# LOW CARBON MODEL TOWNS (LCMT)

Please fill out this form and return it to info@esci-ksp.org.

# **Basic Information**

### Name of town, city, or island: Kaohsiung City

Enter project title here. The title should be brief, unique, and informative.

### Managing Organization: Kaohsiung City Government

Please enter the name of the responsible organization.

### Project Description:

Please provide a full narrative of your project here.

Kaohsiung City is an industrial city. In 2022, its net greenhouse gas emissions were 52.35 million tons, accounting for approximately 20% of the national (Chinese Taipei) total. This represented a 20.8% reduction from the baseline year (2005), with a reduction of over 13.79 million tons. The structure of greenhouse gas emissions is dominated by the industrial sector at 82%, followed by residential and commercial sectors at 10%, and transportation at 7%. Considering that the industrial sector accounts for the highest proportion of emissions in Kaohsiung City, the city government has actively promoted related industrial transformation measures. To drive industrial low-carbon transformation in 2022 the city government announced Kaohsiung City's net-zero pathway and targets of reducing greenhouse gas emissions by 30% from 2005 levels by 2030 and achieving netzero emissions by 2050. It also established the "Industrial Net-Zero Alliance," divided into five groups: steel, petrochemicals, electronics, energy, and circular economy. Through the "leading by example" approach, experienced large companies assist midstream and downstream industries in implementing carbon inventory and reduction measures.

The "Net Zero Industry Alliance" holds annual workshops in a hands-on format to help companies solve decarbonization challenges. The workshop topics are determined based on domestic and international net zero trends. Each year, alliance members are required to submit their voluntary emission reduction plans and report their greenhouse gas inventory results. Energy-saving advisory teams and carbon inventory advisory teams have also been established to provide consultation services to companies in need. Beyond the goal of leading by example, industry-academia experts also conduct on-site inspections and efficiency diagnoses for energy-consuming equipment such as boiler systems, compressed air systems, air conditioning systems, and power lighting systems. They then provide diagnostic opinions and recommendations or methods for energy-saving improvements. Currently, 56 companies have set 2030 emission reduction targets, and 46 companies have set 2050 net zero targets.

To accelerate Kaohsiung City's push towards net zero emissions, the "Kaohsiung City Net Zero City Development Autonomous Regulations" was passed by the city council on June 28, 2023, and approved by the Executive Yuan on May 10, 2024, officially enshrining the carbon reduction targets into law. With the four core focuses of strengthening governance, assisting industrial decarbonization, encouraging public participation, and facilitating social transformation, a "carbon budget" mechanism has been planned to allocate carbon emission reduction quotas across various sectors. Other measures include establishing a business transformation platform and Kaohsiung carbon platform, assessing the installation of renewable energy for contracted users, planning for electrification of government vehicle fleets, and incorporating decarbonization into urban planning.

Moreover, Kaohsiung City's net zero strategy adopts a nine-pronged approach across energy, industry, residential/commercial, transportation, environment, agriculture, net zero green living, carbon sinks, and just transition, underpinned by five foundational efforts in governance (promotion committee, carbon budgets, and white papers), legal framework (Net Zero City Development Autonomous Regulations), technology (Net Zero Industry Alliance and business transformation platform), talent (Net Zero Institute), and economy (green finance and carbon platform).

In addition to driving the "Net Zero Industry Alliance" in areas like AI smart manufacturing, CCUS, inventory guidance, and coal phase-out, targets have been set for 1.25GW of solar power within 6 years, cogeneration in 2025, decommissioning the Xingda Power Plant from coal by 2030, and electrification of public buses and government vehicles by 2030. Considering Kaohsiung's status as an industrial city, a massive net zero talent pool is necessary for its low-carbon transition. Hence, the "Net Zero Institute" was established on November 6, 2023, offering general education, certification, and technical courses to cultivate net zero talents across industry, government, and academia. Partnerships with international accreditation bodies are also in place to develop internationally-aligned carbon management professionals.

Beyond government and industry decarbonization policies, Kaohsiung is also actively engaging in international cooperation and alignment. The city annually reports its greenhouse gas inventory data, emission reduction strategies, and adaptation measures to the Carbon Disclosure Project (CDP). It has also compiled a Voluntary Local Review aligned with the United Nations Sustainable Development Goals (SDGs). On the international exchange front, Kaohsiung has joined multiple international organizations and initiatives, including the Powering Past Coal Alliance (PPCA), United Cities and Local Governments (UCLG), CityNet, and has signed an agreement with ICLEI to establish the only capacity building center in East Asia, collaborating with international partners to drive net zero efforts.

Kaohsiung has launched comprehensive measures for its net zero journey, including target-setting, regulations, talent development, and international cooperation. Through the Net Zero Industry Alliance and Institute, the city supports industrial transformation with initiatives in inventories, emissions reduction, carbon removal, and trading. The aim is to turn Kaohsiung's carbon burden into an asset and create a low-carbon industrial chain.

#### **APEC Economy:**

□ Australia □ Brunei □ Canada  $\Box$  Chile  $\Box$  China □ Hong Kong, China □ Indonesia □ Japan □ Korea □ Malaysia □ Mexico □ New Zealand □ Non-APEC Economy □ Papua New Guinea □ Peru □ Philippines 🗆 Russia □ Singapore ■ Chinese Taipei □ Thailand  $\Box$  United States □ Viet Nam □ Non-APEC Economy \_\_\_\_\_

### Description of Town

### Type of Town:

Urban (Central Business District)
Urban (Mainly consists of commercial area)
Urban (Mainly consists of residential area)
Village (village)
Village (island)
Others

Coverage rate of population with access to tap water: In 2023, Kaohsiung City's tap water penetration rate was 96.93%.

Coverage rate of population with access to gas: (%)As of the end of December 2023, the number of households supplied with natural gas by various natural gas and petroleum companies in Kaohsiung City was 334,872, accounting for approximately 29% of the city's total 1,150,775 households.

**Power plant capacity:** (GW) There are 3 thermal power plants in Kaohsiung City, with a total generation capacity of 6.59GW.

Specific power plant type: (e.g. coal, geothermal, etc.) The 3 power plants primarily use coal and natural gas as fuel sources.

Number of public transportation vehicles per 10,000 population: (#)Kaohsiung City's mass rapid transit system has 38 stations with 42 train sets (each with 3 cars, accommodating 335 passengers per car). The light rail system has 31 stations and operates 9 train sets (each with 5 cars, accommodating 250 passengers per set).

Popularization rate of telephone, including mobile telephone (sets/100 persons) In 2022, 78.1% of households in Kaohsiung City had a telephone line, while 97.45% had mobile phones.

**Per capita area of paved roads** (m<sup>2</sup>) In 2022, the total area of roads in Kaohsiung City was 2,355,941 square meters, and the area of sidewalks was 39,155.3 square meters, totaling 2,395,096.3 square meters. With a population of 2,737,941 in 2022, the average paved area per person was approximately 0.87 square meters.

Per capita area of public green space (m^2) In 2023, the average park and green space area per citizen in Kaohsiung City was 3.76 square meters.

**Climate conditions**: Kaohsiung City has a tropical monsoon climate, with abundant sunshine and temperatures ranging from approximately 15°C to 32°C. The main sources of rainfall are summer typhoons and the certain raining season.

# Expected Future Development

**Expected demographic changes:** (specify time period) The current population of Kaohsiung City (2023) is 2.7376 million people. It is projected that in 10 years (2032), the population will be around 2.6 million people. To address the issue of population outflow, Kaohsiung City is striving for industrial transformation and attracting businesses to draw in industry talent. In the first half of 2023, the city saw a net positive inflow of people migrating from other counties and cities.

By pushing for industrial transformation, promoting business opportunities, and drawing talent into the city's industries, Kaohsiung aims to reverse the population decline trend. The positive net inward migration in the first half of 2023 signals initial success in these efforts to improve the population situation through economic development and job creation.

**Expected industrial/economic changes:** (specify time period) Kaohsiung was founded as a heavy industrial city, but starting in 2021, the city government planned and established the Southern Semiconductor Corridor through administrative initiatives. This has successively attracted semiconductor industries to Kaohsiung, forming the nation's largest semiconductor corridor. This realizes Kaohsiung's two-way transformation towards net zero emissions and digitalization.

By leveraging its industrial roots but transitioning into high-tech sectors like semiconductors, Kaohsiung is reinventing itself for a sustainable, digitalized future. The focused development of the Southern Semiconductor Corridor has turned the city into a major semiconductor hub for Taiwan. This strategic move enables Kaohsiung to achieve the twin goals of decarbonization and digital transformation as it upgrades its economic base from traditional heavy industries to advanced technology industries aligned with net zero and digital trends.

### Other expected development: (specify time period)

It is expected that Kaohsiung City will reduce its carbon emissions by 30% by 2030, and achieve net zero emissions by 2050 to become a net zero sustainable and livable city.

# Town Policy, Vision or Objective

What is the policy, vision, or objective of the town? (Please specify the actual goal and its metrics, if applicable)須註明實際目標及(如果有)指標

On June 20, 2022, the Kaohsiung City Government announced Kaohsiung's net-zero pathway and targets, declaring a 30% reduction in carbon emissions from the baseline year (2005) by 2030 and net-zero emissions by 2050. In 2023, the Kaohsiung City Council passed the "Kaohsiung City Net-Zero City Development Autonomous Regulations", officially codifying the targets of a 30% reduction by 2030 and net-zero emissions by 2050. These Autonomous Regulations were approved by the Executive Yuan on May 10, 2024.

Brief outline of the low carbon town development plan: (e.g. description of geographical features, current and planned energy infrastructure, goals of the low carbon town and livability aspect of the town)

Kaohsiung City is located in the southwest of Chinese Taipei and is the largest city in southern Chinese Taipei. Its industries span heavy industry, metal manufacturing, high-tech and other supply chains. In recent years, Kaohsiung has actively introduced high-tech park industries, but this has also made it the city with the highest carbon emissions. Therefore, achieving "net-zero" is an urgent and major challenge.

To achieve the goals of a 30% emissions reduction by 2030 and net-zero by 2050, creating a net-zero sustainable city in Kaohsiung, the city's net-zero strategy adopts a nine-pronged approach and five foundational drivers. These cover energy, industry, residential/commercial, transportation, environment, agriculture, net-zero green living, carbon sinks, and a just transition. The foundational drivers are governance, legal framework, technology, talent, and economics. Regarding current energy facilities, Kaohsiung joined the Powering Past Coal Alliance in 2020, requiring power plants and cogeneration units within its jurisdiction to phase out coal and reduce emissions. Although the electricity generated by the three power plants is not just for Kaohsiung's use but for national dispatch, the city still requires the three plants and 15 cogeneration boilers to implement coal-to-gas switching plans. The Hsinta Power Plant is even implementing a hydrogen co-firing program.

Aside from the energy sector, the Industrial sector is promoting the Net Zero Industry Alliance, requiring various industries to set their own carbon reduction targets, and share technologies such as carbon capture and utilization, steelchemical co-production, and AI-powered smart factories. In the transportation sector, by promoting mass transit systems, shared mobility, and monthly transportation passes, as well as developing low-carbon modes of transportation such as ferries and electrifying government vehicles, the aim is to construct a lowcarbon transportation model. The residential and commercial sector is promoting smart green buildings in Kaohsiung, energy-saving initiatives in shopping malls, and smart energy management. The environmental sector is constructing an internal resource recycling center, promoting the reuse of incineration bottom ash, and increasing the sewage connection rate. The agricultural sector is promoting smart and eco-friendly farming, electric agricultural machinery, organic agriculture, and energy-saving equipment in fishing ports. The Net Zero Green Living initiative promotes low-carbon diets, low-carbon sustainable homes, green tourism, and green procurement. The carbon sink sector promotes afforestation and reforestation carbon sinks, prohibiting deforestation in indigenous conservation areas, and incorporating guidelines into urban design reviews. The Just Transition sector promotes the Net Zero Academy to cultivate net zero talent, issues government green bonds, and promotes the Net Zero Just Transition Promotion Operations Handbook.

To achieve the goal of sustainable development in Kaohsiung City, the United Nations Sustainable Development Goals (SDGs) are adopted as the core of Kaohsiung City's governance. In addition to enacting the "Kaohsiung City Net Zero City Development Autonomous Regulations" and the Kaohsiung Net Zero Nine Dimensions and other related net zero policies, regarding sustainable development, the city focuses on the 17 Sustainable Development Goals (SDGs) proposed by the United Nations in the "2030 Agenda for Sustainable Development" (2015) as the core of governance. Various sustainable action policies are implemented according to local conditions, such as promoting renewable energy (solar energy, biomass energy, etc.), energy conservation (highenergy efficiency equipment, energy-saving, power-saving, water-saving equipment), low-carbon transportation (public transportation network, vehicle electrification, ride-sharing mechanisms), circular economy (resource recycling, waste recycling), low-carbon buildings (KAOHAUS smart green buildings, improvement of building energy efficiency, air conditioning energy-saving assessment), low-carbon lifestyle (low-carbon communities, consumption of local food, green consumption, etc.), and environmental greening (rooftop and balcony greening, establishment of air quality purification zones), with the aim of building Kaohsiung into a sustainable city.

#### Current stage of development of the town: Please choose one.

- $\Box$  Planning stage
- Construction stage
- □ Already existing

Start date of the project: On June 20, 2022, the Net Zero Industry Alliance was established, and Kaohsiung City's net zero emission target and roadmap were announced.

Completion date of the project: To achieve net zero emissions by 2050.

# Low Carbon Measures

# Does your low carbon town or development plan have CO2 emission reduction target?:

• Yes Kaohsiung City has set the following greenhouse gas emissions reduction targets:

- 1. By 2030, reduce greenhouse gas emissions by 30% compared to 2005 levels
- 2. Achieve net zero emissions by 2050 □ No

## Key low carbon measures employed or to be employed

### Urban functions

- Compact city design
- Heat island phenomenon countermeasures
- Efficient road arrangement plan
- Well-developed public transportation 充
- Car Sharing
- Intelligent Transportation Systems (ITS)
- Plan for highly efficient infrastructure
- Other : Resilient City Public Works Management and Decision Support Platform

#### Industry sector

■ Factory energy management system

• Other · The energy policy within the jurisdiction promotes increasing gas and reducing coal, as well as expanding green initiatives. It requires the decommissioning of coal-fired power plants and the elimination of coal from cogeneration plants. Additionally, it calls for power plants within the jurisdiction to implement plans for co-firing hydrogen and ammonia in their gas-fired units.

#### Transport sector

- Bus Rapid Transit (BRT)
- Light Rail Transit (LRT)
- Intra-city community bicycle
- Electric vehicle
- Electric busses
- LED street lighting

■ Other : electric Ferry

#### Residential sector

- $\Box$  Fuel cells
- Low or zero emission houses
- Eco-friendly home appliances
- PV panel
- Solar heated water supply facilities
- □ Heat-pump hot water supply with natural refrigerant
- Use of natural light
- Low emission glass
- Home Energy Management System (HEMS)
- $\Box$  Thermal storage air conditioning system
- Other :

#### Commercial sector

- Low or zero emission building
- High insulation/highly airtight materials
- Sun shading system
- High performance facade
- Low emission glass
- Double skin facade
- Roof greening
- Highly efficient air conditioning facilities
- LED/Inverter lighting LED/
- Use of natural light
- Building Energy Management System (BEMS)
- $\Box$  Thermal storage air conditioning system
- $\Box$  Other

Other demand side measures: (Enter other demand side measures here, if any)

#### Renewable energy

- PV power generation
- Solar thermal utilization
- Biomass power generation
- □ Wind power generation
- □ Geo-thermal power generation
- Micro-hydroelectric power generation
- Others : SRF (Solid recovered fuel)

#### Untapped energy

- $\Box$  Use of sea/river water
- $\Box$  Use of waste heat such as waste incineration plants
- □ Use of waste heat such as sewage treatment plants
- $\Box$  Use of waste heat from factories
- Others : Geothermal power

#### Other supply side measures: (Enter other supply side measures here, if any)

- a) The academy's curriculum is divided into three main categories: general education, certification, and technical courses. As of the end of April this year, 40 courses have been offered with a total of 1,469 trainees, including 21 certification classes (532 attendances), 16 general education classes (848 attendances), and 3 technical classes (89 attendances). The participants include officials and staff from various levels of the city government, enterprises, and the general public.
  - Certification Courses: In cooperation with international certification bodies (BSI, TUV, DNV, AFNOR), courses such as ISO 14064, 14067, and Sustainability Reporting are offered to align with international standards and trends. Currently, five types of courses have been launched, including ISO 14064-1 (Carbon Inventory), ISO 14064-2 (Emission Reduction Projects), ISO 14067 (Carbon Footprint), ESG Sustainability Reporting, and ISO 50001 (Energy Management). Subsequently, more courses will be continuously offered and expanded, such as ISO 14068 (Carbon Neutrality).
  - 2. General Education Courses: Focusing on topics such as net zero trends, domestic and international regulations, policy concepts, and renewable energy, these courses aim to broaden the understanding of net zero among the government, industries, and society. The course content includes international climate conventions, net zero overview, domestic and international regulations, circular economy, and just transition.
  - 3. Technical Courses: These courses are planned according to industry needs or characteristics, and incorporate practical sharing by leading enterprises. Courses such as natural carbon sink development, emission reduction in the metal manufacturing industry, CBAM (Carbon Border Adjustment Mechanism) reporting, and domestic and international carbon trading have been offered.
  - 4. Factory Exchanges: Opportunities and platforms for practical exchanges with enterprises are provided, such as visiting carbon capture factories, reclaimed water plants, and steel-chemical co-production plants.

B) Establishing the "Kaohsiung Carbon Platform": To provide matchmaking services and an information disclosure-themed website, the main purpose is to encourage enterprises to "create actual local emissions reductions" and "voluntary carbon credits", as well as assist in obtaining emissions reduction credits. It provides two main functions:

1. Matchmaking Services: The platform allows communities, agencies, small businesses, or entities lacking funds for equipment replacement to post their replacement needs for equipment or facilities on the carbon platform. Information about the replacement equipment will be displayed on the platform. Entities in need of emissions reductions (such as regulated enterprises or environmental impact assessment developers) can select from the listed information on the platform and express their willingness to sponsor the replacement of equipment or execution of emissions reduction activities. This helps match the

needs of both parties, achieving cross-sector emissions reductions, and fulfilling corporate ESG and environmental impact assessment reduction commitments.

2. Assistance with Voluntary Emissions Reduction Project Applications: Through the platform, feasible proposals and willing investors are collected. In addition to facilitating cooperation between the two parties, experts and scholars are engaged to evaluate the proposals submitted, increasing the success rate of voluntary emissions reduction project applications. After a project is successfully approved, the resulting emissions reduction credits are shared, enhancing incentives and promoting the carbon economy market.

C) Low Carbon and Smart Transformation Upgrade Subsidies: For small and medium-sized enterprises within the jurisdiction, subsidies are provided to cover the costs of implementing low-carbon measures (carbon emission reductions, introduction of low-carbon technologies) and smart measures (smart manufacturing, operational management optimization).

### Demand and supply side measures

- Advanced metering systems
- $\Box$  Smart grid system
- $\Box$  Electric condenser system
- □ Area Energy Management System
- Others : Intelligent Green Energy System

Estimated cost savings in implementing low-carbon measures: Break down by Activity/Sector, potential source, estimated savings – e.g.: Residential sector, Fuel cells, 150 \$US/household/year (per year/per unit of energy, etc.)

1. Industry Net Zero Alliance: As an industrial city with high carbon emissions, Kaohsiung has established the "Industry Net Zero Alliance" to bring together highemitting enterprises. The main focus is to promote industry-led carbon reduction, leveraging larger enterprises to guide smaller ones and share carbon reduction technologies. The primary cost involved is the expenses for hosting regular meetings. By promoting industry-led initiatives and expanding membership, related costs can be saved, further amplifying the benefits of carbon reduction. Additionally, by sharing carbon reduction technologies such as introducing AI, operational costs for industries can also be reduced simultaneously.

2. Regional Energy Integration: China Steel Corporation, located within the jurisdiction and in close proximity to many petrochemical and steel factories, has been utilizing cogeneration systems and waste heat recovery to produce steam, as well as various industrial gases from its oxygen plant. These surplus energy resources, including steam, oxygen, nitrogen, argon, compressed air,

and coke oven gas, are shared with neighboring petrochemical, chemical, and downstream steel factories within the industrial park. This regional energy resource integration allows users to shut down existing facilities with lower efficiency and higher carbon emissions or avoid investing in new low-efficiency facilities. Currently, 14 factories have joined the initiative. In 2022, the external steam sales amounted to 1.48 million tons, saving approximately 4.51 million GJ of energy (equivalent to replacing 114,000 kiloliters of fuel oil) and reducing greenhouse gas emissions by approximately 355,000 tons of CO2e.

- 3. Steel-Chemical Co-production: This involves China Steel Corporation integrating resources from the steel and petrochemical industries, where cross-industry collaboration can lower raw material costs for the petrochemical industry. The by-product fuels generated during steelmaking, such as blast furnace gas and converter gas, are rich in CO and CO2. China Steel Corporation purifies these by-product fuels and extracts CO and CO2, which can replace the petrochemical raw materials that would otherwise need to be imported from overseas. The petrochemical industry then uses its processes to synthesize versatile chemicals like methane, methanol, and acetic acid, achieving carbon fixation benefits. It is expected to reduce carbon emissions by 2.9 million tons annually.
- 4. Energy Service Company (ESCO) Business Model: ESCOs provide energysaving solutions, energy-saving equipment, and energy management services. Their business model involves using appropriate measurement and verification procedures to calculate energy-saving performance, then recovering the costs of energy-saving services and equipment from the resulting energy cost savings. Alternatively, upon mutual agreement, energy users can allocate a portion of the budget to pay for project costs, shortening the payback period. In 2023, assistance has been provided to 16 sites, resulting in an annual reduction of over 18 million kWh of electricity consumption and 9,000 tons of carbon emissions.

Estimated energy consumption before completion of the project: (GJ/year or TOE/year) Here is a summary of the expected carbon reduction achievements from various measures to meet the 2030 30% reduction and 2050 net-zero targets:

I. Coal Reduction in Cogeneration Plants: The city's cogeneration plants reduced coal use by 608,000 tons in 2022 and 526,000 tons in 2023, totaling a reduction of approximately 1.28 million tons of carbon dioxide emissions. It is expected that coal use in cogeneration plants will be reduced by 3.4 million tons by 2025.

II. Industry Net Zero Alliance: Currently, 56 companies have set carbon reduction targets for 2030, expected to provide Kaohsiung City with a reduction of 4.51

million tons compared to the base year. 46 companies have set 2050 carbon reduction targets, which is expected to provide a reduction of 34.05 million tons compared to the base year, with 36 companies setting 2050 net-zero targets.

III. Solar Photovoltaic Installation: The 1.25GW solar PV installation plan (2021-2026) is expected to reduce carbon emissions by approximately 770,000 tons annually.

IV. Kaohsiung City's Second Greenhouse Gas Reduction Implementation Plan: This plan, spanning from 2021 to 2025, includes 6 major sectors and 58 reduction measures, with an expected carbon reduction target of 2.35 million tons. In the first three years (2021-2023), the cumulative carbon reduction has reached 5.08 million tons.

V. Regional Energy Integration: In 2022, external steam sales amounted to 1.48 million tons, saving approximately 4.51 million GJ of energy (equivalent to replacing 114,000 kiloliters of fuel oil) and reducing greenhouse gas emissions by approximately 355,000 tons of CO2e.

VI. Energy Service Company (ESCO) Business Model: In 2023, assistance has been provided to 16 sites, resulting in an annual reduction of over 18 million kWh of electricity consumption and 9,000 tons of carbon emissions.

Estimated energy consumption after completion of the project: (GJ/year or TOE/year) Kaohsiung City aims to achieve a 30% reduction in greenhouse gas emissions compared to 2005 levels by 2030, with an expected emissions reduction of 1.98 million tons. The goal is to reach net-zero emissions by 2050.

# Project Management

What central/local government departments are/will be involved in development of

the project? (Please specify which stages of the projects they will be involved in (i.e. developmental, intermediary, implementation, etc.))

Kaohsiung City Government

# What private company, non-governmental organizations are/will be involved in development of the project? (Please specify which stages of the projects they will be involved in

(i.e. developmental, intermediary, implementation, etc.))

Kaohsiung has a high concentration of carbon-intensive industries such as steel and petrochemical, which have formed industrial clusters. The Net Zero Industry Alliance has brought in 105 industries within the jurisdiction that emit more than 25,000 tons of greenhouse gases annually (including steel, petrochemicals, electronics, energy, and circular economy). Additionally, the Net Zero Academy assists local industries, with courses emphasizing industrial integration. Apart from offering specialized classes based on industry characteristics, local major corporations such as China Steel Corporation, CPC Corporation, Formosa Plastics Group, and ASE Global have joined the faculty to directly share practical experiences and conduct on-site factory courses, including carbon capture at Changchun, circular economy at ASE Global,

and steel-chemical co-production at China Steel Corporation, allowing front-line industry personnel to exchange technologies. The Net Zero Academy has also signed memorandums of understanding with certification bodies such as BSI, TUV, DNV, AFNOR, and 18 universities and colleges to jointly cultivate net zero talent.

#### How is/will be the development of the town funded? (Discuss financing availability,

finance options and financial structure (i.e. private, public, etc.))

The main sources of funding for Kaohsiung's net-zero sustainable city initiatives come from the Kaohsiung City Government's administration budget, funds, and central government subsidies. For example, in 2024, the budget allocated for net-zero-related projects has reached approximately US\$900 million.

Other relevant information, if any: (Please not additional relevant information here.)

### Project Status: Choose an item. Additional Project Details

#### Image:

Please attach an image that represents this project.



### LCMT Overview File:

Please attach a file associated with your project. 2023 Kaohsiung City Voluntary Local Review 2022 Kaohsiung City Voluntary Local Review Project Website:

Please provide the project website. https://khsclimatechange.kcg.gov.tw/ https://aqmc.kcg.gov.tw/NetZero/Home/index https://www.kcgcarbon.tw/ https://kems.kcg.gov.tw/website/zh-TW/ APEC Publication URL: Enter the site URL that contains any related APEC publications. N/A

# **Contact Information**

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