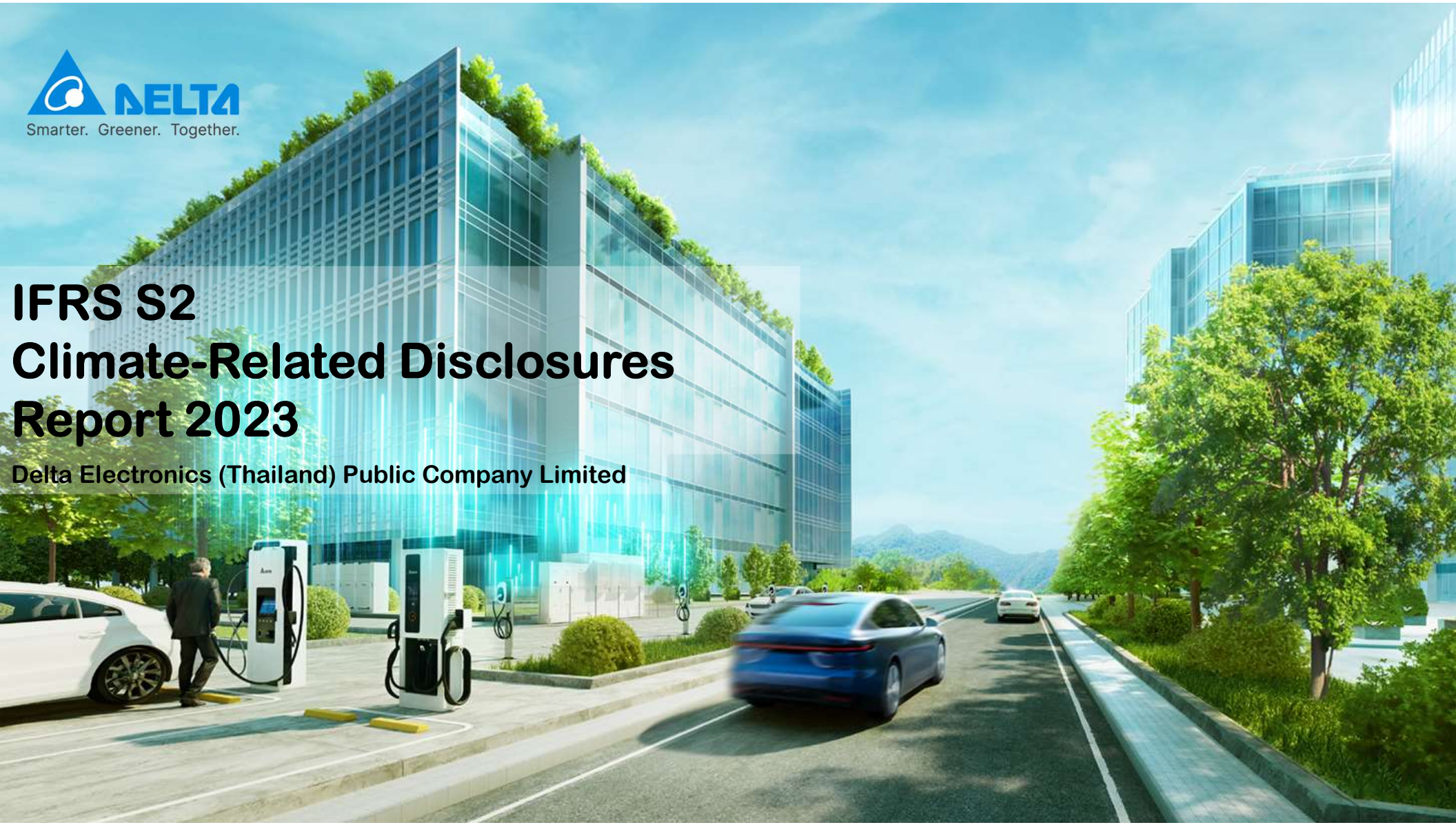


# IFRS S2 Climate-Related Disclosures Report 2023

**Delta Electronics (Thailand) Public Company Limited**

# General Information

**Delta Electronics (Thailand) Public Company Limited**

| | |
|---|---|
| IFRS Industry: | B49 –Electrical & Electronic Equipment |
| CIGS Industry : | 45203020- Electronic Manufacturing Services |

ISIN Number.
Local TH0528A10Z06.
Foreign TH0528A10Z14

**Headquarter Address:**
909 Soi 9, Moo 4, Bangpoo Industrial Estate (E.P.Z),
Pattana 1 Rd., Tambon Phraksa, Amphur Muang Samut Prakan,
Samutprakan 10280

Tel: +66 (0) 27092800

Website: www.deltathailand.com

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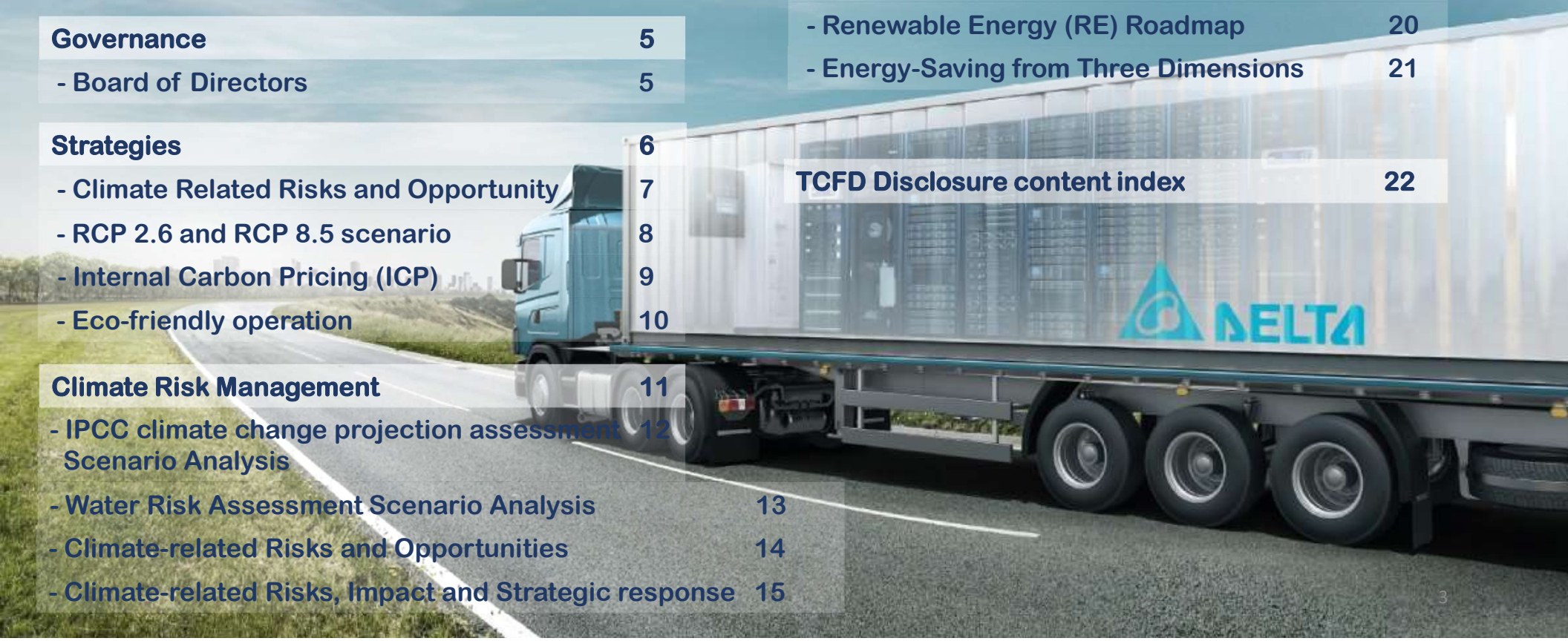


# INTRODUCTION

Since the founding of Delta Thailand, we have put sustainability at the heart of our operations as guided by Delta Group's mission statement "To provide innovative, clean and energy-efficient solutions for a better tomorrow."

Our ever-evolving sustainable strategy and contingency measures for ESG matters enable the company to respond appropriately and responsibly to unexpected disruptions. This long-term commitment to sustainability in our mission and strategy allows Delta to always uncompromisingly deliver on our promise of, "Smarter. Greener. Together." to our stakeholders

When our Taiwan HQ, the publication of the Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) in 2017, Delta Electronics (Thailand) PCL. became TCFD supporter since February 2023. As a company with a long-term focus on climate change and energy efficiency as its core business, climate change has been integrated into Delta's business strategy and sustainability goals. However, as global warming gradually impacts on the global economy and climate change becomes a global risk, we are not only concerned about the direct and indirect impacts of climate change, but also how to respond more proactively to the coming era of climate change.

## Goal of Net-Zero target by 2050

Delta commits to reach net-zero greenhouse gas emissions across the value chain by 2050 from a 2021 base year that passed the compliance review by SBTi. Near-term targets is to reduce absolute scope 1 and 2 GHG emissions 90% by 2030 and scope 3 GHG emission 25% within the same timeframe.

## RE100 target by 2030

Delta also commits to increase annual sourcing of renewable electricity from 55% in 2021 to 100% by 2030. Long-term targets to maintain at least 90% absolute scope 1 and 2 GHG emission reductions from 2030 through 2050 from a 2021 base year and commits to reduce absolute scope3 GHG emissions 90% by 2050 from a 2021 base year.

## EV100 target by 2030

Delta is committed to providing charging facilities at Delta's sites and changing the company's vehicles to plug-in hybrid vehicles, pure electric vehicles, and hydrogen vehicles by 2030.

# CLIMATE ACTION JOURNEY

## 2010
- Delta Thailand's first GHG Inventory report
- Inaugurate Delta Smart Manufacturing Steering team

## 2011
- Thailand plants achieved ISO 50001 and 14064-1 compliance certification
- India Rudrapur (LEED- INDIA Gold)
- Delta Thailand join CDP disclosure for the first time.

## 2012
- Thailand's Prime Minister Industry Award for Outstanding Energy Management
- India Gurgaon (LEED- INDIA Platinum)

## 2013
- Participation of Thailand's Voluntary Emission reduction Program

## 2014
- Delta Thailand Carbon credit recorded by TGO for further offset
- Setting Group-wide comparison base year for electricity intensity reduction

## 2015
- Expanded the scope of energy saving to new plants, buildings, and data centers
- SET up green revenue target.
- Low Emission Support Scheme (LESS)
- Carbon Footprint Reduction Award (CFR)

## 2016
- 100% of Delta's main production plants certified ISO 14064-1.
- Co-work with Taiwan HQ to R&D the SBTi and methodology
- Inaugurate Delta Volunteer to educate the risk of Climate Change

## 2017
- Thailand plants acheive LEED Gold
- India Mumbai Building LEED Platinum

## 2018
- Achieved Delta's SBT in the first year
- First EV charger donation to Thailand EGAT

## 2019
- Delta Thailand Solar Rooftop 3.2MWp
- Adopt SCADA and Industrial Automation solutions to improve energy performance at Delta Thailand HQ

## 2020
- India Mumbai Building (LEED Platinum)

## 2021
- Announced Internal Carbon Pricing target & methodolody
- Announce RE100 participation target
- DET Plant 7 Gets LEED Gold Certification
- Receives the 2020 and 2021 Thailand Energy Awards
- Include EI reduction as president KPI

## 2022
- Science-base target commitment
- ISO14067 implementation for target products
- Participate Thailand Carbon Neutral Network
- Achieved Climate leader Asia Pacific List by the Financial Time and Nikkei Asia

## 2023
- Thailand Energy Award 2023
- Launch Green Product EV charger and DeltaGrid EVM software
- Solar Rooftop for New plant 7, 8, 9 total 3.47 MWp
- EV Partners Summit Event to support the EV business

- RE100 initiative
- Internal Carbon Pricing initiative
- Achieved UL 2799 ZWTL

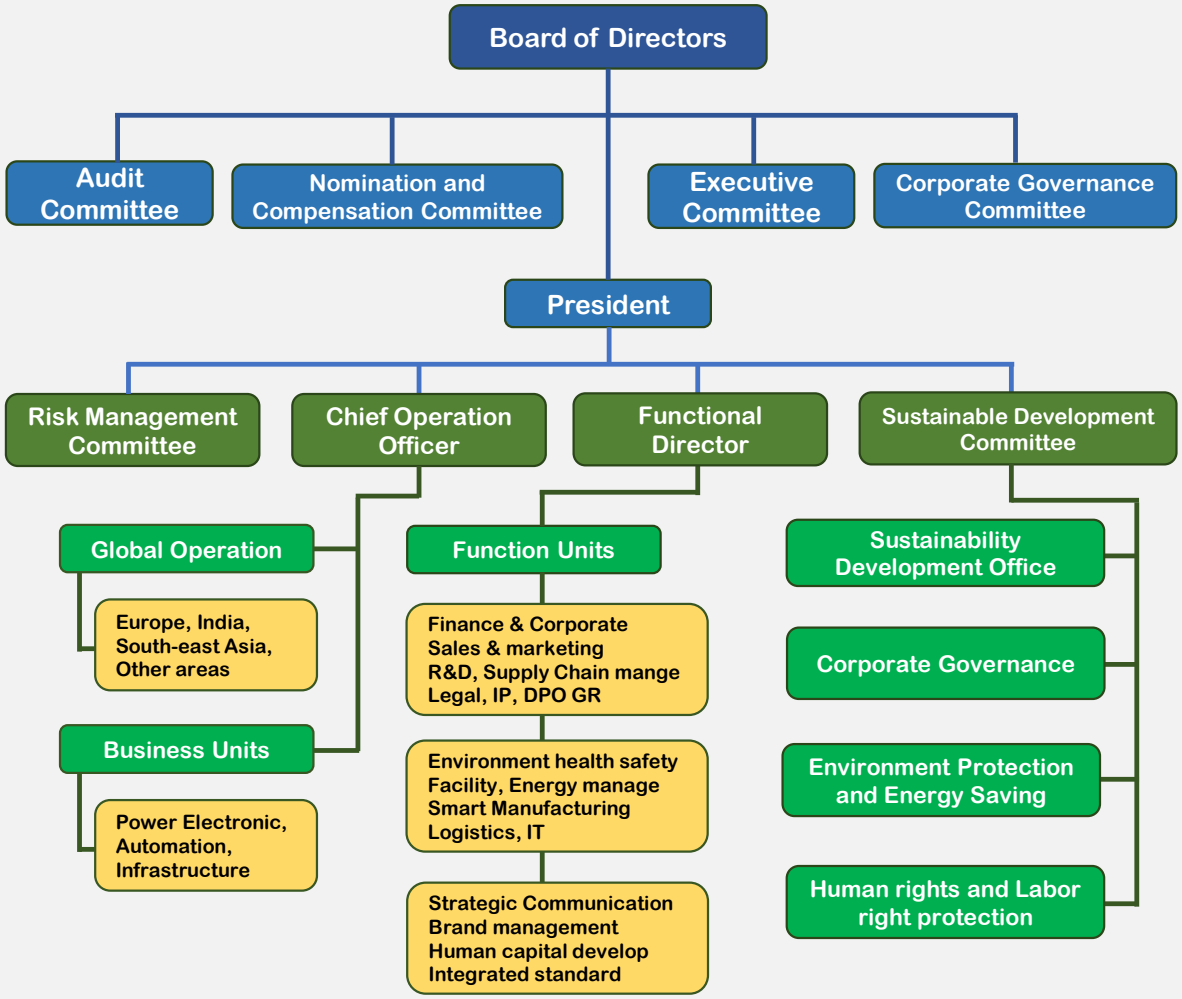
# GOVERNNANCE

The Delta Sustainability Committee, under the jurisdiction of the Board of Directors, is Delta's highest-level internal climate risk and opportunity supervision body. The Committee comprises a number of board members, operational team members, Chief Sustainability Officer (CSO), regional operations directors, and functional directors. The CSO reports to the board on a quarterly basis on climate change trends and Delta's climate related management progress.

The majority of the board has a long-standing interest in climate change and has a full understanding of its importance and impact. The board takes climate change issues into account when considering major capital investment projects, including the construction of green buildings, solar energy facilities, and green energy investments

The Corporate Sustainability Development Office under the Sustainable Development Committee is responsible for following international climate change trends, as well as promoting and coordinating projects related to climate change and renewable energy. The business groups are responsible for developing various energy-efficient products and solutions, and developing products and services that contribute to climate change mitigation and adaptation. The Energy Management Service Department is responsible for providing energy efficiency improvement services.

In addition, Delta Electronics Foundation participates in important international climate change conferences each year to gain insight on the development of climate change policies and scientific research.



# STRATEGIES

To understand which of the many climate change risks Delta should prioritize and address, we conduct a major survey every 3 years and a review every year to identify key climate risk items. Delta's latest company climate risk survey was completed just before the end of 2021. For this survey, our optimization measures include:

- Collecting relevant cases from around the world and adjusting the issues to keep up with the times.
- Redesigned risk impact level: Quantitative thresholds are used to design the financial impact levels
- New quantitative difficulty indicator added: We have established a judgment in considering each climate change risk.
- Using international databases: Supplemented by an online climate risk information platform.

The megatrends Risks and opportunities of Delta Value Chain have been assessed.

**TECHNOLOGY BREAKTHROUH**

**RISK :** CLIMATE CHANGE | RAPID URBANIZATION | DEMOGRAOPHIC CHANGE | SHIFT IN ECONOMIC POEWER

**OPPORTUNITY :** SUSTAINABLE CITY AND BUILDING | ENERGY INFRASTRUCTURE | CONNECTIVITY AND E-COMMERCE | MANUFACTURING EXPANSION

With over 70 representatives from business groups and functional groups, as well as expert opinions and external literature adjustments, the 4 risks identified.

**1) Increasing raw material costs**

Scarcity of raw materials resulting from high demand, but limited supply more severe by trade conflicts. This can lead to delays in production and delivery times, impacting customer satisfaction and potentially damaging relationships with suppliers.

**2) Renewable energy regulations**

Increasing costs of complying with renewable energy regulations, such as investing in renewable energy infrastructure or purchasing renewable energy credits and possibility in a new market for businesses involved in renewable energy production.

**3) Increasing severity of extreme climate events**

Extreme weather events such as drought, floods and high surface temperature can disrupt supply chains, damage infrastructure, and halt production, leading to significant financial losses.

**4) Changing rainfall patterns and severe weather patterns**

The availability and quality of raw materials sourced is affected by severe weather events such as floods or droughts that disrupt transportation networks, damage infrastructure, and increased costs to mitigate the impacts of changing rainfall patterns.

# Climate - Related Risks and Opportunity

Climate change creates emerging risks and opportunities for our business throughout the value chain.
Delta pay attention to integrate financial, strategic, business impact and climate driver to evaluate the potential impact.
The time horizons are designed to assess the climate-related risk and opportunities in line with the Delta's sustainability framework

**Time Period**
**Short Term** : 0 - 5 Year
**Medium Term**: 5-10 Year
**Long Term** : More than 10 Year

## Risks

### Transition Risk

**Policy and Regulatory**
- Carbon pricing and Commitments
- Regulations of products and services
- Complaints and requirement

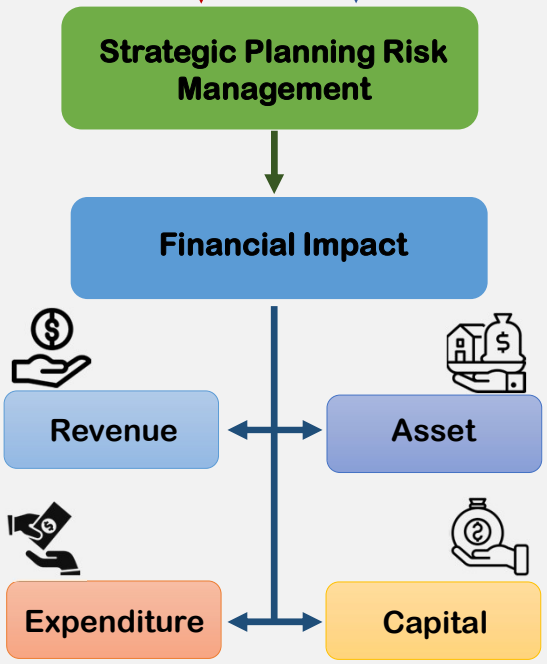
**Technology**
- Substitution of existing products and services with lower emissions
- Transition cost to lower emissions technology

**Market**
- Customers change product specification
- Consumer preferences to low-carbon products
- Increased cost of raw materials

**Business Reputation**
- Stigmatization of sector
- Image affected by news about climate change

### Physical Risk

**Immediately :** Severity of weather event as floods
**Long Term :** Change in extreme weather pattern Rising global temp and sea levels




## Opportunities

**Renewable Energy Use**
- Investment for using carbon reduction technology and renewable energy

**Resource Efficiency**
- Improve process to reduce waste and effluent

**Market**
- Develop innovation in energy efficiency equipment for market demand

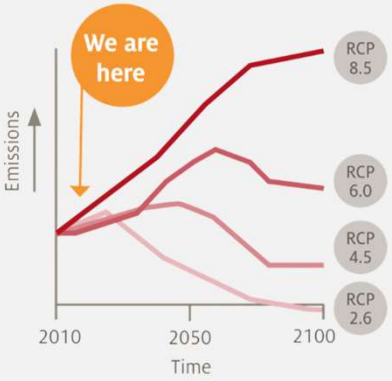
**Products**
- Development of low-carbon products

**Resilience**
- Developed BCP for floods and fires
- Focused on severe water shortage events

# RCP 2.6 and RCP 8.5 scenario

The RCPs predict the trends of climate change in future in term of greenhouse gases concentrations as a result of human activities, with the range from very low RCP2.6 through to very high RCP8.5 the concentrations in 2100.

RCP 8.5 leads to much greater temperature increases, and this means greater impacts and greater costs. To adapt to these changes will also cost more. A balance must be struck between the cost of impacts and the cost of adaptation.




2 °C increase in temperature is recognized as the threshold at which climate change becomes dangerous

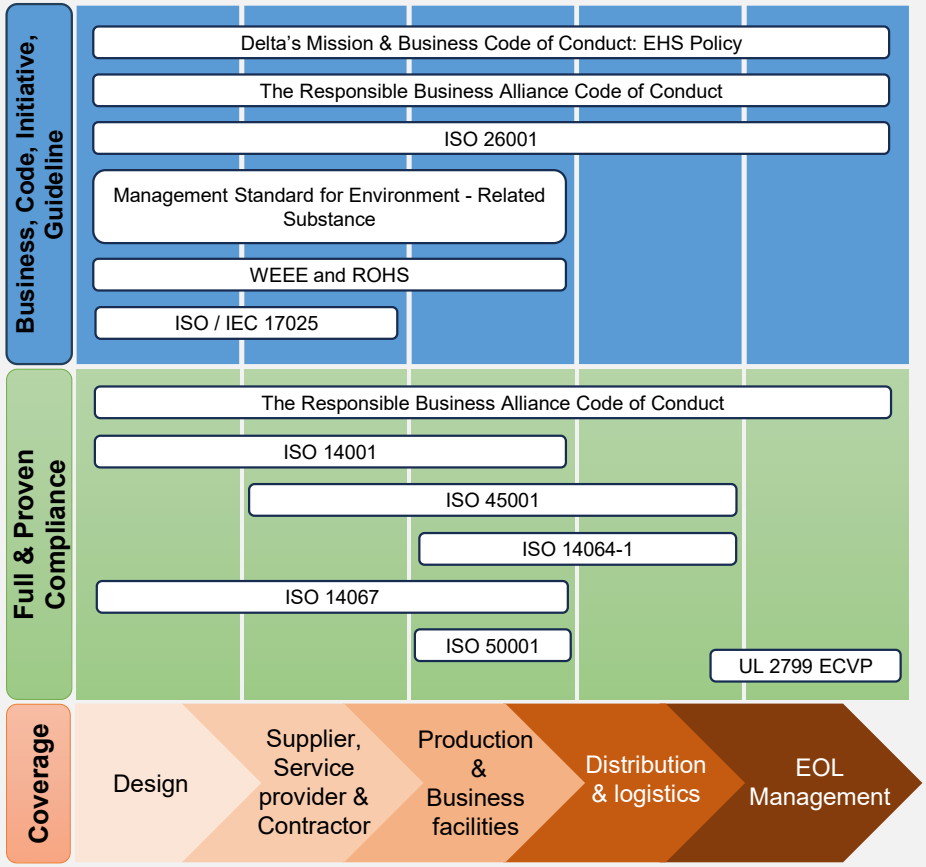
| | Temp increase at 2100 | Sea Level (m) | Extreme weather |
|---|---|---|---|
| RCP 8.5 | 3.7 °C | 0.63 | Large |
| RCP 2.6 | 1.0 °C | 0.40 | Small |

According to RCP 2.6 and RCP 8.5 scenario, Delta complies with international standards to minimize environmental footprint and mitigate climate change impact from our business process such as ISO 50001, ISO 14064-1, ISO 14067 etc. These standards help us to deliver our commitment to provide innovative, clean and energy efficient solutions for a better tomorrow from every business process.

An eco-efficient operation requires continuous effort in reducing a business' environmental impact. Our Environmental, Health and Safety Policy is showing our sincere attempt and partnership with global citizens to make a smarter and greener future.

The system allows us to cope with various contexts of quality, economic, social and environmental requirements and stakeholders' expectations, which employees at all the levels can continue applying as part of their daily activities.

## Strategic Response and Adaptation plan



# Internal Carbon Pricing (ICP)

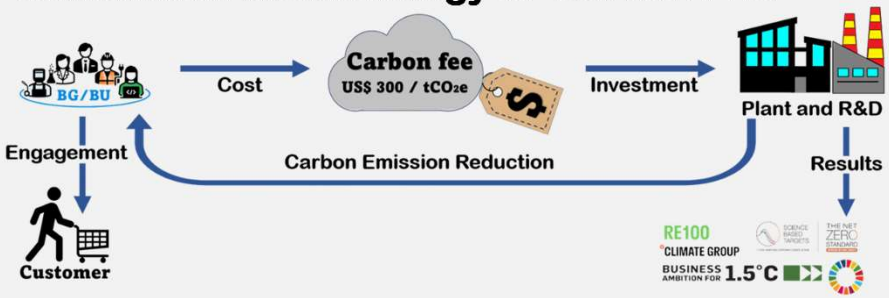
## Scenario Analysis

Our company determined the structured of Internal Carbon Price (ICP) mechanism since 2020 by alignment with the trend of international carbon pricing. When the carbon emissions generated in the Delta production, carbon fee was charged by the business groups in the rate of internal carbon price US$300 per metric ton.

These carbon fees are collected as a Carbon Reduction Fund which used to motivate the investment in the project of energy conservation, renewable energy and low-carbon products. Therefore, Delta is committed to reduce carbon emissions continually to meet the RE100 and the 1.5˚C global warming target.

In addition, business groups will be able to respond to clients' demand for green power, support each other for sustainability business.

## Calculation Methodology of Carbon Fee




- Electricity expense except renewable electricity, Bundled Energy Attribute Certificates.
- Conversion factor is reviewed by SD committee and update every year.
- The internal carbon fee items are integrated in the monthly financial management report to reveal profit-and-loss.

## Carbon Fee Conversion Factor

$$= \text{Electricity Emission Factor (tonCO2e / MWh)} \times \frac{\text{Internal Carbon Price (300 US\$ / tonCO2e)}}{\text{Electricity Expense per MWh (US\$ / MWh)}} \div \text{\% of Scope 2}$$

| Region | TW | CN | SEA | IN | NEA |
|---|---|---|---|---|---|
| % of Scope 2 Emission | 14.98% | 65.91% | 14.25 | 2.10% | 0.07% |
| EE Emission Factor (tonCO2e / MWh) | 0.509 | 0.8043 | 0.4999 | 0.82 | 0.3374 |

| Year | Conversion Factor (Carbon Fee / EE Expense) |
|---|---|
| 2024 | 1.784572249 |
| 2023 | 2.224845496 |
| 2022 | 2.246221383 |

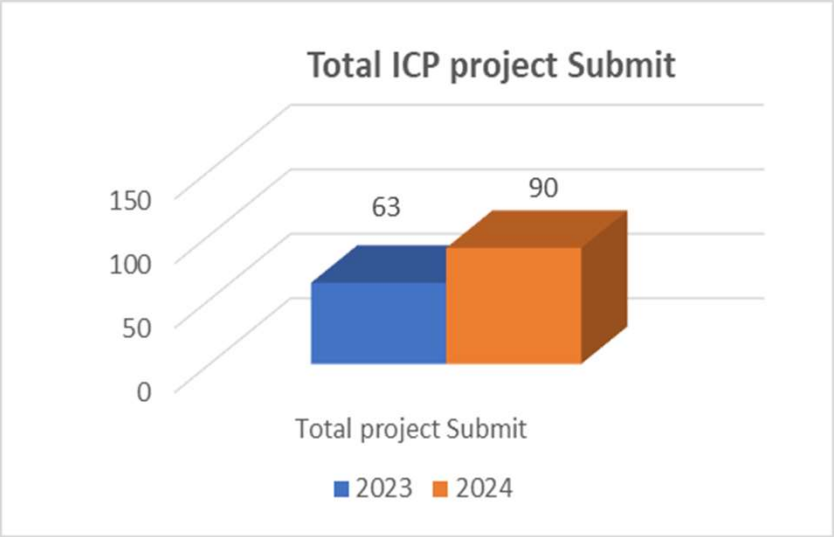
## ICP Operating Management

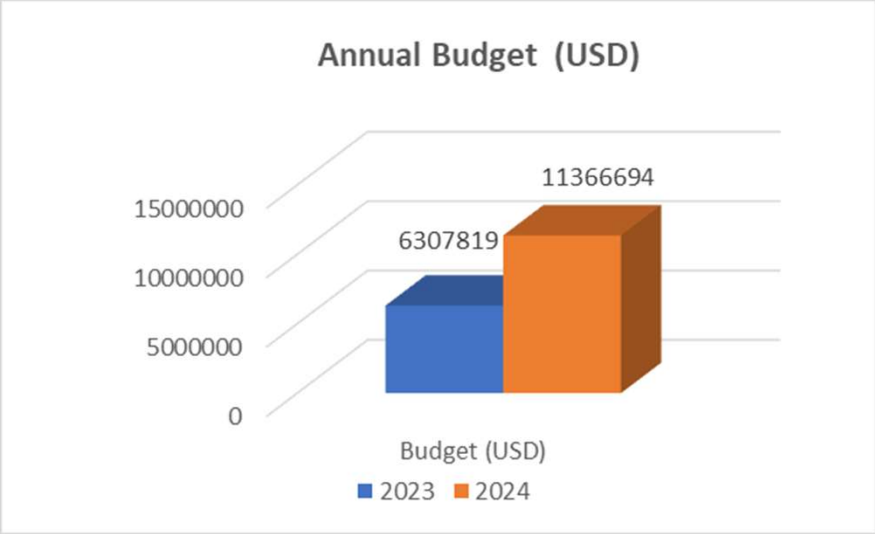
The internal carbon fees as a fund to reward each business unit for carbon reduction project.

**Category**

| | | |
|---|---|---|
| E | Renewable energy and energy technologies development | - Building in-house solar energy.<br>- Renewable Energy Certificates (REC).<br>- Renewable energy power plant. |
| R | Energy and Resources Management | - Improving energy efficiency of utility equipment.<br>- Improving water conservation recycling and Reuse.<br>- Waste reduction, recycling and Reuse.<br>- Low-carbon Transportation Investment |
| I | Low-carbon innovation and Initiatives | - Cooperating with value chains to promote low-carbon activities<br>- Energy-saving on manufacturing process innovation.<br>- New business models developing resource recycling. |

# Internal Carbon Pricing (ICP)



# A Company Built On Sustainable Development

## Mission

To provide innovative, clean and energy-efficient solutions for a better tomorrow

## Global Megatrends

- Demographic changes
- Rapid urbanization
- Climate change
- Disruptive technology

## Thailand BCG Model

- Agriculture and food
- Wellness and medicine
- Energy, materials and biochemicals
- Tourism and creative economy

## Delta Solutions

| Agriculture and food | Wellness and medicine | Energy, materials and biochemicals | Tourism and creative economy |
|---|---|---|---|
| • Smart farm solution<br>• Flood monitoring solution<br>• Industrial Automation | • Medical power supplies<br>• Power supplies<br>• Fan & ventilation<br>• Data Center<br>• Building Automation | • Renewable energy<br>• Smart energy<br>• Telecom energy<br>• EV Charging<br>• Industrial Automation | • Display and monitoring |

## Beneficiaries (Stakeholders)

| | |
|---|---|
| **Shareholder** | • Good and long-term return from sustainable investment |
| **Customer** | • High value-added product and solutions<br>• Compliance to recognized industry standards |
| **Employee** | • Stable employment and good well-being |
| **Supplier** | • Higher competence with ESG standards and leading technology requirement |
| **Community** | • Sufficient resources and capability for well-being in long-term |

# Target Deployment

Delta deploy climate-related target through our value chain and to every level of our organization to ensures that climate-related ambitions and goals are embedded throughout the company and that management is held accountable for the achievement of these goals.

| Organization | KPIs Deployment | Reward |
|---|---|---|
| **BOD** | Sufficient contribution / review / execute climate-related investment | $ |
| **CEO** | Green revenue Growth and Energy intensity reduction | $ |
| **CG Committee** | Management competences and performance, % law compliance | $ |
| **NCC Committee** | Board & executive diversities & competence | $ |
| **EC Committee** | Management competences and performance | $ |
| **AC / IA Committee** | % law compliance | $ |
| **CFO** | ICP and related Financial ROI | $ |
| **CIO / CTO / CHRO** | Zero loss from cyber attack. Cost reduction from process digitalization, HC ROI | $ |
| **ESG Managers/ SD Office** | Stakeholder satisfaction for on-demand ESG information, leading ESG index listed, Zero emission GRI disclosure, 100% on AA1000-verified, 100% BU PCF verified, SD working team participation rate, 100% reviewed ICP project approved | $ |
| **Risk Committee** | Effective ESG risk management to maintain at least 10% growth annually, training hours for risk culture promotion | $ |
| **Corporate Governance** | **Finance:** Sufficient liquidity for eff cost control, carbon tax simulation report<br>**Government relation:** No financial loss from regulation risk<br>**Legal:** No significant legal fine, No IP breaches, zero loss from personal<br>**IT:** Manufacturing / business processes digitalization, zero information breaches, zero financial impacted by cyber attack, user satisfaction rate<br>**Investor relation:** % earning per share, intangible asset growth<br>**Com sec:** Zero corruption, BOD training Supply chain management<br>**Integrate management system:** Key ISO compliance. Customer satisfaction rate<br>**Sales:** Customer satisfaction, green revenue growth | $ |
| **Environment Protection and energy savings** | **Production:** Production waste reduction<br>**PIT:** Manufacturing process digitalization, ECRS improvement<br>**Industrial Engineering:** Standard time improvement<br>**Energy Management system:** ISO50001 compliance, % renewable energy mix, % low environment impact, I-rec & PPA sourcing, carbon credit increment.<br>**R&D:** Patent of green product & solutions, Eff improvement, % lower carbon tax<br>**Component Eng:** Substitute by non-HZ chemical / % recycled input material<br>**VQA:** Supplier ESG compliance & quality<br>**CPC:** ESG supplier sourcing, supplier localization<br>**Environment Eng:** Intensity of Water Waste reduction, no Envi significant fine.<br>**WH:** Electric folk lift conversion rate<br>**Logistics:** % of air freight decrement from based year 2022, % of renewable energy used by 1st tier freight service provider, % of work order shipped by FTL. | $ |
| **Human rights and labor rights protection** | **HR:** Satisfaction rates, critical position recruited, HC ROI, Talent retention rate.<br>**Training:** Training hours, % passed test, specific training, % internal candidates.<br>**Employee relation:** Employee engagement rate, Employee satisfaction rate.<br>**Occupational health and safety:** Zero accident, Zero fatality.<br>**Volunteer & community relation:** Innovation dissemination hours | $ |

To achieve our mission, the primary activities and support activity have been performed.

| Primary Activities | | Support Activities | |
|---|---|---|---|
| **Marketing & Sales** | - Green Revenue Growth<br>- Customer satisfaction | **Firm Infrastructure** | - BOD's contribution, promotion of BOD knowledge & experience<br>- Employee's ethic and integrity |
| **Inbound Logistics** | - % of supplier localization<br>- % of recycled input material used at supplier site | **Human Resource Development** | - Talent pool expansion<br>- Average training hour |
| **Operation** | - GHG intensity reduction<br>- Energy intensity reduction<br>- Increase RE consumption | **Technology Management** | - R&D Investment<br>- DSM Implementation<br>- Patent increment |
| **Outbound Logistics** | - Green energy consumption in Logistics process<br>- Air freight expense reduction | **Procurement** | - Number of signed ESG agreement<br>- Green procurement<br>- No deforestation |
| **Services** | Customer satisfaction | | |

Board and Management https://deltathailand.com/en/sustainable-development-committee

**Remark:** $ Monetary rewards | Non-monetary / recognition rewards | Other awards

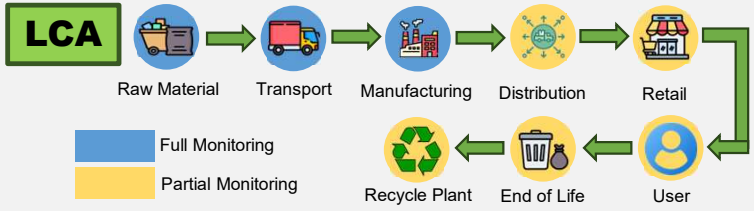
# Eco-friendly operation

Delta Thailand has been consistently investing in R&D and continue collaborate with universities to keep up with new technology, provide R&D expertise to seek out the new perspectives in business and product innovations.

The Eco-Friendly operation principle will be implemented in R&D efforts aimed at developing new products and process, with the goal of mitigating environmental impacts. This entails reducing energy consumption for end-users and minimizing Scope 3 greenhouse gas emissions. Moreover, the new products will increase the company's revenue by Eco-Friendly design.

In addition, the environmental regulations of target market such as EU RoHS, WEEE directives, US Energy star and China measures for controlling Pollution shall be labeled to ensure Eco-friendly design.

Life Cycle Assessment represents an Eco-Friendly design approach that systematically examines the environmental impact of a product across its entire life cycle, encompassing material extraction, manufacturing, transportation, product use, and disposal phases. This comprehensive analysis serves to support greenhouse gas emission assessments, particularly in addressing Scope 3 emissions.




## Strategic Response and Adaptation plan

To ensure the Eco-Friendly design, Delta Thailand have been defined the action plan as follow

1. Launch market leading new technology every 2 years.
2. Annual increase in power efficiency for the products
3. Continuously reduce carbon footprint in product and improve process efficiency.
4. Maintain high R&D budget above industry average.

**Resource Efficiency**

Prioritize use the efficient resource, optimizing production process, use RE and minimized waste

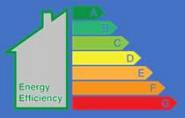
**Renewable Energy Use**

Incorporating RE source into design to reduce fossil fuels use and reduce GHG emission

**Material Selection**


Choosing sustainable and environmentally friendly material: biodegradability, low toxicity and recycle.

**Energy Efficiency**




Aim to design energy efficiency product to minimize energy consumption during using product.

**Waste Reduction and Recycle**

Encourages waste reduction and recycling or upcycling of materials at the end of product's life.

**Life Cycle Assessment**

Evaluate the environmental impacts of products from raw material extraction to end of life disposal.

**Adaptability and longevity**

Create products with focus on durability and adaptability to extend lifespan and reduce replacement.

**Social and Community Considerations**

Consider the social and community impacts including accessibility, inclusivity and promote economic

**Natural resource Conservation**

Implementing water - efficient technologies in products can minimize impact to natural resource.

**Recognized Standards compliance**

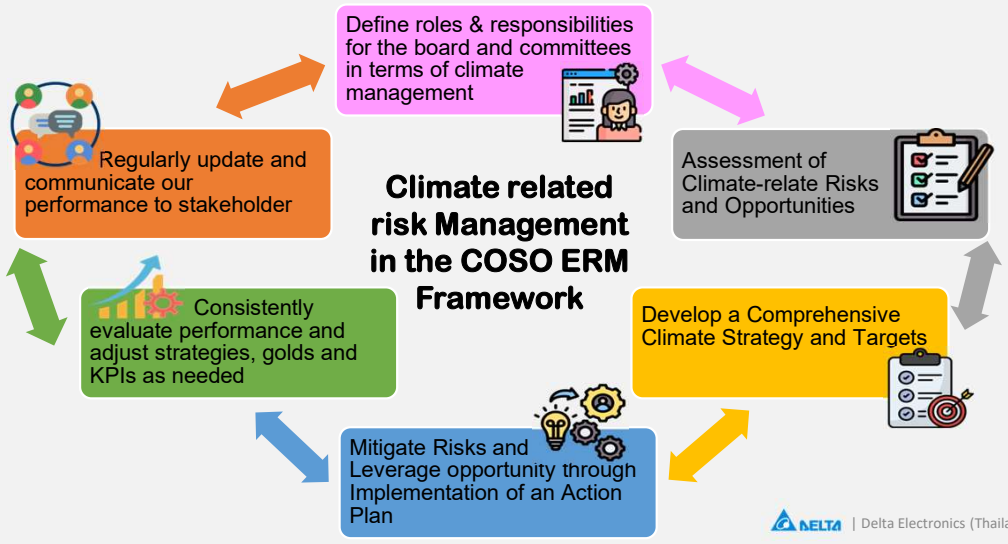
Adhering eco-labeling or green building standards to ensure eco friendly design

# CLIMATE RISK MANAGEMENT

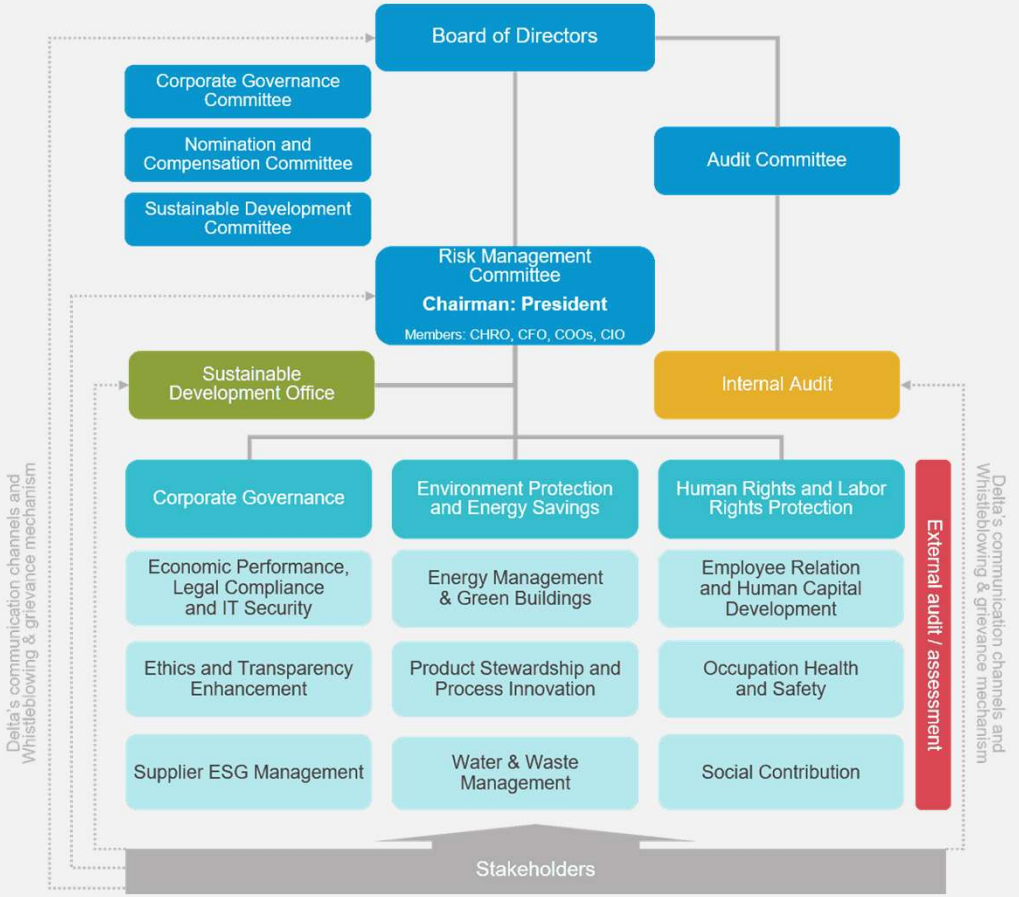
Delta Thailand has identified short-, medium-, and long-term climate-related risks and opportunities. We have conducted assessments to the probability and impact of these factors on the company. These climate-related issues have been integrated into Enterprise Risk Management Policy and corporate sustainable management strategy. This strengthen the company's resilience in the face of climate change.

Delta Group's Enterprise Risk Management (ERM) policy, founded on ISO 31000 and COSO ERM frameworks, is designed to systematically identify, assess, and mitigate a wide array of risks to maintain them within acceptable and manageable thresholds.

The company has framework for managing climate change that covers our entire supply chain. We determine policies and targets that encompass energy efficiency, renewable energy use, and waste management.



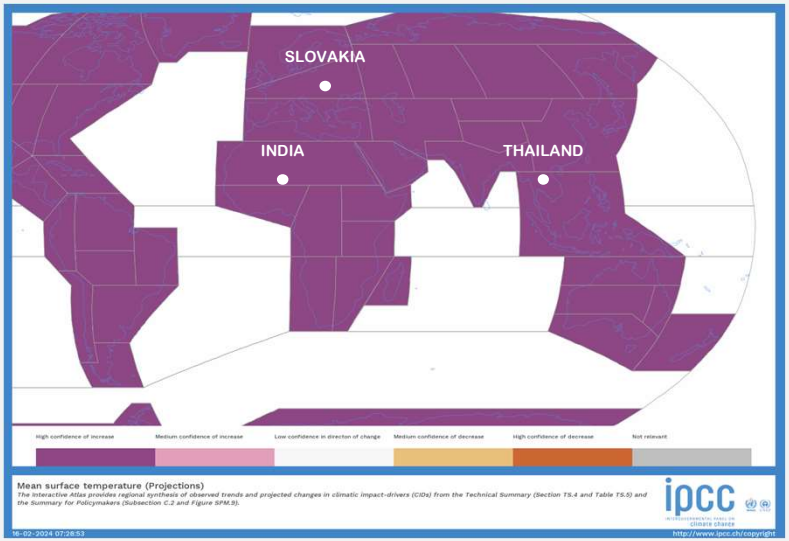

In addition, the company communicates our performance on climate change impact management and mitigation plan to stakeholders through various channels including, our Sustainability Report, the Communication on Progress to the UN Global Compact, and CDP's climate change disclosure system.



# IPCC climate change projection assessment

## Scenario Analysis

The IPCC WGI Interactive Atlas is used to analysis and project the trend of in key atmospheric and oceanic variables, extreme indices and climatic impact-drivers (CIDs).
The information will be used to forecast and establish mitigation plan for climate action.




## Significant climate risk

- Mean surface temperature
- Extreme heat
- Relative sea level
- Heavy precipitation and pluvial flood
- Coastal erosion
- Coastal flood
- Ocean acidity
- Atmosphere CO2 at surface

## Climate risk Impact

- Climate impact can reshape market dynamics and disrupt traditional business models.
- Trigger a new regulations, policies, and incentives aimed at mitigating climate change.
- Disrupt the global supply chains, affecting the availability, quality, cost, delays, and shortages.
- Ability to damage infrastructure, disturb operations, lead to production delays or shutdown.
- Availability of critical resources such as water, energy, and raw materials.

## Strategic Response and Adaptation plan

- Establish a climate related risk management team to assess and define mitigation plans.
- Regularly review risk profiles to ensure strategies remain effective and aligned with climate trends.
- Continually monitor scientific research, reports, in climate risks and potential impact.
- Engage and collaborations with partnerships, industry associations, research institutions, and government organizations to share best practices.
- Develop and regularly update business continuity plans (BCP).
- Invest in renewable energy and improve high energy efficiency to offset the company's emissions.

**Our Possible Climate Futures +2°C**



**Reference:** IPCC WGI Interactive Atlas, https://interactive-atlas.ipcc.ch/

# Thailand's Water Risk Assessment Scenario Analysis

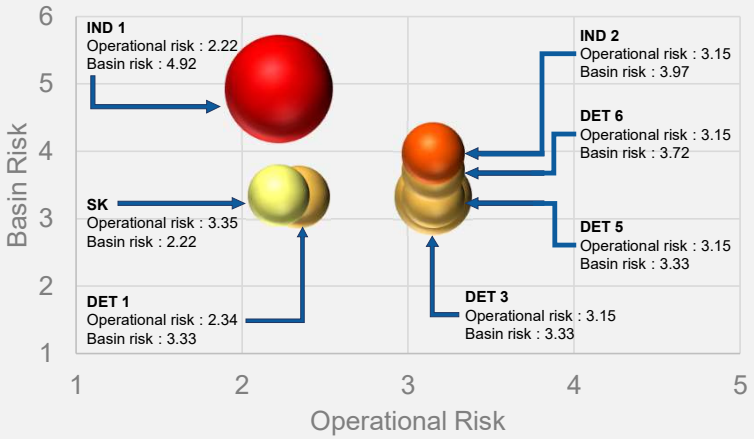
The **WWF Water Risk Filter** is used to analyze and assess activities, volumes of water to understand the potential relates between local basin risks, operation risks and other factors for planning water management to ensure its activities do not impact to stakeholders or communities.

**Basin water risks:** the nature and conditions of the basins are impact to the operation site.

**Operation water risks:** how the sites depend upon and potentially impact water.

The results of this assessment illustrate the importance of climate impacts on our businesses, include Water Scarcity, Flooding, Water Quality and Biodiversity Importance.

## WWF Water Risk Filter for Physical impact 2024




**WWF Water Risk Filter levels**

- Very Low (1.0-1.8)
- Low (1.8-2.6)
- Medium (2.6-3.4)
- High (3.4-4.2)
- Very High (4.2-5.0)

**Physical risk type include:**

1. Water Scarcity,
2. Flooding
3. Water Quality
4. Ecosystem Services Status

| | Water Risk Impact | Strategic Response and Adaptation plan |
|---|---|---|
| 1 | **Flooding** may be affected to delay or stop production and transportation process throughout the value chain. | - Monitor flood situation and the water level on the drainage canal of the industrial estate.<br>- Business Continuity Management Plan (BCP) and<br>- Develop Smart Water Level Monitoring System and automatic drainage system for industrial estate. |
| 2 | **Water Scarcity** is directly impacted to production process and sanitary use. | - Daily monitor available water supply from Metropolitan Waterworks Authority.<br>- Water treatment system for supply reuse water to cooling tower.<br>- Recycle rainwater for gardening system. |
| 3 | **Water Quality** will be impacted to product by impurity water and contaminated water sources can lead to diseases and health issues. | - Monitor water supply quality in daily from Metropolitan Waterworks Authority.<br>- Install water filter for operation and drinking water. |
| 4 | **Biodiversity** Water pollution disrupts the ecosystem and harms aquatic life. | - Regular monitor and control wastewater quality before releasing to public.<br>- Improve wastewater treatment system to maintain effectiveness. |

WWF Water Risk Filter

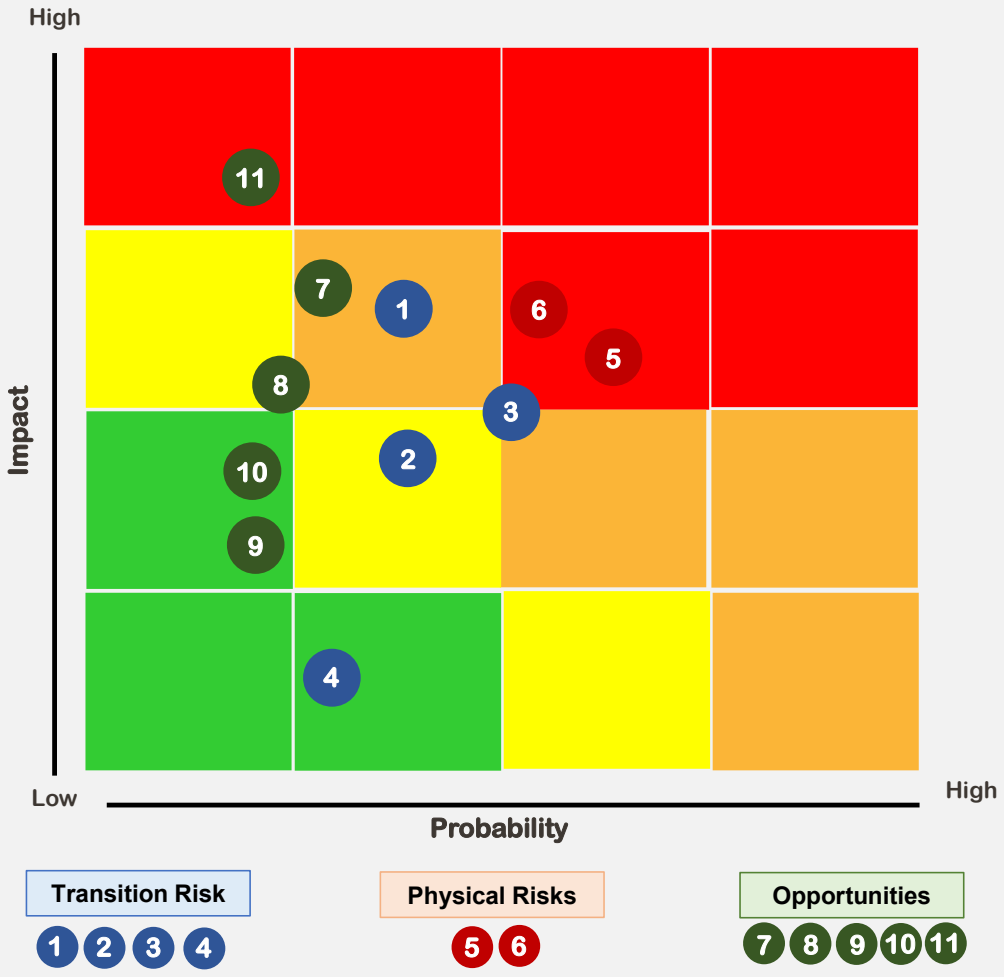


**Reference:** WWF Risk Filter Suite, https://waterriskfilter.panda.org/

# DELTA's Climate-related Risks and Opportunities

The climate-related risk and opportunities have been assessed to understand the impacts on businesses and recognize potential financial impacts on revenues, expenditures, values of assets, liabilities, capital, and financing. Furthermore, the specific actions to mitigate these risks and apply opportunities are designated to move forward.

| Climate Relate Risks and Opportunities | Short Term (2020-2025) | Medium Term (2025-2030) | Long Term (2030 - 2050) |
|---|---|---|---|
| **Transition Risk** | | | |
| 1) Policy and Regulatory | | ● | |
| 2) Technology | | | ● |
| 3) Market | | ● | |
| 4) Business Reputation | ● | | |
| **Physical Risks** | | | |
| 5) Acute | ● | | |
| 6) Chronic | | | ● |
| **Opportunities** | | | |
| 7) Renewable Energy Use | | ● | |
| 8) Resource Efficiency | ● | | |
| 9) Market | | | ● |
| 10) Products | | | ● |
| 11) Resilience | ● | | |



# DELTA's Climate-related Risks, Impact and Strategic response

| Risk Type | | Climate Risk and Impact | Time Period | Impact Level | Strategic Response |
|---|---|---|---|---|---|
| Transition Risk | Policy and Regulatory | - International sector and Voluntary agreements<br>- Uncertainty surrounding regulation and policies.<br>- Carbon tax and related regulation.<br>- Requirement of decreasing indirect greenhouse emissions<br>- Mandates on and regulation of existing products and services<br>- Renewable energy regulation<br>- Exposure to litigation | Short to Medium term |  | - Introduce internal carbon pricing to encourage investment in renewable energy project<br>- Joined RE100 and set renewable electricity targets.<br>- Actively pay attention to carbon border tax, renewable electricity regulations, and participate in the Power Purchase Agreement (PPA). |
| | Technology | - Substitution of existing products and services with lower emissions options<br>- Costs to transition to lower emissions technology | Short term |  | - Development in the new technologies and products for Electric Vehicle, batteries, green automation buildings, and ESG applications.<br>- Investment in the Electric Vehicle field more for the own use and first-tier supplier. |
| | Market | - Customers change supplier selection criteria.<br>- Customers change product specification requirements.<br>- Shifts in consumer preferences to low-carbon products<br>- Emissions reduction requirements to suppliers<br>- Increased cost of raw materials<br>- Investors evaluate climate change efforts in investment decision. | Short term |  | - Development in high energy efficiency products to meet customer specification requirement.<br>- Introduce ESG and other related measures in advance to meet regulatory and customer requirements |
| | Business Reputation | - Stigmatization of sector<br>- Corporate image affected by news about climate change. | Short term |  | - Continue to monitor international legislative changes and trends<br>- Follow up and study to implement necessary international standard. |
| Physical Risks | Acute | - Increased severity of extreme weather events as cyclones and floods<br>- Disruptions in the transportation of materials and goods. | Medium term |  | - Implemented policies on the Green Building Standard to all the new Delta's building<br>- Developed a Business Continuity Plan (BCP) for floods caused by heavy rainfall and fires caused by extreme high temperatures. |
| | Chronic | - Changes in precipitation patterns and extreme variability in weather patterns<br>- Rising mean temperatures<br>- Rising sea levels | Long term |  | - Consider on severe water shortage events and taken measures to adapt to climate change |

**Remark:** **Impact Level**
- Low
- Medium
- High

**Time Period**

Short term 0-5 year,
Medium term 5-10 year,
Long term more than 10 year

# Acute Physical Risks and Adaptation Plan

Time frame ≤ 5 years

| Risk | Impact to Delta | Adaptation plan to be completed |
|---|---|---|
| **Mean surface temperature** | • Changing market dynamic<br>• Regulatory and policy changes<br>• Supply chain disruptions<br>• Physical disruptions<br>• Increased maintenance and repair costs<br>• Asset devaluation<br>• Insurance costs<br>• Resource scarcity and availability<br>• Reputation and stakeholder expectations | • Stay informed: Stay updated on climate trends and projections related to mean surface temperatures. Monitor scientific research, reports, and forecasts to anticipate changes in temperature patterns and assess their potential impact on operations and markets.<br>• Diversify product offerings: Consider diversifying product lines to include energy-efficient and climate-resilient technologies.<br>• Adapt infrastructure: Assess the vulnerability of company facilities and infrastructure to temperature changes. Implement appropriate insulation, cooling, or heating systems to maintain optimal operating conditions for equipment and personnel.<br>• Implement contingency plans: Develop and regularly update contingency plans to address operational disruptions caused by extreme temperature events.<br>• Evaluate insurance coverage: Review existing insurance policies to ensure coverage for potential losses related to extreme temperature events.<br>• Conduct cost-benefit analysis: Evaluate the financial implications of implementing climate resilience measures, such as upgrading equipment or implementing energy-efficient technologies. Establishing a dedicated risk management team or department responsible for identifying, assessing, and mitigating climate-related risks.<br>• Regularly monitoring and reviewing risk profiles to ensure that risk management strategies remain effective and aligned with evolving climate trends.<br>• Engaging in partnerships and collaborations with industry associations, research institutions, and governmental organizations to share best practices. |
| **Extreme heat** | • Market disruptions<br>• Infrastructure and equipment damage<br>• Insurance and liability<br>• Occupational health and safety regulations<br>• Employee well-being<br>• Climate change implications | • Risk Assessment: Conduct a comprehensive risk assessment to identify vulnerabilities related to extreme heat events.<br>• Infrastructure and Equipment: Ensure that company facilities and equipment are designed and maintained to withstand high temperatures.<br>• Business Continuity Plans: Develop and regularly update business continuity plans that address extreme heat events.<br>• Insurance Coverage: Review insurance policies to ensure coverage for potential losses caused by extreme heat events. Consider specialized coverage for property damage, equipment failure, business interruption, and supply chain disruptions.<br>• Cost-Benefit Analysis: Evaluate the financial implications of implementing heat mitigation measures, such as cooling systems or alternative energy sources.<br>• Energy Efficiency: Improve energy efficiency in operations by implementing energy-saving technologies, such as efficient cooling systems and smart building management systems. Reduce the carbon footprint of the company by adopting renewable energy sources and implementing energy conservation measures.<br>• Sustainable Supply Chain: Collaborate with suppliers to ensure sustainable practices throughout the supply chain. Encourage responsible sourcing, waste reduction, and recycling initiatives. |
| **Relative sea level** | • Market disruption<br>• Geographic limitations<br>• Facility vulnerability<br>• Supply chain disruptions<br>• Utilities and services disruption<br>• Asset value depreciation<br>• Environmental regulations<br>• Health and safety concerns<br>• Carbon footprint and sustainability | • Adaptation Strategies: Develop a strategic plan that includes adaptation strategies for dealing with rising sea levels.<br>• Infrastructure Protection: Implement measures to protect critical infrastructure from sea level rise, such as building flood barriers, elevating equipment and utilities, or relocating vulnerable assets to higher ground.<br>• Emergency Response Plans: Develop and regularly update emergency response plans that address flooding and coastal hazards.<br>• Financial Planning: Assess the financial implications of sea level rise on business operations, capital investments, and insurance premiums<br>• Regulatory Compliance: Stay informed about regulations and guidelines related to coastal zone management, building codes, and environmental standards<br>• Employee Safety and Well-being: Prioritize employee safety by implementing measures to protect them from coastal hazards.<br>• Sustainable Practices: Adopt sustainable practices to minimize the company's contribution to climate change and sea level rise. Implement energy-efficient technologies, reduce greenhouse gas emissions, and promote environmentally friendly operations.<br>• Ecosystem Conservation: Support coastal ecosystem conservation and restoration efforts, such as mangrove protection or dune restoration, which can help mitigate the impacts of sea level rise and enhance natural coastal defenses. |

# Acute Physical Risks and Adaptation Plan

Time frame ≤ 5 years

| Risk | Impact to Delta | Adaptation plan to be completed |
|---|---|---|
| **Heavy precipitation and pluvial flood** | • Market disruptions<br>• Business continuity planning<br>• Supply chain disruptions<br>• Facility and equipment damage<br>• Revenue loss and business interruption<br>• Insurance and recovery costs<br>• Environmental regulations<br>• Employee safety and well-being<br>• Water management and pollution | • Risk Assessment: Conduct a comprehensive risk assessment to identify vulnerabilities related to heavy precipitation and pluvial floods<br>• Land Use Planning: Consider the risk of pluvial flooding when selecting and designing company facilities<br>• Infrastructure and Equipment: Implement flood-resistant design and construction techniques to protect buildings and critical equipment from water damage.<br>• Business Continuity Plans: Develop and regularly update business continuity plans that address heavy precipitation and pluvial flood events.<br>• Insurance Coverage: Review insurance policies to ensure coverage for potential losses caused by heavy precipitation and pluvial floods.<br>• Financial Reserves: Allocate resources for emergency response, repair and restoration efforts, and potential business interruptions. Maintain financial reserves to mitigate the financial impact of flood-related losses.<br>• Regulatory Compliance: Stay complied with local, national, and international regulations related to flood risk management, building codes, and environmental standards.<br>• Employee Safety: Implement measures to protect employees from flood-related hazards. Develop and communicate evacuation plans, provide training on emergency response, and establish clear communication channels during flood events.<br>• Sustainable Drainage Systems: Implement sustainable drainage systems, such as permeable surfaces, rainwater harvesting, and retention ponds, to manage heavy precipitation and reduce the risk of pluvial flooding.<br>• Green Infrastructure: Incorporate green infrastructure solutions, such as rain gardens and vegetated swales, to absorb and manage excess water runoff, minimizing the strain on drainage systems and reducing flood risks. |
| **Coastal flood** | • Market disruption<br>• Geographic limitations<br>• Facility vulnerability<br>• Supply chain disruptions<br>• Utilities and services disruption<br>• Insurance costs<br>• Environmental regulations<br>• Health and safety concerns<br>• Ecosystem disruption<br>• Climate change and resilience | • Risk Assessment: Conduct a comprehensive risk assessment to understand the potential impact of coastal flooding on your company's assets, infrastructure, and operations.<br>• Land Use Planning: Consider flood risk when selecting and designing company facilities in coastal areas.<br>• Flood Protection Measures: Implement flood protection measures to minimize the impact of coastal flooding on company assets and infrastructure.<br>• Emergency Response Plans: Develop and regularly update emergency response plans that specifically address coastal flood events.<br>• Insurance Coverage: Review insurance policies to ensure coverage for potential losses caused by coastal flooding.<br>• Financial Reserves: Allocate resources for emergency response, repair and restoration efforts, and potential business interruptions. Maintain financial reserves to mitigate the financial impact of flood-related losses.<br>• Regulatory Compliance: Stay complied about local, national, and international regulations related to coastal flood risk management, building codes, and environmental standards.<br>• Employee Safety: Implement measures to protect employees from flood-related hazards.<br>• Sustainable Coastal Infrastructure: Incorporate sustainable coastal infrastructure design principles, such as green infrastructure and natural shoreline stabilization techniques, to minimize the environmental impact of flood protection measures.<br>• Ecosystem Conservation: Consider the ecological impact of flood mitigation measures and implement measures to minimize harm to coastal ecosystems. Collaborate with environmental agencies and organizations to ensure that protective measures are implemented in an environmentally responsible manner. |

# Chronic Physical Risks and Adaptation Plan

Time frame ≥ 10 years

| Risk | Impact to Delta | Adaptation plan to be completed |
|---|---|---|
| **Ocean acidity** | • Market disruptions<br>• Business continuity planning<br>• Supply chain disruptions<br>• Equipment corrosion<br>• Revenue loss<br>• Environmental regulations<br>• Community impact<br>• Ecosystem disruption<br>• Climate change | • Research and Monitoring: Stay updated on the latest scientific research and monitoring efforts related to ocean acidity. Understand the long-term trends and potential impacts on marine ecosystems, including the potential effects on the electronics company's supply chain.<br>• Collaboration and Advocacy: Engage in collaborative efforts with industry peers, research institutions, and environmental organizations to advocate for policies and initiatives that address ocean acidification at local, regional, and global levels.<br>• Carbon Footprint Reduction: Implement measures to reduce the carbon footprint of the company's operations. This includes reducing energy consumption, increasing energy efficiency, transitioning to renewable energy sources, and implementing carbon offset initiatives.<br>• Supply Chain Management: Assess the carbon footprint and environmental impact of the company's supply chain. Collaborate with suppliers to promote sustainable practices and consider sourcing options that prioritize environmental responsibility.<br>• Risk Assessment and Contingency Planning: Conduct a comprehensive risk assessment to understand the financial implications of ocean acidification on the electronics company's operations, such as potential disruptions in the supply chain or increased costs.<br>• Insurance Coverage: Review insurance policies to determine if they cover potential losses related to ocean acidification impacts.<br>• Regulatory Compliance: Stay informed about regulations and guidelines related to ocean acidification and marine environmental protection. Comply with relevant regulations and ensure that the company's activities and products meet environmental standards and certifications.<br>• Stakeholder Engagement: Engage with stakeholders, including employees, customers, and communities, to raise awareness about ocean acidification and promote sustainable practices<br>• Carbon Offset and Sequestration: Explore opportunities to offset the company's carbon emissions through projects that promote carbon sequestration or invest in renewable energy initiatives.<br>• Sustainable Practices: Implement measures to minimize the company's contribution to ocean acidification and promote sustainable resource management. This includes responsible wastewater disposal, reduced chemical usage, and proper waste management practices. |
| **Atmosphere CO2 at surface** | • Market shifts<br>• Regulatory changes<br>• Supply chain disruptions<br>• Energy costs<br>• Market volatility<br>• Consumer perception<br>• Workforce expectations<br>• Climate change impacts | • Carbon Reduction Strategy: Develop and implement a carbon reduction strategy to minimize the company's carbon footprint.<br>• Long-term Planning: Incorporate climate change considerations, including atmospheric CO2 levels, into long-term strategic planning. Assess potential impacts on the company's operations, supply chain, and market dynamics, and identify adaptation and mitigation measures.<br>• Energy Efficiency: Implement energy-saving measures and technologies to reduce energy consumption and lower greenhouse gas emissions.<br>• Sustainable Supply Chain: Collaborate with suppliers to promote sustainable practices and reduce emissions throughout the supply chain.<br>• Carbon Pricing and Taxation: Stay informed about carbon pricing mechanisms and potential future regulations. Assess the financial implications and consider incorporating the cost of carbon emissions into financial planning and risk assessment.<br>• Green Financing: Explore opportunities for green financing, such as green bonds or sustainable investment funds, to support the company's transition to low-carbon operations.<br>• Regulatory Compliance: Stay updated on relevant regulations and standards related to atmospheric CO2 levels and greenhouse gas emissions.<br>• Environmental Certifications: Seek environmental certifications and labels that demonstrate the company's commitment to reducing CO2 emissions and environmental responsibility..<br>• Emission Monitoring and Reduction: Monitor and measure the company's CO2 emissions regularly.<br>• Carbon Offsetting: Explore carbon offset initiatives to neutralize or compensate for the company's remaining CO2 emissions. |

# Chronic Physical Risks and Adaptation Plan

Time frame ≥ 10 years

| Risk | Impact to Delta | Adaptation plan to be completed |
|---|---|---|
| **Heavy precipitation and pluvial flood** | • Market disruptions<br>• Business continuity planning<br>• Supply chain disruptions<br>• Facility and equipment damage<br>• Revenue loss and business interruption<br>• Insurance and recovery costs<br>• Environmental regulations<br>• Employee safety and well-being<br>• Water management and pollution | • Risk Assessment: Conduct a comprehensive risk assessment to identify vulnerabilities related to heavy precipitation and pluvial floods<br>• Land Use Planning: Consider the risk of pluvial flooding when selecting and designing company facilities<br>• Infrastructure and Equipment: Implement flood-resistant design and construction techniques to protect buildings and critical equipment from water damage.<br>• Business Continuity Plans: Develop and regularly update business continuity plans that address heavy precipitation and pluvial flood events.<br>• Insurance Coverage: Review insurance policies to ensure coverage for potential losses caused by heavy precipitation and pluvial floods.<br>• Financial Reserves: Allocate resources for emergency response, repair and restoration efforts, and potential business interruptions. Maintain financial reserves to mitigate the financial impact of flood-related losses.<br>• Regulatory Compliance: Stay complied with local, national, and international regulations related to flood risk management, building codes, and environmental standards.<br>• Employee Safety: Implement measures to protect employees from flood-related hazards. Develop and communicate evacuation plans, provide training on emergency response, and establish clear communication channels during flood events.<br>• Sustainable Drainage Systems: Implement sustainable drainage systems, such as permeable surfaces, rainwater harvesting, and retention ponds, to manage heavy precipitation and reduce the risk of pluvial flooding.<br>• Green Infrastructure: Incorporate green infrastructure solutions, such as rain gardens and vegetated swales, to absorb and manage excess water runoff, minimizing the strain on drainage systems and reducing flood risks. |
| **Coastal erosion** | • Market disruption<br>• Geographic limitations<br>• Facility vulnerability<br>• Supply chain disruptions<br>• Utilities and services disruption<br>• Asset value depreciation<br>• Community perception<br>• Habitat loss and biodiversity<br>• Climate change and resilience | • Risk Assessment: Conduct a thorough risk assessment to understand the potential impact of coastal erosion on company assets, infrastructure, and operations.<br>• Coastal Management Plan: Develop a strategic plan that includes coastal management strategies to mitigate erosion risks<br>• Protective Measures: Implement coastal protection measures to minimize erosion effects on company assets.<br>• Monitoring and Maintenance: Regularly monitor the coastline and infrastructure for signs of erosion and perform necessary maintenance or repairs to prevent further degradation.<br>• Insurance Coverage: Review insurance policies to ensure coverage for potential losses related to coastal erosion. Consider specialized coverage for property damage, business interruption.<br>• Budgeting and Reserves: Allocate resources for shoreline protection and maintenance. Establish financial reserves to address potential impacts on operations and infrastructure.<br>• Regulatory Compliance: Stay informed about regulations and guidelines related to coastal erosion management and coastal development permits. Comply with requirements for environmental impact assessments and permits for coastal protection measures.<br>• Stakeholder Engagement: Engage with local communities, residents, and other stakeholders to understand their concerns and perspectives regarding coastal erosion<br>• Ecosystem Conservation: Consider the ecological impact of erosion mitigation measures. Collaborate with environmental agencies and organizations to ensure that protective measures are implemented in a manner that minimizes harm to coastal ecosystems.<br>• Sustainable Practices: Adopt sustainable practices to minimize the company's contribution to coastal erosion. Implement measures to reduce carbon emissions and promote environmental conservation. |

# DELTA's Climate-related Opportunities, Impact and Strategic response

| Opportunity Type | Climate Opportunities and Impact | Time Period | Impact Level | Strategic Response |
|---|---|---|---|---|
| **Renewable Energy Use** | - Investment for using carbon reduction technology and renewable energy | Medium term | Medium | - Introduce internal carbon pricing to encourage investment in renewable energy project.<br>- Joined RE100 and set renewable electricity targets. |
| **Resource Efficiency** | - Investment for using high energy efficiency technology.<br>- Improve process to reduce waste and effluent | Short term | Medium | - Introduce internal carbon pricing to encourage investment in energy efficiency improvement project.<br>- Joined UL 2799 Zero Waste to Land fill and set waste management project |
| **Market** | - Develop innovation in energy efficiency equipment for market demand | Long term | Low | |
| **Products** | - Development of low-carbon products | Long term | Low | |
| **Resilience** | - Developed BCP for floods and fires<br>- Focused on severe water shortage events | Short term | High | |

**Remark:** **Impact Level** Low, Medium, High

**Time Period**
Short term 0-5 year,
Medium term 5-10 year,
Long term more than 10 year

# Delta Solutions Addressing Global Megatrends

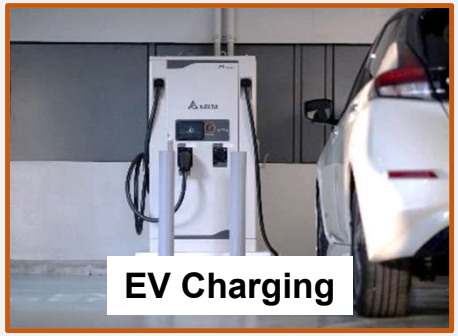
Demographic changes

Rapid urbanization

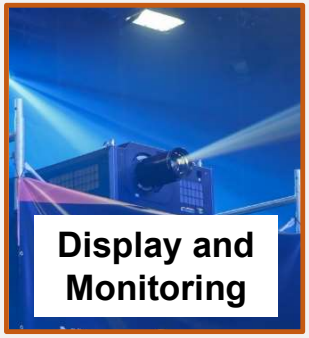
Climate change

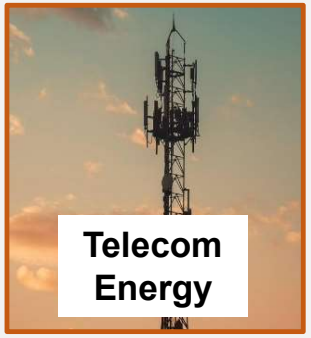
Disruptive technology



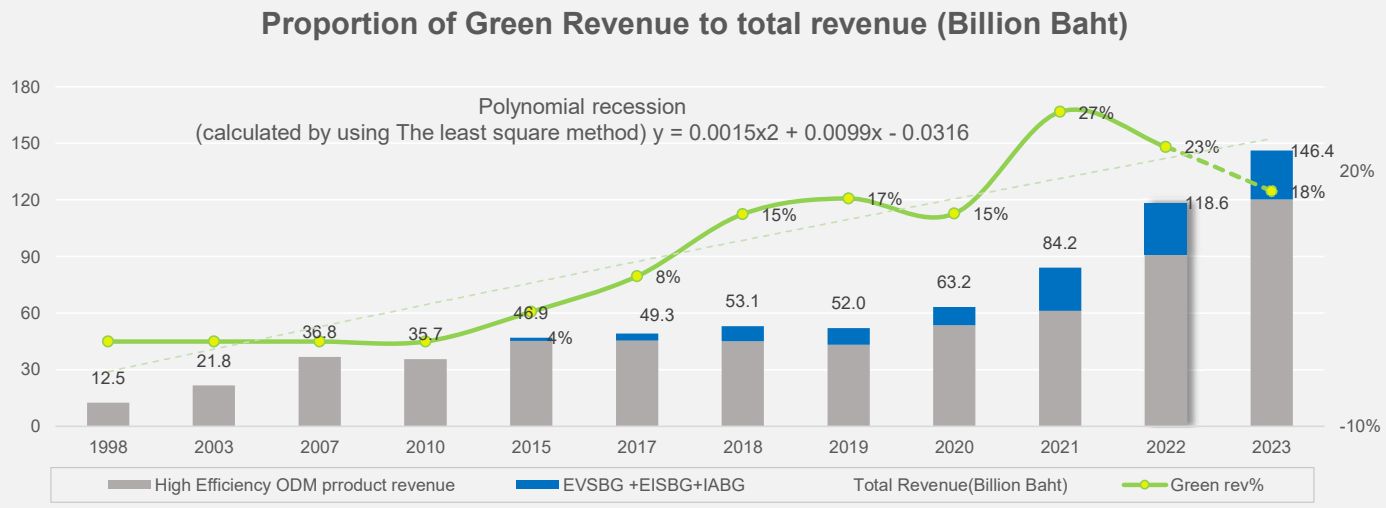


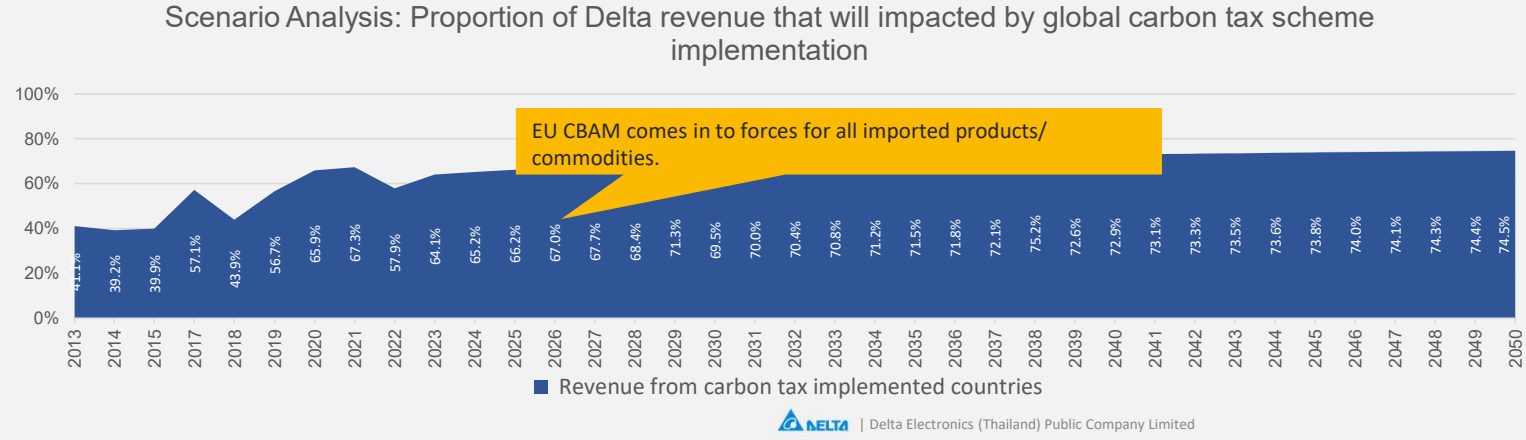


# Proportion of Green Revenue to Total revenue

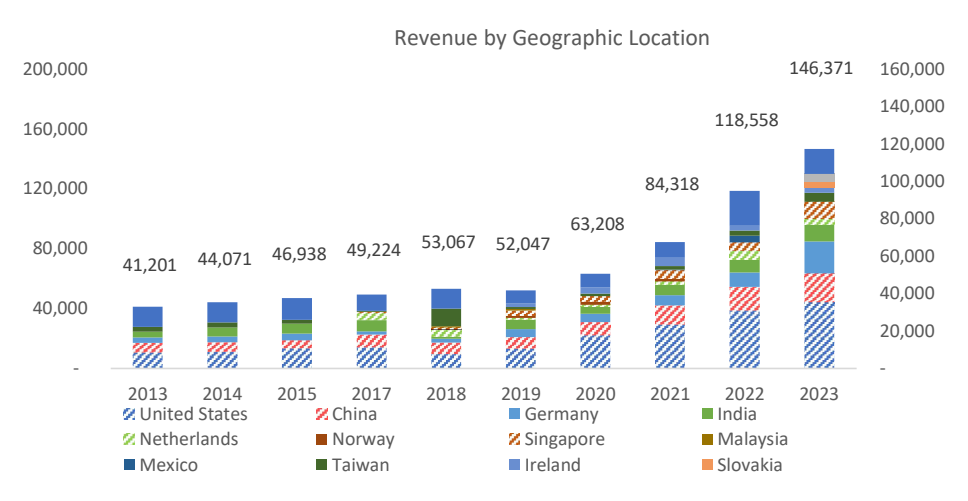


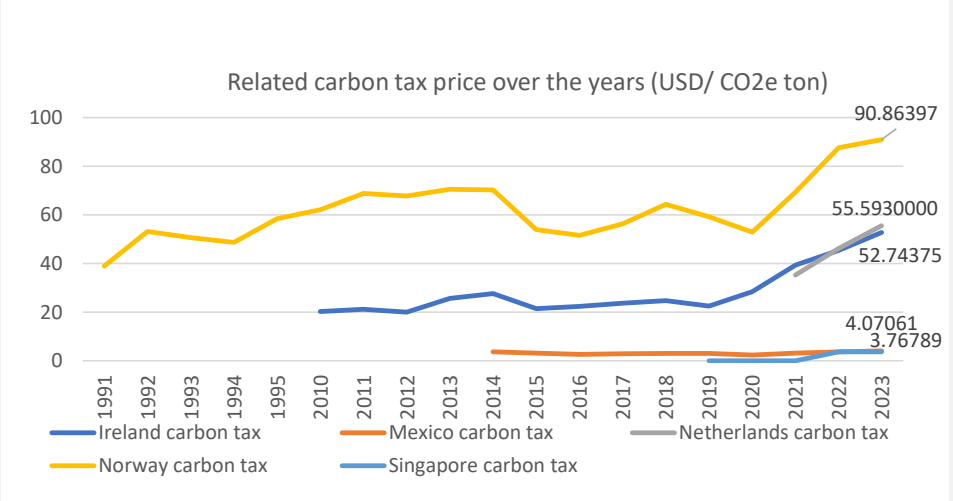




Assumption of this scenario Analysis:

1. Global carbon tax will be applied to all types of good, commodities imported to the countries that contribute to Delta consolidated revenue.
2. Growth in the target countries has forecasted by using linear modeling based on 2013-2022 geographic distribution of our consol. revenue.
3. Carbon tax scheme included in this analysis include, Ireland carbon tax Mexico carbon tax, Netherland carbon tax, Norway carbon tax, Singapore carbon tax, and EU CBAM.

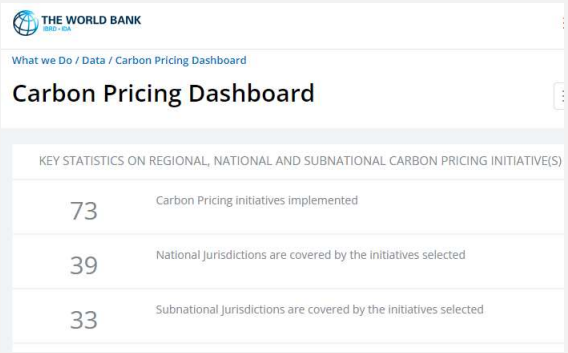
# Impact of global EST and Carbon tax to our target to growth

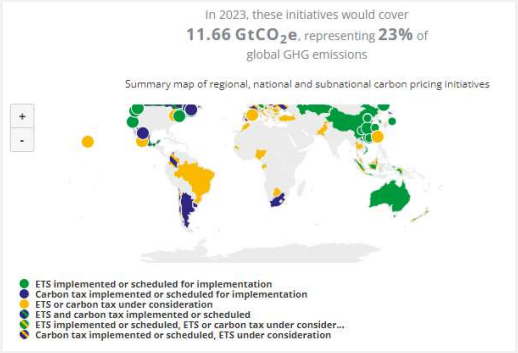



**Countries that implement Carbon Tax Scheme.**

- In 2023, 54% (2022: 57%) of our consolidated revenue were from countries where carbon tax scheme has implemented. Mostly, these tax schemes have applied to oil & gas industry.
- As of 1 October 2023, EU CBAM will initially apply to imports of certain goods and selected precursors whose production is carbon intensive and at most significant risk of carbon leakage: cement, iron and steel, aluminum, fertilizers, electricity and hydrogen.
- Once the permanent system enters into force on 1 January 2026, importers will need to declare each year the quantity of goods imported into the EU in the preceding year and their embedded GHG. They will then surrender the corresponding number of CBAM certificates. The price of the certificates will be calculated depending on the weekly average auction price of EU ETS allowances expressed in €/ton of CO2 emitted. The phasing-out of free allocation under the EU ETS will take place in parallel with the phasing-in of CBAM in the period 2026-2034.
- According to the World Bank's disclosure on carbon pricing, India has not considered ETS yet, while EU27+ETS that will impact the cost of our manufacturing site in Slovakia is under consideration. If EU27+ETS effective, that will impact 9-12% of Delta consolidated revenue




https://carbonpricingdashboard.worldbank.org/

# MATRIC AND TARGET

## Delta Carbon Promises: “We Mean Business”

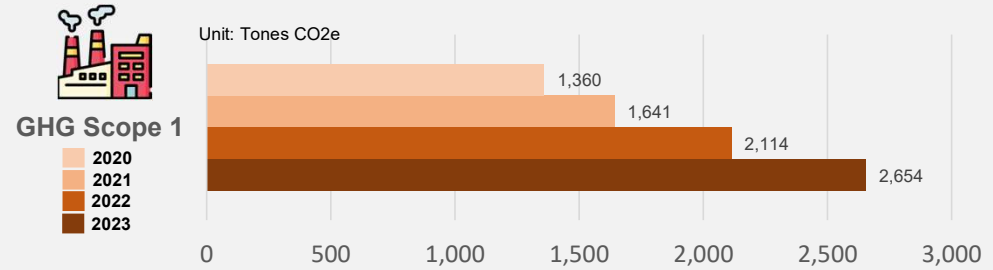
Delta Thailand support the “Race to Zero” campaign and commits to international standards such as **We Mean Business,** setting Science-based Targets (SBTi) to become a Net Zero Organization by 2050, and RE100 which Using 100% renewable electricity in global operations by 2030.

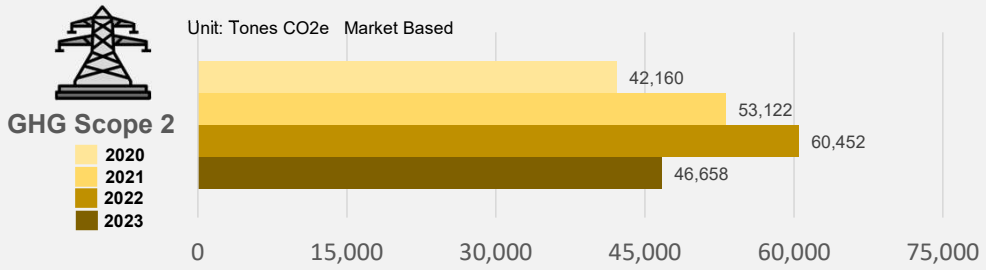
We are committed to expanding EV charging facilities, transitioning to the use of EVs for company vehicles by 2030, and providing incentives for both employees and customers to adopt EV usage.

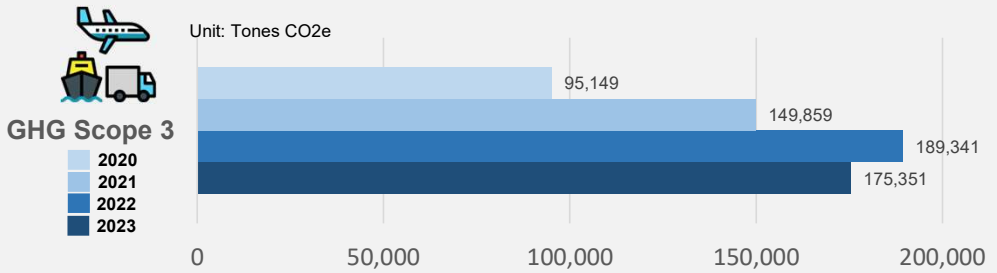
### Business Strategy Aligns with ESG Development

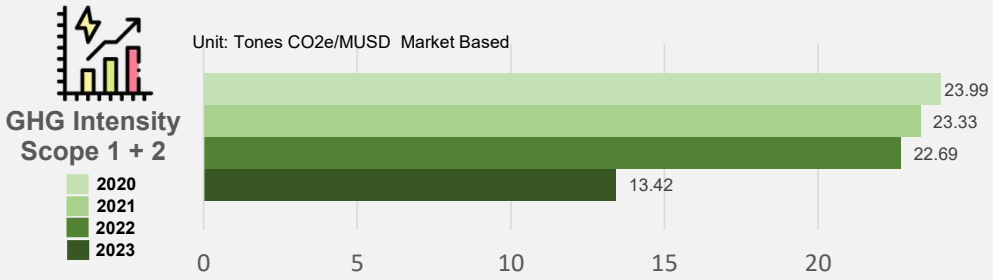

# Our GHG Emissions

GHG emissions scope 1, 2, 3 for the past four years are presented in the chart. Based on guidance from the GHG protocol, the emissions are calculated and listed in metric tones CO2e. To promote accountability, the figure of GHG emissions Scope 1, 2, 3 was verified by a third party to evaluate the accuracy and reliability of our methods as shown in our SGS Assurance Statement.

# Net Zero Target

Delta is committed to set a long-term goal to achieve net-zero emission target across the entire value chain by 2050, with the criteria and recommendations of the Science-based Targets initiative (SBTi) both direct emissions (Scope 1) and indirect emissions (Scope 2 and 3).

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

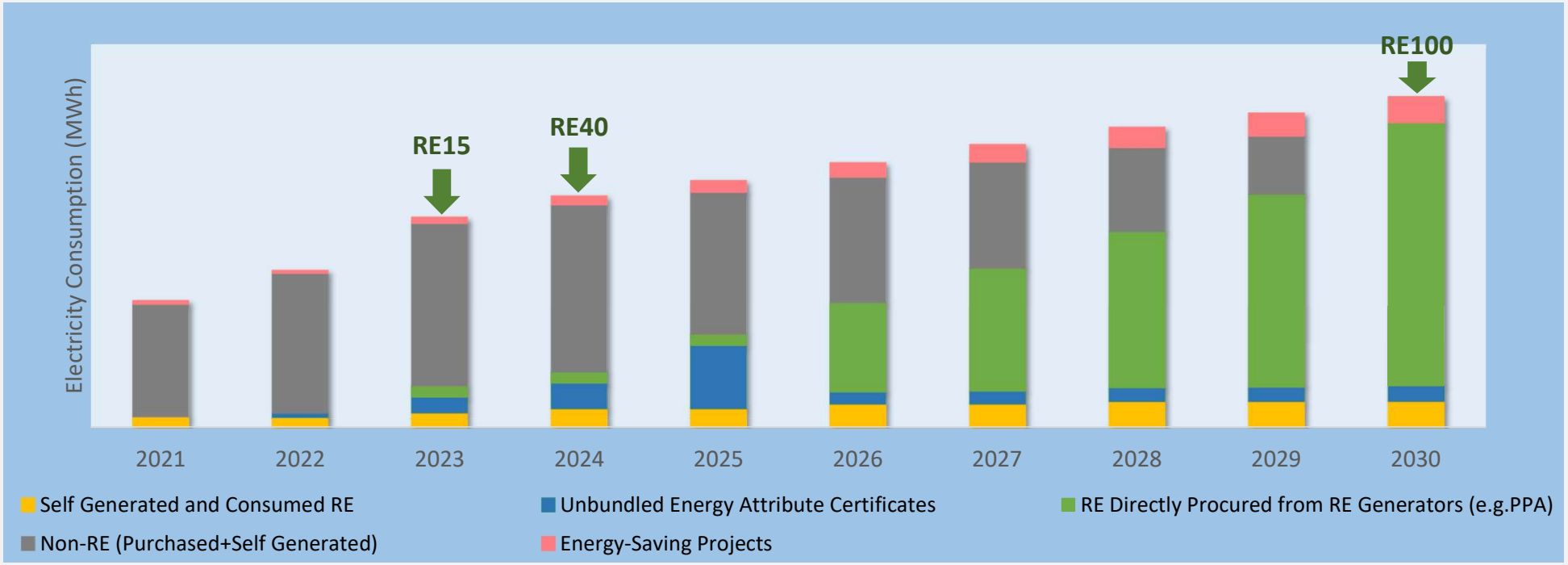
THE NET ZERO STANDARD
APPROVED NET-ZERO TARGETS

| | | |
|---|---|---|
| Scope 1+2 | ▼ 90% | by 2030 |
| Scope 3 | ▼ 25% | by 2030 |
| Scope 1+2+3 | ▼ 90% | by 2050 |

Baseline year: 2021


| | Scope and Target | Adaptation Plans and Actions |
|---|---|---|
| Short Term (2025) | S1 S2 S3 | - Decrease fossil fuel use<br>- Improve Energy Efficiency<br>- Increase RE use such as Solar Panel<br>- Increase Renewable Energy Certificate (REC)<br>- Replace Green Refrigerant<br>- Increase EV Charger and user |
| Medium Term (2030) | S1 S2 S3 | - Increase Utility Green Tariff (UTG)<br>- Increase RE use<br>- Increase EV Charger and user<br>- Improve Energy Efficiency<br>- Increase Green Revenue<br>- Reduce waste<br>- Create energy saving awareness |
| Long Term (2050) | S1 S2 S3 | - Increase Green Revenue<br>- Increase EV for Logistic<br>- Sustainable Energy<br>- Sustainable Consumption<br>- Carbon Removal |

# Delta Thailand Renewable Energy (RE) Roadmap




**Solar Power Installation**

**I-REC**

Green Energy Certificate

**UGT/ PPA/ TPA**


Green Power mechanism

**Energy-Saving Projects**

Process/ Facilities Innovations

Machine Improvement

# Delta Energy-Saving from Three Dimensions

Delta is committed to reduce carbon emissions continually to meet the RE100 and the 1.5°C global warming target. Therefore, delta has determined the energy saving policy from three dimensions include Green Building, Operation Sites and Products & Solutions. Which drive the investment in the project of energy conservation, renewable energy and low-carbon products via the ICP framework. Therefore, business groups will be able to respond to clients' demand for green power, support each other for sustainability business.

## Green Buildings

**Building** accounts for 30% of total global energy consumption and 26% of global energy-related emissions

Since 2006, Delta established 32 green buildings and 2 certified green data centers.
In 2023, Delta's green factories/offices and 5 campus buildings can save 18.09 million kWh and 11,142 tons of CO2e.

**Adaptation Plans and Actions**
- New Delta's Building shall be Green Building and certified LEED & Well Certificate
- Promote automatic systems for partners

## Operation Sites

Delta has embraced the ICP Scheme as a fund to enhance energy efficiency management in each operation site.

**Adaptation Plans and Actions**
- Improvement in HVAC and Utility system such as Air condition, fan, air compressors and lighting system.
- Investment for Improving in Heating equipment such as sintering furnaces, reflow furnaces, burn-in etc.
- Improvement energy efficiency in dormitories, restrooms, kitchens, and other areas.
- Investment in smart grids, testing, adjusting, and balancing (TAB) for air conditioning systems, and developing IT systems.
- Improvement the water conservation for cooling towers and air conditioners.
- Investment in RE-related equipment such as energy storage systems.
- Investment in emerging energy technologies such as hydrogenic energy or renewable energy power plant.

## Products & Solutions

Delta Committed to create products and service for Low-Carbon Energy Saving in the City.

**Adaptation Plans and Actions**
Investment in research and development in high energy efficiency and Carbon products and services.

**The products have been assured by ISAE 3000:**
1) LED Street Light 2) LED Driver
3) LED High Bay 4) AC-DC Adapter
5) Electronic Ballast 6) TV Power
7) PV Inverter (PVI) 8) Server Power
9) Ventilation Fans 10) EC DC Charger
11) Uninterruptible Power Supply (UPS)

**The SMART Energy technology:**
1) PV solutions 2) Energy storage solutions
3) EV charging solutions 4) Energy IoT solutions

# What's next?

| | |
|---|---|
| RExx | - Target RE35 for Delta sites in Thailand (xx percent of renewable energy in total energy consumption) by the year 2025. |
| 56% | - Target to reduce GHG intensity 56.6 percent by the year 2025 (compared with the base year 2014). |
| 40% | - Target to increase green revenue from products and solutions portfolio up to 30 percent of total revenue by the year 2030.<br>- Target to have 30% of recycle input material of total purchased material by the year 2025.<br>- Target to reduce 30% of VOC intensity by the year 2023 (compared with the base year 2019).<br>- Target to reduce 30% of non-hazardous waste for disposal by the year 2023 (5% yearly from the base year 2016) |
| xx% | - Target 20% reduction of energy intensity by the year 2025 (compared with the base year 2020). |
| 20% | - Target to have 20% of recycled input material by the year 2030 (compared with based year 2020) |
| 10% | - Target to reduce 5% of hazardous waste intensity by the year 2023 (compared with the base year 2019.) |
| 5% | - Target to reduce 5% of hazardous waste intensity by the year 2023 (compared with the base year 2019.) |

# TCFD Disclosure content index

| TCFD's Core Element | Disclosure Topic | Disclosure Reference |
|---|---|---|
| Governance | The Delta Sustainability Committee oversight of climate - related risk and opportunities. | Sustainable Development Report 2023<br>- Board of Direction Page 14<br>- Sustainable Development Organization Page 25<br>- Sustainable Development Committee Page 39 |
| Strategy | Climate - Related Risks and Opportunity | Sustainable Development Report 2023<br>- Enterprise risk matrix Page 28 |
| | RCP 2.6 and RCP 8.5 scenario | - Environment policy and Management System Page 46 |
| | Internal Carbon Pricing (ICP) | - Responsibility to sustainable growth Page 30 |
| | Eco-friendly operation | - Eco-friendly design Page 47 |
| Climate Risk Management | Climate Risk Management | Sustainable Development Report 2023<br>- The effective risk and crisis management Page 26 |
| | IPCC climate change projection assessment | IPCC WGI Interactive Atlas, https://interactive-atlas.ipcc.ch/ |
| | Thailand's Water Risk Assessment | WWF Risk Filter Suite, https://waterriskfilter.panda.org/ |
| Matric and Target | Delta Carbon Promises: "We Mean Business" | Sustainable Development Report 2023<br>- Potential to mitigate climate change impact Page 71 |
| | Our GHG Emissions | 2024 Sustainability in numbers<br>- GRI 305 Greenhouse gases emission Page 7 |

Smarter. Greener. Together.