Environmental Protection 11-104

## Kaohsiung City Net Zero City Development Ordinance

Enacted by Order No. 11302418200 of June 3, 113, Republic of China.

- ARTICLE I This Home Rule Ordinance is enacted to guide the City towards a net-zero city transformation in response to global climate change and to build social resilience.
- Article 2 The competent authority of this autonomy ordinance shall be the Kaohsiung City Government (hereinafter referred to as the government) if any of the matters stipulated in this autonomy ordinance involves the responsibilities of the competent authorities of the government in charge of the respective purposeful undertakings, they shall be handled by the competent authorities of the respective purposeful undertakings.

ARTICLE III Terms used in this Home Rule Ordinance are defined as follows:

- Net-zero circular economy: refers to a future socio-economic development model that aims to achieve net-zero and recycle resources.
- Carbon budget: It refers to the maximum amount of greenhouse gas emissions for each period of two years.
- White Paper on Net Zero Policy: In order to achieve the goal of net zero emission and sustainable livable and smart city, the government, in accordance with the national action plan on climate change formulated by the central authority, constructs the city's greenhouse gas reduction countermeasures and develops the policy framework for local net zero development, and publishes it in the form of a white paper.
- Net Zero Voluntary Local Review (VLR) refers to a report on the Government's efforts to promote sustainable development with reference to the sustainable development goals set by the United Nations.

(In addition to **b**ustainable Development Goals (SDGs) **x**egularly review the performance of the Net Zero Carbon Reduction Initiative (NZCI), the improvement actions and the implementation of sustainable development, and submit a voluntary review report.

Net Zero Sustainability Report: means that the competent authorities in charge of each purpose of the government shall compile the results of the implementation of sustainable development into a Net Zero Sustainability Report in accordance with the White Paper on Net Zero Policy and the concept of the United Nations Sustainable Development Goals. As a means of assisting the industry in developing greenhouse gas

reduction programs, it is important to encourage the industry to

develop and implement greenhouse gas reduction programs.

To encourage participation or investment in voluntary reduction actions. Greenhouse gases: Carbon dioxide (CO2), methane (CH4) itrous oxide (N20)

hydrofluorocarbons (HFCs), **pinds** PFCs), subhurhexafluoride (SF6), nitrogentrifluoride (NF3), and others as announced by the central competent authorities.

Net-zero emissions: refers to the balance between greenhouse gas emissions and carbon credits.

- VIII. Just Transformation: Under the principle of respecting human rights and dignity of labor, consult with all communities affected by the net-zero emissions transformation, and assist industries, regions, labor, consumers, and indigenous peoples in stabilizing the transformation.
- Business: refers to companies, firms, factories, private organizations, administrative agries(organizations) and other objects announced by the central competent authorities.
- Renewable energy: Energy generated by direct utilization or treatment of solar energy, biomass energy, geothermal energy, ocean energy, wind power, non-pumped hydroelectric power, domestic general waste, general utility waste, or other energy sources recognized by the central competent authority as being capable of being utilized in a sustainable manner.
- Hydrogen: Hydrogen produced by decomposition of water using renewable energy as the energy source, or hydrogen produced by decomposition or fermentation of bacteria, algae and other organisms, or other hydrogen produced by renewable energy as the energy source for energy use.
- Green finance: Economic entities (including financial institutions and others) include factors such as environmental risks, costs and returns in their financial calculations when making decisions on financing, investment and other behaviors.

Voluntary reduction: means that the State has not made any reduction in the

total amount of controlled emissions trading.

In addition, there are other ways for non-regulated persons to carry

out reduction projects.

To acquire carbon rights.

Article 4 In order to achieve the goal of net zero emission and sustainable livable and smart city, the City shall reduce its greenhouse gas emissions by 30% by the year of 119, as compared to that of the year of 2005, and shall achieve net zero emission by the year of 139, as compared to that of the year of 2005, and shall reduce its greenhouse gas emissions by 30% by the year of 136, as compared to that of the year of 2005, and shall achieve net zero emission by the year of 137.

The City shall establish, promote, or adopt the following systems, policies, or measures to achieve the preceding GHG reduction goals:

- Plan the greenhouse gas reduction pathway and establish a carbon budgeting system in accordance with the city's natural environment, industrial characteristics and social structure.
- To establish a mechanism for citizens, organizations, and public and private corporations to participate in the formulation and implementation of the city's climate change adaptation policies by means of a universal participation model.
- C. In accordance with the National Action Plan for Climate Change, the City shall formulate the City's greenhouse gas reduction implementation plan and climate change adaptation policy framework, and periodically review and revise the control targets or update the policy plan.
- In order to achieve the preceding objectives, the government should set control targets in two-year periods, promote carbon reduction action plans, and propose carbon budgets. The next carbon budget shall be submitted one year before the expiration of each period.
- Before the carbon budget in the preceding paragraph is drafted, relevant authorities, scholars, experts, and private organizations shall be invited to hold seminars or other appropriate methods to solicit opinions and submit them to the Kaohsiung City Council for consideration after they have been examined by the Kaohsiung City Council for Sustainable Development and Response to Climate Change.
- Article 5 In order to implement the goals set forth in this Self-Government Ordinance and to serve as a framework for the promotion of the City's Net Zero Policy, the City shall compile a White Paper on Net Zero Policy in a four-year period, taking into account the carbon budget and the scope and areas of Kaohsiung's Net Zero Carbon Reduction Actions.

The Net Zero Voluntary Review Report will be used to review the effectiveness of the

implementation of the Net Zero Voluntary Review.

In order to strengthen the promotion of net-zero policy by each bureau and department, the competent authorities of each purpose-built business in the government should compile a net-zero sustainability report for each bureau and department based on the framework of the white paper on net-zero policy and the concept of the United Nations Sustainable Development Goals (SDGs).

The preceding documents or reports should be supplemented or updated periodically in accordance with current international conditions and domestic developments.

- Article 6 The City shall take into account global sustainability initiatives, the latest domestic and international scientific research on climate change and scenario projections, and develop a net-zero circular economy in response to changes in business models and social operations, so as to promote a virtuous cycle of investment and industry in pursuit of sustainable development and actively implement a net-zero transformation of the City.
- Article 7 The City's Greenhouse Gas Reduction Action Plan and the Climate Change Adaptation Policy shall be formulated to include the following areas or domains:

Transformation of the energy system.

(b) The improvement of energy efficiency.

Infrastructure of Smart Cities and Net-Zero Integration Design of Smart Buildings. Interdepartmental cooperation on net-zero performance of social life. Renewable energy use, encouragement of electrification and microgrid construction. Renewable energy storage program. Net-zero promotion in the transportation sector.

Net-zero promotion in the agriculture and

fishery sector.

Reduce the amount of municipal waste, reduce the amount of waste incineration, and promote intelligent waste recycling and reuse.

Protecting the natural ecology, biodiversity and traditional areas of the indigenous ethnic regions in order to strengthen the natural carbon sinks.

Promote the action of multi-participation in the net-zero economy market. Promotion of carbon reduction education in net-zero cities.

XIII. Promotion of Just Transformation Actions.

Other matters designated by the government announcement.

Article 8

The basic principles of the plans or programs related to climate change and net-zero urban development prepared by the government are as follows:

- (a) International integration: In implementing the national reduction targets and procedures, we should actively implement global localization and strengthen international cooperation, so as to integrate the urban experience with the world.
- (b) Localization: In implementing the objectives of the departmental phase of control, consideration should be given to the local society and culture as well as the cost-effectiveness, and the optimization of local outputs should be pursued.
- (c) Guiding the transformation of cities: proactively adopting forwardlooking actions and measures to guide the transformation and development of cities in the light of the characteristics of urban development, and assisting in the fair transformation of cities.
- Rooted in technology: We are committed to scientific and technological research and development in the direction of circular economy and carbon reduction.
- Market Leadership Mechanism: To establish a favorable environment for the development of a net-zero cycle economy and market, and to promote a virtuous cycle of investment and industry in pursuit of sustainable development.
- Public-private partnership: Citizen participation should be used to strengthen community ownership and public-private partnership, and to promote education, publicity and professional capacity building in response to climate change.

Article 9 The Government shall establish the Kaohsiung City Council for Sustainable

Development and Climate Change Response.

- (hereinafter referred to as the Promotion Committee) with the following mandate:
  - Examine the implementation programs, policies, action plans, or other major policies related to this Self-Governance Ordinance in accordance with the Climate Change Act and this Self-Governance Ordinance.
  - Collecting scientific reports on climate change, the latest technologies and models for greenhouse gas reduction, and academic research information on climate change adaptation.

It also carries out climate change risk assessment and formulation,

facilitates adaptation and provides support for the development of a

climate change management system.

Developing or proposing strategic solutions.

- Coordinate the business connection between the government agencies, schools, institutions and public businesses on greenhouse gas reduction and climate change adaptation, and assist them in implementing the government's policies.
- Coordinate the government agencies, organizations and public utilities to promote renewable energy, energy-saving buildings, circular economy and other industries related to climate change adaptation.
- Coordinate with schools, cultural organizations, and administrators at all levels in the city to promote education, curriculum planning, and international academic exchanges in response to climate change.
- Plan the participation mechanism for the citizens of the city to participate in greenhouse gas reduction and climate change adaptation, as well as develop and promote the necessary regulations, policies and measures for a just transition.
- Other matters related to the adaptation and promotion of greenhouse gas reduction and climate change in the city.

The Environmental Protection Bureau of the Government shall determine the key points for the establishment of the preceding promotion committee; the list of the committee shall be sent to the City Council for record.

Article 10

In order to promote the development of climate change adaptation and net-zero city, each organizer of this government is as follows, and is co-organized by the competent authorities of the purpose undertakings:

- I. Renewable Energy Usage and Transformational Development of Energy Systems: Economic Development Board.
- II. Energy Efficiency Improvement and Conservation Issues: Economic Development Board.
- Planning for Net Zero Urban Resilience Infrastructure: Water Resources Bureau, Lands Bureau and Urban Development Bureau.

To implement the national land plan, urban plan, and urban renewal of the

net-zero city.

New related issue: Metropolitan Development Council.

- V. Carbon Reduction in Smart Buildings: Works Bureau.
- Interdepartmental Cooperation on Social Life Net Zero Performance: Environmental Protection Bureau.
- VII. Encouragement of electrification and microgrids: Organized by the competent authorities of the relevant projects.

VIII. Renewable Energy Storage Program Issues: Economic Development Board.

- Development of Net Zero Integration Action for Transportation Departments: Transportation Bureau and Mass Rapid Transit Engineering Bureau.
- X. Net Zero Integration Development of Agriculture and Fisheries Sectors: Bureau of Agriculture and Bureau of Oceanography.
- XI. Municipal Waste Reduction, Reduction of Waste Incineration, Intelligent Waste Recycling and Reuse: Environmental Protection Bureau.
- XII. Enhancement of Natural Resources, Biodiversity and Natural Carbon Pools in Indigenous Peoples' Areas: Bureau of Agriculture, Bureau of Oceanography and Panel on Indigenous Peoples.

Taxation, budget planning and financial assistance: Finance Bureau. Zerozero city carbon reduction education and publicity: Environmental Protection Bureau and the Ministry of the Environment.

Education Bureau.

- XV. Promotion of Just Transformation: Research and Development Examination Committee, Labor Affairs Bureau, and Social Affairs Bureau.
- The purchase of vehicles for all governmental organizations and schools, and net-zero international exchanges: Administration and International Affairs Department.
- Other matters related to the City's climate change adaptation and net-zero urban development: to be designated by resolution of the Promotion Committee.

Article 11 In order to participate in the net-zero recycling economy trading market and implement the development of the net-zero recycling economy, the City shall promote the establishment of a net-zero city business transfer service company. Move with the Single Window Platform.

The organization, mission, business items, operation regulations, and other related matters of the former affairs shall be separately determined by the Economic Development Bureau of this government.

Article 12 The Environmental Protection Bureau of this government shall establish the Kaohsiung Carbon Platform to assist in the implementation of the Climate Change Response Act voluntary reduction projects, aggregate control, and other mechanism operations, and to provide counseling and incentives.

The preceding counseling and rewarding methods shall be determined separately by the Environmental Protection Bureau of this government. Article 13 In order to encourage the public to participate in the greenhouse gas reduction action, the government shall give incentives to those who formulate and implement the greenhouse gas reduction plan for the city undertakings.

or supplements.

The method of award and subsidy of the aforesaid shall be separately determined by the Environmental Protection Bureau of this government. Article 14 In order to promote the effectiveness of the implementation of greenhouse gas reduction and lead the development of the net-zero recycling economy industry, this government shall promote the net-zero reduction control behavior, and

Planning for the implementation of the following matters:

- In accordance with the National Action Plan for Climate Change, the City has formulated a general strategy for the implementation of the Centralized Aggregate Control of Net Zero Carbon Emission (CACE) in the City.
- To establish a mechanism for the city to cooperate with other local autonomous organizations or public and private corporations to promote voluntary reduction.
- Considering the city's economic scale, industrial structure, energy demand and other factors, and based on the evidence of scientific research, the city will set a greenhouse gas reduction target.
- Establishing local demand-driven policy instruments such as assistance, subsidies, incentives and rental tax exemptions to create incentives to encourage utilities to invest in voluntary reduction actions and lead to participation in the emissions trading market.
- V. Ensure the accuracy and transparency of the emission data in accordance with the mechanism for monitoring, reporting and verification of greenhouse gases by the central competent authority.

Promote participation in the cooperation and exchanges of the international carbon

certification service system.

To formulate a mechanism and counseling tools for the application of green

finance in the city's industries.

Article 15 Businesses and public and private establishments of a certain scale or above that have been designated by announcement of the Environmental Protection Bureau of this government shall regularly conduct inventories of greenhouse gas emissions and climate risk assessments, and report and disclose them to the designated platform of the Environmental Protection Bureau of this government.

> The Environmental Protection Bureau of this government may provide counseling, incentives, or other necessary measures in accordance with Article 14 for the purpose of counseling and management of greenhouse gas emissions.

> The scope of the business designated in the first item, public and private establishments above a certain size, inventory methods, risk assessment methods, reporting and disclosure formats and contents, etc., shall be determined separately by the Environmental Protection Administration of this government.

Article 16 Users who have been designated by the Economic Development Bureau of this government to use electricity with a contracted capacity of a certain capacity or more shall install renewable energy power generation equipment with a certain installation capacity or more or purchase a certain amount of renewable energy power and renewable energy certificates at the place where they use electricity or at an appropriate place in this city; those who have not yet done so shall pay a token for the purpose of using them exclusively for the development of renewable energy.

The contract capacity, certain installation capacity, certain quota, type of renewable energy power generation equipment, type of energy storage equipment, payment and calculation method of the deposit, the processing schedule, and other related matters shall be announced by the Economic Development Bureau of this government.

Article 17 Institutions, schools, civic organizations, and industrial and commercial plants within a certain area along the city's public transportation system that have been announced by the government shall develop measures to encourage their employees to ride on the public transportation system; if a certain percentage or more of their employees ride on the public transportation system, the government may provide incentives to them.

> The previous incentives will be determined by the Bureau of Rapid Transit Engineering in cooperation with the Bureau of Transportation and Communications.

Article 18 Except for police locomotives, special-purpose vehicles, or those approved by the government, all official vehicles of all agencies and schools under the government shall be completely replaced by electric, hydrogen, or other non-fossil-fueled vehicles before the 19th year of the Republic of China (R.O.C.).

The existing public buses should be fully utilized by the end of the 129th year of the ROC.

We will replace them with electric, hydrogen or other non-fossil fuel vehicles.

All passenger transportation in the urban areas of the city should be replaced by electric or hydrogen powered vehicles by 19th year of the Republic of China (R.O.C.), except for those approved by the Transportation Bureau of the Government of the People's Republic of China.

Article 19 In formulating, planning, and implementing national land plans (regional plans) urban plans, village planning, urban design, public facilities and infrastructure, or other land development, utilization, or control policies, the government shall fully evaluate climate risk factors, adhere to the principle of equal emphasis on mitigation and adaptation, and promote the creation of a net-zero cycle environment, and actively adopt the following strategies to lead to the realization of a net-zero and resilient city and countryside:

Strengthen the repair of the city's green infrastructure.

The concepts of eco-community and low-carbon work methods are designed to achieve low-carbon, eco-friendly and sustainable operations.

Evaluate and plan bicycle and sidewalk systems and adopt permeable pavement. Introduce air duct planning to reduce the heat island effect.

Public facilities will incorporate the concepts of flood retention, rainwater reuse, and renewable energy generation, and will prioritize the purchase of energy-saving labeled products.

- The public drainage system should be equipped with water retention, flood retention, and storage measures through upstream, midstream, and downstream to reduce the risk of flooding or drought.
- (vii) Introducing low-carbon, ecological and green resource recycling design concepts for new roads.
- Schools and organizations should plant as many trees as possible and use native species before the land is used.

Priority will be given to the use of recycled resources and green building

materials.

Integrate conservation and green transportation to promote low-carbon tourism. Evaluating and planning car parks to increase the area of greening and adopt permeable pavement.

The surface material reduces the urban heat island effect.

XII. Survey of environmental and land characterization bases.

When the former land involves the development, utilization or restriction of the land of the indigenous peoples, consultation with the local indigenous peoples shall be conducted.

The first strategy shall be implemented by the competent agencies of the government in accordance with the scope of authority and responsibility.

The government may designate specific areas or scopes for demonstration in order to promote the Net Zero Initiative and urban (rural-urban) transformation; the designation of specific areas or scopes shall be announced by the government.

In order to implement the net-zero and fair transformation, when the competent authorities of each purpose of this government organize actions and plans related to the net-zero transformation, they shall take stock of the hot zones and industries that may be affected beforehand and introduce a mechanism for public participation.

In order to achieve the goals of net-zero diversified employment, avoiding industrial damage and unemployment impacts, adverse life impacts, and enterprise net-zero transformation adjustment, the government shall promote relevant counseling, incentive, and compensation policies to reduce the impacts of net-zero transformation on the disadvantaged groups, industries, and individuals; and the relevant regulations shall be separately determined by the competent authority of each purposeful endeavor.

Article 22 The authorities in charge of each purposeful endeavor of this government to promote community planning, community building, and low-carbon communities shall introduce the concept of net-zero emission and include measures related to the reduction of greenhouse gases in the assessment and evaluation items.

In order to facilitate the implementation of the Net Zero Living Transformation, the government may provide incentives or subsidies for the following:

Autonomous actions to reduce greenhouse gases and adapt to climate change in the community or the public.

Planning and organizing low-carbon or net-zero agriculture.

Promote the Community-based Smart Zero Carbon Transportation District

Demonstration Project.

Purchase electric or hydrogen-powered transportation equipment and install relevant energy supplement facilities.

Article 20

Article 21

Planning and organizing zero-carbon tours and activities.

Promote the building of low-carbon or zero-carbon communities.

- No single-use tableware or supplies will be provided in the catering, tourist hotel or guesthouse industry.
- VIII. Establish container recycling systems in public and private venues and provide incentives.

IX. Replacement of energy-saving equipment in public and private premises.

Other matters designated by the government announcement.

The targets, application and review procedures, and subsidy standards for the aforementioned incentives or subsidies shall be determined separately by the competent authorities of the respective undertakings.

- Article 23 In order to promote the city's net-zero transformation, the government shall establish the Kaohsiung City Net-Zero Emission Management Fund; the establishment of the fund, the management of income and expenditure, and the utilization of the fund shall be separately determined by a self-governance ordinance.
- Article 24 The Finance Bureau of this Government shall assist in tax exemptions, financing programs, planning policy budgets, and green finance for low-carbon sustainable development.
- Article 25 Anyone who violates the regulations set forth in Article 15, paragraph 3, shall be subject to a fine of not less than NT\$20,000 and not more than NT\$100,000 imposed by the Environmental Protection Bureau of this government on the business or public or private premises, and shall be notified of the deadline for improvement; if the improvement is not completed by the deadline, the penalty may be imposed on a sequential basis.
- Article 26 This Home Rule Ordinance shall come into force on the date of its publication.