

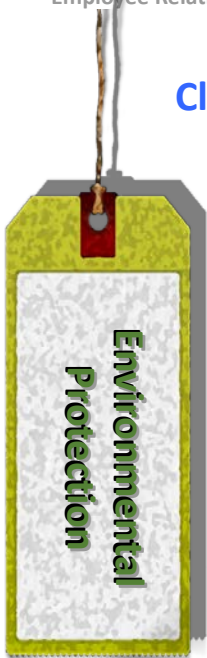


Climate Change Risk Management

Since the adoption of the "Paris Climate Agreement" at the United Nations Climate Change Conference in 2015, the 26th session of the Conference of the Parties (COP26) held last year (2021) was the first assessment of the response of global governments to climate change since the Paris Climate Agreement. The conference resulted in a global consensus on climate change and more than 100 countries signed an agreement with the goal of limiting future warming to within 1.5 degrees Celsius. Major countries such as the European Union, United States, China, and Japan have pledged to attain carbon neutrality by 2050 to 2060, and will use policies or regulations to implement related restrictions.

In April 2021, Taiwan announced its goals for net zero emissions by 2050 and accelerated the development of related domestic legislation. The "Greenhouse Gas Reduction and Management Act" is expected to be amended to the "Climate Change Response Act" and will include carbon tax levy mechanisms to support international carbon management mechanisms.

In response to climate change, international restrictions, amendments of domestic regulations, and changes in the industry, low-carbon transformation has become a key for corporate sustainability. The Company changed the name of the "CSR Advisory Committee" to "ESG Committee" and adopted it as the highest organization for climate change management. The Chairman serves as the chair of the Committee to review the Company's carbon neutrality strategy and targets, manage actions taken for climate change risks and opportunities, review the implementation status, discuss future plans, and report to the Board of Directors. AIDC follows the TCFD recommended disclosure framework published by the Financial Stability Board (FSB) to assess the transformation risks and physical risks. The Company also identified climate-related opportunities to reduce the impact on operations and pursue sustainable growth.





TCFD key factors			
Governance	Strategy	Risk Management	Metrics and Targets
<p>a) Describe the board's oversight of climate-related risks and opportunities. The Board of Directors is responsible for supervising the ESG implementation progress. The management team prepares the Risk Management report (including climate change risks and opportunities), and the report is included in the Business Plan for review and approval by the Board of Directors every year. The implementation results from the previous year shall be reviewed and reported to the Board of Directors for reference in the first quarter. The progress report of ESG, including the climate change issues, is presented quarterly to the BOD along with the operational report.</p> <p>b) Describe management's role in assessing and managing climate-related risks and opportunities. The Strategy & Operational Management Division is responsible for formulating the short, medium, and long term targets of "carbon neutrality". The President convenes high-level meetings, oversees the work items for "carbon neutrality",</p>	<p>a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term. AIDC identifies short (1-3 years), medium (3-5 years), and long-term (5-10 years) climate risks and opportunities in accordance with the internal "carbon neutrality" target. 1.Risk: (1) Short term: Rising cost of raw materials, carbon taxes/fees, rising energy cost (electricity), cost of transitioning to a low carbon economy, and policy and regulatory compliance. (2) Medium term: Renewable energy regulations and carbon levy regulations in different countries and supply chain management. (3) Long term: Supply chain disruption and replacement of products and services by low-carbon technology. 2.Opportunities: (1) Short term: Use more efficient production and distribution processes, and make full use of public-sector incentives to respond to regulatory developments ahead of schedule. (2) Medium term: Sustainable</p>	<p>a) Describe the organization's processes for identifying and assessing climate-related risks. The Strategy & Operational Management Division initiates the annual risk management process, and the "Carbon Neutrality Work Group" develops a draft of "AIDC's climate-related risks and opportunities matrix", which is incorporated into the annual risk management report. The report shall be presented to the Risk Management Committee for review and be included in the Business Plan for review and approval by the Board of Directors before the end of each year.</p> <p>b) Describe the organization's processes for managing climate-related risks. The verified climate-related risk and opportunity matrix and other risk items are overseen under the Company's "Risk Management Committee". The Committee meets at least once a year to formulate risk management policies, review the implementation results. The "Risk Management Team" which serves as secretary unit holds meeting every six months to track</p>	<p>a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process. (1) Absolute target: Reduce GHG emission (2) Intensity target: Electricity consumption intensity (electricity consumption in KWh / sales value in NT\$ million); waste reuse rate (reused resources / total waste quantity)</p> <p>b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks. AIDC discloses the GHG emissions of scope 1 and scope 2 in the ESG report, please refer to page</p> <p>Note: The 2021 GHG emissions is under review by an independent third-party verification institution and is expected to be completed in the third quarter of 2022.</p> <p>c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance</p>



TCFD key factors

Governance	Strategy	Risk Management	Metrics and Targets
including the installation of solar PV panels, energy conservation and carbon reduction projects, waste reduction, and internal carbon pricing	<p>supply chain management and development or expansion of low-carbon products and services. (3) Long term: Replaceability and diversity of resources.</p> <p>b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning. The "Carbon Neutrality Work Group" is the unit responsible for identifying AIDC's climate-related risks and opportunities matrix. The group assesses the impact on business, strategy, and financial planning, and develop countermeasures such as, sustainable supply chain, renewable energy investment, carbon reduction projects.</p> <p>c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario. AIDC will use a 1.5°C scenario analysis in accordance with the IPCC AR6 report. Preliminary analysis shows that supply chain disruption is a major risk to sustainable operations. In order to improve the resilience of</p>	<p>and review the implementation results of climate-related risks and opportunities, and report to the "Risk Management Committee".</p> <p>c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management. The "ESG Committee" is the Company's highest governing level for climate change. The Chairman serves as the chair of the committee. The Committee is responsible for reviewing sustainability and climate-related strategies and supervising the implementation progress. The "Carbon Neutrality Work Group" under the management of the Committee serves as the staff unit responsible for implementation of climate-related projects, and it evaluates the "AIDC's climate-related risks and opportunities matrix" which is to be approved by "The Risk Management Committee". The "Risk Management Committee" is the Company's highest governing level for risk management. The president serves as chairman of the committee. The duties of the Committee include preparation of the Risk Management Policy and</p>	<p>against targets. (1) Absolute target: By 2025, reduce greenhouse gas emissions by 25% compared to the base year. (2) Intensity target: Reduce electricity consumption intensity of manufacturing departments by 5% compared to the average of last three years; reduce waste reuse rate by 5% compared to the average of last three years.</p> <p>The target metrics will be disclosed in the ESG report, and carbon reduction strategy will be adjusted according to the domestic and international development trends and regulations to improve resilience.</p>



TCFD key factors

Governance	Strategy	Risk Management	Metrics and Targets
	sustainable operations, the strategy is firstly to target alternatives for high-priced, long-delivery, high-failure supplies and items that are low in the threat of substitution. Secondly, identify potential domestic suppliers and increase secondary sources of supply in the medium and long term.	regular reviews of the risk rating (including climate change risks and opportunities). Before the end of each year, the Committee shall formulate the Risk Management Plan for the following year, which will be included in the Business Plan for review and approval by the Board of Directors.	



Environmental Management System

AIDC passed the ISO 14001 Environmental Management System certification in 1999 and uses the environmental management system to continue improvements and fulfill corporate responsibility for environmental protection. The Company uses the ideals for "legal compliance, clean production, full participation, and continuous improvement" to reduce the impact on the environment. There was no major impact on the environment due to products, materials, or the production process in 2021.

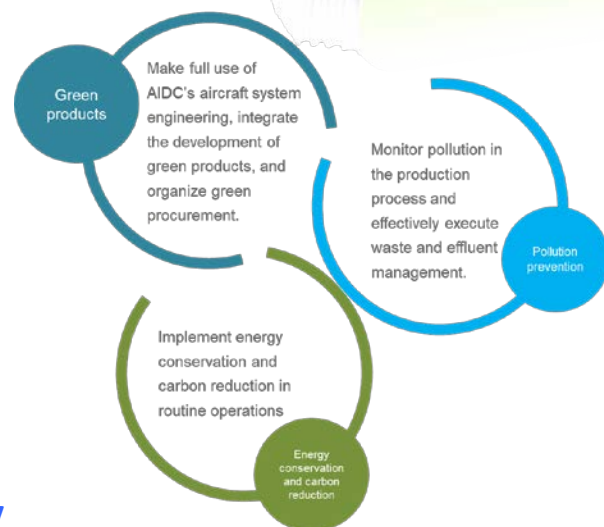
AIDC is committed to organizing efforts for the protection of the environment and resources, sustainability, and fulfillment of corporate social responsibility, and actively implements the three following points:

- Compliance with environmental protection regulations and implementation of environmental protection tasks
- Commitment to clean production, resource recycling, and sustainability of the environment
- Promotion of energy conservation and carbon reduction and fulfillment of corporate social responsibility



Development of Sustainable Environment

AIDC is committed to the sustainable development of the environment. Our three main strategies are "development of green products", "pollution prevention", and "energy conservation and carbon reduction".



Environmental and Energy Policy

The Occupational Safety and Environmental Protection Division established the Environmental Policy based on the environmental factor identification mechanisms. The General Affairs Division established the Energy Policy to reduce energy consumption, increase energy efficiency, and effectively purchase and use efficient products and services.

<p>AIDC Environmental Policy</p> <p>AIDC is fully committed to environmental resources protection, sustainable management and corporate social responsibility by actively promoting the following three principles:</p> <ol style="list-style-type: none"> 1. Comply with the environmental laws and regulations to implement environmental protection tasks. 2. Focus in cleaner production, resources recycling, and making the environment sustainable. 3. Promote energy conservation and carbon reduction, environmental education, corporate social responsibility. <p>President W.J. MA Date: Apr.03, 2019</p>	<p>AIDC Energy Policy</p> <p>The Company is committed to the principles for reducing energy consumption and energy management and protection for product design, use, procurement, and services:</p> <ol style="list-style-type: none"> 1. Continue to reduce energy usage volume. 2. Ensure continuous increase in energy efficiency. 3. Continue to invest resources to reduce energy consumption. 4. Comply with laws and other energy-related requirements. 5. Consider energy efficiency in the design and repairs of facilities and equipment. 6. Effectively purchase and use efficient products and services. <p>President W.J. MA Date: Apr.03, 2019</p>
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Greenhouse Gas Inventory

Since 2012, AIDC has established environmental accounting regulations in accordance with ISO 14064-1 and the GHG Protocol to facilitate greenhouse gas inventories. The Company set the organizational boundaries according to the operation and controlling rights methodology and calculated the greenhouse gas emissions in scope 1 and scope 2. Greenhouse gas emissions mainly includes carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). AIDC also plans to start greenhouse gas inventory and certification procedures based on ISO 14064-1: 2018 starting from 2022 (activity data for 2021).

The Company has set a carbon neutrality target starting from 2021 and activated work items including the annual certification of greenhouse gas inventory for the entire company each year. The scope of the certification includes Taichung Complex, Sha-Lu Complex, and Kang-Shan Complex. The Company's greenhouse gas inventory data are shown in the table below. Electricity consumption is the Company's main source of greenhouse gas emissions.

Scope	Item	2020 consumption	2021 consumption	2020 total CO ₂ e emissions (tons/year)	2021 total CO ₂ e emissions (tons/year)
Scope 1	Gasoline for vehicles (L)	122,650	113,132	278	256
	Diesel for vehicles (L)	411,817	251,211	1,073	655
	Liquefied petroleum gas (kg)	932	788	2	1
Scope 2	Power consumption (kWh)	118,237,368	129,436,377	73,662	80,639
Total				75,015	81,551

Note: The aforementioned data were compiled in the environmental accounting system and have not been verified. After the Company completes the external certification of the greenhouse gas inventory in 2022, the data shall be updated and published on the company website.

◆ Greenhouse gas emissions and energy and resource consumption

In terms of raw materials and emissions, electricity consumption and waste are the main sources of greenhouse gas emissions of AIDC. The Company established the "Energy Management Team" to set up an electricity monitoring and control system and review the purchase of equipment with high energy consumption.



Green Procurement

Green procurement refers to the procurement of products with minimum impact on the environment and human health. AIDC prioritizes the purchase of products with lower impact on the environment based on its mission to creating a sustainable supply chain to encourage the production of green products and use products that can be recycled, create low pollution, and conserve resources. The Company aims to take the lead in driving green consumption to attain environmental protection and provide information to general consumers. AIDC also aims to expand the green product market and reduce the prices of green products. The Company is fully committed to the implementation of the green procurement policy and requires the procurement unit to prioritize products with environmental protection labels when making purchases of office administration items, stationery, information equipment, and electrical equipment. Our goal is to do our best to promote green procurement and consumption.

◆ Enhancing green procurement awareness and promoting environmental protection products

✓ Training of procurement specialists:

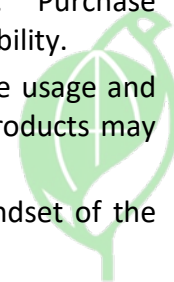
Continue to implement internal green procurement awareness campaigns and training to increase the awareness of procurement personnel for environmental protection products. Learn about the current state of green procurement and development trends in Taiwan and foreign countries.

✓ Green procurement principles:

1. The Company shall consider the environmental impact of the product life cycle from the acquisition of raw materials to the disposal of the product after use when making purchases.
2. The Company shall prioritize products with the same or similar performance that have received an environmental protection label from the government, and shall allow a price difference of within 10%.
3. When purchasing a product, if there is a domestic legislation that requires compliance with the energy efficiency standards, the Company shall endeavor to purchase products that comply with such standards.
4. Collect environmental information on products and suppliers.
5. Choose suppliers that take care of the environment.

✓ Green procurement implementation strategies:

1. Promote sustainable development with green procurement: Purchase energy-efficient products, to enhance improvements in social sustainability.
2. Reduce the cost of acquisition through joint procurement and reduce usage and disposal costs. As a result of these factors, the total cost of green products may not necessarily be higher than that of regular products.
3. Gradually create a green supply chain and strengthen the green mindset of the supply chain.





◆ Effectiveness of green procurement

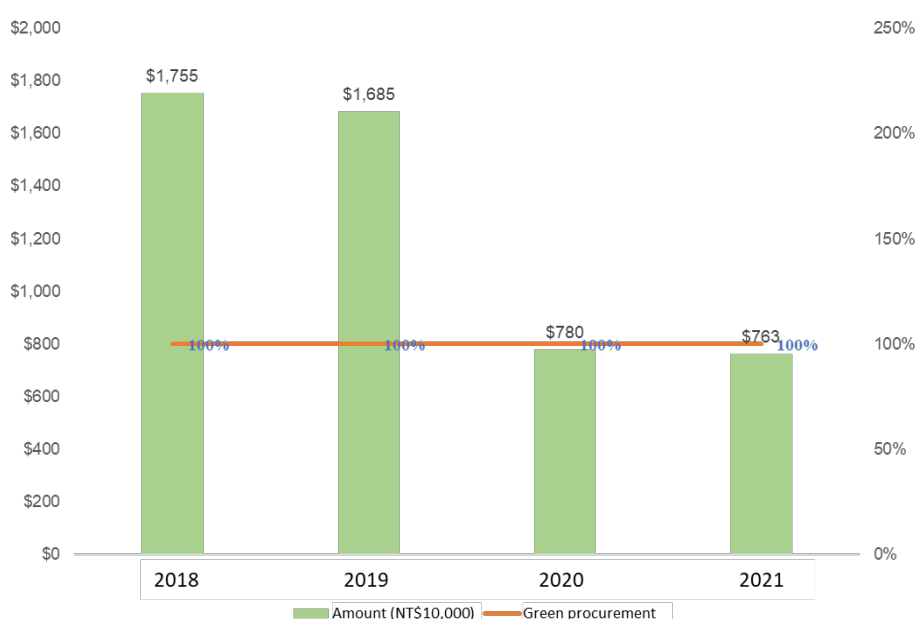
According to the terms of the "Regulations for Priority Procurement of Eco-Products", environmental protection products are divided into three categories which are described as follows:



✓ The procurement achievement rate of green procurement items continued to be 100%:

The Company supports the creation of a green supply chain and purchases green procurement items designated by government agencies. The procurement achievement rate was 100% in 2020 and the total procurement amount was NT\$7.63 million. The total green procurement amount fell sharply in 2021 due to the pandemic but the procurement achievement rate of green procurement items remained 100%, as detailed in the figure below:

Green procurement amount (NT\$ 10,000) and achievement rate



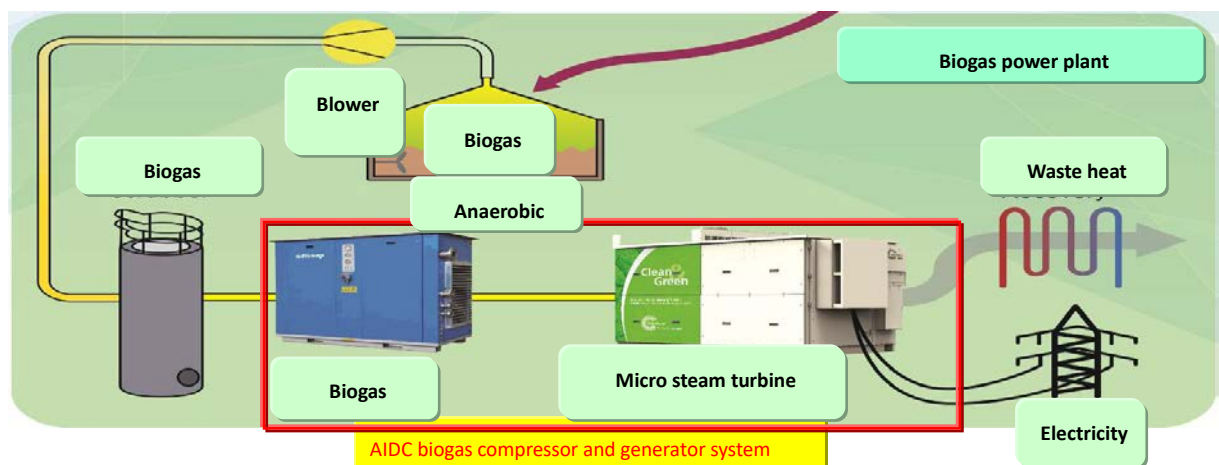
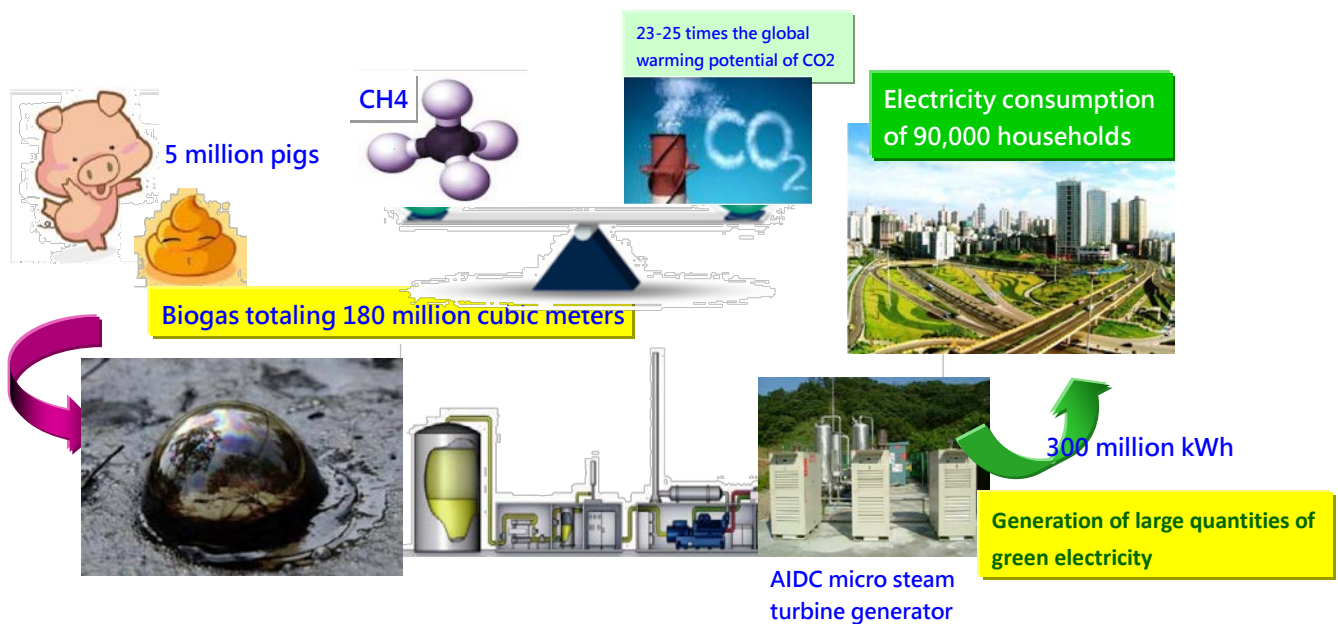


Green Product Development

◆ Biogas micro steam turbine generator

The methane (CH₄) produced in emissions of the animal husbandry industry has a greenhouse effect 23-25 times that of carbon dioxide. AIDC uses technologies from the aerospace industry based on the core technology of the aerospace gas turbine engine and control system design for renewable energy. AIDC has completed the installation of 3,105kW of biogas generators. With a power factor of 50% and 7,000 hours in annual operations, they are expected to generate green electricity totaling $3105 \times 7000 \times 50\% = 10,867,500\text{kWh}$, and can help reduce carbon emissions by 59,173 tons in Taiwan each year. They form a niche for long-term sustained development of renewable energy in Taiwan and help protect the Earth's environment.

The impact of methane in biogas on global warming is 23-25 times that of CO₂





Results of biogas power generation in Taiwan:



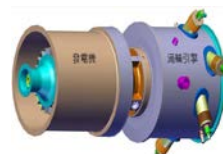
Power generated (year)
10,867,500kWh

CO₂

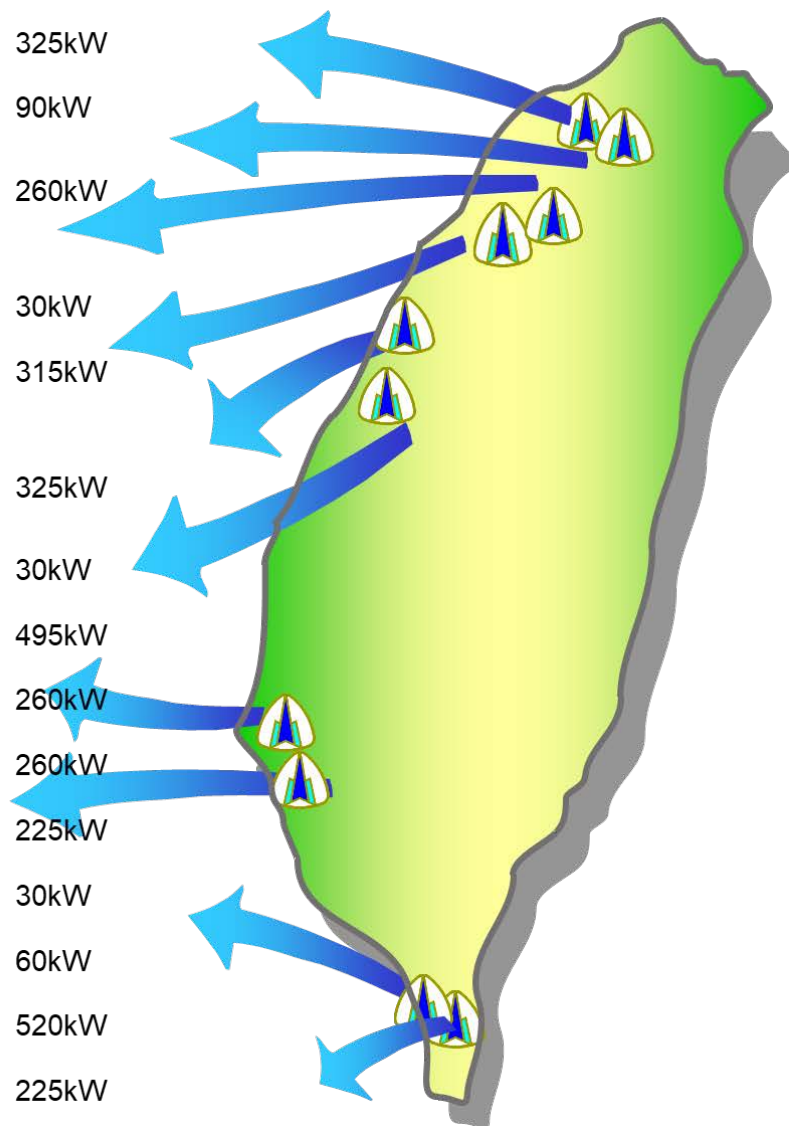
Carbon emissions reduced
59,173 tons (year)



Biogas reduced (year)
5,433,750NM³



5 generators in Bali, New Taipei City	325kW
3 generators in Sanxia, Taipei	90kW
4 generators of the Department of Environmental Protection, Taipei City Government	260kW
1 generator in Shulin, Taiwan Power Company	30kW
7 catalytic incineration and microgrid power generators of the Institute of Nuclear Energy Research	315kW
5 generators of a certain chemical plant in Miaoli	325kW
1 generator in a landfill in Taichung	30kW
1 generator of Green Field Energy	495kW
4 generators in Han Pao Livestock Farm	260kW
4 generators in Sheng Fu Livestock Farm	260kW
4 generators in Tien Chi Livestock Farm	225kW
1 generator of President Food	30kW
2 generators in Livestock Research Institute	60kW
8 generators in Central Livestock Farm	520kW
4 generators in Taiwan Sugar Livestock Farm	225kW



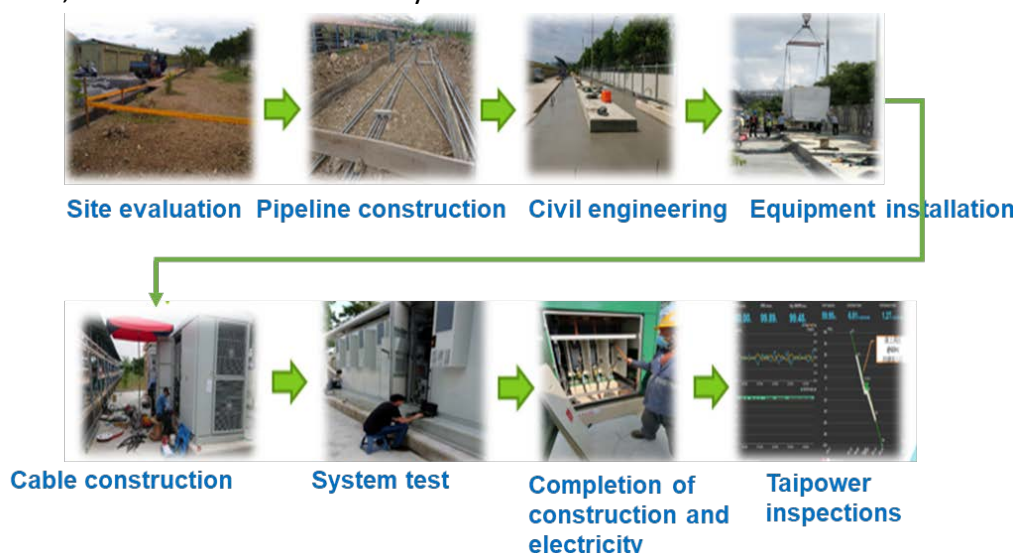
Note: The results do not include the 4 units in the food plant, optoelectronics plant, and Taipower which were under construction in 2021.



◆ Energy storage system

The use of renewable energy has increased proportionally in response to the global carbon emission reduction trends for fulfilling the target of net zero emissions by 2050. To maintain the safe and stable operations of the electricity system, Taipower officially activated the Energy Trading Platform on July 1, 2021. The trading platform allows the inclusion of diverse and decentralized electricity resources into the grid for the energy trading ancillary services. The automatic frequency control trading volume is expected to be increased to 1GW by 2025.

AIDC approved the installation of the first 5MW energy storage facilities at the end of January 2021 for joining Taipower's Automatic Frequency Control (AFC) ancillary services. The project was completed in May 2021 and electricity supply began in August after the completion of construction. By the end of September 2021, the Company became the first company to pass Taipower's two certifications for dReg0.25/dReg0.5. We became one of the first operators to obtain the qualifications for trading professionals on the Taipower Energy Trading Platform, and services were officially launched on October 28.



The Company shall use the experience learned in this project for the evaluation and plans for the Company's second and third energy storage sites and work to obtain opportunities to provide engineering, procurement and construction (EPC), system integration (SI), and operations and maintenance (O&M) services for energy storage systems. AIDC shall expand market opportunities for energy storage systems, expand the scope of business operations and revenue, and help stabilize the domestic grid.



▲ AIDC 5MW energy storage



▲ Inauguration of AIDC's 5MW



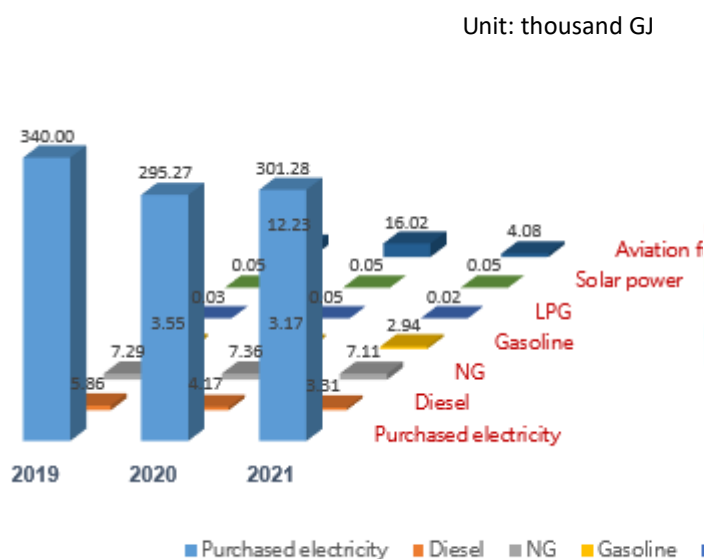
Energy Management

According to the report of the Intergovernmental Panel on Climate Change (IPCC), 90% of the global warming is likely to be caused by greenhouse gas emissions from human activities. As a result, AIDC has established the Energy Conservation and Carbon Reduction Work Group and other technical groups to enhance the implementation of the energy conservation and carbon reduction strategy. Taichung Complex thus obtained ISO 50001 certification in 2013 and continued to improve energy use to attain corporate sustainable development goals.

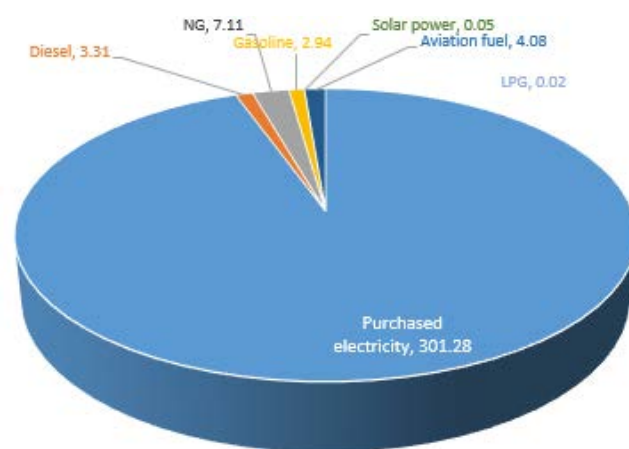
◆ Review of energy consumption

AIDC's energy consumption mainly consists of electricity, diesel, natural gas, gasoline, and aviation fuel. The total energy consumption of Taichung Complex and Sha-Lu complex in 2021 was 318,783 GJ, and electricity accounted for 95%. The total energy consumption of Kang-Shan Complex was 164,891 GJ, and electricity accounted for 90%.

2019-2021 energy consumption at Taichung & Sha-Lu Complex

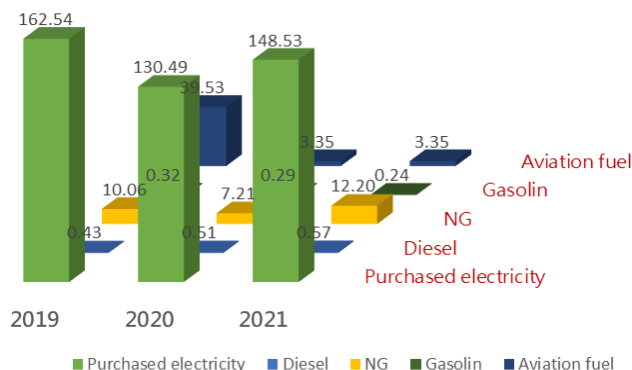


Ratio of energy consumption at Taichung & Sha-Lu Complex in 2021

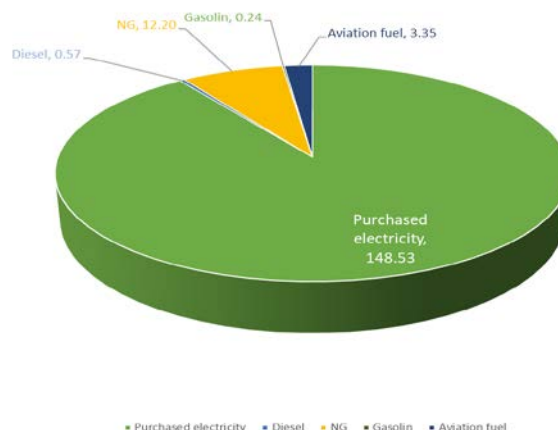




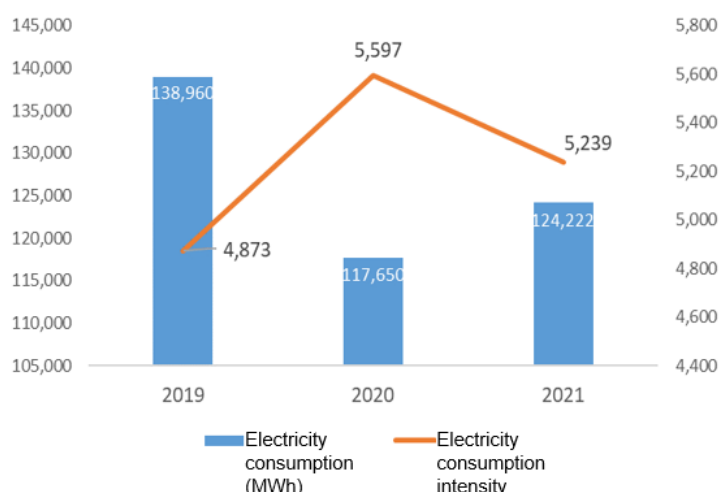
Kang-Shan Complex energy and resource consumption Unit: thousand GJ



Ratio of energy consumption at Kang-Shan Complex in 2021



Total electricity consumption and electricity consumption intensity in the most recent three years



Electricity consumption intensity: Electricity consumption in KWh / sales value in NT\$ million

2022 electricity consumption intensity target: 5% reduction in electricity consumption intensity compared to the average of previous three years (2019 to 2021).

◆ Installation of the Power Management System

To effectively manage the total electricity consumption of the electrical systems of plants and building, the Company uses the Power Management System (PMS) for monitoring and control, collection, compilation of statistics on real-time electricity consumption, and real-time management of electricity consumption of major machinery.



Note: Electricity consumption data from February 16, 2022



◆ Energy conservation results

The Company implemented 12 energy conservation measures and saved 4,366 MWh of electricity in 2021 to improve energy efficiency and meet the government's energy saving target.

Complex	2020 energy conservation projects	Implementation areas
Taichung and Sha-Lu	Lighting equipment replacement	#6 Plant, #7 Plant, #17/18 Hangars, #23 Hangar
	AC equipment improvements (replacement of cooling tower heat dissipation materials)	TACC22 Plant
Kang-Shan	Lighting equipment replacement	Mechanical Engineering Section 3, test drive oil tank areas, effects of shading in solar energy phase 3
	Process improvement and reduction of work hours	General Group, Casting Group
	AC equipment improvements (replacement of box-type air-conditioners, replacement of	69kV substation, Engine Case Section 3, Engineering Section 2, Military Program Group, Warehousing, Casting Group

Note 1: The power conservation is calculated with different methods such as equipment rating, estimates based on existing machine data, clamp meter measurement, and estimates based on external literature review. The appropriate basis for estimates is chosen based on actual onsite conditions. The aforementioned electricity conservation measures have been reported to the Bureau of Energy for its review.

Note 2: The total power consumption in 2020 was amended to 2,804 MWh after it was reviewed by the Bureau of Energy.

◆ Green electricity - solar power

AIDC pays close attention to the development of green electricity and the total output of the solar PV system in 2021 was 14,033,145 kWh. In response to the Company's carbon neutrality plan and the government's regulations on major electricity users, the Company plans to set up 1,999KW of solar PV panels in 2022 and plans to attain the goal of 10% self-generation for self-use before 2025.

Complex	Year of inauguration	Installed capacity (kWp)	Total power output in 2021 (kWh)	Self-use percentage (%)	Sales percentage (%)
Taichung	2016	9.36	13,679	100	0
Taichung	2018	2,494.8	9,435,157	0	100
Kang-Shan	2018	1201.2	4,584,309	0	100



Water Resource Management

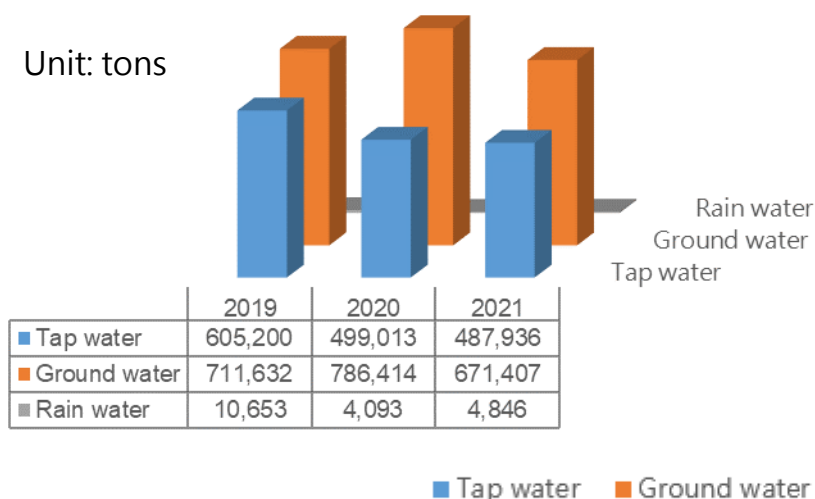
In recent years, AIDC has regarded the use of water resources as an important issue. The Company's units have actively encouraged employees to implement water conservation and required production units to reuse water resources. The Company also continuously reviewed employees' water conservation and water resource recycling and reuse plan to reduce the loss of water resources, so that we can minimize water consumption and maximize the rate of water recycling.

◆ Review of water consumption

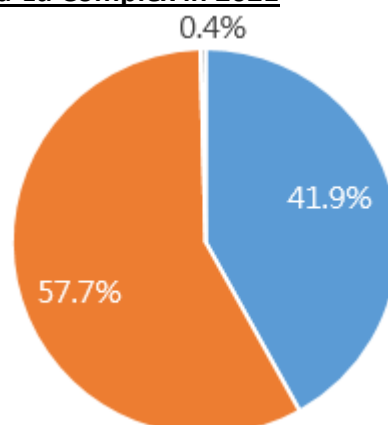
AIDC's water consumption mainly consists of tap water, rainwater, and groundwater. The total water resource consumption of Taichung Complex and Sha-Lu complex in 2021 was 1,164,189 tons, and tap water accounted for 42%. The total energy consumption of Kang-Shan Complex was 160,604 tons, and tap water accounted for 100%.

Water resource consumption at Taichung & Sha-Lu Complex in the recent three years

Unit: tons



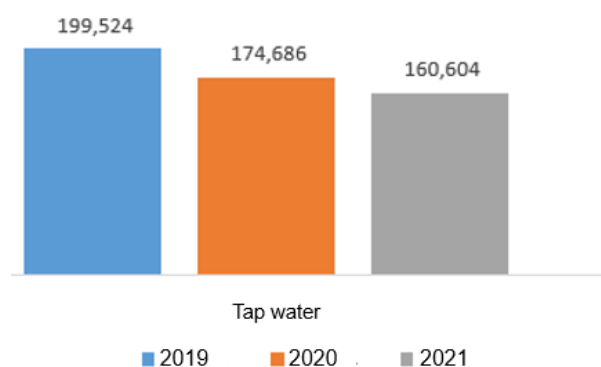
Ratio of water consumption at Taichung & Sha-Lu Complex in 2021



Kang-Shan Complex water consumption:

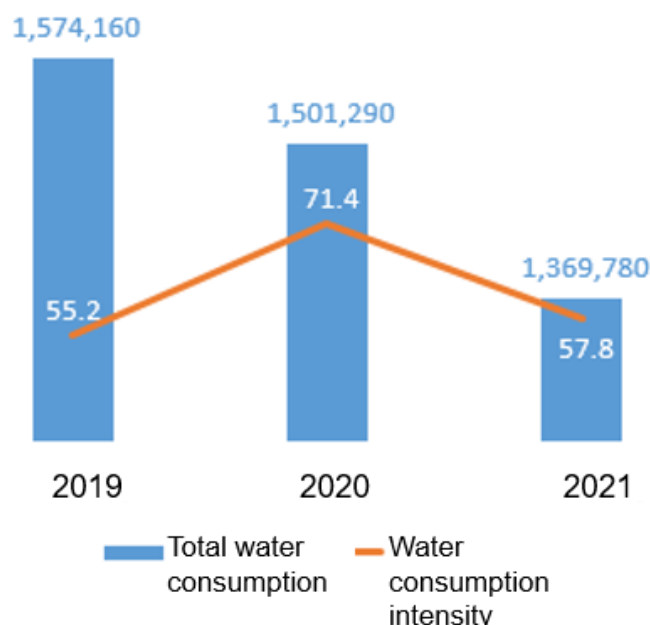
- 100% tap water used from 2019 to 2021
- 8% reduction in water consumption in 2021 compared to 2020

Unit: tons





Total water consumption and water consumption intensity in the most recent three years



Total water consumption unit: tons

Water consumption intensity definitions:
Total water consumption (tons) / sales value (NT\$ million)

Note: The water consumption intensity is higher in 2020 was mainly due to the impact of the pandemic which reduced the sales value of that year.



◆ Water conservation results

RO wastewater is collected for use in the heat treatment process / reducing agent in the scrubber and wastewater treatment plant. Cooling water used in the process is recycled for watering plants. Sand filtration facilities and recycling pool were added after the wastewater treatment facilities. The wastewater is treated till it meets the "recommended quality standards of reclaimed water" of the Environmental Protection Administration. Except for raining days on which the watering of plants is not required, all recycled wastewater is used for watering plants. The Company set up a membrane bioreactor (MBR) for domestic sewage to treat the domestic sewage produced by employees. Once the sewage meets standards for effluent after treatment, the water is used for watering plants.

Complex	Item	Source of water	Recycled/saved water volume (tons)	Total water consumption ratio (%)
Taichung & Sha-Lu	Rainwater recovery	Rainwater	49,833	1,164,189 4.3%
	RO wastewater recycling	RO wastewater		
Kang-Shan	RO wastewater recycling	RO wastewater	5,565	160,604 3.46%



◆ Water pollution prevention

Water pollution prevention is a key part of environmental protection for companies and an important item in corporate social responsibility.

Process wastewater can be classified into vibration grinding wastewater, alkaline wastewater, acid wastewater, cyanide wastewater, alkaline wastewater from paint removal, chemical film wastewater, chromium wastewater, sand filter cleaning water, laboratory cleaning wastewater, organic wastewater, tartaric acid wastewater, borosulfuric acid wastewater, miscellaneous wastewater, and kitchen wastewater. As wastewater includes different kinds of wastewater with different characteristics due to organic, acid/alkali and heavy metal contents, biological treatment, coagulation, and sedimentation technologies are used in combination to ensure that the effluent meets effluent water standards. The total wastewater in 2021 amounted to 157,000 tons, including 95,000 tons of wastewater in Taichung Complex which accounted for 60.5%, 5,000 tons in Sha-Lu Complex which accounted for 3.2%, and 57,000 tons in Kang-Shan Plant which accounted for 36.3%.

Complex effluent port	Total water volume (tons)	Water body receiving effluent	Whether inspection value meet standards (v)
Taichung Complex D01	72,213	Fazi River	v
Taichung Complex D02	293	Fazi River	v
Taichung Complex D03	22,453	Fazi River	v
Sha-Lu South D01	4,700.19	Zhulin North River	v
Sha-Lu South D02	205.23	Zhulin North River	v
Kang-Shan Complex D01	16,074	Baijia Canal	v
Kang-Shan Complex D02	8,455	Baijia Canal	v
Kang-Shan Complex D03	32,851	Baijia Canal	v

◆ Soil and ground water pollution prevention

AIDC's site was announced as a groundwater pollution remediation site because the trichloroethylene contents in the groundwater reached 0.183mg/l in May 2012, which exceeded the 0.05mg/l in groundwater pollution control standards. To effectively control the groundwater remediation project, the project was smoothly implemented and various tasks were performed in accordance with the remediation plan approved by the Environmental Protection Bureau of Taichung City Government. The site was removed from the list of control sites in July 2020, and the regular post-delisting monitoring data obtained along with the Environmental Protection Bureau of Taichung City Government in February and September 2021 showed results lower than the maximum value permitted by laws (Groundwater Pollution Monitoring Standards).



Air Pollution Management

◆ Effective treatment of pollution prevention

The pollutants from AIDC processes can be classified based on their characteristics into acid gases, alkaline gases, volatile organic gases, and granular pollutants. Before the treatment of air pollutants, the Company must first evaluate the types and emission volume of possible waste gases from its production activities and other factors that may affect pollution.

The Company shall select pollution prevention equipment with higher prevention efficiency and lower waste generation. We shall also select appropriate air pollution prevention equipment based on the characteristics of the pollutant type. Acid and alkaline waste gas is processed by scrubbers. Particulate pollutants are processed by dust collection equipment. Volatile organic gases are processed with catalyst scrubbing towers to effectively process air pollutants. After the installation of the control equipment, the Company will conduct functional tests along with the local environmental authorities to ensure that the pollution prevention equipment implements effective treatment of pollutants.

◆ Periodic maintenance and stable operations

AIDC establishes and implements related operation and maintenance of air pollution prevention equipment to immediately identify anomalies and maintain the normal operations and stability of the pollution prevention equipment. In addition, the Company shall also appoint a third-party certification unit to implement regular inspections of air pollutants and report the inspection results to environmental protection authorities. The Company's inspection results in recent years have met the "Standards for Air Pollutant Emission from Stationary Pollution Sources" established by the Environmental Protection Administration.

Air pollution detection and reporting unit for 2021					uni: tons	
Pollutants	Complex	Taichung	Sha-Lu South	Sha-Lu North	TACC	Kang-Shan
VOC		51.461	3.568	11.77	4.472	4.113
NOx		0.155	0.031	0.005	0.066	0.349
SOx		-	-	-	-	0.003
P		0.038	0.006	0.002	0.18	0.237

Note: The above data was obtained from the Stationary Pollution Sources of Information Disclosure Management Platform of the Environmental Protection Administration on March 31, 2022. The data only included Q1, Q2, and Q3 of 2021.



Hazardous Substance Management

If the materials provided by suppliers are chemicals that may harm human health, AIDC manages such substances in accordance with relevant domestic regulations and requires suppliers to provide safety data sheets to ensure safe use and disposal by employees. AIDC also cooperates with customers who sell products to the EU in tests of finished parts for compliance with the EU REACH regulations to confirm whether the finished products contain substances of very high concern under REACH and test whether their concentrations exceed the REACH standards. The Company will inform customers of the test results to ensure that the products meet the basic requirements of environmental protection and safety. The Company also implements toxic chemical reduction. For instance, we discontinued the use of trichloroethylene and replaced it with bromopropane, and we replaced potassium dichromate with an environmentally friendly process.



Disposal of toxic chemicals:

The surface treatment process of the parts requires immersion in a solution in the tank (the tank solution inspection requires the use of the toxic chemical potassium dichromate). We modified the process and replace it with a spectrometer to prevent pollution of the environment.



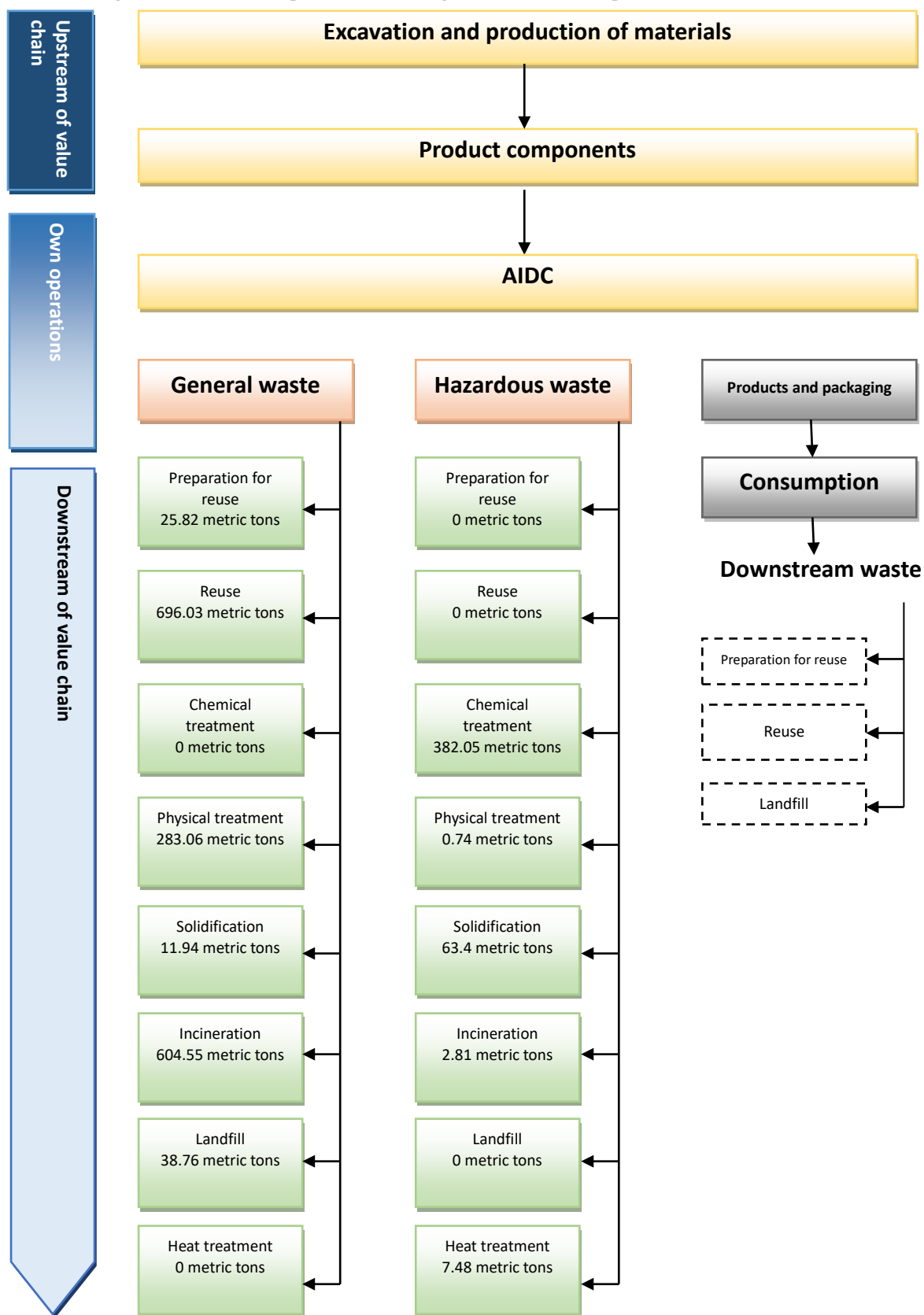
Waste Management

AIDC is committed to environmental protection. The Company has established the "Industrial Waste Disposal Regulations", "Industrial Waste Removal Guidelines" and other operational standards and management documents to reduce the potential environmental hazards caused by waste. We comply with the regulatory requirements in the Waste Disposal Act and Resource Recycling Act of the Environmental Protection Administration. We collect and sort waste and store them securely in temporary storage areas based on their characteristics. We also conduct internal environmental audits from time to time so that the Company's industrial waste can be managed, removed, treated, and reused appropriately to protect the environment from pollution caused by the waste.

AIDC's industrial waste can be divided into general industrial waste and hazardous industrial waste. Hazardous industry waste includes hazardous waste liquids and sludge generated from the Company's metal surface treatment and non-destructive quality inspection processes. General industrial waste includes industrial waste other than those mentioned above, such as waste cutting fluid, waste paint, waste wood, and waste aluminum. The Company commissions removal, treatment, and recycling companies approved by the EPA to remove and process waste based on the characteristics of the waste. We use the waste disposal triplicate form and retention of comprehensive treatment records and documents to ensure that the waste enters the treatment plant and is properly treated.



◆ Work process for significant impact involving waste in 2021





◆ Waste recycling and reuse

Measures for waste recycling and reuse include regular collection and disposal of resources and waste. The Company also sells waste aluminum, scrap iron, and waste wood which make up the majority of the industrial waste, or outsources their refuse to external entities to increase the reuse rate of industrial waste, reduce the waste of resources, and implement the spirit of environmental sustainability.

Unit: cubic meters/tons

Complex		Taichung Complex & Sha-Lu Complex			Kang-Shan Complex		
Year		2019	2020	2021	2019	2020	2021
General industrial waste	Preparation for reuse	18.82	23.76	17.03	10.38	7.47	8.79
	Reuse	396.62	624.84	343.84	484.22	362.39	352.19
	Chemical treatment	0	0	0	0	0	0
	Physical treatment	11.32	26.11	18	433.95	335.06	265.06
	Solidification	28.56	29.68	11.94	0	0	0
	Incineration	455.57	437.431	482.57	153.92	131.55	121.98
	Landfill	0	0	0	60.2	37.11	38.76
	Heat treatment	0	0	0	0	0	0
	Total volume	910.89	1141.82	873.38	1142.67	873.58	786.78
Waste with hazardous substances	Preparation for reuse	0	0	0	0	0	0
	Reuse	0	0	0	4.24	0.398	0
	Chemical treatment	338.44	347.37	382.05	0	0	0
	Physical treatment	23.43	0.57	0.74	0	0	0
	Solidification	36.89	46.01	39.55	36.73	29.85	23.85
	Incineration	1.56	2.00	2.81	0	0	0
	Landfill	0	0	0	0	0	0
	Heat treatment	0	0	0	0	6.38	7.48
	Total volume	400.32	395.95	425.15	40.97	36.63	31.33
Total waste volume		1311.21	1537.77	1298.53	1183.64	910.21	818.11



Environmental Protection Management and Effectiveness

◆ Environmental management system

■ ISO 14001 Environmental management systems certification:

The certificate of Taichung Complex is effective till October 16, 2024, and the certificate of Kang-Shan Complex is effective till September 20, 2023.



■ ISO 50001 Energy management systems certification:

The certificate of Taichung Complex is effective till Sunday, December 4, 2022, and the certificate of Kang-Shan Complex is effective till Saturday, December 18, 2021.



■ ISO 14064 Greenhouse Gas Inventory:

Taichung Complex obtained certification from SGS for the first time in 2021 and obtained ISO 14064 Greenhouse Gas Inventory certification in the audit. The Company also started greenhouse gas inventory certification for Taichung, Sha-Lu, and Kang-Shan Complexes in 2022 and they are expected to be completed in the third quarter of 2022. AIDC is making progress toward the goal of carbon neutrality.



◆ Environmental protection achievements

■ Received the "excellence performance in green procurement" award:

AIDC supported the government's green procurement policy by purchasing products with environmental protection label, water efficiency certification, energy efficiency certification, and carbon label.





Received the "Sustainable Environment Excellence Award" from Kaohsiung City Government for reducing greenhouse gas emissions:

Kang-Shan Complex is committed to improving energy conservation and carbon reduction actions such as using low-carbon fuel as alternatives, improving the production process, increasing air and water treatment efficiency, and taking energy conservation and water conservation measures. It has received recognition from the members of the evaluation committee.



Kang-Shan Complex of AIDC received the "ROC Enterprise Environmental Protection Award" after 50 years of services for Taiwan.

AIDC has implemented environmental protection tasks for over 40 years. We follow the ISO14001 environmental management system to carry out source control and process waste reduction, clean production, green procurement, air pollution prevention, waste water treatment, waste disposal and treatment, toxic chemical substance management, energy conservation, carbon reduction, waste reduction, resource recovery, environmental education, social engagement, and green procurement. We also promote environmental protection values and received recognition for our outstanding performance in environmental protection in "Third National Enterprise Environmental Protection Award" (bronze award in the manufacturing category).

