pilot and benchmarking programs, we will introduce tiered incentives for projects that significantly enhance the capacity and output value of intelligent factories. This approach aims to drive the large-scale adoption of intelligent manufacturing equipment and system integration. (Responsible agencies: Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal State-owned Assets Supervision and Administration Commission, and district governments)

IV. Green and Low Carbon Transition

(XIII) Establishing green benchmarks. We will guide enterprises in implementing technological upgrades and equipment enhancements with a focus on the digitalization of equipment, networked production, low-carbon energy use, and clean production practices. The goal is to foster a cumulative total of 500 green factories by 2027. We will support industrial parks in leveraging digital technologies to promote the shared construction and use of facilities, smart energy management, and resource

recycling. Efforts will be intensified to establish intelligent energy management systems, including distributed photovoltaics, diverse energy storage systems, efficient heat pumps, waste heat and pressure recovery, and green microgrids. We aim to cultivate a total of 500 green factories by 2027. Continued efforts will be made to advance the construction of enterprise energy management centers. Eligible projects can receive support amounting to 20% of the project's investment, with a maximum cap of RMB10 million. (Responsible agencies: Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Development & Reform Commission, Shanghai Municipal Bureau of Ecology and Environment, and district governments)

(XIV) Advancing green and low-carbon upgrades for energy and energy-consuming equipment. We will accelerate the promotion and application of new green and low-carbon technologies, processes, equipment, and materials. Through the "Hundred and One" initiative targeting industrial enterprises, we will promote the use of energy-efficient products, phase out outdated equipment, and optimize energy management practices. These efforts aim to achieve a 1% annual reduction in energy consumption. We will facilitate the upgrade and transformation of 3 million kilowatts of motors and their systems and expedite the optimization and quality improvement of processes in the petrochemical, chemical, and steel industries within the city. By 2027, we

aim to achieve a cumulative energy saving of 500,000 tons of standard coal, increase photovoltaic installed capacity by 500,000 kilowatts, and attain a storage application scale of 200,000 kilowatts. We will also push for the upgrade and replacement of 20,000 existing non-smart private charging stations. Newly built data centers will be required to achieve a power usage effectiveness (PUE) of 1.25 or lower. Additionally, small, scattered, and outdated data centers will be identified for restriction or phase-out, with a post-upgrade target PUE of 1.4 or lower. We will advance the upgrade of IT equipment and supporting systems with a capacity of 100,000 kilowatts, aiming for a more than 20% improvement in energy efficiency. Additionally, we will implement safety assessments and categorized upgrades of elevators in old residential buildings. (Responsible agencies: Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Development & Reform Commission, Shanghai Municipal Data Bureau, Shanghai Municipal Commission of Housing and Urban-Rural Development, Shanghai Municipal Housing Administration, Shanghai Municipal Administration for Market Regulation, and district governments)

(XV) Promoting remanufacturing and cascading utilization steadily. We will advance high-end intelligent remanufacturing in key product areas such as automotive components, aircraft engines, marine machinery, and precision instruments. This will involve promoting the application of

technologies and processes such as non-destructive testing, additive manufacturing, and flexible processing. Additionally, we will explore developing high-end remanufacturing businesses in emerging sectors such as wind power and photovoltaic power. We will accelerate the research and development of residual life assessment technologies for wind power, photovoltaic, and power battery products and equipment, and advance the orderly cascading utilization of products, equipment, and key components. We will foster and expand enterprises specializing in the comprehensive utilization of renewable resources, with a target to achieve a processing capacity of over 50,000 tons annually for used power batteries. We will facilitate the development of the second-hand equipment market by establishing appraisal, evaluation, and grading standards, and by promoting the standardized construction and operation of second-hand equipment trading platforms. (Responsible agencies: Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Development & Reform Commission, Shanghai Municipal Administration for Market Regulation, and district governments)

V. Broader Application of Innovative Products

(XVI) Strengthening support for “three firsts” initiatives. We will accelerate the application and market promotion of independently developed, secure, and controllable innovative products. Eligible projects

may receive support covering up to 30% of the contract amount for innovative products, with a maximum subsidy of RMB20 million. Each year, we will provide support for no fewer than 30 first sets of equipment, 15 first-edition software products, and 10 first batches of new materials. (Responsible agencies: Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Development & Reform Commission, Shanghai Municipal State-owned Assets Supervision and Administration Commission, Shanghai Municipal Finance Bureau, and district governments)

(XVII) Promoting the application of recommended innovative products. By 2027, Shanghai aims to expand its municipal-level catalog of recommended innovative products to over 1,500 entries. It will enhance efforts to promote the application of these products in major and state-invested projects by prioritizing the procurement of products listed in the catalog. We will optimize the functioning of the catalog editorial committee mechanism and facilitate industry regulatory bodies to play an active role in promoting the use of innovative products. State-owned enterprises are encouraged to increase their procurement of innovative products. A new visual identifier for innovative products will be introduced to establish it as a hallmark of “Made in Shanghai”. For the first market launch of products listed in Shanghai’s catalog of recommended innovative products, eligible bank loan projects will

receive annual interest subsidies of 50% for three consecutive years, with a maximum subsidy of up to RMB5 million. Additionally, the development of financial leasing for innovative products will be encouraged, with eligible projects receiving up to 30% support for equipment investment, capped at RMB5 million. Projects may receive support covering up to 30% of the contract amount for exceptionally innovative products, with a maximum subsidy of RMB20 million. (Responsible agencies: Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Development & Reform Commission, Science and Technology Commission of Shanghai Municipality, Shanghai Municipal State-owned Assets Supervision and Administration Commission, Shanghai Municipal Finance Bureau, and district governments)

(XVIII) Strengthening the core competitiveness of innovative products. We will focus on bolstering industrial foundation and advancing key technologies for major equipment by refining policies like open competition mechanisms and key R&D initiatives. Enterprises will be encouraged and supported to actively engage in scientific and technological research. In the sectors of artificial intelligence, 5G-A, industrial internet, commercial spaceflight, low-altitude economy, and deep-sea exploration and extraction, we will continuously roll out innovative application tasks. Benchmark demonstration projects in these

areas will be eligible for rewards of up to 20% of the project cost, with a maximum subsidy of RMB8 million, in accordance with the relevant regulations. (Responsible agencies: Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Development & Reform Commission, Shanghai Municipal Finance Bureau, and district governments)

VI. Improvement of Quality and Standards

(XIX) Strengthening product quality and reliability. We will implement an excellent manufacturing quality program to support the assessment of quality management capabilities, with the aim of enhancing the quality development and core competitiveness of enterprises. We will also intensify research into the application of new inspection and testing technologies, support the modernization of testing equipment, and boost the inspection and testing capacities of key industries. By improving the reliability of core basic components and parts, we aim to enhance the reliability of innovative products in key sectors, thereby strengthening the resilience of the industrial and supply chains. By 2027, we plan to establish two new national-level industrial technology public service platforms for testing and inspection, seeking to develop at least two model cases that demonstrate enhanced reliability. Additionally, we will promote innovative practices in product quality reliability by creating a dedicated public service platform and identifying and developing best

practices in this area. (Responsible agencies: Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Administration for Market Regulation, and district governments)

(XX) Enhancing standards in key sectors. We will advance the refinement of industry standards and strengthen efforts to develop key standards for specialized equipment in manufacturing, healthcare, and testing sectors. We will also put in place a robust pilot standard system to facilitate the large-scale deployment of innovative high-end equipment. Additionally, we will promote the digitization of industry standards, including the development of standards for basic and industrial software, as well as for emerging digital domains such as artificial intelligence, the metaverse, industrial internet, and intelligent connected vehicles. The initiative aims to foster the integrated development of the digital economy and the real economy. We will promote the greening of industry standards. This involves refining standards for green manufacturing systems, including green products, factories, industrial parks, supply chains, and data centers, and regularly updating standards related to energy conservation, water conservation, comprehensive recycling of waste and used materials, renewable energy, and energy storage. We will also establish a comprehensive low-carbon standard system that includes basic general standards, carbon reduction, carbon removal, and market-driven mechanisms. By 2027, Shanghai aims to develop 10 new “Shanghai

Standards". (Responsible agencies: Shanghai Municipal Administration for Market Regulation, Shanghai Municipal Commission of Economy and Informatization, and district governments)

(XXI) Advancing the internationalization of standards. We will establish and enhance mechanisms for tracking and aligning with international standards, with the goal of continuously increasing their conversion rate into domestic practices. We will improve the framework for international standardization efforts, actively participate in the formulation and revision of international standards, and promote key industry standards globally. We will support domestic institutions and enterprises in strengthening the coordination of domestic and international quality standards, inspection and testing, and certification and accreditation. By 2027, Shanghai aims to take the lead in formulating and revising 50 new international standards. (Responsible agencies: Shanghai Municipal Administration for Market Regulation, Shanghai Municipal Commission of Economy and Informatization, and district governments)

Notice on the Issuance of the Shanghai Special Action Plan for Promoting Large-Scale Equipment Renewals in Construction and Municipal Infrastructure Sectors (2024-2027)

Hu Jian Zong Ji Lian [2024] No. 380

To all relevant units:

Pursuant to the Notice of the Shanghai Municipal People's Government on the Issuance and Implementation of the Shanghai Action Plan for Promoting Large-Scale Equipment Renewals and Trade-ins of Consumer Goods (2024-2027), we have developed the Shanghai Special Action Plan for Promoting Large-Scale Equipment Renewals in Construction and Municipal Infrastructure Sectors (2024-2027). This document is hereby distributed to you for your thorough implementation and compliance.

Shanghai Municipal Commission of Housing and Urban-Rural Development

Shanghai Water Authority

Shanghai Landscaping & City Appearance Administrative Bureau

July 26, 2024

Shanghai Special Action Plan for Promoting Large-Scale Equipment Renewals in Construction and Municipal Infrastructure Sectors (2024-2027)

To fully implement the directives outlined in the Notice of the Ministry of Housing and Urban-Rural Development on Issuing the Implementation Plan for Promoting Equipment Renewals in Construction and Municipal Infrastructure Sectors (Jian Cheng Gui [2024] No. 2) and the Notice of the Shanghai Municipal People's Government on the Issuance of the Shanghai Action Plan for Promoting Large-Scale Equipment Renewals and Trade-ins of Consumer Goods (2024-2027) (Hu Fu Fa [2024] No. 5), this Special Action Plan has been developed in alignment with the requirements set forth in the Notice of the Ministry of Finance and the Ministry of Housing and Urban-Rural Development on Carrying out the Urban Renewal Demonstration Work (Cai Jian Ban [2024] No. 24). The plan aims to ensure the successful execution of large-scale equipment renewal initiatives within Shanghai's construction and municipal infrastructure sectors.

I. Work Objectives

We will steadily advance category-based equipment renewals in Shanghai's construction and municipal infrastructure sectors in line with the principles of maintaining a market-oriented approach guided by government directives, promoting advanced technologies while phasing

out outdated ones, upholding standards, and pursuing orderly advancement. The primary goal is to significantly enhance the safety, intelligence, and eco-friendliness of the equipment. By 2027, in alignment with key urban renewal initiatives, we aim to achieve the planned renovation and upgrading of equipment that is technologically obsolete, non-compliant with relevant standards and regulations, or fails to meet energy efficiency and environmental protection criteria. The initiative aspires to place Shanghai at the forefront of infrastructure and equipment renewal nationwide, driving urban infrastructure modernization and supporting the high-quality development of the city's construction and municipal infrastructure sectors.

II. Key Tasks

(I) Modernizing elevators in old residential buildings. We will incorporate safety assessment of elevators in old residential buildings into the city's health evaluation indicators. In accordance with the Safety Code on Lift Manufacturing and Installation (GB/T 7588) and the Safety Assessment Standards for Elevators in Old Residential Buildings (DB31/T885), comprehensive safety assessments will be conducted on a rolling basis for residential elevators that have been in service for more than 15 years. A list of "problematic elevators" will be established. Further enhancements will be made to the supporting policies to facilitate the lawful utilization of maintenance funds or the targeted raising of maintenance funds by

elevator owners to carry out necessary upgrades. (Responsible agency: Shanghai Municipal Commission of Housing and Urban-Rural Development)

(II) Installing elevators in existing residential buildings. In conjunction with urban renewal and the renovation of old housing, we will promote the installation of elevators in existing residential buildings and other elderly-friendly renovations in a prudent and orderly way. This initiative will adhere to the principles of voluntary participation by owners, government support, community consultation, balanced consideration of diverse interests, legal compliance, and safety assurance. Key factors such as residents' preferences, building structural conditions, functionality, safety, and economic viability will be carefully evaluated. The goal of this initiative is to continually enhance the living environment. Additionally, residents in old residential compounds will be supported in using their housing provident funds to finance the installation of elevators. (Responsible agencies: Shanghai Municipal Commission of Housing and Urban-Rural Development, Shanghai Municipal Housing Administration, Shanghai Municipal Administration for Market Regulation, and district governments)

(III) Improving energy efficiency in buildings. In alignment with the requirements for energy conservation and carbon reduction in existing public buildings and spaces, efforts will be made to continuously enhance

building functionality. In accordance with the *Advanced Level, Energy-Saving Level and Access Level of Energy Efficiency of Key Energy-Using Products and Equipment (2024)* and the *General Code for Energy Efficiency and Renewable Energy Application in Buildings* (GB55015), a thorough assessment will be conducted to identify heat pump units, radiators, chillers, exterior windows (curtain walls), exterior wall (roof) insulation, and lighting equipment that have surpassed their service life, exhibit low energy efficiency, pose safety risks, and lack repair value. Priority will be given to the adoption of high-efficiency air conditioning systems, renewable energy systems, exterior wall insulation materials, and energy-saving doors and windows. The objective is to complete energy efficiency retrofits for a total of 32 million square meters of existing buildings, with 2 million square meters achieving an average energy-saving rate of 15% or more. (Responsible agencies: Shanghai Municipal Commission of Housing and Urban-Rural Development and district governments)

(IV) Upgrading construction equipment. We will work to phase out and upgrade non-road mobile machinery that complies with China VI emission standards, thereby improving the environmental performance of such equipment. We will encourage the optimization and refinement of construction processes and promote the replacement of outdated, severely worn construction machinery with more advanced and safer technology.

(Responsible agencies: Shanghai Municipal Bureau of Ecology and Environment, Shanghai Municipal Commission of Housing and Urban-Rural Development, Shanghai Municipal Administration for Market Regulation, Shanghai Municipal State-owned Assets Supervision and Administration Commission, and district governments)

(V) Updating water supply infrastructure. In line with the *Code for Urban Water Supply Project* (GB55026) and the Hygienic *Specification for Facilities of Secondary Water Supply* (GB17051), a thorough assessment will be conducted to identify water supply equipment in waterworks, as well as secondary pressurized water supply and storage equipment and facilities in residential areas, that are affected by issues such as non-compliance with water quality standards, aging and damaged infrastructure, mandatory phase-out by the state, high energy consumption, and low operational efficiency. Waterworks equipment includes pumps, electrical systems, dosing systems, monitoring and automatic control equipment, and various specialized mechanical devices. Secondary pressurized water supply and storage equipment and facilities in residential areas include pipelines, tanks (reservoirs), pumps, auxiliary equipment, automatic control systems, and safety devices. We will complete deep treatment upgrades of Shanghai's remaining six waterworks, continue the progressive renovation of 700 kilometers of aging water supply networks, and advance the refurbishment of

secondary water supply systems in 300 residential communities, along with 40-60 key water-saving projects. (Responsible agencies: Shanghai Water Authority, Shanghai Municipal Housing Administration, and district governments)

(VI) Renovating drainage infrastructure. In accordance with the *Code for Urban and Rural Drainage Projects* (GB55027) and the *Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant* (GB18918), we will implement the guiding principles set forth in key national and municipal directives, including the *Opinions of the Central Committee of the Communist Party of China and the State Council on Intensifying the Battle Against Pollution*, the *Implementation Opinions of the General Office of the State Council on Strengthening Urban Waterlogging Control*, the *14th Five-Year Plan for Water System Governance in Shanghai* (Hu Fu Ban Fa [2021] No. 9), and the *Shanghai Action Plan for Investigation and Rectification of Mixed Connection of Rain and Sewage Systems* (Order No. 1 of the Shanghai General River Chief in 2023). The plan includes the repair and renovation of approximately 400 kilometers of drainage networks across the city and the rectification of mixed connection issues between rain and sewage systems in approximately 854 residential communities. Additionally, we will update electromechanical equipment at flood control pump stations in the central urban area. These efforts are aimed at comprehensively

enhancing the operational efficiency of the city's drainage system, continuously improving the quality of the urban water environment, and ensuring the safe operation of the city. (Responsible agencies: Shanghai Water Authority, Shanghai Municipal Housing Administration, and district governments)

(VII) Upgrading sanitation facilities and equipment. In alignment with the *Catalog for the Elimination of Energy-Intensive and Outdated Electromechanical Equipment (Products)*, the *Technical Standard for Operation and Maintenance of Municipal Solid Waste Transfer Station*s (CJJ/T 109), and the *Standard for Pollution Control on the Municipal Solid Waste Incineration* (GB 18485), a comprehensive assessment will be undertaken to identify equipment that is energy-intensive, technologically outdated, prone to frequent failures, and poses safety risks. The assessment will include sanitation vehicles, transfer compression equipment, and machinery used in the resource recovery of construction waste, such as sorting, crushing, and recycled product manufacturing. Efforts will continue to optimize the comprehensive household waste classification system, focusing on the renewal of over 8,000 household waste disposal sites, the upgrading of 480 sanitation compression stations, and the renovation of more than 10 household waste transfer stations. Furthermore, the plan includes the introduction of over 2,000 new energy sanitation vehicles. (Responsible agencies:

Shanghai Landscaping & City Appearance Administrative Bureau and district governments)

(VIII) Renewing aging urban gas pipelines. Following relevant standards and regulations, a risk assessment will be conducted on urban gas pipelines, with a comprehensive renovation plan developed accordingly. Pipelines that are severely corroded, traverse confined spaces, or do not meet safety distance requirements will undergo immediate inspection and rectification. For medium and low-risk pipelines, enhanced monitoring will be implemented. Pipelines scheduled for renovation but not yet addressed will receive special plans and effective measures to ensure their safe operation. The objective is to complete the renovation of 2,500 kilometers of aging gas pipelines along neighborhoods and roads by 2027, with an annual target of updating gas risers for 100,000 households. (Responsible agencies: Shanghai Municipal Commission of Housing and Urban-Rural Development, Shanghai Municipal Administration for Market Regulation, Shanghai Municipal Housing Administration, and district governments)

(IX) Modernizing and standardizing liquefied petroleum gas filling stations. In line with the *Project Code for Gas Engineering* (GB55009) and the *Code for Design Liquefied Petroleum Gas (LPG) Supply Engineering* (GB51142), a thorough assessment and renovation will be carried out on equipment that fails inspection, has outlived its service life,

exhibits severe damage, aging or corrosion, poses safety risks, and lacks repair value. This includes storage tanks, loading arms, compressors, filling systems, LPG pumps, fire pumps, pipeline valves, and fire protection and automatic control systems. LPG cylinders that do not comply with the current *Liquefied Petroleum Steel Gas Cylinders* (GB5842) standards will also be identified and replaced. Alongside these updates, intelligent upgrades will be implemented to enhance the automation, informatization, and smart operation within the LPG sector. (Responsible agencies: Shanghai Municipal Commission of Housing and Urban-Rural Development, Shanghai Municipal Administration for Market Regulation, and district governments)

(X) Developing urban lifeline projects. We will promote the installation and upgrading of IoT-enabled intelligent sensing equipment within urban underground pipeline networks and integrated utility corridors. This initiative aims to prevent major public safety incidents, such as gas explosions. To support this, we will enhance the pipeline data update and integration mechanisms and coordinate efforts to promote the joint development, sharing, and utilization of pipeline data. We will also develop a comprehensive risk early warning model for lifeline infrastructure to facilitate dynamic monitoring of the operational conditions of urban lifelines. These measures will facilitate timely risk detection and improve the overall reliability of urban underground

pipeline networks. Additionally, the initiative will include the orderly upgrading of municipal infrastructure, such as traffic signals, streetlights, and integrated pole boxes. (Responsible agencies: Shanghai Municipal Commission of Housing and Urban-Rural Development, Shanghai Municipal Development & Reform Commission, Shanghai Municipal Bureau of Planning and Natural Resources, Shanghai Municipal Transportation Commission, Shanghai Public Security Bureau, Shanghai Municipal Commission of Economy and Informatization, Shanghai Communications Administration, Shanghai Landscaping & City Appearance Administrative Bureau, Shanghai Water Authority, Shanghai Municipal Housing Administration, and district governments)

III. Supporting Policies

(I) Enhancing standardization support. We will uphold the principle of standard-driven progress, aligning with both domestic and international best practices. This includes researching and formulating or revising local, enterprise, and group standards for water supply, gas supply, wastewater treatment, and waste management. We will strictly enforce mandatory standards related to energy consumption, emissions, and safety, as well as the stipulated requirements for equipment phase-out. The initiative will expedite the replacement and retirement of outdated, high-energy-consuming, and non-compliant equipment in the construction and municipal infrastructure sectors in accordance with laws

and regulations. (Responsible agencies: Shanghai Municipal Administration for Market Regulation, Shanghai Water Authority, Shanghai Municipal Commission of Housing and Urban-Rural Development, Shanghai Landscaping & City Appearance Administrative Bureau, Shanghai Municipal Commission of Economy and Informatization, and district governments)

(II) Increasing financial and tax support. We will actively seek secure various forms of central government funding, including central budgetary investments, ultra-long-term special bonds, and fixed subsidies for pilot cities engaged in urban renewal. We will coordinate the effective use of municipal construction funds, special funds for energy conservation and emission reduction, and other related financial resources, while encouraging districts to bolster their financial support. We will effectively implement tax incentives for public infrastructure, accelerated depreciation of fixed assets, and comprehensive resource utilization. We will strictly enforce financial discipline, strengthen comprehensive oversight of fiscal fund management throughout the entire process and across all aspects, and improve the precision and effectiveness of fiscal fund utilization. (Responsible agencies: Shanghai Municipal Finance Bureau, Shanghai Municipal Tax Service, Shanghai Municipal Development & Reform Commission, and district governments)

(III) Strengthening financial support. We will maximize the use of refinancing policy tools and actively guide financial institutions to strengthen their support for the upgrading and technological transformation of housing and municipal infrastructure equipment. We will actively pursue central government financial support for interest subsidies on bank loans that meet the re-loan reimbursement criteria for updating buildings and municipal infrastructure and equipment. (Responsible agencies: Shanghai Head Office of the People's Bank of China, Shanghai Municipal Finance Bureau, Financial Commission Office of the CPC Shanghai Municipal Committee, and Shanghai Municipal Financial Regulatory Bureau, National Financial Regulatory Administration)

IV. Support Measures

(I) Strengthening organizational leadership. We should seize the opportunity presented by large-scale equipment renewal to rapidly strengthen areas of weakness, modernize, and improve both housing and municipal infrastructure. This will elevate the overall standard of construction and municipal infrastructure and equipment. Shanghai Municipal Commission of Housing and Urban-Rural Development, in collaboration with relevant municipal departments, will lead and coordinate the implementation of equipment renewal across the sector. District governments are expected to prioritize this initiative, strengthen

interdepartmental cooperation, and foster a unified approach to ensure effective progress.

(II) Enhancing project planning. Shanghai Municipal Commission of Housing and Urban-Rural Development, in collaboration with relevant municipal departments, will intensify project assessments to identify and finalize renovation projects, and actively advance preliminary research for these projects. Relevant municipal departments are responsible for developing and executing their annual equipment renewal plans within their respective sectors in an orderly manner.

(III) Reinforcing monitoring and evaluation. Shanghai Municipal Commission of Housing and Urban-Rural Development, together with relevant municipal departments, will oversee the collection and reporting of project information. District governments are required to apply checklist management to renovation projects, organize annual progress tracking and evaluation, rectify any issues in a timely manner, and summarize and promote best practices.

Notice on the Issuance of the Shanghai Special Work Plan for Promoting Large-Scale Equipment Renewals in the Transportation Sector (2024-2027)

Hu Jiao Ke [2024] No. 501

To all relevant units:

In alignment with the State Council's initiative to promote large-scale equipment renewal and trade-ins of consumer goods, and in accordance with the directives from the Ministry of Transport and the Municipal Government, efforts will be made to further advance the adoption of new energy, safety, and intelligent solutions in transportation equipment. The *Shanghai Special Work Plan for Promoting Large-Scale Equipment Renewals in the Transportation Sector* (2024-2027) is hereby distributed to you for your thorough implementation and compliance.

Shanghai Municipal Transportation Commission

Shanghai Municipal Development & Reform Commission

Shanghai Municipal Bureau of Ecology and Environment

CAAC East China Regional Administration

Shanghai Municipal Postal Administration

July 25, 2024

Shanghai Special Work Plan for Promoting Large-Scale Equipment Renewals in the Transportation Sector (2024-2027)

In response to the State Council's *Action Plan for Promoting Large-scale Equipment Renewals and Trade-ins of Consumer Goods* (Guo Fa [2024] No. 7), the *Plan of Action to Launch a Large-scale Renewal of Transportation Equipment* (Jiao Gui Hua Fa [2024] No. 62), and the *Shanghai Action Plan for Promoting Large-Scale Equipment Renewals and Trade-ins of Consumer Goods* (2024-2027) (Hu Fu Fa [2024] No. 5), this work plan has been developed. It aims to advance the renewal of transportation equipment in a scientific, orderly, and continuous manner, enhancing their energy efficiency, environmental performance, safety, and operational efficiency. The plan also seeks to drive the transformation and upgrade of transportation facilities and equipment towards greener, more digital, and intelligent solutions, tailored to the specific development needs of Shanghai's transportation sector.

By the end of 2027, the city aims to fully transition its public buses and taxis to new energy vehicles, with an annual vehicle renewal rate exceeding 9% of the total fleet. This initiative will result in the cumulative renewal of 6,200 public buses and 11,000 taxis. The plan also targets the near-total elimination of non-road mobile machinery and vehicles used in airports and ports that meet or fall below the China II

emission standard, as well as non-road mobile vehicles that meet or fall below the China IV emission standard, with a cumulative renewal or addition of 1,600 units. Additionally, the complete phase-out of diesel trucks meeting the China III emission standard and the near-complete phase-out of those meeting the China IV emission standard are expected, with a cumulative renewal or addition of 50,000 trucks. The plan further includes the renewal or addition of approximately 200 aircraft and over 120 ships, alongside the implementation of about 80 transportation infrastructure maintenance and improvement projects.

I. Accelerating the Renewal and Upgrade of Passenger Vehicles

We will continue efforts to transition urban public buses to new energy alternatives, fostering a public transportation system that is comfortable, environmentally sustainable, and safe. We will promptly retire old public buses that have reached the end of their service life and strive to develop new energy buses like fully electric models. Where feasible, we will also launch pilot programs for fuel cell buses. This initiative aims to ensure that all newly added or renewed vehicles are fully powered by new energy, with an annual target of approximately 1,550 new energy buses. We will improve maintenance and repair standards for bus batteries and tighten performance requirements. Bus power batteries with over a 20% decline in performance will be promptly replaced. Additionally, we advocate for the early replacement of old batteries with significant

capacity degradation and safety issues, targeting an annual replacement of approximately 500 bus batteries.

We will accelerate the electrification of taxis to advance the green transformation of the taxi industry. As a standard practice, all newly added or renewed conventional taxis will be powered by new energy sources, targeting an annual renewal of approximately 2,800 taxis. In regions where conditions permit, we will actively pilot intelligent connected taxis and explore the integration of autonomous driving technology within the taxi sector. These initiatives aim to enhance the safety and comfort of taxi services, providing a more convenient and intelligent travel experience.

We will expedite the retirement of old buses currently in use. Starting in July 2024, we will implement restrictions on China III-compliant diesel buses within the Outer Ring Road and leverage subsidy policies to incentivize the early phase-out of diesel buses. This initiative aims to encourage the prompt renewal of diesel buses meeting China III and IV emission standards, with an annual target of renewing approximately 700 buses. We will intensify efforts to transition urban passenger vehicles to new energy alternatives, speed up the development of new energy charter buses, and actively support pilot projects for long-distance new energy buses and hydrogen fuel cell vehicle demonstrations.

II. Promoting the Trade-in of Diesel Trucks

We will strengthen pollution control measures for diesel trucks to further improve urban air quality. We will strictly implement citywide traffic restrictions on China III-compliant diesel trucks and enhance regulatory enforcement to promote full phase-out of these vehicles. We will also explore traffic control measures for China IV-compliant diesel trucks, with a phased implementation of restrictions: Outer Ring Road in 2024, Suburban Ring Road in 2025, and citywide in 2026. We will introduce financial subsidies to incentivize the early retirement of China IV-compliant diesel vehicles and accelerate the phase-out and renewal of China IV-compliant diesel trucks. We will enhance financial support for adopting new energy trucks by providing subsidies to facilitate the transition from conventional vehicles to new energy models. We will focus on transitioning urban distribution vehicles and medium-duty trucks to new energy models where feasible. Additionally, all newly acquired urban distribution vehicles will be required to be new energy vehicles. We will support pilot projects for the electrification of heavy-duty trucks and expedite the development and deployment of charging and battery-swapping infrastructure for these vehicles. We will actively promote the adoption of hydrogen fuel cell vehicles in the freight sector by advancing research and development and accelerating the construction of hydrogen refueling stations and related infrastructure. The Yangshan Smart Heavy-Duty Truck pilot project will be promoted and scaled up

gradually. Additionally, we will accelerate the retirement and replacement of old diesel trucks, targeting an average replacement or addition of approximately 13,000 trucks annually.

III. Advancing Green Maritime Equipment

We will advance the construction and deployment of fully electric, hybrid, and clean fuel-powered vessels in inland waterways. Efforts will be made to promote the use of electric vessels in the Suzhou Creek and Huangpu River basins, with a policy that, in principle, all newly added cruise ships and ferries should use clean energy power sources. We will encourage the adoption of hybrid or fully electric propulsion systems for new public service vessels operating inland and advocate for the use of electric drives in inland river and river-sea direct freight vessels. We will continue to implement subsidy policies for new energy vessels, offering incentives such as priority docking and reduced berthing fees for electric vessels. Additionally, we will proactively initiate pilot programs to replace conventional vessels with fully electric and intelligent alternatives. We will facilitate the low-carbon transformation of port service vessels by increasing the use of shore power during berthing and actively promoting trials of new energy port service vessels. Furthermore, we will collaborate with national authorities to develop standards for battery boxes, interfaces, and other components of fully electric vessels. To this end, we will encourage the growth of financing and leasing enterprises for new energy

vessels and marine power battery box leasing.

We will actively explore green development pathways in the ocean-going shipping sector by promoting the adoption of new marine fuels such as methanol and biomass. Efforts will focus on facilitating the transformation of newly built vessels towards energy conservation and carbon reduction, thereby minimizing the environmental impact of maritime operations. To ensure the green operation of ocean-going vessels, we will continuously improve infrastructure and regulatory frameworks for new-generation vessels and work towards establishing refueling hubs for new marine fuels. Additionally, we will endorse the use of carbon capture technology to pilot CO_2 recovery initiatives, employing advanced technological solutions to reduce carbon emissions during vessel operations. We will also align with international best practices by studying and integrating successful green shipping experiences from both domestic and global perspectives. We will tailor these practices to Shanghai's unique circumstances to refine and optimize policies for energy-saving and technological advancements in green maritime equipment.

We will expedite the retirement and renewal of outdated transportation vessels characterized by high energy consumption and emissions. To facilitate this process, we will actively seek financial support to incentivize the accelerated decommissioning and replacement of outdated

vessels. Specifically, we will target vessels that have been in service for over 10 years for inland passenger vessels, 15 years for inland cargo vessels, 15 years for coastal passenger vessels, and 20 years for coastal cargo vessels. The aim is to achieve the renewal or replacement of approximately 30 vessels annually.

IV. Facilitating the Upgrading of Aviation Equipment

We will encourage airlines to adopt new-generation aircraft that are energy-efficient and environmentally friendly, with the goal of reducing carbon emissions and enhancing the energy efficiency of air transportation. A phased replacement of old, high-energy-consuming aircraft will be implemented. We will optimize the configuration of auxiliary power units (APUs), bridge-mounted power supplies, and air-conditioning systems at remote stands. By implementing intelligent management systems, we will enable real-time monitoring and efficient dispatch of equipment. This will improve equipment utilization and reduce energy consumption and emissions during ground operations. We will also promote the pilot use of sustainable aviation fuels (SAF) within the aviation sector. Additionally, we aim to accelerate the replacement of old aircraft, targeting the renewal or addition of approximately 50 aircraft annually, including domestically produced models.

V. Encouraging the Phasing Out of Non-Road Mobile Machinery

We will develop and implement subsidy policies to incentivize the

retirement and replacement of non-road mobile machinery. The scope of prohibition for highly polluting non-road machinery will be gradually expanded, with machinery meeting China II emission standards being banned from use starting in 2024. This policy aims to guide the early retirement of non-road mobile equipment with China II emission standards or below, as well as non-road mobile vehicles with China IV emission standards or below operating in airports and ports. The plan targets an average annual renewal or addition of approximately 400 units. We will accelerate the transition to new energy solutions for non-road and site-specific vehicles. All newly added or updated non-road vehicles should be new or clean energy products, where suitable. We will enhance supporting infrastructure for new energy vehicles by improving charging and battery-swapping facilities at airports and ports. Additionally, we will promote the development of photovoltaic pilot projects and establishment of site-specific hydrogen refueling stations. Emissions from non-road machinery will be actively monitored through spot checks, and engine retrofitting will be supported for eligible non-road machinery at airports and ports. We will implement comprehensive registration for diesel, gasoline, and new energy machinery and foster information sharing between environmental and transportation authorities.

We will expedite the retirement and renewal of old maintenance equipment by introducing new energy-efficient, environmentally friendly,

and intelligent machinery. This will help reduce energy consumption and emissions while increasing operational efficiency. We will also promote the modernization of transportation vehicles and bridge-erecting machines through the integration of smart technologies. Furthermore, we will support pilot projects for adopting new energy-powered transport vehicles, intelligent road inspection vehicles, sweeper trucks, and work vehicles. These projects will incorporate advanced positioning and leveling systems to significantly enhance operational precision and efficiency.

VI. Improving the Performance of Subway Equipment

We will conduct regular inspections and repairs on the tracks, and undertake overhauls, renewals, and renovations for track equipment that has reached its replacement cycle. This initiative aims to enhance operational reliability, stability, and safety, while reducing vibrations. We project that approximately 70 kilometers of track will be renewed annually. For electric passenger trains that have reached the end of their design service life and can no longer continue in service, we will either extend their lifespan or replace them as necessary. Upgrades to the train control system will be carried out to improve operational efficiency and passenger comfort, with approximately 12 carriages renewed each year. In alignment with accessibility and elderly-friendly standards, we will carry out major repairs, renewals, and renovations for some old elevators

and install new escalators and accessible elevators at station entrances and exits where feasible. We aim to improve traffic flow and accessibility, with approximately 15 installations planned per year. We will advance the renewal and technological upgrading of platform screen doors (PSDs) in subway stations to enhance their reliability and stability. This initiative will address issues such as incompatibility with signaling systems and frequent malfunctions at some stations, ensuring operational safety. An average of 300 PSDs will be renewed annually. Additionally, we will strengthen oversight of internal environmental quality by promoting the adoption of energy-efficient lighting and intelligent air conditioning systems. These measures will ensure proper air circulation and adequate illumination within the stations, thereby providing a comfortable and welcoming environment for passengers.

VII. Guiding the Upgrading of Road Facilities

We will strengthen the management of urban expressway infrastructure, with a focus on promoting the technological upgrading of ancillary facilities such as cameras, information boards, and vehicle detectors to enhance monitoring and detection capabilities. We will prioritize the renewal of sound barriers to mitigate traffic noise pollution effectively. We will intensify efforts to improve tunnel infrastructure by maintaining asphalt pavement, decorative panels, anti-collision curbstone coatings, and fire-resistant panels. Strict measures will be implemented to prevent

water seepage and leaks, ensuring both tunnel safety and aesthetics. Additionally, we will upgrade firefighting equipment, drainage pump stations, lighting systems, and traffic monitoring systems to elevate traffic management safety, enhance intelligent control, and bolster emergency response capabilities.

We will strengthen efforts to maintain and upgrade highway infrastructure, with a focus on centralized renovation to address pavement damage. Through targeted repair and preventive maintenance projects, we aim to improve traffic conditions on highway pavements. Proactive measures will be taken to repair and rectify structural defects in bridges and mitigate navigation hazards, ensuring the safety of bridge traffic. We will also facilitate the systematic decommissioning and replacement of old highway facilities as part of broader maintenance, reconstruction, and expansion projects, thereby enhancing the overall quality of service. For road facilities not covered by the standard maintenance plan, we will ensure their stable performance and optimal operating conditions by increasing maintenance frequency and imposing stricter quality inspection standards. Additionally, we will implement special projects to mitigate traffic congestion, optimize traffic management, and improve traffic flow.

We will enhance the maintenance and repair of highway infrastructure, with a continued focus on the upkeep of Category III bridges and critical

components. Key projects, such as the maintenance and repair of the Taihe Road elevated highway, will be prioritized. We will coordinate maintenance schedules and traffic management plans for adjacent road sections, using critical traffic management windows for centralized replacement or repair of structural defects. This approach, guided by full life cycle management and scientific decision-making, aims to enhance the durability and safety of highway structures. In conjunction with key maintenance projects, we will promote the digitalization of infrastructure through the integration of structural health monitoring systems and building information modeling (BIM) technologies, in line with the principles of urban renewal and resilient city development.

VIII. Promoting the Upgrading of Postal and Express Delivery Equipment

We will support the renewal of outdated security inspection equipment. Postal and express delivery companies will be encouraged to replace conventional micro-dose X-ray systems with intelligent X-ray inspection systems for screening mail and parcels. These companies will also be guided in developing upgrade plans for intelligent security inspection equipment based on their actual needs. We will enhance efforts to promote R&D in intelligent security inspection systems within the postal industry, with an aim of continuously advancing technologies for intelligent security inspections. Furthermore, we will encourage postal

and express delivery companies to enhance the informatization of their security operations by integrating modern technologies such as the internet, big data, cloud computing, artificial intelligence, and blockchain. This will drive the transition of security inspection towards greater informatization and intelligent management. We will support the modernization of outdated sorting equipment by urging postal and express delivery companies to replace obsolete systems with fully automated intelligent sorting systems at major mail and parcel handling facilities. Companies will be guided in developing plans for upgrading sorting equipment, tailored to their operational needs, while ensuring that essential infrastructure, such as land use at handling sites, is properly addressed. We will strengthen the R&D and application of green, low-carbon, and intelligent technologies, promote the evolution of intelligent sorting systems to enhance sorting efficiency, and facilitate the intelligent, low-carbon transition of sorting equipment. Additionally, we will optimize postal infrastructure, including assembly lines and gantry cranes, to ensure seamless mail handling. Network and information systems will be upgraded to boost data processing capabilities. On average, approximately 40 security inspection devices and 1,500 sets of sorting equipment are expected to updated or newly installed each year.

IX. Driving the Digital Transformation of Transportation Infrastructure

We will accelerate the digital transformation of highway and waterway transportation infrastructure by developing digital sensing networks, intelligent management and control systems, and networked service systems. This initiative will shift from traditional infrastructure development models towards a focus on intensive and economical utilization, thereby enhancing the capacity of transportation infrastructure while minimizing resource consumption. We will undertake smart upgrades of facilities at critical nodes, including the construction of intelligent facilities and dispatching systems, as well as enhancements to supporting infrastructure at highway nodes prone to congestion. We will promote pre-transaction processing at stations, facilitate centralized control of navigation locks, optimize berth allocation, and drive integrated dispatching for ships passing through these locks. Additionally, we will advance the implementation of intelligent joint dispatching at anchorages. We will enhance the intelligence of active control facilities in trunk roads, promote dynamic management and traffic guidance at highway entrances, exits, lanes, and other key locations, and achieve coordinated control and traffic diversion between routes and upstream and downstream road segments within trunk roads. We will advance intelligent upgrades of facilities in highway service areas and expand the coverage of intelligent waterway service areas. To improve safety monitoring of infrastructure, we will focus on key elements such as major

road segments, tunnels, bridges, and waterways. We will enhance multi-source three-dimensional monitoring networks and apply digital technologies like digital twins for critical infrastructure, scientific decision-making for highway maintenance, and analysis and prediction of waterway evolution. Additionally, we will promote the transformation and functional upgrading of transportation operation monitoring and early warning systems, including active early warning systems for key vehicles, digital overload control systems, and off-site law enforcement detection facilities. In shallow and hazardous areas, we will implement early warning systems for incidents such as waterway congestion and ship collisions. Furthermore, we will advance the application of "vehicle-road-cloud integration", upgrade ETC gantry system RSUs and other equipment, and facilitate information interaction and coordination with vehicles.

X. Support Measures

(I) Enhancing coordination. The Municipal Transportation Committee, in collaboration with relevant municipal departments, will establish a special working group to coordinate and promote the overall planning efforts. A work promotion mechanism and a regular scheduling mechanism will be established to promptly address difficulties and challenges encountered during the process, ensuring that all tasks progress steadily in alignment with the established objectives.

(II) Strengthening policy support. We will effectively leverage national funding support policies and increase municipal financial contributions to facilitate the replacement of outdated equipment and the upgrading of facilities. We will actively pursue national special support funds, strengthen communication with the Ministry of Transport, and prioritize applications for national subsidies for eligible projects. Additionally, we will actively research and formulate Shanghai-specific supporting policies, leverage existing support mechanisms, and increase aid for companies to retire and renew outdated equipment. We will also explore the establishment of a long-term policy framework for the retirement, renewal, upgrading, and maintenance of transportation facilities and equipment to ensure their orderly, safe, and stable operation.

(III) Fostering a supportive environment. In alignment with national initiatives, we will improve the standard system by developing targeted technical standards and quality specifications to elevate equipment quality and performance. We will enhance the awareness and understanding of the significance, initiatives, and policies related to equipment renewal and upgrading among enterprises and personnel in related sectors by organizing various promotional activities through news media, online platforms, and other channels.

Notice on the Issuance of the Shanghai Special Action Plan for Promoting Large-Scale Equipment Renewals in the Education Sector

Hu Jiao Wei Fa [2024] No. 76

To all relevant units:

To implement the directives of the Party Central Committee and the State Council on promoting large-scale equipment renewals and trade-ins of consumer goods, as well as to meet the municipal specific requirements, Shanghai Municipal Education Commission has developed the *Shanghai Special Action Plan for Promoting Large-Scale Equipment Renewals in the Education Sector*. This initiative aims to actively facilitate the renewal of large-scale equipment within the education sector and aligns with the *Implementation Plan for Major Equipment Renewal in the Education Sector* issued by the National Development and Reform Commission and the Ministry of Education, and the *Shanghai Action Plan for Promoting Large-Scale Equipment Renewals and Trade-ins of Consumer Goods* (2024-2027) issued by the Shanghai Municipal People's Government. This document is hereby distributed to you for your thorough implementation and compliance.

Shanghai Municipal Education Commission

July 18, 2024

Shanghai Special Action Plan for Promoting Large-Scale Equipment Renewals in the Education Sector

In order to implement the directives of the Party Central Committee and the State Council, and to advance large-scale equipment renewals in the education sector, this Action Plan has been formulated in alignment with the *Action Plan for Promoting Large-scale Equipment Renewals and Trade-ins of Consumer Goods* (Guo Fa [2024] No. 7) issued by the State Council, the *Notice on the Issuance of the Implementation Plan for Major Equipment Renewal in the Education Sector* issued by the National Development and Reform Commission and the Ministry of Education (Fa Gai She Hui [2024] No. 718), and the *Shanghai Action Plan for Promoting Large-Scale Equipment Renewals and Trade-ins of Consumer Goods* (2024-2027) (Hu Fu Fa [2024] No. 5) issued by the Shanghai Municipal People's Government. This plan is also tailored to the specific circumstances of the education sector in Shanghai.

I. Supported Areas and Initiatives

(I) Adding and Renewing Teaching Equipment

1. Facilitating the Upgrading and Renewal of Teaching Equipment in Key Disciplines and Specialized Fields in Universities and Accelerating the Adoption of Advanced Technology

We will replace equipment that no longer meets teaching needs, falls

short of relevant teaching standards, poses safety risks, or has reached its minimum service life. This will focus on strategically critical and emerging disciplines such as integrated circuits, artificial intelligence, quantum technology, life sciences, aerospace, materials science, and energy, as well as new fields in engineering, medical, agricultural, and liberal arts. Funding from the “Double First-Class” Initiative and other sources will be mobilized to support the renewal and upgrading of teaching equipment in key disciplines and specialized fields at universities. Additionally, we will support the modernization of instruments and equipment in basic teaching laboratories at municipal public universities, with clear accountability assigned to these institutions. We will also encourage and guide municipal public universities to secure funding from multiple sources to continuously improve the foundational conditions of their teaching laboratories.

2. Implementing Professional Training and Teaching Equipment Standards in Vocational Colleges

We will strengthen the construction and management of practical training and teaching facilities and implement rigorous equipment configuration standards in vocational colleges. Equipment that fails to meet practical training and teaching needs, does not comply with relevant standards, or poses safety risks will be updated.

This initiative will prioritize key industries and sectors, including the

new-generation information technology industry, high-end CNC machine tools and robotics, advanced instruments, aerospace equipment, marine engineering and equipment, advanced rail transit, energy electronics, energy-efficient and new-energy vehicles, power equipment, agricultural machinery, new materials, biomedicine, and high-performance medical devices. Additionally, we will establish dedicated management teams within vocational training centers to guarantee the effective implementation of these equipment standards.

3. Advancing the Configuration and Renewal of Teaching Instruments and Equipment in Middle Schools

In alignment with the *Shanghai Guidelines for Configuration of Primary and Secondary School Teaching Equipment* (High School Edition) and (Middle School Edition), we will standardize and guide the proper configuration of teaching equipment in middle schools to ensure robust support for educational and teaching activities. We will provide guidance to districts and schools on utilizing the “Shanghai Primary and Secondary School Teaching Instruments Configuration Standards” information system, ensuring they understand the basic requirements for the configuration of lab and teaching equipment and instruments. To align with the demands of the new curriculum, experiments and teaching, and assessment standards, we will promptly update the configuration requirements for teaching instruments and equipment for relevant

subjects in middle schools.

(II) Updating Scientific Research Equipment.

1. Strengthening Research Platform Development by Addressing Technological Bottlenecks and Promoting Original and Groundbreaking Innovations

We will guide universities to stay abreast of technological advancements and refine their focus on breakthrough technologies. Universities will be encouraged to reform their research organizational structures to foster organized research efforts, enhance systematic and institutional approaches to technological breakthroughs, and bolster the development of research platforms. These initiatives will facilitate the resolution of critical core technologies and address common technological challenges faced by across various industries and enterprises.

2. Advancing the Construction of Proof-of-Concept Centers in Universities to Enhance the Commercialization of Scientific and Technological Achievements

We will support universities in strengthening collaboration with industry partners to establish specialized proof-of-concept centers across various sectors and facilitate citywide resource sharing. These centers will enable universities to perform a range of activities, including validating principles, testing products and scenario systems, developing prototypes, assessing technological feasibility, and evaluating commercial prospects.

This initiative aims to advance the commercialization and early-stage industrial application of innovative concepts and preliminary scientific results from faculty and students, thereby accelerating the integration of innovation and industry.

(III) Updating Information Technology Equipment

1. Enhancing the Digital and Intelligent Capabilities of Teaching and Training Facilities

We will support universities, vocational colleges, and secondary schools in advancing the digital and intelligent transformation of their educational environments. This includes upgrading campus networks, integrating and modernizing information systems, and improving cybersecurity capabilities. These efforts aim to expand access to high-quality educational resources, elevate educational governance, and further educational modernization. We will also ensure that computer terminals across these institutions receive ongoing, high-quality, and adequate updates. Additionally, we will advance the development of smart campuses, smart classrooms, smart laboratories, smart libraries, and other intelligent educational facilities.

2. Boosting AI-Related Hardware Development in Education

We will support universities in enhancing AI research, exploring the application of AI to modernize traditional disciplines, and advancing the development of computing platforms, robotics, and other related

technologies.

II. Work Requirements

(I) Strengthening Project Reserves

In alignment with national and Shanghai directives, Shanghai Municipal Development & Reform Commission, Shanghai Municipal Education Commission, in collaboration with relevant departments, will coordinate the planning and reserve of high-quality projects. We will guide eligible projects in securing support from national ultra-long-term special bonds and organize applications for a selection of high-quality projects that offer both immediate and long-term benefits.

(II) Enhancing Diverse Support

We will coordinate, integrate, and continually optimize policies related to equipment renewal Shanghai's education sector. As a general rule, equipment renewal projects will be funded through existing financial channels. We encourage higher education institutions, vocational colleges, and secondary schools to diversify their funding sources to strengthen their financial self-sufficiency. We will guide schools in developing comprehensive plans for both equipment procurement and ongoing operational costs. This includes adequately assessing their financial capabilities, ensuring sufficient funding for project execution, and mitigating debt risks to prevent incomplete projects.

(III) Expanding Open Access and Sharing

Major equipment acquisitions and upgrades are generally subject to unified management by Shanghai Municipal Education Commission. We encourage schools to develop and implement policies that promote the open access and sharing of scientific research instruments and equipment both within and beyond the institution.

(IV) Enhancing Efficient Utilization

For old equipment being replaced during the upgrade process, relevant higher education institutions should dispose of it in accordance with Shanghai's regulations for managing state-owned assets in administrative institutions. Equipment suitable for reallocation should be promptly managed through the public property warehouse system in accordance with these regulations. We encourage schools to establish mechanisms for coordinating the donation of surplus equipment. Priority should be given to use within municipal public institutions, with additional donations directed to universities and primary and secondary schools in economically disadvantaged areas. Schools should manage the disassembly, transportation, installation, and commissioning of the equipment properly and provide guidance to recipient institutions to ensure effective operation and maximize the efficiency of equipment use and turnover.

Notice on the Issuance of the Shanghai Action Plan for Promoting Equipment Renewals in the Culture and Tourism Sectors (2024-2027)

Hu Wen Lv Fa [2024] No. 79

To culture and tourism bureaus of all districts and all relevant units:

The Shanghai Action Plan for Promoting Equipment Renewals in the Culture and Tourism Sectors (2024-2027) is hereby issued to you. You are required to conscientiously implement the directives outlined in this plan.

Attachment: Shanghai Action Plan for Promoting Equipment Renewals in the Culture and Tourism Sectors (2024-2027)

Shanghai Municipal Administration of Culture and Tourism

July 8, 2024

Shanghai Action Plan for Promoting Equipment Renewals in the Culture and Tourism Sectors (2024-2027)

To implement the requirements outlined in the State Council's *Action Plan for Promoting Large-scale Equipment Renewals and Trade-ins of Consumer Goods* (Guo Fa [2024] No. 7), and the *Implementation Plan for Promoting Equipment Renewal in the Culture and Tourism Sectors* (Fa Gai She Hui [2024] No. 701), which was jointly issued by the National Development and Reform Commission, the Ministry of Housing and Urban-Rural Development, the Ministry of Culture and Tourism, and other relevant bodies, as well as the Shanghai Municipal People Government's *Shanghai Action Plan for Promoting Large-Scale Equipment Renewals and Trade-ins of Consumer Goods* (2024-2027) (Hu Fu Fa [2024] No. 5), this plan has been formulated. It aims to expand effective investments in the city's culture and tourism sectors, stimulate potential consumption, cultivate new quality productive forces, and promote the high-quality development of these sectors.

I. General Requirements

(I) Guiding Philosophy

Under the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, we will thoroughly implement the guiding principles from the National Tourism Development Conference and the

directives of the CPC Shanghai Municipal Committee and the Shanghai Municipal People's Government. We are committed to upholding fundamental principles while breaking new ground to enhance quality and efficiency and foster integrated development. By carefully balancing government and market forces, aligning supply with demand, and ensuring both development and security, we aim to drive the renewal of equipment across the city's cultural and tourism sectors. These efforts will comprehensively elevate service quality, support high-quality development in culture and tourism, and further Shanghai's goal of becoming a leading example of Xi Jinping Thought on Socialism with Chinese Characteristics in the cultural domain.

(II) Principles of Action

— Market-oriented with government guidance. We will adhere to market principles by leveraging market forces to diversify supply and services, while encouraging enterprises to enhance their equipment renewal efforts. We will play an active governmental role by delivering a well-coordinated policy package designed to benefit both businesses and the public, thereby maximizing the multiplier effects of these initiatives.

— Standards-driven enhancement of services. We will align the improvement of equipment standards with service standards by establishing a long-term mechanism that integrates incentives and constraints based on technical, quality, and energy consumption

benchmarks. We will promote advanced technologies while phasing out outdated ones, and implement targeted measures to effectively stimulate the internal motivation of enterprises and institutions for upgrading and renewal.

— Policy coordination and incremental development We will coordinate fiscal, financial, and investment policies, focusing on key areas and addressing bottlenecks to ensure targeted policies, accessible services, and tangible benefits for enterprises, citizens, and tourists. Through a phased and sequential approach, guided by the principle of “reserve, update, construct, and invest”, we will advance initiatives to ensure steady and incremental progress.

(III) Key Objectives

In 2024, we will initiate a comprehensive citywide campaign to systematically upgrade cultural and tourism equipment by category. By 2027, we aim to reach a cumulative investment of RMB2 billion in upgrading cultural and tourism equipment, significantly boosting the high-quality development of the culture and tourism sectors.

II. Key Tasks

1. Renovating and upgrading sightseeing and tourism facilities. We will promote the renewal and upgrading of elevators and other transportation equipment at major tourist attractions, national tourist resorts, and public cultural venues to enhance visitor carrying capacity and service standards.

Special focus will be given to upgrading water-based tourist facilities along the Huangpu River and Suzhou Creek in Shanghai, incorporating advanced equipment characterized by high technology, efficiency, reliability, and low energy consumption.

2. Renovating and upgrading amusement facilities. We will work to elevate the operational safety and efficiency of amusement facilities by facilitating the introduction of high-reliability, advanced equipment across major tourist sites, amusement parks, and public parks. Furthermore, we will promote the renewal of Shanghai's theme parks, emphasizing the adoption of high-tech, energy-efficient equipment with strong immersive qualities. This includes upgrading low-altitude performance equipment to better satisfy the cultural and entertainment needs of visitors.

3. Renovating and upgrading performing arts equipment. We will drive the renewal of stage lighting, audio, display, mechanical systems, special effects, and their corresponding control systems in venues hosting theatrical performances, tourism-related shows, and other events. Major concert venues and new performance spaces in the city are encouraged to adopt advanced equipment that is safe, visually impressive, reliable, and energy-efficient, thereby better meeting audience expectations for live performances.

4. Transforming the culture and tourism sectors with smart solutions. We will promote the enhancement of smart service equipment, including exhibition displays and visitor/reader services, in key tourist attractions and public cultural venues to elevate the quality of intelligent services. We will encourage excellent cultural and tourism enterprises and institutions to upgrade equipment related to “metaverse” content, storage, computing, transmission, and terminals, thereby reducing costs associated with constructing and operating “cultural tourism metaverse” scenarios.

5. Enhancing cultural heritage preservation and utilization. We will encourage museums to upgrade packaging facilities for precious cultural relics, including acid-free paper boxes, high-density storage cabinets, and temperature-controlled, low-reflective glass display cases for artifacts. We will support the modernization of exhibition facilities, equipment, and large laboratory facilities in key research bases and archaeological institutions. The replacement of exhibition equipment in local red culture and tourism venues will also be facilitated to boost their appeal and influence.

6. Advancing the film industry with high-tech technologies. We will encourage film production and equipment rental companies to upgrade their photography gear, lighting fixtures, storage devices, and other equipment to meet advanced format standards. The initiative will also promote the modernization and standardization of film post-production

equipment systems. Additionally, we will support the adoption of new-generation cinema systems, including large-scale updates to LED screen projection systems in cinemas and the transition to “Dolby Cinema” and “IMAX” formats.

7. Upgrading HD and Ultra-HD equipment. We will facilitate the rapid, widespread adoption and intelligent upgrading of HD and Ultra-HD televisions and set-top boxes. We will expedite the modernization and upgrading of production, broadcasting, and transmission equipment, facilities, and systems to strengthen the capacity for delivering high-quality audiovisual content. Additionally, we will also promote the construction of 4K Ultra-HD acquisition and filming, post-production, and broadcasting systems to establish leading 4K Ultra-HD TV channels.

8. Enhancing the protection of historical and cultural sites. We will focus on preserving historical and cultural towns, villages, subdistricts, and historic buildings by upgrading public services and infrastructure, including fire safety and exhibition facilities. Emphasis will be placed on integrating energy-saving technologies, upgrading to ultra-low energy consumption equipment, and achieving green operations and maintenance in the preservation and utilization of historic buildings. Based on issues identified and work plans developed during annual evaluations of historic and cultural sites, we will systematically update and enhance relevant infrastructure and equipment. Additionally, we will enhance the

deployment and use of sensor devices—such as video surveillance, drones, and IoT sensors—and promote big data and AI technologies to improve smart management, operations, and the safety monitoring of historic buildings.

III. Support Measures

(I) Strengthening organizational leadership. All districts and relevant entities must place high importance on this initiative, ensuring meticulous organization and advancing in a manner that balances ambition with feasibility. Efforts should be concentrated on expediting the assessment and strategic planning for equipment updates. A dynamic project repository for equipment renewal should be established, with a project-based management framework in place to ensure the effective implementation of all tasks.

(II) Coordinating policy support. We will encourage enterprises to actively update their equipment using their own funds to enhance service quality. We will support eligible high-quality projects in securing funding from ultra-long-term special bonds. We will encourage the use of special funds for tourism, cultural and creative industries to increase support for projects involving equipment upgrades. We will strengthen the connection between banks and enterprises and guide policy-based and commercial financial institutions, as well as cultural investment funds, to enhance their support. For projects that primarily involve equipment

upgrades without additional land requirements, we will appropriately streamline preliminary approval procedures. We will strengthen fund supervision to ensure the safety and effectiveness of fiscal funds.

(III) Enhancing publicity and guidance. We will ensure that all localities and relevant units extensively promote policies related to the renovation and upgrading of facilities and equipment in the culture and tourism sectors, broadening policy outreach to foster a strong drive for upgrades. We will strengthen organizational coordination, provide policy interpretation and guidance, and enable entities to effectively carry out upgrades. We will also promptly compile and summarize best practices and successful experiences in promoting the renovation and upgrading of facilities and equipment in the culture and tourism sectors to streamline and enhance the upgrading process.

Notice on the Issuance of the Shanghai Special Action Plan for Promoting Large-Scale Equipment Renewals in the Medical and Health Sectors

Hu Wei Cai Wu [2024] No. 26

To all district health commissions, Shanghai Hospital Development Center, and relevant medical and health institutions:

The Shanghai Special Action Plan for Promoting Large-Scale Equipment Renewals in the Medical and Health Sectors is hereby issued to you. You are required to conscientiously implement the directives outlined in this plan.

Shanghai Municipal Health Commission

Shanghai Municipal Development & Reform Commission

July 25, 2024

Shanghai Special Action Plan for Promoting Large-Scale Equipment Renewals in the Medical and Health Sectors

To implement the directives of the Party Central Committee and the State Council, and advance large-scale equipment renewals in the medical and health sectors, this action plan has been formulated in alignment with the *Action Plan for Promoting Large-scale Equipment Renewals and Trade-ins of Consumer Goods* (Guo Fa [2024] No. 7) issued by the State Council, the *Notice on the Issuance of the Implementation Plan for Equipment Renewal in the Medical And Health Sectors* issued by the National Development and Reform Commission and other ministries (Fa Gai She Hui [2024] No. 737), and the *Shanghai Action Plan for Promoting Large-Scale Equipment Renewals and Trade-ins of Consumer Goods* (2024-2027) (Hu Fu Fa [2024] No. 5) issued by the Shanghai Municipal People's Government. This plan is also tailored to the specific circumstances of the medical and health sectors in Shanghai.

I. Work Objectives

In line with the directives of the Party Central Committee, the State Council, and Shanghai requirements, and in accordance with the *Healthy Shanghai 2030 Plan* and the *Shanghai Health and Wellness Facilities Special Plan* (2024-2035), we remain committed to a people-centered approach. We will strengthen the development of a high-quality and

efficient medical and health service system by advancing the iterative upgrading of equipment and IT infrastructure in medical and health institutions. Qualified medical facilities are encouraged to expedite the upgrade of critical medical equipment, including imaging systems, radiotherapy equipment, telemedicine platforms, and surgical robotics. Additionally, we will promote the renovation and upgrade of hospital wards, outpatient and emergency departments, operating rooms, and energy support systems. This includes intensifying efforts to modify existing medical buildings to be more elderly-friendly and accessible, improving the humanization and intelligence of healthcare spaces, and addressing deficiencies in ward environments and related facilities. These efforts aim to effectively enhance medical and health services and improve the public's healthcare experience.

II. Key Tasks

(I) Upgrading and Digitalizing Medical Equipment

1. Promoting the demonstration and applications of advanced medical equipment. To support Shanghai's ambition of becoming a modern, socialist, and international metropolis with global influence, we encourage high-level hospitals specializing in complex diseases, cutting-edge technologies, sci-tech innovation, and traditional Chinese medicine to benchmark against top international standards. They should deploy advanced medical equipment and core components with

promising potential and recent technological breakthroughs in a demonstrative manner, particularly in radiology, radiotherapy, nuclear medicine, ultrasound diagnosis, ultrasound therapy, and rehabilitation and physiotherapy. This initiative aims to establish an iterative system for updating medical equipment. We will also encourage national medical centers to strategically introduce key integrated and cross-disciplinary medical and scientific research equipment, such as high-end radiotherapy machines, ultra-high-field MRI systems, surgical robots, high-resolution mass spectrometers, and ultra-high-resolution microscopic imaging and analysis systems. These deployments will enhance hospitals' capabilities in diagnosing and treating complex and critical illnesses and address major medical technological challenges.

2. Advancing the expansion and digital transformation of medical equipment in Shanghai's premier healthcare institutions. We will support national regional medical centers, leading municipal hospitals, and key hospitals specializing in traditional Chinese medicine in upgrading and expanding their medical equipment. This includes acquiring advanced imaging equipment such as MRI systems, X-ray CT systems, and digital subtraction angiography (DSA) systems. We will also facilitate the acquisition of therapeutic equipment, including medical linear accelerators and surgical robots, as well as life support equipment like extracorporeal membrane oxygenation (ECMO) machines, ventilators,

and remote monitoring systems. We will promote a data-driven approach to IT application by advancing the intelligent transformation and upgrading of medical equipment. This effort will focus on enhancing basic facilities for computing, storage, and security, as well as improving the efficient aggregation, secure utilization, and compliant analysis of medical data resources. Furthermore, we will strengthen the deployment of telemedicine and IT equipment, focusing on replacing outdated IT systems in traditional Chinese medicine hospitals. This will support the enhancement of diagnostic and treatment capabilities for complex, critical, and rare diseases.

3. Accelerating the replacement and upgrade of outdated hospital equipment. We will expedite the removal of outdated, inefficient, high-failure-rate, and high-maintenance-cost medical equipment from all levels of medical institutions. This equipment will be replaced with high-performance diagnostic and treatment devices, such as MRI machines, color Doppler ultrasound units, and gastrointestinal endoscopes, to reduce patient waiting times. For large Class B medical equipment, we will streamline the approval process and actively assist medical institutions in acquiring items such as PET/CT scanners, PET/MR systems, surgical robots, and radiotherapy equipment. We will promote the development of healthcare consortiums, such as integrated urban medical groups, and facilitate the renewal and upgrading of

precision, convenient, intelligent, and remote medical equipment and IT facilities. These efforts will improve the efficiency of medical resource allocation and utilization. We will encourage secondary hospitals to undertake intelligent upgrades of their medical equipment for rehabilitation, nursing, monitoring, and traditional Chinese medicine diagnosis and treatment. Additionally, to improve the efficiency and quality of medical services, we will promote the use of tele-diagnosis, tele-treatment, and tele-education systems, and support the development and use of intelligent traditional Chinese medicine diagnostic and treatment equipment for pulse diagnosis and rehabilitation. We will also support the upgrading of equipment in community health service centers.

(II) Enhancing Public Safety and Security Equipment Capabilities

4. Strengthening emergency response and emergency medical rescue capabilities for public health emergencies We will support municipal emergency medical rescue bases and teams in systematically upgrading essential equipment, including rescue, monitoring, testing, treatment, and surgical instruments. We will also enhance equipment for emergency communication, command, professional response, and logistical support to improve the overall effectiveness of emergency medical rescue during public health crises. Additionally, we will expand and update pre-hospital emergency vehicles and on-board equipment, including on-board CT scanners where appropriate, to meet required standards. This initiative

aims to advance trauma care and ensure trauma patients receive rapid and effective treatment.

5. Advancing the high-quality development of the disease control system. We will advance the upgrading of physical facilities for the disease control system and establish a modern platform for disease prevention and control. We will encourage medical and disease control institutions to update and equip themselves with biosafety cabinets, autoclave sterilizers, nucleic acid extractors, and fluorescent quantitative PCR machines according to relevant standards. Additionally, we will urge updates to real-time monitoring and cold chain equipment, strengthen laboratory instrument upgrades, and enhance biosafety capabilities to improve the detection and testing of infectious disease pathogens. We will promote the development of pathogenic microorganism laboratory capabilities within medical institutions to increase the etiological detection rate for patients with infectious diseases.

6. Improving the service capacity of other public health institutions. We will support maternal and child health institutions, critical maternal and neonatal care centers, prenatal screening and diagnostic facilities, and neonatal hearing impairment screening and treatment centers in acquiring and updating key equipment in accordance with relevant standards. Additionally, we will provide support for the upgrading of equipment at blood centers and stations, including the renewal of blood collection,

testing, preparation, and storage equipment such as cytometers, hematology analyzers, and platelet thermostatic shakers, to enhance blood supply security and safety standards. We will also support occupational disease prevention and control hospitals and related institutions in enhancing their equipment setup for occupational disease prevention and treatment, hazard monitoring, and emergency response to accidents and incidents.

(III) Enhancing the Operating Environment of Medical and Health Institutions

7. Promoting hospital ward renovations. We will increase the proportion of two-bed and three-bed wards by encouraging secondary and higher-level medical institutions to convert some four-bed or larger wards into smaller configurations. The proportion of single-bed wards for maternity, pediatric, and geriatric care may be increased as needed. As part of the equipment upgrades, we will introduce and replenish bedside devices such as monitors, point-of-care testing (POCT) equipment, and rehabilitation training tools. We will also install elevators, accessible facilities, and transfer equipment to improve inpatient conditions in wards. By 2027, we aim for over 80% of wards in public medical institutions at the secondary level and above to feature two-bed and three-bed configurations. We will encourage hospitals with the necessary conditions to renovate wards to better accommodate elderly and pediatric patients,

creating a more convenient and supportive environment for their medical treatment and for their accompanying family members. Additionally, we will enhance the working conditions in ward duty rooms, nurse stations, and other areas to optimize the work environment for medical staff.

8. Enhancing workplace safety infrastructure. We will urge medical and health institutions to upgrade their emergency response systems, fire safety systems, and monitoring systems based on their operational needs. This includes timely renewal of key equipment and facilities such as fire-fighting systems, substation and distribution equipment, medical gas systems, heating and cooling units, emergency power supplies, wastewater treatment facilities, and other specialized equipment. Emergency facilities will be established as required, equipped with the necessary emergency equipment, and stocked with essential supplies. In high-traffic areas such as outpatient, emergency, and inpatient departments, as well as critical power consumption areas like operating rooms, functional assessment departments, and testing laboratories, we will strengthen the provision of backup power sources, fire alarm and extinguishing systems, and emergency lighting facilities.

III. Support Measures

(I) Strengthening organizational leadership. We will ensure that all districts and relevant units prioritize this initiative, organize their efforts carefully, and maximize their capacities. By enhancing inter-departmental

coordination mechanisms, we will create a unified approach to accelerating large-scale equipment renewal in the medical and health sectors. Medical and health administrative departments and hospital operators at all levels should establish dedicated task forces, develop work plans with clearly defined responsibilities, and strengthen investigation and planning. They should also coordinate and put to good use resources to ensure solid and effective progress. Medical and health institutions at all levels should actively fulfill their primary responsibilities by promoting the renewal and iterative upgrading of equipment and IT infrastructure, and holistically planning resources to better meet the healthcare needs of the public.

(II) Strengthening Project Reserves. We will plan and reserve a portfolio of major projects for medical equipment renewal, ward renovation, and IT infrastructure upgrades. A dynamic project database will be established and refined to enhance project maturity. We will also actively seek funding from central government budgetary investments, government special bonds, ultra-long-term special bonds, and other sources. Municipal and district authorities will coordinate the allocations of transfer payments from the central government and departmental budgets, prioritizing these funds for the upgrade and renewal projects of medical and health institutions, in accordance with the designated purposes of these resources.

(III) Enforcing Rigorous Project Management. All competent authorities and project entities must strictly adhere to relevant laws and regulations on fund and asset management, ensuring appropriate use of funds and proper management of assets to maintain their security and integrity. We will also enhance comprehensive, full-chain, and all-round supervision of funds to ensure they are used for their intended purposes and to prevent any misappropriation, embezzlement, or retention.

Notice on the Issuance of the Shanghai Special Action Plan for Building the Renewable Resource Recycling and Utilization System

Hu Shang Shi Chang [2024] No. 108

To all relevant units:

In response to the Shanghai Action Plan for Promoting Large-Scale Equipment Renewals and Trade-ins of Consumer Goods (2024–2027), the Shanghai Special Action Plan for Building the Renewable Resource Recycling and Utilization System is hereby issued to you. You are required to conscientiously implement the directives outlined in this plan.

Shanghai Municipal Commission of Commerce

Shanghai Landscaping & City Appearance Administrative Bureau

Shanghai Municipal Development & Reform Commission

Shanghai Municipal Bureau of Planning and Natural Resources

June 4, 2024

Shanghai Special Action Plan for Building the Renewable Resource Recycling and Utilization System

In alignment with the *Action Plan for Promoting Large-scale Equipment Renewals and Trade-ins of Consumer Goods* issued by the State Council and the *Shanghai Action Plan for Promoting Large-Scale Equipment Renewals and Trade-ins of Consumer Goods* (2024-2027), this special action plan is designed to support the development of a renewable resource recycling and utilization system in Shanghai.

I. General Requirements

In our commitment to advancing a green and low-carbon economy, we will thoroughly implement the *Procedures of Shanghai Municipality on the Administration of Renewable Resource Recovery* and the *Shanghai Implementation Plan for the Development of the Waste Materials Recycling System*. Aligned with the city's "Zero-Waste City" initiative, we will streamline the entire resource recycling and utilization chain—from source collection, precise classification, and efficient use to circular regeneration of resources. We will encourage leading enterprises to grow larger and stronger, driving the coordinated development of upstream and downstream enterprises within the industrial chain. We will also enhance the application of digital technology to promote innovation in recycling service models, decomposition and disposal technologies,

and industry management practices. By effectively leveraging fiscal, financial, and land policy tools, we will expedite the improvement of the city's network for the efficient recycling of renewable resources and further elevate our resource circularity to new levels.

By 2027, we aim to achieve full coverage of renewable resource recycling points in all communities across Shanghai. We will establish a number of standard-compliant green sorting centers, set up 800 recycling-for-money drop-off sites, and construct 50 high-quality exemplary recyclables transfer stations. The recovery rate of major types of renewable resources across the city is expected to exceed 85%. Furthermore, we will support the growth of leading enterprises with strong national market competitiveness and influence. We aim to guide the industry toward greater industrialization, large-scale operations, and intensive development.

II. Key Tasks

(I) Upgrading the renewable resource recycling network. We will continue to integrate household waste sorting networks with renewable resource recycling networks, accelerating the upgrade of collection points, stations, and processing facilities. To optimize the entire sorting system for household waste, we will improve the regular evaluation mechanism for recycling enterprises and guide them toward large-scale, standardized, and digitized operations. We will promote the use of public service

platforms for recyclable materials recovery and support the development of recycling-for-money drop-off sites, smart recycling equipment, and other service points. Additionally, we will introduce “Recycling Activity Days” in sub-districts and communities to diversify recycling methods. Additionally, we will develop a comprehensive system for collecting and transporting bulky waste. We will also support eligible districts in applying for recognition as national model cities for their strong recycling systems for renewable resources, including waste, old household appliances, and furniture. (Responsible agencies: Shanghai Landscaping & City Appearance Administrative Bureau, Shanghai Municipal Commission of Commerce, Shanghai Municipal Housing Administration, and district governments)

(II) Enhancing the recycling and utilization chain for key product categories. We will establish a seamless disposal and replacement chain for waste and old home appliances. We will support home appliance manufacturers and retailers in leveraging their delivery, installation, and maintenance channels to build a recycling system. We will also accelerate the development of logistics systems and innovative models for “trade-in + recycling” programs. To enhance resource utilization, we will increase support for the local recycling of key categories such as electronic waste and end-of-life vehicles, utilizing special funds designated for the circular economy. For categories requiring cross-provincial and cross-city

recycling, such as waste plastics, metals, paper, textiles, and wood, we will improve subsidy policies and streamline the cross-regional recycling chain for renewable resources. We will also support manufacturers in key sectors—automobiles, electronics, and power batteries—in establishing robust extended producer responsibility systems and adopting comprehensive product lifecycle management practices. Additionally, we will continue to facilitate the recycling of electric bicycles, with a focus on the proper categorization and recycling of used batteries. (Responsible agencies: Shanghai Municipal Commission of Commerce, Shanghai Municipal Development & Reform Commission, Shanghai Municipal Commission of Economy and Informatization, and Shanghai Municipal Bureau of Ecology and Environment)

(III) Establishing green sorting centers for renewable resources. We will support recycling enterprises, particularly those dealing with electronic waste, in developing comprehensive and specialized green sorting centers that meet industry standards. We will encourage manufacturers to collaborate with recycling and processing companies to establish integrated centers for green sorting, processing, and distribution of scrap steel, waste non-ferrous metals, waste paper, and other materials, as well as dedicated centers for recycling used power batteries. We will support enterprises in developing and applying cutting-edge recycling technologies and equipment, promote precise dismantling processes, and

facilitate the transformation and upgrading of existing recycling technologies and equipment. (Responsible agencies: Shanghai Municipal Commission of Commerce, Shanghai Municipal Development & Reform Commission, Shanghai Municipal Commission of Economy and Informatization, and Science and Technology Commission of Shanghai Municipality)

(IV) Promoting diversified and large-scale recycling entities. We will leverage the channel advantages of distribution enterprises and encourage e-commerce platforms and other entities to expand their services to include recycling, sorting, dismantling, and reuse. We will encourage recycling enterprises to enhance their organization through chain operations and contractual cooperation, and to explore franchised business models for recyclable waste collection. We will support eligible enterprises in applying for recognition as national model enterprises for their robust recycling systems for waste and old home appliances, furniture, and other renewable resources. Their innovative models and successful experiences will be promoted. (Responsible agencies: Shanghai Municipal Commission of Commerce, Shanghai Landscaping & City Appearance Administrative Bureau, Shanghai Municipal Development & Reform Commission, Shanghai Municipal Commission of Economy and Informatization, and Shanghai Supply and Marketing Cooperatives)

(V) Advancing digital development in the recycling industry. We will encourage enterprises to adopt digital management across the entire renewable resource recycling process, from collection and sorting to processing, transportation, storage, and utilization. We will also promote new business models, such as Internet Plus Recycling, to enhance both recycling efficiency and resource utilization. We will support industry leaders in leveraging digital technologies to broaden their applications across multiple categories. This includes developing an integrated online-offline information platform for renewable resource recycling and utilization, as well as exploring criteria, methodologies, and data collection standards for quantifying the carbon footprint of various recycled products. (Responsible agencies: Shanghai Municipal Commission of Commerce, Shanghai Municipal Commission of Economy and Informatization, Shanghai Landscaping & City Appearance Administrative Bureau, Shanghai Municipal Development & Reform Commission, Shanghai Municipal Bureau of Ecology and Environment, and Shanghai Municipal Data Bureau)

(VI) Implementing comprehensive support policies for land use planning. We will encourage relevant districts to tailor measures to local conditions and promptly implement the policy that mandates allocating 1% of regional planned industrial land specifically for resource recycling enterprises involved in industrial development. We will clarify the

qualification requirements for enterprises, application procedures, output value deductions, tax revenue, and other assessment criteria, while strengthening the responsibility of local governments in supporting these industrial zones. Additionally, we will increase support for the construction of recyclable waste transfer stations and distribution centers through municipal land allocations. (Responsible agencies: Shanghai Municipal Development & Reform Commission, Shanghai Municipal Bureau of Planning and Natural Resources, Shanghai Municipal Commission of Commerce, Shanghai Landscaping & City Appearance Administrative Bureau, and district governments)

(VII) Effectively utilizing fiscal, taxation, and financial support policies. We will coordinate central special funds designated for developing modern commercial distribution systems and county-level commercial systems, along with municipal special funds for energy conservation and emission reduction. This support will be directed towards renewable resource recycling enterprises that meet the criteria outlined in the *Shanghai Special Support Measures for Circular Economy Development and Comprehensive Utilization of Resources*. We will improve subsidy policies for low-value recyclables in various districts and explore differentiated subsidy policies for materials such as foam plastics and glass. In response to the tax support policies issued by the Ministry of Finance and the State Taxation Administration related to trade-ins of

consumer goods, we will promote the adoption of “reverse invoicing” for individuals selling scrapped products to resource recycling enterprises. Additionally, we will enforce income tax management measures in line with the national policy for simplified VAT collection by renewable resource recycling enterprises. We will encourage financial institutions to innovate green financial products and services, offering greater support for investment and financing in renewable resource recycling enterprises and key projects. (Responsible agencies: Shanghai Municipal Development & Reform Commission, Shanghai Municipal Finance Bureau, Shanghai Municipal Tax Service, Financial Commission Office of the CPC Shanghai Municipal Committee, Shanghai Municipal Financial Regulatory Bureau of National Financial Regulatory Administration, Shanghai Office of the China Securities Regulatory Commission, Shanghai Head Office of the People’s Bank of China, and Shanghai Municipal Commission of Commerce)

(VIII) Enhancing the standards system for the recycling industry. We will intensify efforts to establish standards for sorting, processing, transportation, storage, and the construction of facilities for renewable resources. We will develop leading standards and specifications in key areas, including low-value recyclables. Additionally, we will encourage relevant social organizations and enterprises to create group and corporate standards to ensure standardized services in renewable resource recycling.

(Responsible agencies: Shanghai Municipal Administration for Market Regulation, Shanghai Municipal Commission of Commerce, Shanghai Landscaping & City Appearance Administrative Bureau, and Shanghai Municipal Commission of Economy and Informatization)

(IX) Ensuring vehicle access for recycling operations. We will ensure reasonable road access for recycling enterprises by relaxing restrictions on the entry of waste material recovery vehicles into urban areas. We will also support and regulate vehicle specifications, operational zones, and permitted times for road use. Additionally, we will guide recycling enterprises in applying for electronic passes through the “Sui Shen Ban” app, ensuring they receive the necessary road rights. (Responsible agency: Shanghai Public Security Bureau)

(X) Innovating credit supervision models. We will strengthen the daily supervision of renewable resource recycling enterprises to ensure safe and environmentally sound operation. To improve the overall effectiveness of credit supervision, we will enhance the supervision model by implementing differentiated oversight based on classification and grading. Furthermore, we will regularly conduct joint law enforcement actions to crack down hard on illegal business operations within the industry. (Responsible agencies: Shanghai Municipal Commission of Commerce, Shanghai Municipal Bureau of Ecology and

Environment, Shanghai Municipal Development & Reform Commission, and Shanghai Municipal Administration for Market Regulation)

(XI) Strengthening the development of the recycling sector. We will promote legal awareness and industry standards among enterprises to foster a culture of compliance and strengthen self-regulation within the sector. Aligned with events such as Shanghai's "Double Five Shopping Festival" and the Green Consumption Festival, we will actively support initiatives focused on large-scale equipment renewal and trade-ins of consumer goods. Additionally, we will conduct ongoing industry credit evaluations, develop indicators for the credit system of renewable resource recycling enterprises, and guide the recycling industry towards standardized operations. (Responsible agencies: Shanghai Municipal Commission of Commerce, Shanghai Municipal Development & Reform Commission, and Shanghai Municipal Administration for Market Regulation)

(XII) Expanding social awareness and engagement. We will leverage campaigns like National Energy Conservation Promotion Week and National Ecology Day to widely promote green and safe living, along with knowledge of energy conservation and low-carbon lifestyles. In conjunction with developing a carbon inclusiveness system, we will explore integrating a carbon credit mechanism for sorted recyclables and the emission reductions achieved by recycling and utilization enterprises

into the carbon inclusiveness management platform. Our goal is to encourage the public and relevant enterprises to actively engage in recycling and adopt green lifestyles. (Responsible agencies: Shanghai Landscaping & City Appearance Administrative Bureau, Shanghai Municipal Development & Reform Commission, Shanghai Municipal Bureau of Ecology and Environment, and Shanghai Municipal Commission of Commerce)

III. Implementation Measures

Under the coordination mechanism for developing the city's waste and old material recycling system, a task force will be established to coordinate and promote the building of the renewable resource recycling system across the city. This task force will include Shanghai Municipal Commission of Commerce, Shanghai Landscaping & City Appearance Administrative Bureau, Shanghai Municipal Development & Reform Commission, Shanghai Municipal Bureau of Planning and Natural Resources, and other relevant departments, Other departments will participate in relevant work and fulfill their respective responsibilities according to their functions and duties. We will regularly monitor and summarize the implementation of each task, updating and improving specific initiatives as needed.

Notice on the Issuance of the Action Plan for Upgrading Standards to Guide Equipment Renewals and Trade-ins of Consumer Goods

Hu Shi Jian Biao Chuang [2024] No. 295

To all relevant units:

The Action Plan for Upgrading Standards to Guide Equipment Renewals and Trade-ins of Consumer Goods is hereby issued to you. You are required to conscientiously implement the directives outlined in this plan.

Shanghai Municipal Administration for Market Regulation

Shanghai Municipal Development & Reform Commission

Shanghai Municipal Commission of Economy and Informatization

Shanghai Municipal Commission of Commerce

Shanghai Municipal Bureau of Ecology and Environment

June 18, 2024

Action Plan for Upgrading Standards to Guide Equipment Renewals and Trade-ins of Consumer Goods

In alignment with the State Council's *Action Plan for Promoting Large-scale Equipment Renewals and Trade-ins of Consumer Goods* issued by the State Council and the State Administration for Market Regulation's *Action Plan for Upgrading Standards to Guide Equipment Renewals and Trade-ins of Consumer Goods*, this action plan has been developed to further strengthen the role of standards in guiding and supporting the renewal of equipment and the trade-in of consumer goods within Shanghai.

I. General Requirements

We will follow the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, fully implement the guiding principles from the Party's 20th National Congress, move faster to create a new pattern of development, and promote high-quality development. In alignment with the national directives for the new round of large-scale equipment renewals and trade-ins of consumer goods, we will prioritize standardization. Our focus will be on expediting the development of standards in critical areas such as energy conservation, carbon reduction, environmental protection, quality assurance, safety, and resource recycling. By enhancing the application and enforcement of these

standards, we aim to maximize their impact, thereby supporting and facilitating large-scale equipment renewals and consumer goods trade-ins throughout the city.

——Adhering to government leadership and fostering collaborative efforts. We will strengthen top-level design, enhance collaboration between standardization authorities and industry regulators, and optimize the supply structure of standards through coordinated support policies and active participation from market entities. This unified approach aims to develop a multi-tiered set of standards.

——Focusing on key areas to empower industry development. To drive high-quality industrial growth, we will accelerate the development of key standards in green and low-carbon technologies, energy conservation and emission reduction, consumer product quality and safety, and resource recycling. By increasing the availability of high-level standards, we will empower and support industrial development.

——Adopting a demand-driven approach to promote orderly upgrading. We will adopt a comprehensive approach tailored to the city's needs for equipment renewals and consumer goods trade-ins. Our strategy includes promoting the systematic enhancement of standards, reinforcing the implementation of standards at all levels, and providing targeted support to facilitate equipment renewals and consumer goods trade-ins.

II. Accelerating the Enhancement of Energy Efficiency Standards to Guide Equipment Renewals

(I) Expediting the upgrading of energy-saving technical standards. We will continue to refine the energy-saving and emission reduction standards system by revising and establishing local standards for water usage in industry, services, and construction, residential water usage, and energy consumption in government offices and public buses. We will formulate guidelines for efficient energy use in government offices, elder care facilities, large public cultural institutions, and medium to large sports venues to standardize energy practices in public institutions. We will actively contribute to the development of national and industrial standards for energy conservation, renewable energy, and hydrogen energy. Furthermore, we will encourage local social organizations and industry leaders to create group and corporate standards that exceed national benchmarks. (Responsible agencies: Shanghai Water Authority, Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Transportation Commission, Government Offices Administration of the Shanghai Municipal People's Government, Shanghai Municipal Development & Reform Commission, Shanghai Municipal Administration for Market Regulation, etc.)

(II) Continuously improving environmental protection standards. We will accelerate the formulation and revision of mandatory local standards for

pollutant emissions in industries such as pharmaceuticals, steel, printing, and coatings, as well as in domestic and hazardous waste incineration. Additionally, we will establish local standards for managing ship water pollutants and adding carbon sources in urban sewage treatment plants. By continually refining technical requirements, we aim to enhance environmental protection. (Responsible agencies: Shanghai Municipal Bureau of Ecology and Environment, Shanghai Water Authority, Shanghai Landscaping & City Appearance Administrative Bureau, Shanghai Municipal Administration for Market Regulation, etc.)

(III) Strengthening the development of green and low-carbon standards. We will steadily establish a system of low-carbon standards that encompass carbon reduction, carbon removal, and market-based mechanisms to facilitate the low-carbon transformation of industries. We will advance product carbon footprint management and the development of green and low-carbon supply chains. This includes organizing the creation of standards for carbon footprint measurement, carbon emissions accounting, and related areas. We will promote the formulation of local standards for green and smart supply chains, sludge incineration ash recycling, and smart highway technologies to intensify comprehensive utilization of resources. We will also develop local standards for green roads, green schools, and green parks to advance low-carbon construction in public spaces. Additionally, we will rely on the Shanghai Technical

Standard Innovation Base for Green and Low-carbon Energy Equipment to develop technical standards for key equipment, including nuclear power, wind power, smart grids, and energy internet technologies. (Responsible agencies: Shanghai Municipal Development & Reform Commission, Shanghai Municipal Bureau of Ecology and Environment, Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Administration for Market Regulation, etc.)

(IV) Elevating equipment technical standards. We will expedite the development of local standards for the use and management of in-service industrial boilers, dynamic air compressors (stations), inland port cranes, and atmospheric storage tanks for hazardous chemicals to enhance the safety and energy efficiency of general equipment. We will also formulate local standards for automatic technologies in bridge-type grab ship unloaders, mobile energy storage and charging safety for new energy vehicles, system safety for commercial aircraft, and intelligent management of forklifts to advance equipment intelligence. Additionally, we will promote the upgrading of local standards for intelligent security technologies and systems in key buildings and residential areas. (Responsible agencies: Shanghai Municipal Administration for Market Regulation, Shanghai Municipal Commission of Economy and Informatization, Shanghai Public Security Bureau, etc.)

III. Enhancing Technical Standards to Promote Trade-ins of Consumer Goods

(V) Advancing the upgrading of automotive standards. We will develop local standards for smart transportation services, public transportation operations, parking facilities, vehicle-to-infrastructure architecture, and traffic data in simulated scenarios to advance autonomous driving capabilities. To drive the development of the intelligent connected vehicle industry, we will formulate and implement local standards for open test road infrastructure, driverless tests, high-speed road tests, and information exchange systems. Additionally, we will enhance standards for automotive after-sales services and smart parking to foster a consumer environment supportive of new energy vehicle development. (Responsible agencies: Shanghai Municipal Transportation Commission, Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Administration for Market Regulation, etc.)

(VI) Expediting the renewal of home appliance and furnishing standards. We will intensify efforts to promote standards for the safe service life and energy efficiency of home appliances and facilitate the trade-in of old appliances and electric bicycles for new ones. By leveraging the municipal smart home standardization innovation center, we will refine the system of standards for new furniture and develop standards for green furniture, elderly-friendly furniture, and furniture for infants and children.

Additionally, we will leverage national standard verification points in consumer goods sectors, such as smart homes, to drive improvements in smart home product quality. (Responsible agencies: Shanghai Municipal Administration for Market Regulation, Shanghai Municipal Commission of Commerce, Shanghai Fire and Rescue, Shanghai Municipal Commission of Economy and Informatization, etc.)

(VII) Elevating management standards for consumer goods services. We will continue advancing national-level standardization pilots for consumer goods and services and encourage local enterprises to actively participate in the 'leader' evaluation of corporate standards to enhance the supply of high-quality standards. We will strengthen the promotion and implementation of quality grading standards for consumer goods such as home appliances, clothing, bags and suitcases, footwear, and down products. Additionally, we will encourage enterprises to clearly label quality grades on their products according to these standards, fostering a safe and trustworthy consumer environment. (Responsible agencies: Shanghai Municipal Administration for Market Regulation, Shanghai Municipal Commission of Commerce, etc.)

IV. Improving Standards for Recycling and Circular Utilization to Promote Smooth Industrial Circulation

(VIII) Enhancing the availability of green design standards. We will support market entities in participating in the development of national

green design standards for home appliances, furniture, electronics, textiles, clothing, plastics, and more. We will speed up the formulation of local standards for electronic product design, data center construction, and certification of green leasing projects, promoting the adoption of environmentally friendly and recyclable designs. (Responsible agencies: Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Development & Reform Commission, Shanghai Municipal Administration for Market Regulation, etc.)

(IX) Improving standards for second-hand product transactions. We will develop a number of leading standards and specifications for the recycling of low-value materials and transactions of second-hand goods. By establishing circular economy standardization pilots, we will enhance standards for the recycling and trading services of second-hand electronics, cars, and other products. (Responsible agencies: Shanghai Municipal Commission of Commerce, Shanghai Municipal Development & Reform Commission, Shanghai Municipal Administration for Market Regulation, etc.)

(X) Refining standards for recycling of waste and old products. We will expedite the development of local standards for recycling used power batteries from electric vehicles and for the circular use of express delivery packaging, with the aim of continually improving waste recycling and utilization. We will encourage social organizations and enterprises to

develop group and corporate standards for recycled and remanufactured products, as well as standardized services for recycled resources, to meet market demands and foster innovation. Additionally, we will actively participate in the development and revision of relevant national and industry standards and promote the certification of remanufactured products. (Responsible agencies: Shanghai Municipal Commission of Economy and Informatization, Shanghai Municipal Commission of Commerce, Shanghai Municipal Postal Administration, Shanghai Municipal Administration for Market Regulation, etc.)

V. Support Measures

(XI) Strengthening organizational coordination. Through the Shanghai standardization joint conference system, we will strengthen inter-departmental collaboration and coordinate the promotion of standards for equipment renewals and trade-ins of consumer goods. Industry regulatory authorities are to expedite the development of local standards in line with the formulation and revision plans for key local standards and promptly submit proposals for new standard projects as needed.

(XII) Fostering innovation-driven development. We will support the establishment of high-level standards for equipment renewals and trade-ins of consumer goods, creating a series of “Shanghai Standards”. Efforts will be made to accelerate the establishment of international

standardization talent training bases and enhance participation in the development and revision of international standards in key sectors. We will actively enhance the role of local standardization technical committees and emerging industry standardization organizations in fostering greater synergy between standards, technological innovation, and industrial development, while providing robust technical support for standard development.

(XIII) Enhancing standard implementation. We will reinforce the implementation of standards by continuously evaluating and reviewing local standards, promptly revising or eliminating outdated ones, and systematically advancing standard levels. Product quality supervision and random inspections will be strengthened based on the national catalog for consumer product quality and safety supervision. To promote the integration of standards and certification, we will encourage enterprises to demonstrate adherence to the principle of ‘same production line, same standards, same quality’ through self-declaration or third-party evaluation.

Notification on Issuing the *Special Support Measures of Shanghai Municipality for Energy Conservation, Emission Reduction, and Contract Energy Management in Industrial and Communication Sectors*

Scope of Support

The special fund primarily supports upgrading green and low-carbon industrial processes, applying new green and low-carbon technologies, constructing green manufacturing systems, implementing energy conservation and emission reduction transformations, and enhancing management capabilities. It also promotes services such as cleaner production and contract energy management for energy conservation and environmental protection, as well as additional initiatives determined by the municipal government.

Conditions and Standards for Support

(I) Energy Conservation, Carbon Reduction, and Management Capacity Enhancement

1. Upgrade of Green and Low-Carbon Processes and Application of New Technologies

Projects that achieve breakthroughs in processes or reengineering and those where enterprises apply green and low-carbon technologies, new materials, or new equipment for the first time with demonstrable and promotable significance will be rewarded at CNY 2,000 per ton of

standard coal saved. The maximum reward for a single project shall not exceed CNY 10 million and shall not exceed 30% of the investment amount.

2. Energy-saving Technology Retrofit Projects

Projects that align with national and municipal industrial policies and involve technological retrofits of existing processes and equipment, achieving an annual energy saving of over 50 tons of standard coal, will be rewarded at CNY 1,000 per ton of standard coal saved. The maximum reward for a single project shall not exceed CNY 10 million and shall not exceed 30% of the investment amount.

3. Energy Management Center Projects

Energy-consuming entities and parks that comprehensively utilize digital technologies to establish energy management centers and achieve energy conservation and carbon reduction effects will be rewarded with 20% of the project investment amount, with a maximum reward of CNY 10 million for a single project. The technical requirements for constructing energy management centers will be detailed in the application notice.

4. Energy Management System Certification

Industrial and communication enterprises with an annual comprehensive energy consumption exceeding 2,000 tons of standard coal that pass the GB/T23331 or ISO50001 *Energy Management System* certification for the first time will be granted a one-time reward of CNY 50,000.

(II) Green Manufacturing System Demonstration

Enterprises rated as national-level green parks, green factories, green supply chain management, green industrial product design demonstration enterprises, or green data centers will be granted a one-time reward of CNY 200,000.

(III) Cleaner Production

In accordance with the requirements of the *Cleaner Production Audit Measures*, enterprises that pass the acceptance and meet at least two of the evaluation criteria for energy conservation, consumption reduction, and pollution reduction, with a project investment exceeding CNY 500,000, will be rewarded at 20% of the investment amount, with a maximum reward not exceeding CNY 10 million. The cleaner production evaluation criteria will be specified in the application notice.

(IV) Energy Conservation and Environmental Protection Services

1. Contract Energy Management

(1) Energy service organizations adopting the contract energy management model in industries such as manufacturing, construction, transportation, and public services, including the use of technologies such as the Internet, cloud computing, and AI intelligent control for energy-saving operations and management, will be rewarded at CNY 1,500 per ton of standard coal saved for projects achieving an annual energy saving of over 50 tons of standard coal. The maximum reward for

a single project shall not exceed CNY 10 million, and shall not surpass 30% of the investment amount.

(2) Support will be provided for new construction projects adopting the contract energy management model. New contract energy management projects with energy-saving equipment and facilities investment exceeding CNY 5 million and achieving an energy saving of over 500 tons of standard coal will receive a one-time reward of CNY 500,000.

2. Energy Auditing and Energy-saving Diagnostic Services

Support will be provided for energy service organizations conducting energy audits, energy efficiency diagnostics, and other testing and evaluation services for energy-consuming entities, and formulating energy efficiency transformation plans. Those that complete project implementation, energy efficiency and carbon reduction renovations, and management capability enhancements will be rewarded with CNY 50,000.

3. Cleaner Production Services

Support will be provided for energy service organizations implementing cleaner production audit and testing evaluation services for enterprises. Those that meet the relevant acceptance criteria will be rewarded with CNY 50,000.

Notification on Issuing the *Implementation Rules of Shanghai Municipality for Special Support of First-of-Its-Kind Breakthroughs in High-End Intelligent Equipment*

Support Scope

(I) The breakthrough projects for first-of-its-kind equipment shall be led by local equipment manufacturing enterprises in collaboration with their user organizations, resulting in the formation of sales contracts. As a principle, the number of contracts signed by the manufacturing enterprise and user organizations in the same batch should not exceed three, and the time span between these contracts should be within six months.

(II) Demonstration application projects should involve the adoption of first-of-its-kind equipment independently developed by local manufacturing enterprises. These projects should demonstrate new technologies and models with industry-leading and demonstrative effects.

(III) Other matters requiring support as approved by the municipal government.

Application Conditions

Applicants for the breakthrough projects of first-of-its-kind equipment shall meet the following conditions:

(I) The equipment must cater to the development needs of advanced manufacturing clusters such as automotive, electronic information, civil

aviation, biomedicine, high-end equipment, and green chemicals, as well as belong to key areas such as new energy and intelligent connected vehicles, high-end CNC machine tools, robotics, high-end energy equipment, high-end intelligent manufacturing equipment, integrated circuit equipment, rail transit equipment, high-end medical devices, and energy efficiency and environmental protection equipment.

(II) The manufacturing enterprise must possess the core intellectual property rights of the equipment, obtained through technological innovation, in compliance with domestic and international legal standards.

(III) The equipment must pass the certification tests conducted by relevant provincial or higher-level qualification inspection institutions or laboratories.

(IV) The project must be recommended as the first of its kind internationally or domestically by at least two industry experts with senior professional titles.

(V) The project contract must be signed between the manufacturing enterprise and the end user organization, with the manufacturing enterprise having already received no less than 15% of the contract's initial payment, and the demonstration application entity having completed no less than 10% of the investment in high-end intelligent equipment and system integration.

(VI) The project must align with national and Shanghai municipal industrial policy directions.

Support Standards

(I) For breakthrough projects involving first-of-its-kind equipment, a non-repayable grant will be provided, with the support amount not exceeding 30% of the sales contract value of the first unit. Projects recognized as the first of their kind internationally will receive support at a rate of 20-30% of the contract value, with a maximum support amount of CNY 30 million. Projects recognized as the first of their kind domestically will receive support at a rate of 10% of the contract value, with a maximum support amount of CNY 10 million.

(II) For demonstration application projects, a non-repayable grant will be provided. Each project will be supported up to 20% of the investment in high-end intelligent equipment and system integration, with a maximum support amount of CNY 10 million.

For major projects approved by the Shanghai municipal government, the support ratio and amount may exceed the above standards.

Notification on Issuing the *Administrative Measures of Shanghai Municipality for the Special Fund for Industrial transformation, upgrading, and development*

Scope and Methods of Fund Support

Article 7 (Support Scope)

The special fund will primarily be allocated for the following areas:

(I) Industrial Development: Accelerate the automation, digitization, networking, and intelligentization of manufacturing, focusing on supporting industrial projects that strengthen key foundational materials, core components (parts), advanced basic processes, and industrial technology foundations. Prioritize technical renovation projects that promote green development, optimize product structure, enhance safety production, elevate industrial clustering, and strengthen the construction of public service platforms, driving the advancement of high-end, information-oriented, and service-oriented manufacturing. Support the construction of new platforms and the transformation and upgrading of industrial parks.

(II) Industrial Technological Innovation: Align innovation chains with industrial chains, supporting the tackling of key industrial technologies, and accelerating the absorption, integration, and innovation of advanced international technologies. Foster effective collaboration, resource convergence, and coordinated innovation among various innovation

entities, supporting the development and capacity-building of industrial technology innovation systems, and accelerating the industrialization of innovative outcomes.

(III) First-of-Its-Kind Breakthroughs and Demonstration Applications in High-End Intelligent Equipment: Support manufacturing enterprises and users in joint research and collaborative innovation. Facilitate the breakthrough and demonstration application of the first unit (set, batch) of high-end intelligent equipment and key components, as well as the construction of platforms for testing, research, experimentation, validation, and other related activities.

(IV) Development of Productive Service Industries: Support enterprises in aligning with market demands, enhancing their value chains, and expanding and strengthening external service markets through organizational structure optimization and business process reengineering. Support functional areas of productive service industries in improving park management and services. Additionally, support the development of platform enterprises with industry-leading capabilities, market demand, and services for small and medium-sized enterprises.

(V) Implementation of Brand Strategy: Support the creation of city brands, the enhancement of regional brands, the development of industry brands, and the construction of corporate and product brands. Build and enhance various brand public service platforms. Strengthen the protection

of arts and crafts, support the inheritance, protection, and development of traditional arts and crafts, and make them stronger and more refined.

(VI) Research and Cultivation of the “Four New” Economy: Encourage the development of “Four New” enterprises and team-building. Promote collaboration among “Four New” enterprises around industrial, value, and innovation chains, support industrial innovation alliances, and foster the growth of the “Four New” economy.

(VII) Local Matching Funds Provided According to Regulations for Major Municipal Projects Supported by the State.

(VIII) Other Matters Approved by the Shanghai Municipal Government.

Notification on Issuing the *Implementation Measures for Subsidies Encouraging Excess Nitrogen Oxide Emission Reduction in Jinshan District*

Scope of Support

These measures apply to enterprises engaged in nitrogen oxide emissions within Jinshan District, Fengxian District, and the Shanghai Chemical Industry Zone.

Subsidy Standards

Enterprises achieving excess nitrogen oxide reduction through facility upgrades, installation of control equipment, or equipment elimination will receive a one-time subsidy of CNY 150,000 per ton of excess reduction. Enterprises may apply for subsidy funds in batches based on the implementation of reduction measures, with the total subsidy not exceeding the actual investment costs of the enterprise. The maximum total subsidy amount per enterprise is capped at CNY 30 million.

Application Conditions

Applicants for subsidies shall meet the following criteria:

1. The enterprise must be operating within Jinshan District, Fengxian District, or the Shanghai Chemical Industry Zone.

2. The enterprise must voluntarily achieve excess nitrogen oxide reduction through facility upgrades, installation of control equipment, or equipment elimination, with a reduction amount of no less than 1 ton per

year.

3. The enterprise must agree to deduct the excess reduction amount from the current pollutant discharge permit.

4. The enterprise must have no record of environmental or safety production violations in the past three years.

Financial Support Measures of Shanghai Municipality for Upgrading and Renovation of Coal-Fired Power Units

Eligible Recipients

Funding support will be provided to public and captive power plants in Shanghai that undertake standalone flexibility upgrades and high-temperature subcritical comprehensive upgrades in accordance with implementation plans of the coal-fired power upgrading and renovation organized by the Shanghai Municipal Development & Reform Commission. Support is contingent upon meeting the performance requirements outlined in the implementation plans.

Support Standards

1. Support Standards for Standalone Flexibility Upgrades: For units with a minimum technical output of 26%-29% of rated load after renovation, the support amount will be 15% of the verified investment in equipment purchase and installation and debugging related to flexibility upgrades. For units with a minimum technical output of 23%-26% (inclusive) of rated load, the support amount will be 20% of the verified investment in equipment purchase and installation and debugging related to flexibility upgrades. For units with a minimum technical output of 20%-23% (inclusive) of rated load, the support amount will be 25% of the verified investment in equipment purchase and installation and debugging related

to flexibility upgrades. The total subsidy for a single unit shall not exceed CNY 25 million.

2. Support Standards for Comprehensive Upgrades: For units undergoing comprehensive upgrades using high-temperature subcritical technologies, the support amount will be 25% of the verified investment in equipment purchase and installation and debugging related to the comprehensive upgrades. The total subsidy for a single unit shall not exceed CNY 50 million.

3. For units with unique renovation requirements or those that play a crucial role in enhancing grid security, and which comply with Shanghai's energy efficiency and emission reduction policies, the subsidy standards may be increased following a third-party assessment and approval by the Shanghai municipal government.

Special Support Measures of Shanghai Municipality for Demonstration Projects of Building Energy Efficiency and Green Building

Scope of Support (excluding government investment projects)

(I) Green Building Demonstration Projects: Residential and public buildings awarded a Two-Star or Three-Star Green Building Operation Label. Building Scale: Residential buildings with a Two-Star rating should have an area of over 25,000 square meters; Three-Star residential buildings should exceed 10,000 square meters; Public buildings with either rating should have an area of over 10,000 square meters. Building Requirements: Public buildings shall implement sub-metering for energy use and be connected to the municipal energy consumption monitoring platform for national and large public buildings.

(II) Prefabricated Building Demonstration Projects: Prefabricated residential and public buildings that achieve an AA or AAA rating according to the *Shanghai Prefabricated Building Evaluation Standards*. Building Scale: Prefabricated buildings should exceed 10,000 square meters. Building Requirements: The prefabrication or assembly rate of prefabricated buildings shall meet the relevant regulations of the current year's *Special Fund Application Guidelines for Building Energy Efficiency and Green Building Demonstration Projects in Shanghai Municipality*. Public buildings shall implement sub-metering for energy

use and be connected to the municipal energy consumption monitoring platform.

(III) Demonstration Projects of Ultra-Low Energy Consumption Buildings: Residential and public buildings meeting the technical requirements specified in the *Technical Guidelines for Ultra-Low Energy Consumption Buildings in Shanghai Municipality*. Building Scale: Buildings with an area of over 2,000 square meters. Building Requirements: Comply with the *Technical Guidelines for Ultra-Low Energy Consumption Buildings in Shanghai Municipality* and relevant standards. Public buildings shall implement sub-metering for energy use and be connected to the municipal energy consumption monitoring platform.

(IV) Demonstration Projects of Energy Efficiency Retrofits for Existing Buildings: Residential and public buildings undergoing energy efficiency retrofits that meet relevant technical requirements. Building Scale: Buildings with an area of over 20,000 square meters. Building Requirements: Residential buildings shall comply with the *Technical Specifications for Energy Efficiency Retrofits of Existing Residential Buildings* (DG/TJ08-2136). Public buildings shall achieve a reduction in energy consumption per unit area of no less than 15% (converted to standard coal). Public buildings shall implement sub-metering for energy

use and be connected to the municipal energy consumption monitoring platform.

(V) Demonstration Projects of Renewable Energy Integrated with Buildings: Residential or public buildings that integrate renewable energy such as solar energy and shallow geothermal energy (excluding solar photovoltaic projects and those legally required to install solar water heating systems). Building scale: Residential buildings with a floor area of over 50,000 square meters; public buildings with a floor area of over 20,000 square meters. Public buildings shall implement sub-metering for energy use and be connected to the energy consumption monitoring platform for national government office buildings and large public buildings in the municipality.

(VI) Vertical Greening Demonstration Projects: Various vertical greening projects on buildings (excluding residential buildings) in key areas (specific areas determined by the Shanghai Landscaping & City Appearance Administrative Bureau in coordination with the Shanghai Housing and Urban-Rural Construction and Management Committee and the Shanghai Municipal Development & Reform Commission). Building Scale: Rooftop greening coverage of over 1,000 square meters; general wall greening coverage of over 1,000 square meters, with special wall greening coverage of over 500 square meters (within the Middle Ring Road key areas, rooftop greening coverage of over 500 square meters,

and special wall greening coverage of over 200 square meters). Building Requirements: Comply with relevant technical specifications for vertical greening.

(VII) Building Energy Management and Service Projects: Energy auditing projects for existing national office buildings and large public buildings, and construction projects for energy consumption monitoring systems for national office buildings and large public buildings.

(VIII) Building Energy Efficiency and Green Building Related Matters Requiring Local Policy Support as Specified by National Requirements and Other Uses Determined by the Shanghai Municipal Government.

Support Standards and Methods

(I) For green building demonstration projects, a subsidy of CNY 50 per square meter will be provided for two-star green building operation label projects, and CNY 100 per square meter for three-star green building operation label projects.

(II) For prefabricated building demonstration projects, a subsidy of CNY 60 per square meter will be provided for AA level, and CNY 100 per square meter for AAA level.

(III) For demonstration projects of ultra-low energy consumption buildings, a subsidy of CNY 300 per square meter will be provided.

(IV) For demonstration projects of energy efficiency retrofits for existing buildings, a subsidy of CNY 50 per square meter of benefiting area will

be provided for residential buildings. For public buildings, a subsidy of CNY 25 per square meter will be given for a reduction in energy consumption of 20% or more per unit building area, and a subsidy of CNY 15 per square meter for a reduction of 15% (inclusive) to 20%.

(V) For demonstration projects of renewable energy integrated with buildings, a subsidy of CNY 45 per square meter will be provided for solar thermal projects; CNY 55 per square meter for shallow geothermal energy projects.

(VI) For vertical greening demonstration projects, a subsidy of CNY 200 per square meter will be provided for garden-style rooftop greening; CNY 100 per square meter for combined rooftop greening; CNY 50 per square meter for lawn-style rooftop greening. General wall greening will receive a subsidy of CNY 30 per square meter, while special wall greening will receive CNY 200 per square meter.

(VII) For building energy management and service projects such as government-organized energy audits and building energy consumption monitoring system construction, costs will be paid according to government procurement standards. Districts and specific regional management committees should provide financial support for building energy management and service projects within their jurisdictions organized by the government.

(VIII) For matters related to building energy conservation and green building as clearly required by national policies and other purposes determined by the Shanghai municipal government, the municipal finance department will provide appropriate support. Districts and specific regional management committees are encouraged to provide financial support for projects listed as Shanghai's green ecological district pilot and demonstration projects within their jurisdictions.

(IX) The maximum reward for a single demonstration project is CNY 6 million. For demonstration projects of energy efficiency retrofits for existing buildings, the subsidy cannot exceed 30% of the total investment in the project.

(X) Projects that have already received municipal financial support from other channels are not eligible for duplicate applications. The same project may only select one category of support within the scope of these measures.

Notification on Issuing the *Opinions on Further Enhancing the Installation of Elevators in Existing Multi-Story Residential Buildings in Shanghai Municipality*

Support Policies

(I) Relevant Planning and Technical Regulations: The setbacks from the road red line, land boundaries, and minimum building spacing shall be calculated based on the original exterior walls, provided that fire safety is ensured and access is not obstructed.

(II) Government Financial Subsidies: The costs for preliminary feasibility assessments will be included in the public fiscal budget of the street (town). The costs for expert evaluations on building safety will be covered by public finances. The government will subsidize 40% of the construction cost for elevator installation, with a maximum subsidy of CNY 280,000 per elevator. The subsidy is shared equally between the municipality and the district.

(III) Withdrawal of Housing Provident Fund: Homeowners may sequentially apply to withdraw and use their own housing provident funds, as well as those of their spouses and direct relatives, to cover the personal construction costs required for the elevator installation.

(IV) Support for Ancillary Projects: Relevant entities involved in the comprehensive renovation of old housing, low-voltage grid upgrades,

communication line relocation, and rainwater-sewage separation projects should coordinate to accommodate the needs of elevator installations. Utilities such as electricity, gas, water supply, drainage, and communication services shall establish a fast-track process, prioritize the implementation of supporting projects like power capacity expansion and pipeline relocation for elevator installations, and, in line with business environment reforms, publicly announce procedures, offer discounted fees for these services, and subject their processes to public oversight.

Implementation Plan of Shanghai Municipality for Subsidies of Deep Water Treatment Engineering Construction Projects in Water Supply Plants

Subsidy Scope

The subsidy covers 25 water plants undergoing advanced treatment upgrades starting from 2019, with a total construction capacity of 8.14 million cubic meters per day.

Subsidy Standards

Fixed subsidies will be provided based on the daily treatment capacity and project investment, at a rate of CNY 420 per cubic meter per day, with the total subsidy not exceeding 50% of the project's total investment.

Application for Project Funding

(I) After the approval of each water plant's advanced treatment project and the issuance of construction permits, the Shanghai Urban Investment Group or the district's Development and Reform Commission (DRC) will submit the funding application report to the Shanghai Municipal Development & Reform Commission, with an attached review opinion from the Shanghai Water Authority. Projects under municipal jurisdiction will be reported by the Urban Investment Group, while district-level projects will be reported by the respective district's DRC.

(II) The funding application report for each water plant's advanced treatment project should include the following key contents:

1. Basic project information, including the background and necessity of the project, service area, site planning, land area, construction scale and content, engineering plan, fulfillment of construction conditions, investment estimation, funding sources, construction schedule, and the amount of subsidy requested.

2. Relevant attachments:

(1) Approval documents;

(2) Construction permit;

(3) Planning and land approval documents issued by the planning resources department;

(4) Environmental impact assessment approval documents issued by the environmental protection department;

(5) Proof of project funding;

(6) A statement from the project entity ensuring the authenticity of the funding application report and its attachments;

(7) Other necessary materials as required by the state and the municipality.

Notification on Issuing the *Special Support Measures of Shanghai Municipality for Water Conservation and Emission Reduction*

Support Scope and Standards

These Measures primarily support enterprises (units) for the following water conservation and emission reduction projects completed and put into operation within the administrative region of Shanghai between January 1, 2022, and December 31, 2025:

(I) Water-Saving Technological Upgrades: Support is provided for the upgrading of water-saving equipment and facilities (water-using devices), technological improvements aimed at increasing water reuse rates, and internal water supply network renovations. The investment mainly includes fixed asset investments related to water conservation (such as supporting pipelines, water meter purchases, water treatment equipment, water-using devices, and process improvement facilities).

(II) Wastewater Resource Utilization: Support is given to urban domestic wastewater resource utilization and industrial wastewater resource utilization, including the construction of wastewater collection and resource utilization facilities, regional recycled water circulation projects, industrial wastewater recycling projects, and near-zero discharge technological innovation pilot projects. Investments mainly include pipeline engineering, pump station construction, water treatment

equipment purchases, electromechanical equipment installation, and other supporting facilities.

(III) Utilization of Rainwater and Other Non-Conventional Water Sources: Support is provided for projects that implement rainwater harvesting, seawater desalination, and other non-conventional water sources. Investments mainly include supporting pipeline engineering, water treatment equipment purchases, reservoir construction, efficient sprinkler (drip) irrigation equipment purchases, and other supporting facilities.

Priority is given to water conservation and emission reduction projects that are key to national and municipal interests, and the adoption of contract-based water management models is encouraged. Each project can only receive support for one of the measures specified within these Measures. Projects that have already received municipal financial support through other channels are not eligible for repeated application.

Support Methods and Standards

Projects that meet the criteria outlined in Article 2 of these Measures and achieve a significant annual water-saving scale in Shanghai will receive support in the form of rewards instead of subsidies, with the support amount not exceeding 50% of the project's total investment related to water conservation. The annual water-saving volume should be calculated according to the national standard *Guide for calculation of water saved by projects* (GB/T 34148-2017).

(I) Water-Saving Technological Upgrades

Projects with an annual water-saving volume of over 50,000 cubic meters will receive support at a rate of CNY 9 per cubic meter.

(II) Wastewater Resource Utilization Projects

For wastewater resource utilization projects with an annual utilization volume of 50,000 cubic meters or more: Projects utilizing wastewater for industrial direct cooling will receive support at a rate of CNY 1.5 per cubic meter. Projects utilizing wastewater for other industrial production or urban and rural public facilities will receive support at a rate of CNY 3 per cubic meter. Projects using wastewater for ecological replenishment of rivers, lakes, and wetlands will receive support at a rate of CNY 0.1 per cubic meter

(III) Utilization of Rainwater and Other Non-Conventional Water

Projects with an annual utilization volume of 10,000 cubic meters or more will receive support at a rate of CNY 15 per cubic meter.

Notification on Issuing the *Administrative Measures of Shanghai Municipality for the Special Support Fund on Energy Conservation and Emission Reduction in Transportation Sector*

Support Scope

(I) Projects that encourage the application of new energy-saving and emission reduction technologies or products, or involve technological upgrades and retrofits of existing transportation tools, facilities, and equipment to enhance energy efficiency and reduce emissions, with an annual increase in energy savings of 150 tons of standard coal or more.

(II) Projects that utilize electricity, liquefied natural gas (LNG), or hydrogen fuel to achieve significant energy conservation and emission reduction in the city's transportation sector, with an annual fuel substitution of 100 tons of standard coal or more.

(III) Other transportation energy conservation and emission reduction projects that are prioritized by the State Council's transportation authorities or are encouraged by the Shanghai Municipal Government.

Projects that have already received municipal financial support through other channels are not eligible for repeated application.

Support Methods and Standards

The special funds are generally granted in the form of "rewards instead of subsidies", determined by the Shanghai Municipal Transportation

Commission, Shanghai Municipal Development & Reform Commission, and Shanghai Municipal Finance Bureau (hereafter referred to as the "Municipal Authorities") based on the annual energy conservation and emission reduction (fuel substitution) targets set in Shanghai's special funds plan. The involved transportation tools or special equipment shall meet national safety and technical standards, and the energy savings (fuel substitution) shall be verified by a third-party organization.

(I) For projects with quantifiable energy savings, a one-time subsidy of CNY 1,500 per ton of standard coal saved is provided, with the subsidy amount not exceeding 30% of the total investment.

(II) For ship projects that replace fuel with liquefied natural gas (LNG), a one-time subsidy of CNY 2,500 per ton of standard coal replaced is provided, with a maximum subsidy of CNY 400,000 per ship and the subsidy amount not exceeding 30% of the total investment.

(III) For projects that replace fuel with electricity or hydrogen in special equipment used within facilities, a one-time subsidy of CNY 5,000 per ton of standard coal replaced is provided, with a maximum subsidy of CNY 100,000 per vehicle and the subsidy amount not exceeding 30% of the total investment.

(IV) For electric ship projects, a subsidy of 30% of the ship's power system cost (including batteries and electric propulsion systems) is provided, with a 40% subsidy for passenger ships in operation. The

maximum subsidy per ship does not exceed CNY 5 million. The cost of the battery and propulsion system shall be substantiated by documentation from the shipyard.

The same project may only receive support under one of the categories listed above. The Shanghai Municipal Transportation Commission, the Shanghai Municipal Development & Reform Commission, and the Shanghai Municipal Finance Bureau may adjust subsidy standards based on technological advancements and the status of market application and promotion.

Application Requirements

(I) Projects applying for special funds shall meet the following conditions:

1. The project must have complete and finalized approval procedures.

2. There must be no intellectual property disputes.

(II) Applicants for special funds, whether organizations or individuals, shall satisfy the following conditions:

1. The applicant must be a transportation sector entity or individual legally registered in Shanghai, with good credit standing (no unexecuted judgments, no criminal judgments within the execution period), and a sound tax payment record.

2. The applicant must have a well-regulated management system, including a sound financial management system, financial management institution, and qualified financial management personnel.

3. The applicant must have a well-established energy management institution with a comprehensive energy measurement, statistics, and management system. Key energy-consuming entities shall establish energy management positions, clarify energy management institutions, and complete filing procedures in accordance with the *Shanghai Energy Conservation Regulations* and other relevant laws.

4. The applicant must demonstrate solid work in energy conservation and emission reduction, accurately reporting energy consumption data on time, achieving assigned energy use targets, and supporting new applications, annual assessments, and energy audits related to energy conservation and emission reduction.

Administrative Measures of Shanghai Municipality for Encouraging the Elimination and Renewal of China IV Diesel Vehicles Subsidy Funds

Elimination Subsidy Support Scope

For owners of China IV diesel vehicles (excluding small passenger cars and light trucks) who complete the scrapping procedures in Shanghai and scrap their vehicles at least one year ahead of schedule, an elimination subsidy will be granted.

If China IV diesel vehicles owned by government and public institutions are transferred to individuals, sole proprietors, enterprises, or other non-government entities after the issuance of these measures, the final transferee will not be eligible for the elimination subsidy if they scrap the vehicle early.

Renewal Subsidy Support Scope

For vehicle owners who scrap their China IV diesel vehicles early and purchase new energy vehicles in Shanghai, and complete the registration of the new vehicles within the city, a new energy conversion subsidy will be provided. Vehicles applying for new energy conversion subsidies shall be of the same type as the scrapped China IV diesel vehicles.

If China IV diesel vehicles owned by government and public institutions are transferred to individuals, sole proprietors, enterprises, or other

non-government entities after the issuance of these measures, the final transferee will not be eligible for the new energy vehicle renewal subsidy.

Subsidy Standards

The amount of the elimination subsidy for China IV diesel vehicles will be determined based on the type of diesel vehicle and the year of its initial registration. Specific subsidy standards are shown in Table 1. Vehicles scrapped after July 1, 2025, will receive a reduced subsidy of 80% of the standard, with a reduction ratio of 20%. For vehicles scrapped after July 1, 2026, the actual subsidy amount will be 70% of the standard, with a reduction ratio of 30%.

Table 1: Elimination Subsidy Standards of Shanghai Municipality for China IV Diesel Vehicles

Unit: CNY 10,000

First Registration / Vehicle Type (Including Load Classification)	2013 and Earlier	2014	2015	2016 and Later
Light Diesel Truck	-	-	-	-
Medium Diesel Truck	1.2	1.6	2.0	2.5
Heavy Diesel Truck	2.2	3.2	4.1	5.0
Small Diesel Passenger Vehicle	-	-	-	-
Medium Diesel Passenger Vehicle	1.0	1.9	2.4	3.0
Large Diesel Passenger Vehicle	3.9	4.4	5.0	6.2

"-" denotes no subsidy. Light (small), medium, and heavy (large) cargo-specific vehicles and non-cargo-specific vehicles are classified according to light, medium, and heavy cargo truck standards.

2. The new energy vehicle renewal subsidy will be determined based on the vehicle's load classification and battery capacity. If the load classification of the new energy vehicle is the same or lower than the scrapped China IV diesel vehicle, the subsidy will be provided based on the new vehicle's load classification. If the load classification of the new vehicle is higher than the scrapped diesel vehicle, the subsidy will be based on the scrapped vehicle's load classification. Specific subsidy standards can be found in Table 2. Vehicles purchased after July 1, 2025, will receive 80% of the standard subsidy, with a reduction ratio of 20%.

Table 2: Subsidy Standards of Shanghai Municipality for the New Energy Conversion of China IV Diesel Vehicles

Item \ Vehicle Type		Light Truck		Medium Truck	Heavy Truck		Small Bus		Medium Bus	Large Bus	
Battery Capacity Range	kWh	<70	≥70	-	<300	≥300	<70	≥70	-	<300	≥300
Subsidy Standard	元/kWh CNY/kWh	400	450	500	600	700	400	500	600	650	700

The dash ("-") indicates that the vehicle type follows a uniform subsidy standard without further differentiation based on battery capacity.

Notification on Issuing the *Administrative Measures of Shanghai Municipality for Subsidy Funds to Encourage the Renewal of China II Non-Road Mobile Machinery*

Renewal Subsidy Support Scope

Owners of China II non-road mobile machinery, excluding scrapped agricultural machinery, who purchase new energy machinery and complete new energy machinery registration in the municipality, are eligible for renewal subsidies. The new machinery shall be of the same type as the scrapped machinery.

Owners of scrapped China IV in-site vehicles who purchase new energy vehicles and complete new energy in-site vehicle registration in the municipality are eligible for renewal subsidies. The new in-site vehicles shall be of the same model as the scrapped in-site vehicles.

China II non-road mobile machinery and China IV in-site vehicles owned by government and public institutions, if transferred to individuals, sole proprietors, enterprises, or other non-governmental entities from the date of this policy's issuance, will not qualify for renewal subsidies if the final transferee opts for new energy machinery or in-site vehicles.

Subsidy Standards

The renewal subsidy amount for China II non-road machinery will be determined based on the type of machinery. If the new machinery is of

the same grade or lower than the scrapped machinery, the subsidy will be based on the grade of the new machinery. If the new machinery is of a higher grade than the scrapped machinery, the subsidy will be based on the grade of the scrapped machinery. Specific subsidy standards are detailed in Table 1. Applications made after July 1, 2025, will receive 80% of the standard subsidy amount, with a 20% reduction.

For new in-site vehicles, if the load grade of the new vehicle matches or is lower than that of the scrapped China IV in-site vehicle, the subsidy will be based on the load grade of the new vehicle. If the load grade of the new vehicle is higher than that of the scrapped China IV in-site vehicle, the subsidy will be based on the load grade of the scrapped vehicle. Specific subsidy standards will follow the diesel vehicle renewal subsidy standards and will be announced separately. Applications made after July 1, 2025, will receive 80% of the standard subsidy amount, with a 20% reduction.

Table 1: Renewal Subsidy Standards of Shanghai Municipality for China II Non-Road Machinery

Unit: CNY 10,000

Machinery Type	Machinery Grade	Subsidy Amount	Reference Characteristics (Fuel Machinery)	Reference Battery Capacity (New Energy)
Forklift	Small	1.9	P＜37kW	C＞10kWh
	Medium	2.6	35kW≤P＜75kW	C＞15kWh
	Large	13.8	75kW≤P＜130kW	C＞50kWh
	Extra Large	36	P＞130kW	C＞180kWh
Excavator	Mini	2	P≤10kW	C＞6kWh
	Small and Medium-sized	3.6	10kW＜P≤40kW	C＞20kWh
	Large	13.8	40kW＜P≤100kW	C＞100kWh
	Extra Large	36	P＞100kW	C＞400kWh or towing power
Loader	Small	11	P≤75kW	C>50kWh
	Medium	15.6	75kW<P≤130kW	C>100kWh
	Large	23.4	P>130kW	C>200kWh
Aerial Work Platform	Mini	1.2	P≤10kW	C>5kWh
	Small	8.1	P>10kW	C>15kWh
Port Machinery	Tire Crane	60	P>130kW	C>300kWh
	Empty Container Stacker	60	P>130kW	C>300kWh
	Container Front Crane	86.7	P>130kW	C>400kWh
Airport Ground Equipment	Aircraft Tug	30.3	P>70kW	C>130kWh
	Baggage Conveyor	10.8	P>37kW	C>50kWh
Other	Small	1.9	19kW≤P<37kW	C>10kWh
	Medium	2.6	37kW≤P<75kW	C>15kWh
	Large	13.8	P>75kW	C>50kWh

Notification on Issuing the *Special Support Measures of Shanghai Municipality for Circular Economy Development and Resource Comprehensive Utilization* (2021 Edition)

Support Scope

(I) Support for the comprehensive utilization of waste resources in industrial, urban construction, agriculture, forestry, and daily life sectors, with a focus on waste resource utilization that the market cannot effectively allocate and thus requires government support.

(II) Support for the remanufacturing of used automotive parts, construction machinery, electromechanical products, and similar items.

(III) Other circular economy and resource comprehensive utilization projects or matters as required by the municipal government.

(IV) Priority Support Scope: Projects that receive national key support and require local matching funds; projects included in the city's circular economy development special plan; projects listed in national pilot and city circular economy demonstration programs; and projects included in the city's three-year environmental protection action plan for circular economy and resource comprehensive utilization.

Projects already receiving municipal financial support from other sources are not eligible for repeated application. The specific support scope will be determined by the Shanghai Municipal Development & Reform

Commission, in collaboration with relevant departments, and will be announced separately during the annual project application process.

Support Methods and Standards

(I) For eligible fixed asset investment projects under Article 2(1) and (2) of these measures, subsidies will be provided up to 30% of the actual investment related to the circular economy, with a maximum subsidy of CNY 20 million per project.

(II) For projects receiving national key support and requiring local matching funds, support will be provided in accordance with national requirements. For other projects that the municipal government requires for key support, the subsidy methods and standards will be determined after they obtain approval from the municipal government.