

Delta Electronics Impact Valuation Report

As a leader in power supplies and thermal management solutions, Delta Electronics adheres to its business mission, "To provide innovative, clean and energy-efficient solutions for a better tomorrow". By leveraging our core competence in power electronics, Delta Electronics is committed to providing innovative, clean, and energy-efficient solutions. With our outstanding technology and integration capabilities, Delta not only enhances customer productivity and reduces the environmental impact of products across its life cycles on the Earth, but also brings greater convenience to society's quality of life. Delta Electronics aims to create long-term value for sustainable business operations.

We have implemented the Impact Measurement and Valuation (IMV) methodology to comprehensively examine the impact of the company's value chain on human well-being from an outside-in perspective. This analysis encompasses the upstream supply chain, company's operations, and downstream products and services, analyzing the cross-domain intersection of economic, environmental, and social issues. Based on Profit and Loss (P&L) management mindset, we establish a Triple Bottom Line (TBL) Sustainability Impact Management Framework, incorporating the external costs (negative) or benefits (positive) converted into a consistent monetary value.

Methodologies

Delta Electronics utilizes the Gross Value Added (GVA) approach to measure the economic value created for stakeholders throughout the production and operation processes. We follow frameworks such as the Natural Capital Protocol, Social & Human Capital Protocol, ISO 14008:2019 for monetary valuation of environmental impacts and considerations, the Value Balancing Alliance (VBA), and Impact-Weighted Accounts (IWA). Through the Impact Pathway methodology, Delta Electronics assesses the inputs and outputs of its operations to evaluate the changes and impacts on stakeholder well-being, as well as the associated social value or costs. This approach allows Delta to identify intricate causal relationships through systematic logical thinking and further connect relevant ESG issues to potential risks and opportunities within the company's operations.

In terms of the supply chain, Delta Electronics utilizes the Input-Output Model to analyze the value creation and output boost generated by procurement demand in the overall industry chain. It also analyzes the employment opportunities and income for workers brought by the industry chain. In addressing accompanying environmental issues, Delta Electronics employs the Environmentally Extended Input-Output Analysis (EEIO) to conduct industry hotspot analysis and incorporates in procurement strategies for weighing environmental considerations. In respect of products and services, Delta Electronics focuses on 11 categories of products, including Electronic Ballasts, Server Power, ventilation fans, LED street lights, AC-DC adapters, PV inverters, EV DC chargers, LED High Bay Lights, Uninterruptible Power Supply Systems, TV Power, and LED Drivers. Delta Electronics evaluates the indirect value creation for customer industries through the sales process of these products and assesses the positive environmental impact brought by energy-efficient product designs.

Results of the Analysis

In 2022, Delta Electronics created a direct economic contribution of US\$11.3 billion for internal and external stakeholders in the aspect of economy, including six subjects, such as operating net profit, tax paid, R&D investments, employee salary, interest and leasing expenses, depreciation and amortization, among others. These contributions not only assist customers and suppliers in their success but also support the government's social welfare policies, provide investors with returns of quality, enhance employees' quality of life and purchasing power, and promote socio-economic growth.

In the social aspect, Delta Electronics' comprehensive training programs have driven the growth of employees' skills and employability, resulting in a future benefit of US\$7.54 million. The engagement of employees in volunteer services has created a social benefit of US\$250,000. However, occupational incidents involving employees and contractors have generated a social cost of US\$740,000. The potential health risks to employees could result in medical costs of US\$120,000, but Delta Electronics diverse health education activities have brought about a health improvement benefit of US\$220,000.

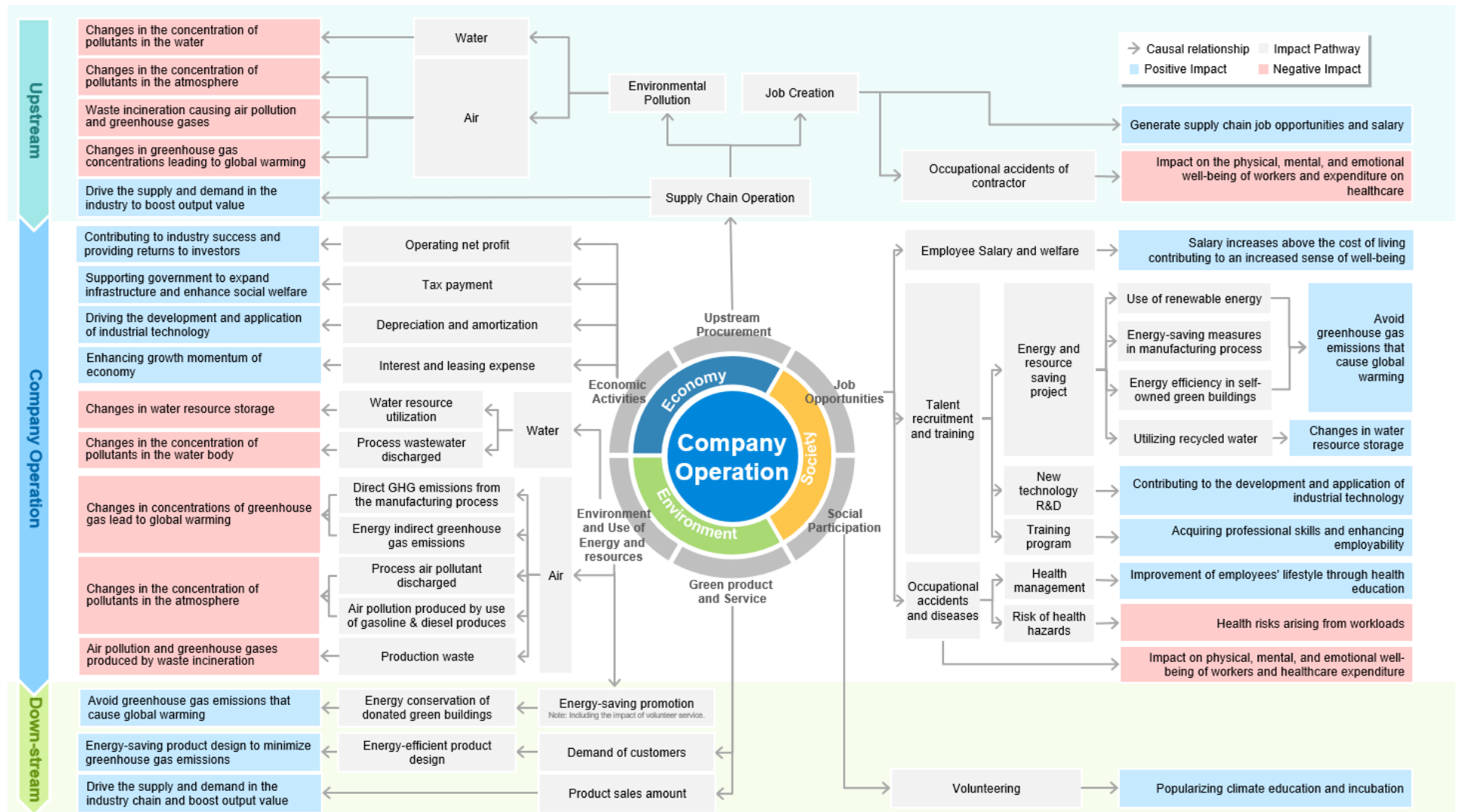
While Delta Electronics focuses on its core business, the environmental footprint arising from resource consumption and pollutant emissions has resulted in a social cost of US\$13.58 million. However, with our implementation of energy-saving initiatives, expansion of green buildings, and investment of renewable energy and recycled water, Delta has generated environmental benefits amounting to US\$3.55 million.

In the upstream/downstream value chain, Delta Electronics' demand of procurement has driven the creation of US\$21.6 billion in value within the supply chain, providing around 91,000 job opportunities and US\$1.3 billion in wage income for supply chain workers; however, the environmental footprint derived from the supply chain has resulted in a social cost of US\$290 million. Delta's product sales have generated US\$27.1 billion in value for customer industries, while innovative product designs for energy efficiency have brought about US \$120 million in environmental benefits. These contributions assist customers in achieving their goals and foster mutual growth.

The result of the sustainability impact is incorporated into Delta Electronics' annual materiality assessment as one of the references in our decision-making process. For the management of our sustainability material topic please refer to the ESG Report. To mitigate the negative impact and leverage the positive impact to the external stakeholders, Delta Electronics continues to use our core competencies to strengthen our human-centric core value as the world focuses on energy conservation and carbon reduction.

Value Chain	Input/Output	Outcome	Impact	Impacted Stakeholders	
Supply Chain →	Upstream procurement	Drive the supply and demand in the industry to boost output value	Socio-economic development	Supply chain	
		Generate supply chain job opportunities and salary	Career opportunities and skills	External employees	
		Changes in greenhouse gas concentrations leading to global warming	Carbon social cost	Environment	
		Changes in the concentration of pollutants in the atmosphere	Human health, ecosystem	Environment, society	
		Changes in the concentration of pollutants in the water	Human health, ecosystem	Environment, society	
		Waste incineration causes air pollution and greenhouse gases	Carbon social cost, human health, ecosystems	Environment, society	
Occupational accidents of contractor	Impact on the physical, mental, and emotional well-being of workers and expenditure on healthcare	Quality of life and consumption of social resources	External employees and society		
Company Operation →	Employee salary and welfare	Salary increases above the cost of living contributing to an increased sense of well-being	Employment opportunities and purchasing power	Employees	
	New technology research and development	Contributing to the development and application of industrial technology	Quality of life and industrial technological capabilities	Customers/End-users	
	Depreciation and amortization	Driving the development and application of industrial technology	Industrial technological capabilities	Supply chain	
	Interest and leasing expense	Enhancing the growth momentum of the economy	Quality of life and purchasing power	Supply chain	
	Operating net profit	Contributing to industry success and providing returns to investors	Quality of life and purchasing power	Client/Shareholder/Investor	
	Tax payment	Supporting government to expand infrastructure and enhance social welfare	Socioeconomic development	Society	
	Direct greenhouse gas emissions from the manufacturing process	Changes in concentrations of greenhouse gas lead to global warming	Carbon social cost	Environment	
	Energy indirect greenhouse gas emissions	Changes in concentrations of greenhouse gas lead to global warming	Carbon social cost	Environment	
	The use of renewable energy	Avoid greenhouse gas emissions that cause global warming	Carbon social cost	Environment	
	Energy-saving measures in the manufacturing process	Avoid greenhouse gas emissions that cause global warming	Carbon social cost	Environment	
	Energy efficiency in self-owned green buildings	Avoid greenhouse gas emissions that cause global warming	Carbon social cost	Environment	
	Water resource utilization	Changes in water resource storage	Human health and natural resource stock	Environment	
	Utilizing recycled water	Changes in water resource storage	Human health and natural resource stock	Environment	
	Process wastewater discharged	Changes in the concentration of pollutants in the water body	Human health, ecosystem	Environment	
	Process air pollutant discharged	Changes in the concentration of pollutants in the atmosphere	Human health, ecosystem	Environment	
	Air pollution produced by the use of gasoline and diesel produces	Changes in the concentration of pollutants in the atmosphere	Human health, ecosystem	Environment	
	Production waste	Air pollution and greenhouse gases produced by waste incineration	Carbon social cost, human health, ecosystems	Environment	
	Occupational accidents and diseases	Impact on the physical, mental, and emotional well-being of workers and healthcare expenditure	Quality of life and consumption of social resources	Employees and society	
	Number of individuals at risk of health hazards	Health risks arising from workloads	Work-life balance	Employees and society	
	Number of individuals benefiting from health management improvements	Improvement of employees' lifestyle through health education	Work-life balance	Employees and society	
	Training hours and expenses	Training for acquiring professional skills and enhancing employability	Professional knowledge and skills	Employees and society	
	Volunteer hours of service	Popularizing climate education and incubation	Local community relationships	Society	
	Products and services →	Product sales amount	Drive the supply and demand in the industry chain and boost output value	Socioeconomic development	Customers/End-users
		Energy-efficient product design	Energy-saving product design to minimize greenhouse gas emissions	Carbon social cost	Environment
Energy conservation of green buildings		Avoid greenhouse gas emissions that cause global warming	Carbon social cost	Environment	

Impact Pathway



Value Chain	Impact Value	Impact Type				Impact Level			Delta's Sustainability Issues
						2021	2022	*USD	
Supply Chain →	Procurement drives supply chain output value	(+)	Indirect	Short-term	Regional	●●●●●●●●	●●●●●●●●	↗	Supplier Sustainability Management →
	Salary of supply chain employees	(+)	Indirect	Short-term	Regional	●●●●●●●●	●●●●●●●●	↗	
	Supply chain derived environmental footprint	(-)	Indirect	Long-term	Global	●●●●●●●○	●●●●●●●○	↗	
		(-)	Indirect	Short-term	Regional				
		(-)	Indirect	Short-term	Regional				
		(-)	Indirect	Long-term	Global				
The social cost of occupational incidents	(-)	Direct	Short-term	Regional	●●○○○○○○	●○○○○○○○	↘	Occupational Safety and Health	
Company Operation →	Direct economic contribution	(+)	Direct	Short-term	Regional	●●●●●●●●	●●●●●●●●	↗	Talent Attraction and Retention Innovative Products and Services Taxation
	The social cost of greenhouse gas emissions	(-)	Direct	Long-term	Global	●●●●●○○○	●●●●●○○○	↘	Climate Strategy Energy Management
		(+)	Direct	Long-term	Global	●●●●●○○○	●●●○○○○○	↘	
		(+)	Direct	Long-term	Global	●●●○○○○○	●●○○○○○○	↘	
	Energy saving benefits of green buildings	(+)	Direct	Long-term	Global	●○○○○○○○	●○○○○○○○	↗	Water Resource Management →
	The social cost of water resource consumption	(-)	Direct	Short-term	Regional	●○○○○○○○	●○○○○○○○	↘	
		(+)	Direct	Short-term	Regional	●○○○○○○○	●○○○○○○○	↘	
	Social cost of wastewater discharge	(-)	Direct	Short-term	Regional	●○○○○○○○	●○○○○○○○	↘	
	The social cost of air pollution	(-)	Direct	Short-term	Regional	●○○○○○○○	●●○○○○○○	↗	
		(-)	Direct	Short-term	Regional	●●●○○○○○	●●●○○○○○	↘	
	The social cost of waste disposal	(-)	Direct	Long-term	Global	●○○○○○○○	●○○○○○○○	↘	Occupational Safety and Health
	The social cost of occupational incidents	(-)	Direct	Short-term	Regional	●●○○○○○○	●●○○○○○○	↘	
	The cost of health risks	(-)	Direct	Short-term	Regional	●●○○○○○○	●○○○○○○○	–	
		(+)	Direct	Short-term	Regional	●●●○○○○○	●○○○○○○○	–	
	Future benefits of employees	(+)	Direct	Long-term	Regional	●●●●○○○○	●●●●○○○○	↗	Talent Development
The value of volunteering	(+)	Direct	Long-term	Regional	●○○○○○○○	●○○○○○○○	↗	Social Engagement	
Products and services →	Product sales boost customer industry output value	(+)	Indirect	Short-term	Regional	●●●●●●●●	●●●●●●●●	↗	Customer Relationship Management
	Energy-saving benefits of products	(+)	Indirect	Long-term	Global	●●●●●●○○	●●●●●●○○	↗	Green Products and Innovative Products and Services
	Energy saving benefits of green buildings	(+)	Indirect	Long-term	Global	●○○○○○○○	●○○○○○○○	↗	Social Engagement

Impact Level (USD)			
<500,000	●○○○○○○○	10,000,000~50,000,000	●●●●●○○○
500,000~1,000,000	●●○○○○○○	50,000,000~100,000,000	●●●●●●○○
1,000,000~5,000,000	●●●○○○○○	100,000,000~1,000,000,000	●●●●●●●○
5,000,000~10,000,000	●●●●○○○○	>1,000,000,000	●●●●●●●●

- Note: 1. The upstream supply chain utilizes the Input-Output Model to calculate the economic benefits derived from the supply-demand effect of the industrial chain due to procurement activities (positive), as well as the accompanying environmental issues (negative) and the employment opportunities and wage income created (positive). The references are from sources such as the Report on the Compilation of Industry-Related Statistics (Directorate General of Budget, Accounting and Statistics, 2020), the Report on the Compilation of the Green Gross Domestic Product (Directorate General of Budget, Accounting and Statistics, 2022), the Energy Balance Sheet (Energy Bureau, 2022), and the EXIOBASE 2 database.
- Note: 2. Direct economic contribution is calculated using the Gross Value Added (GVA) method to account for the positive impacts of operating processes on external stakeholders, including operating net profit, tax payments, research and development investments, employee salaries and benefits, interest and leasing expenses, depreciation and amortization, among others.
- Note: 3. Environmental externalities are calculated using the Environmental Profit and Loss (EP&L) methodology, which takes into account the social costs of carbon, the costs of human health loss, and those of ecosystem damage from greenhouse gas, air pollution, waste, and depletion of water resources (negative), as well as the environmental benefits of promoting energy efficiency in manufacturing processes, expansion of green buildings, deployment of renewable energy and reclaimed water, and energy-efficient product design (positive). The references are from the sources including US EPA (2016), OECD (2012), and CE Delft (2018).
- Note: 4. Social cost of occupational accidents is calculated by considering the value of employees' willingness to pay to avoid an occupational accidents and the investment of healthcare resources derived from the occupational accident events. The reference is from UK HSE (2017).
- Note: 5. Gains in future salary growth resulting from employee training is an evaluation of the average annual expected value of the professional skills and knowledge acquired by employees as a result of the Company's training programs, which not only enhances productivity but also brings better employability for their future career development, and in turn affects the development of their remuneration in their careers. The reference is from the VBA (2021).
- Note: 6. Cost of health risks is to consider employees with potential factors of cardiovascular diseases such as hypertension, hyperlipidemia, hyperglycemia, and obesity, and evaluate the attribution relationship between their health risks and work load, as well as the possible healthcare resource investment derived from them (negative). The references are from the sources including WHO (2008) and Chieh-Hsien Lee (2009).
- Note: 7. Value of corporate volunteer services (positive) is calculated by multiplying the number of hours of the Company's employee participation in volunteer services by the average hourly wage of employees working in the electronic component manufacturing industry (Directorate General of Budget, Accounting and Statistics, 2022).
- Note: 8. Downstream products and services consider the supply and demand relationship between product sales and customer industry output value to evaluate the economic value created indirectly. The references are from the sources including BASF (2018) and VBA (2022).
- Note: 10. Taking into account the differences in economic conditions of all countries, the valuation coefficients are adjusted by Gross National Income (GNI) per capita as measured by Purchasing Power Parity (PPP) across regions and adjusted for inflation and exchange rate factors to align the time horizon to the currency values in 2021 as the base. The references are from the sources including OECD (2012) and PwC UK (2015).