Voltronic Power Technology Corp.

2021 TCFD Report

Task Force on Climate-Related Financial Disclosures

Voltronic Power Technology 2021 Climate-related Financial Disclosure Report

Independent Conformity Verification Statement

Verification Statement

HengSeng S.D. Co., Ltd. (HengSeng, We) have verified the 2021 Task Force on Climate-related Financial Disclosures (TCFD) Peport of Voltronic Power Technology Corp. and its subsidiaries (the Croup, VPT), we implement the verification process according to the requirements of Climate-related Financial Disclosures, HangSeng declares:

- VPT follows Recommendations of the Task Force on Climate-related Financial Disclosures（TCFD）to disclose climate-related financial information which is clear, comparable and consistent about the risks and opportunities and its financial impact. The Disclosures of Climate-Related Financial Information covers four core elements: Ⅰ. Governance; Ⅱ. Strategy; Ⅲ. Risk Management; Ⅳ. Metrics and Targets. And according to the seven Principles for Effective Disclosures： Ⅰ. Disclosures should represent relevant information; Ⅱ. Disclosures should be specific and complete; Ⅲ. Disclosures should be clear, balanced, and understandable; Ⅳ. Disclosures should be consistent over time; Ⅴ. Disclosures should be comparable; Ⅵ. Disclosures should be reliable, verifiable, and objective; Ⅶ. Disclosures should be provided on a timely basis.
- The maturity model for Climate-related Financial Disclosures is Level-6 Ultra-Excellence grade.
- Conformity Verification Statement Number：HSCVS 2022VPT001
- Conformity Verification Statement Mark：

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HangSeng S.D. Innovation Sustainability Inheritance

Introduction and Independence and Responsibility / Exemption Statement

HengSeng has been entrusted by the management of VPT to conduct independent verification of 2021 Climate-related Financial Disclosure Report (the Report).All contractual contents for this verification engagement rest entirely within the responsibility of VRT. Our task was to give a fair and adequate judgment on the 2021 Climate-related Financial Disclosure Report of VPT.

The intended users of this Conformity Verification Statement are stakeholders having relevance to the impacts of climate-related risks and opportunities on VPT's financial performance and business activities during 2021 (January 2021 ~ December 2021). Hangseng is a service provider of ESG and Climate-related Financial Disclosure Services, having qualified professionals in the field of Enterprises ESG Assurance, Corporate Governance, Environment, Social Responsibility, Climate Change, Greenhouse Gas Inventory and so on. In November 2020, HangSeng published the "New Testament on Enterprises Sustainability-ESG 90 Images " Moreover, the actual controller of HangSeng has 19 years of senior partner of Deloitte & Touche Taiwan and 28 years of Certified Public Accountant qualification, specialize in the verification of financial information.

HangSeng is independent from VPT, and has no any financial interest in VPT except of the ESG Engagement. Hang Seng has maintained complete impartiality and independence during the verification engagement and were not involved in the preparation of report contents. This information and its presentation in the report are the sole responsibility of the management of VPT. HangSeng was not involved in the drafting of the Report. Our sole responsibility was to provide independent verification on its content.

This Conformity Verification Statement has been prepared for VPT only for the purposes of verifying its statements relating to its Climate-related Financial Disclosures. It was not prepared for any other purpose.

HangSeng will not, in providing this Conformity Verification Statement, accept or

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assume including but not limited to the legal and any other responsibility or accept liability for or in connection with any other purpose for which it may be used or to any person by whom the Conformity Verification Statement may be read.

Any queries that may arise by virtue of this Conformity Verification Statement or matters relating to it should be addressed to VPT only.

For and on behalf of
HANG SENG S.D. CO.,LTD
Matthew Wu
Authorised Signature(s)

Chairman, Matthew Wu

Issue Date：2022-06-05

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Core Elements of Recommended Climate-Related Financial Disclosures

Governance

The organization's governance around climate-related risks and opportunities

Core Disclosures

a) Describe the board's oversight of climate-related risks and opportunities.

b) Describe management's role in assessing and managing climate-related risks and opportunities.

Declaration from the Chairperson

Declaration

Hsieh Juor-Ming

Chairperson and ESG Executive Committee Chairperson

Net Zero Emissions Declaration: Responding to the Climate Change

Self-made components	Low carbon intensity production	Solar panel	Sustainability products
In order to effectively control the carbon emission of the value chain and improve the delivery capacity through vertical integration, we are committed to improve the self-made rate of components other than semiconductors and batteries.	The amount of emissions of CO_2 released per million US dollars of sales amount is taken as the carbon intensity test index , we are committed to the goal of low-carbon intensity production.	Set up solar panels and Energy Storage System in the self built factory in Zhongshan on the mainland to improve the self-made rate of electricity.	All products produced by the company: Uninterruptible Power Supply, PV Inverter and Energy Storage System etc., which have the benefits of Energy Efficiency or both Energy Efficiency and Renewables . Expanding the production and sale of these products is our most important goal.

Chairperson

Climate Change

Climate change related SDGs

Committed to reaching the objectives of responding to climate change

- Net Zero Emissions in our own operation by 2035.
- Net Zero Emissions in the value chain by 2050.

Voltronic Power Technology Corp.

We fully integrate and apply the TCFD framework in the governance of climate-related risks and opportunities since 2021, and publish 2021 TCFD Report(Task Force on Climate-Related Financial Disclosures) for the first time in the TCFD framework .

The 2021 TCFD Report obtained the " Climate-related Financial Disclosure Report Independent Conformity Verification Statement“ Conformity Verify Overall Result： The maturity model for Climate-related Financial Disclosures is Level-6 Ultra-Excellence grade.

《Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures》

Sustainability Organization in response to Climate Change

Climate Change Governance and Management Framework

Board of Directors

Supervise overall climate change actions (SDG13) and related risks and opportunities actions (SDGs12, 7 and 8)

Sustainability Committee

Responsible for the related matters of sustainability(including Environment、Social and Governance), consists of three independent directors, and regularly report the relevant necessary matters (including climate change actions) to board of directors.

ESG Executive Committee

Highest decision-making and implementation center for climate change actions, chaired by the chairperson and regularly reports to the board of directors.

Climate Change Management Committee

Chaired by CEO, leads all management teams to manage climate change risks and opportunities actions.

Risk Management Committee

Responsible for the identification and implementation of risk control proposals for climate change and continue to enhance relevant risk management.

Sustainability Organization in response to Climate Change

The Key Points of the Board of Directors' Climate Change Supervision

Board of Directors

Supervise the Company's ESG Governance Strategies and Actions

- Review the 2021 ESG report and the 2021 TCFD report
- Approve the work objectives for 2022: expand the Taipei plant into a new energy products center, actively develop energy storage products and explore the Taiwan market, and set up solar panels at Zhongshan plant in mainland China.

Audit Committee

Supervise the Company's overall operational risks (including climate change risks)

- Review the prioritization of risk controls against climate change risks (including but not limited to electricity shortage, natural disaster), and build software / hardware control measures.

Compensation Committee

Evaluate and implement performance-based compensation plan for management related to ESG (including climate change) achievements

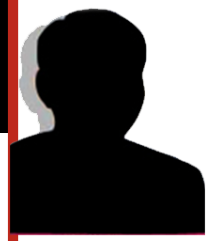
- Review and plan on the issuance of employee Restricted Stock Awards (RSAs), in order to attract and retain employee and to link their compensation with ESG achievements (including climate change management).
- The RSAs was approved at Board on February 24, 2022, and is expected will be adopted at Annual Shareholder's Meeting in June 2022.

Sustainability Organization in response to Climate Change

Provide incentives for climate change actions

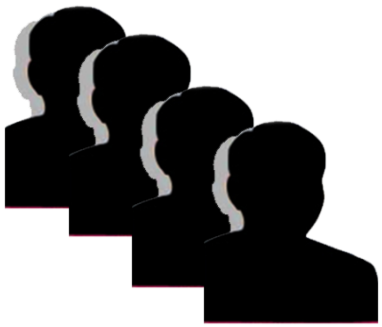
Chief Executive Officer (CEO)

- Recognition
  - Emissions reduction
  - Energy reduction
  - Supply chain engagement
  - R&D and Manufacture and Sale of Sustainability Products



Other Named Executive Officers

- Monetary
- Recognition
  - Emissions reduction
  - Energy reduction
  - R&D and Manufacture of Sustainability Products



Business Unit People

- Monetary
- Recognition
  - Sale of Sustainability Products

Sustainability Organization in response to Climate Change

The board's oversight of climate-related risks and opportunities.

Board of Directors

- Review the annual ESG report and TCFD report regularly every year.
- Regularly approve the annual climate related risk and opportunity management strategy and plan objectives formulated by the ESG Executive Committee every year (including but not limited to major plans of action, risk management policies, annual budgets and business plans as well as setting the organization's performance objectives, monitoring implementation and performance, **and**
- The Climate Change Management Committee will implement the annual climate related risk and opportunity management strategy and plan, and the annual performance results shall be reported to the Board of Directors by the ESG Executive Committee.
- The report of the Risk Management Committee on the ever-changing risk environment, the focus of the Company's enterprise risk management, and risk assessment and mitigation efforts faced by the company, shall be reported to the board of directors by the Audit Committee.
- Regularly approve the performance-based compensation plan proposed by the Compensation Committee for management related to ESG (including climate change)) achievements**.**

ESG Executive Committee

- Be responsible for formulating and implementing the company's short, medium and long-term climate change Governance Strategies and plans.
- Formulate the annual climate related risk and opportunity management strategy and plan objectives according to the climate change governance strategy and plan, and submit them to the Climate Change Management Committee for implementation after being approved by the Board of Directors, is also responsible for supervising the implementation performance of the Climate Change Management Committee .

Sustainability Organization in response to Climate Change

Management's role in assessing and managing climate-related risks and opportunities

Climate Change Management Committee

Ï The Company has assigned climate-related responsibilities to management-level ：

- Set up a Climate Change Management Committee, chaired by Chaired by CEO, leads all management teams to manage climate change risks and opportunities actions. All management teams include business department, management department, finance department, R & D department, marketing department, procurement department, information department, production and manufacturing department of each plant, audit office, corporate governance etc. unit directors.
- The Climate Change Management Committee is responsible for implementing the annual climate-related risk and opportunity management strategy and plan objectives which formulated ESG Executive Committee and approved by the Board of Directors.
- The Climate Change Management Committee meets quarterly to review the implementation progress of the annual climate-related risk and opportunity management strategy and plan objectives. In case of difficulties or other suggestions, it will immediately report to the ESG Executive Committee for assistance.
- The annual performance results of Climate Change Management Committee in implementing the annual climate-related risk and opportunity management strategy and plan objectives shall prepare an annual report and submit it to the ESG Executive Committee to report to the Board of Directors.

Core Elements of Recommended Climate-Related Financial Disclosures

Strategy

The actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning

Core Disclosures

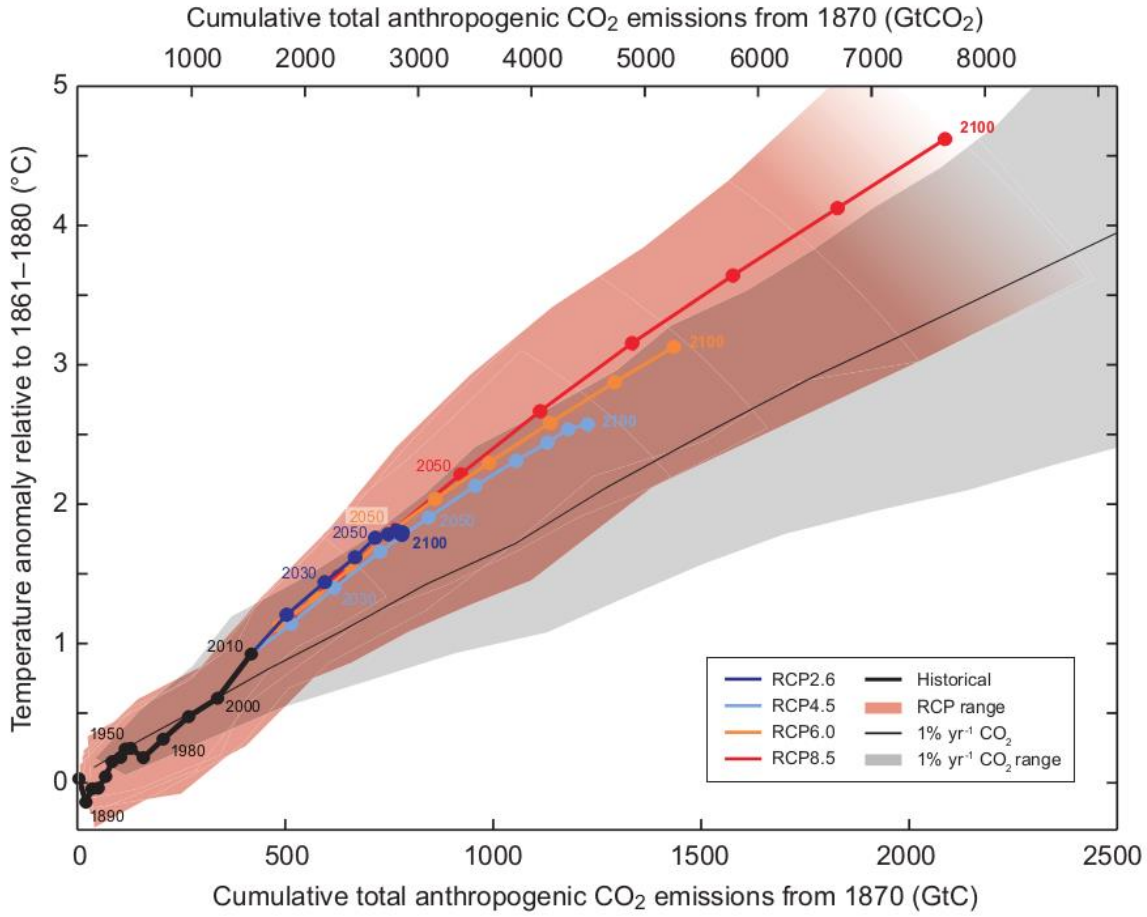
a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.

b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.

c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

The Special Report on Global Warming of 1.5°C

Emissions of greenhouse gases (GHGs), which leads to global warming and climate change of extreme climate, is the most severe challenge facing mankind all over the world. The anthropogenic greenhouse gas emission dominated by carbon dioxide (CO_2) is the core issue of global warming and climate change. Since the industrial revolution, with the increase of anthropogenic CO_2 emission, the global temperature has gradually increased.



Relationship between global temperature rise and cumulative anthropogenic CO_2 emissions (source: Intergovernmental Panel on climate change, IPCC, 2013)

The Special Report on Global Warming of 1.5°C was approved by the IPCC on October 8, 2018 in Incheon, Republic of Korea.

Limiting global warming to 1.5°C would require rapid, far-reaching and unprecedented changes in all aspects of society, the IPCC said in a new assessment. With clear benefits to people and natural ecosystems, limiting global warming to 1.5°C compared to 2°C could go hand in hand with ensuring a more sustainable and equitable society, the Intergovernmental Panel on Climate Change (IPCC) said. It will be a key scientific input into the Katowice Climate Change Conference in Poland in December, 2018 when governments review the Paris Agreement to tackle climate change.

This important report was prepared in response to an invitation from the United Nations Framework Convention on Climate Change (UNFCCC) when it adopted the Paris Agreement in 2015.

The report's full name is Global Warming of 1.5°C, an IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty.

One of the key messages that comes out very strongly from this report is that we are already seeing the consequences of 1°C of global warming through more extreme weather, rising sea levels and diminishing Arctic sea ice, among other changes.

The report highlights a number of climate change impacts that could be avoided by limiting global warming to 1.5°C compared to 2°C, or more. For instance, by 2100, global sea level rise would be 10 cm lower with global warming of 1.5°C compared with 2°C. The likelihood of an Arctic Ocean free of sea ice in summer would be once per century with global warming of 1.5°C, compared with at least once per decade with 2°C. Coral reefs would decline by 70-90 percent with global warming of 1.5°C, whereas virtually all (> 99 percent) would be lost with 2°C.

Every extra bit of warming matters, especially since warming of 1.5°C or higher increases the risk associated with long-lasting or irreversible changes, such as the loss of some ecosystems. Limiting global warming would also give people and ecosystems more room to adapt and remain below relevant risk thresholds.

The report also examines pathways available to limit warming to 1.5°C, what it would take to achieve them and what the consequences could be.

The report finds that limiting global warming to 1.5°C would require “rapid and far-reaching” transitions in land, energy, industry, buildings, transport, and cities. Global net human-caused emissions of carbon dioxide (CO2) would need to fall by about 45 percent from 2010 levels by 2030, reaching ‘net zero’ around 2050. This means that any remaining emissions would need to be balanced by removing CO2 from the air.

Limiting warming to 1.5°C is possible within the laws of chemistry and physics but doing so would require unprecedented changes.

Allowing the global temperature to temporarily exceed or 'overshoot' 1.5°C would mean a greater reliance on techniques that remove CO_2 from the air to return global temperature to below 1.5°C by 2100. The effectiveness of such techniques are unproven at large scale and some may carry significant risks for sustainable development, the report notes.

Limiting global warming to 1.5°C compared with 2°C would reduce challenging impacts on ecosystems, human health and well-being, making it easier to achieve the United Nations Sustainable Development Goals.

This report gives policymakers and practitioners the information they need to make decisions that tackle climate change while considering local context and people's needs. The next few years are probably the most important in our history.

《Glossary- relevant parts》

Anthropogenic emissions

Emissions of greenhouse gases (GHGs), precursors of GHGs and aerosols caused by human activities. These activities include the burning of fossil fuels, deforestation, land use and land-use changes(LULUC), livestock production, fertilisation, waste management and industrial processes.

Anthropogenic removals

Anthropogenic removals refer to the withdrawal of *GHGs* from the *atmosphere* as a result of deliberate human activities. These include enhancing biological *sinks* of CO_2 and using chemical engineering to achieve long-term removal and storage. Carbon capture and storage (CCS) from industrial and energy-related sources, which alone does not remove CO_2 in the atmosphere, can reduce atmospheric CO_2 if it is combined with bioenergy production (*BECCS*).

Carbon cycle

The term used to describe the flow of carbon (in various forms, e.g., as carbon dioxide (CO_2), carbon in biomass, and carbon dissolved in the ocean as carbonate and bicarbonate) through the atmosphere, hydrosphere, terrestrial and marine biosphere and lithosphere. The reference unit for the global carbon cycle is $GtCO_2$ or GtC (Gigatonne of carbon = 1 GtC = 10^{15} grams of carbon. This corresponds to 3.667 $GtCO_2$).

Carbon dioxide (CO_2)

A naturally occurring gas, CO_2 is also a by-product of burning fossil fuels (such as oil, gas and coal), of burning biomass, of land-use changes (LUC) and of industrial processes (e.g., cement production). It is the principal anthropogenic greenhouse gas (GHG) that affects the Earth's radiative balance. It is the reference gas against which other GHGs are measured and therefore has a global warming potential (GWP) of 1.

Carbon dioxide capture and storage (CCS)

A process in which a relatively pure stream of carbon dioxide (CO_2) from industrial and energy-related sources is separated (captured), conditioned, compressed and transported to a storage location for long-term isolation from the atmosphere. Sometimes referred to as Carbon capture and storage.

Carbon dioxide capture and utilisation (CCU)

A process in which CO_2 is captured and then used to produce a new product. If the CO_2 is stored in a product for a climate-relevant time horizon, this is referred to as carbon dioxide capture, utilisation and storage (CCUS). Only then, and only combined with CO_2 recently removed from the atmosphere, can CCUS lead to carbon dioxide removal. CCU is sometimes referred to as carbon dioxide capture and use.

Carbon dioxide removal (CDR)

Anthropogenic activities removing CO_2 from the atmosphere and durably storing it in geological, terrestrial, or ocean reservoirs, or in products. It includes existing and potential anthropogenic enhancement of biological or geochemical sinks and direct air capture and storage, but excludes natural CO_2 uptake not directly caused by human activities.

Carbon intensity

The amount of emissions of carbon dioxide (CO_2) released per unit of another variable such as gross domestic product (GDP), output energy use or transport.

Carbon neutrality

See Net zero CO_2 emissions.

Climate change

Climate change refers to a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forcings such as modulations of the solar cycles, volcanic eruptions and persistent anthropogenic changes in the composition of the atmosphere or in land use. Note that the Framework Convention on Climate Change (UNFCCC), in its Article 1, defines climate change as: 'a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.' The UNFCCC thus makes a distinction between climate change attributable to human activities altering the atmospheric composition and climate variability attributable to natural causes.

Zero emissions commitment

The zero emissions commitment is the climate change commitment that would result from setting anthropogenic emissions to zero. It is determined by both inertia in physical climate system components (ocean, cryosphere, land surface) and carbon cycle inertia.

Climate extreme (extreme weather or climate event)

The occurrence of a value of a weather or climate variable above (or below) a threshold value near the upper (or lower) ends of the range of observed values of the variable. For simplicity, both extreme weather events and extreme climate events are referred to collectively as 'climate extremes'.

CO_2 equivalent (CO_2-eq) emission

The amount of carbon dioxide (CO_2) emission that would cause the same integrated radiative forcing or temperature change, over a given time horizon, as an emitted amount of a greenhouse gas (GHG) or a mixture of GHGs. There are a number of ways to compute such equivalent emissions and choose appropriate time horizons. Most typically, the CO_2-equivalent emission is obtained by multiplying the emission of a GHG by its global warming potential (GWP) for a 100-year time horizon. For a mix of GHGs it is obtained by summing the CO_2-equivalent emissions of each gas. CO_2-equivalent emission is a common scale for comparing emissions of different GHGs but does not imply equivalence of the corresponding climate change responses. There is generally no connection between CO2-equivalent emissions and resulting CO2-equivalent concentrations.

Global warming

The estimated increase in global mean surface temperature (GMST) averaged over a 30-year period, or the 30-year period centered on a particular year or decade, expressed relative to pre-industrial levels unless otherwise specified. For 30-year periods that span past and future years, the current multi-decadal warming trend is assumed to continue.

Greenhouse gas (GHG)

Greenhouse gases are those gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation at specific wavelengths within the spectrum of terrestrial radiation emitted by the Earth's surface, the atmosphere itself and by clouds. This property causes the greenhouse effect. Water vapour (H_2O), carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4) and ozone (O_3) are the primary GHGs in the Earth's atmosphere. Moreover, there are a number of entirely human-made GHGs in the atmosphere, such as the halocarbons and other chlorine- and bromine-containing substances, dealt with under the Montreal Protocol. Beside CO2, N2O and CH4, the Kyoto Protocol deals with the GHGs sulphur hexafluoride (SF_6), hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs). See also Carbon dioxide (CO_2), Methane (CH_4), Nitrous oxide (N_2O) and Ozone (O_3).

(climate change) Impact assessment

The practice of identifying and evaluating, in monetary and /or non-monetary terms, the effects of climate change on natural and human systems.

Negative emissions

Removal of greenhouse gases (GHGs) from the atmosphere by deliberate human activities, i.e., in addition to the removal that would occur via natural carbon cycle processes.

Net negative emissions

A situation of net negative emissions is achieved when, as result of human activities, more greenhouse gases are removed from the atmosphere than are emitted into it. Where multiple greenhouse gases are involved, the quantification of negative emissions depends on the climate metric chosen to compare emissions of different gases (such as global warming potential, global temperature change potential, and others, as well as the chosen time horizon).

Net zero CO_2 emissions

Net zero carbon dioxide (CO_2) emissions are achieved when anthropogenic CO_2 emissions are balanced globally by anthropogenic CO_2 removals over a specified period. Net zero CO_2 emissions are also referred to as carbon neutrality.

Net zero emissions

Net zero emissions are achieved when anthropogenic emissions of greenhouse gases to the atmosphere are balanced by anthropogenic removals over a specified period. Where multiple greenhouse gases are involved, the quantification of net zero emissions depends on the climate metric chosen to compare emissions of different gases (such as global warming potential, global temperature change potential, and others, as well as the chosen time horizon).

Comprehensive Strategic Objectives in response to the Special Report on Global Warming of 1.5°C

The Special Report on Global Warming of 1.5°C (Global Warming of 1.5°C, an IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty.), since it is an important research report of the Paris Agreement, its goal of " reaching 'net zero' around 2050" is also the goal of global international enterprises including VPT.

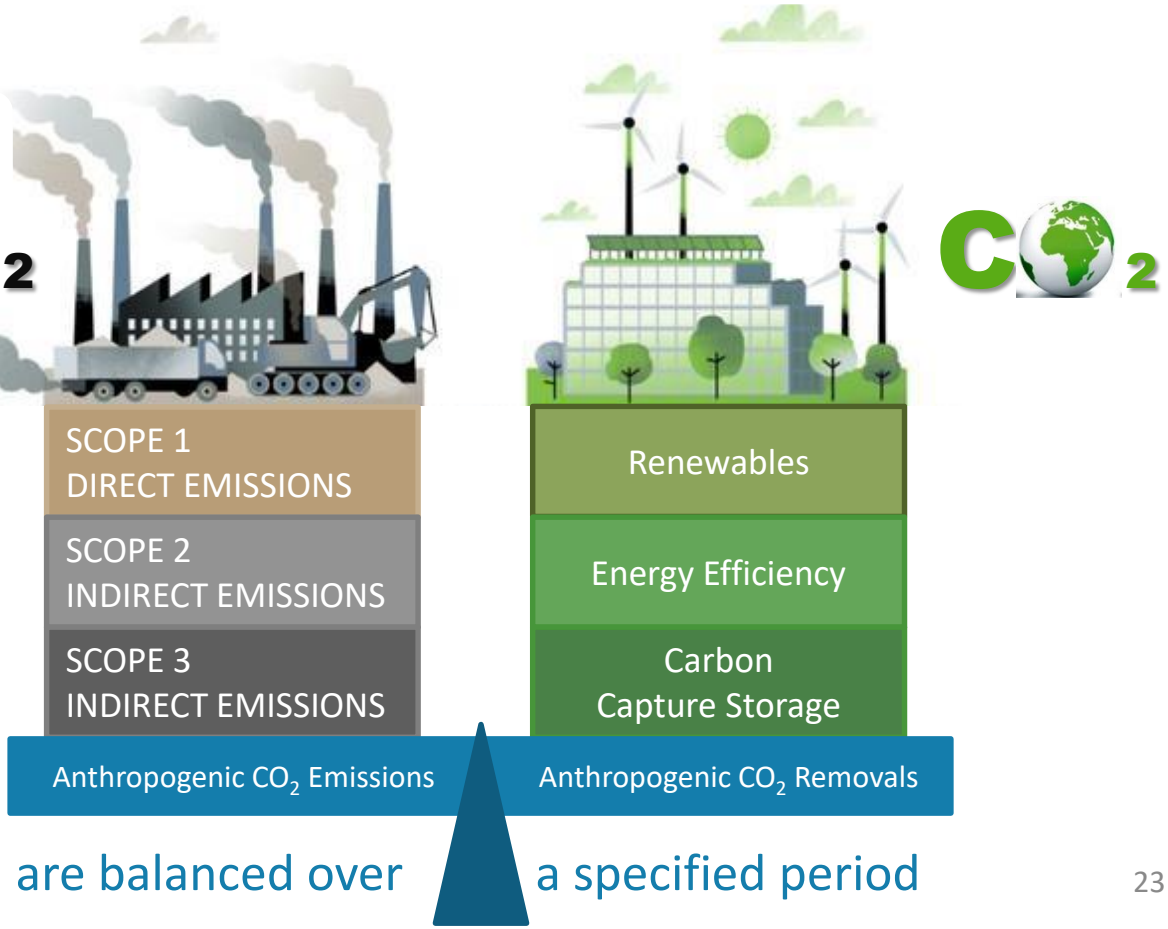
ipcc
INTERGOVERNMENTAL PANEL ON climate change
WMO UNEP

define

CO_2

Net zero CO_2 emissions
= carbon neutrality

Net zero carbon dioxide (CO_2) emissions are achieved when anthropogenic CO_2 emissions are balanced globally by anthropogenic CO_2 removals over a specified period. Net zero CO_2 emissions are also referred to as carbon neutrality.



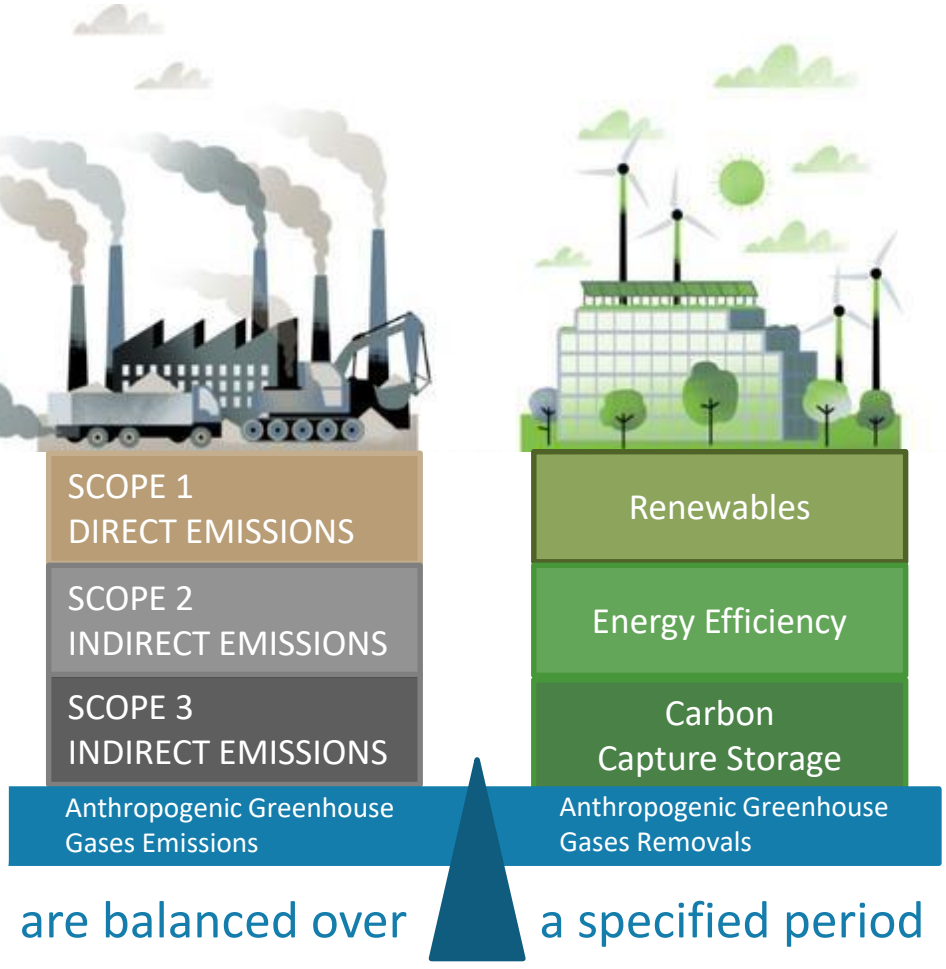
define

GHG

GHG

Net zero emissions

Net zero emissions are achieved when anthropogenic emissions of greenhouse gases to the atmosphere are balanced by anthropogenic removals over a specified period. Where multiple greenhouse gases are involved, the quantification of net zero emissions depends on the climate metric chosen to compare emissions of different gases (such as global warming potential, global temperature change potential, and others, as well as the chosen time horizon).



are balanced over a specified period

VPT committed to reaching the objectives of responding to climate change :

- Net Zero Emissions in our own operation by 2035.
- Net Zero Emissions in the value chain by 2050.

Climate change related SDGs

Using climate-related scenario analysis to inform the strategy

Strategy

Refers to an organization's desired future state. An organization's strategy establishes a foundation against which it can monitor and measure its progress in reaching that desired state. Strategy formulation generally involves establishing the purpose and scope of the organization's activities and the nature of its businesses, taking into account the risks and opportunities it faces and the environment in which it operates.

Financial planning

Refers to an organization's consideration of how it will achieve and fund its objectives and strategic goals. Financial planning allows organizations to assess future financial positions and determine how resources can be utilized in pursuit of short- and long-term objectives. As part of financial planning, organizations often create "financial plans" that outline the specific actions, assets, and resources (including capital) necessary to achieve these objectives over a 1- 5 year period. However, financial planning is broader than the development of a financial plan as it includes long-term capital allocation and other considerations that may extend beyond the typical 3-5 year financial plan (e.g., investment, research and development, manufacturing, and markets).

Low-carbon transition plan

A plan on how to transition the company to a business model compatible with a net-zero carbon economy. The Oxford Martin Net Zero Carbon Investment Initiative proposes a set of principles to facilitate engagement between investors and companies on long-term climate strategies. According to these principles, companies should: (1) Commit to a timeframe to reach net-zero emissions in line with the Paris goals; (2) Demonstrate that they will be able to continue to be profitable once they reach net-zero emissions; and (3) Set quantitative mid-term targets to be able to demonstrate progress against their long-term goals.

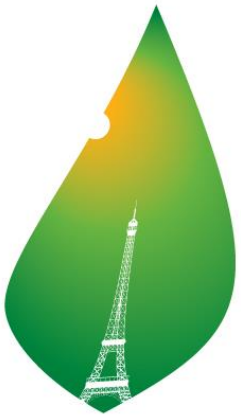
Transition plan

Defines how the business model, its associated products and production methods, growth strategy and capital investments need to develop over time to respond to climate-related risks and to capitalize on opportunities. A transition plan is therefore a plan that outlines how a company will transition from where it is now to where it needs to get to in order to thrive in a net-zero carbon world in the future.

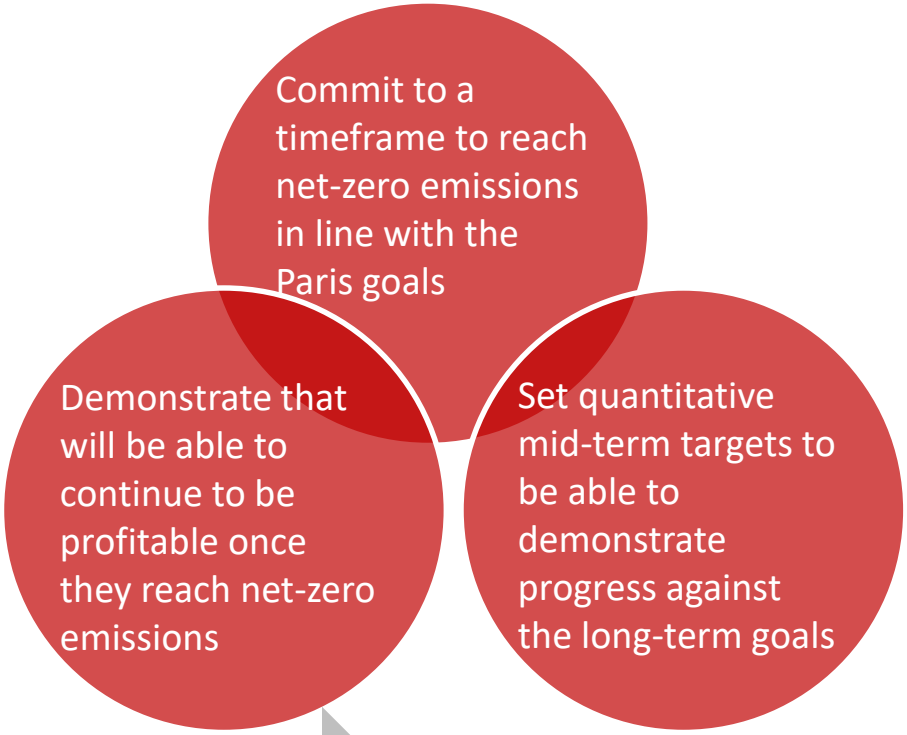
Using climate-related scenario analysis to inform the strategy

Developed a low-carbon transition plan

A plan on how to transition the company to a business model compatible with a net-zero carbon economy



PARIS2015
UN CLIMATE CHANGE CONFERENCE
COP21·CMP11



Use climate-related scenario analysis to inform the strategy

- qualitative
- quantitative

Scenario analysis

A scenario describes a potential path of development that will lead to a particular outcome or goal. Scenario analysis is the process of highlighting central elements of a possible future and drawing attention to key factors (or critical uncertainties). It is a tool to enhance critical strategic thinking by challenging "business-as-usual" assumptions, and to explore alternatives based on their relative impact and likelihood of occurrence. Scenarios are not forecasts or predictions, but tools to describe potential pathways that lead to a particular outcome or goal.

- Qualitative scenarios:

A high level, narrative approach to scenario analysis, suitable for organizations familiarizing themselves with the process. Qualitative scenario analysis explores relationships and trends for which little or no numerical data is available.

- Quantitative scenarios:

A more detailed method for conducting scenario analysis, with greater rigor and sophistication in the use of data sets and quantitative models which may warrant further analysis. Quantitative scenario analysis can be used to assess measurable trends and relationships using models and other analytical techniques.

- 2°C or lower scenario:

"Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario". A 2°C scenario provides a reference point that is generally aligned with the objectives of the Paris Agreement. There are publicly available scenarios (such as IEA 2DS, IEA 450, Deep Decarbonization Pathways Project, and International Renewable Energy Agency) organizations can use, as a direct tool, or a reference point for tailored scenarios.

Selection of applied climate related scenarios and models

Despite the Paris Agreement and intention to limit warming to 1.5°C, but since the ratification of the Paris Agreement and the ratcheting mechanisms it contains, investors are urging companies to ensure they use appropriate 2°C scenarios. Therefore, at present, most global enterprises look at 2 ° C scenarios, These include IEA 2DS, IEA 450, DDPP, and IRENA.

International Energy Agency

World Energy Outlook（WEO）

Energy Technology Perspectives（ETP）

2°C Scenario (2DS)

IEA 2DS

IEA's WEO (World Energy Outlook) 2DS scenario is built on a projected warming limit of 2°C and is part of a separate annual publication "Energy Technology Perspectives", providing scenario analysis based on the development of lower carbon technology and its deployment in various sectors. The IEA ETP 2DS sets out an energy system development pathway and an emissions trajectory consistent with at least a 50% chance of limiting the average global temperature rise to 2°C. The IEA ETP 2DS sets the target of cutting CO_2 emissions by almost 60% by 2050 (compared with 2013), followed by continued decline after 2050 until carbon neutrality is reached. The IEA ETP 2DS identifies changes that help ensure a secure and affordable energy system in the long run, while emphasizing that transforming the energy sector is vital, but not enough on its own.

Carbon Capture and Storage(CCS)

parts per million（ppm）

IEA 450

IEA's WEO 450 scenario has been updated and now is expressed as realizing a 50% chance of limiting warming to a 2°C rise by 2100 (originally based upon a projected warming limit of 2°C through limiting the concentration of GHG's to around 450ppm of CO_2 equivalent), and offers steps by which that goal might be achieved. The IEA 450 scenario references many separate measures which are required to reduce energy-related emissions from 2015 to 2040, including stronger deployment of technologies that are familiar and available at a commercial scale today, delivering close to 60% of the emissions reductions. Technologies referenced include the building of significant additional nuclear capacity and rapid CCS expansion.

DEEP DECARBONIZATION PATHWAYS PROJECT

Deep Decarbonization Pathways Project (DDPP)

DDPP

Deep Decarbonization Pathways Project (DDPP) framework is a collaboration between scientific research teams from leading research institutions in 16 of the world's largest GHG emitting countries; and represents a clear and tangible understanding of what will be required for countries to reduce emissions, in alignment with the 2°C limit. The framework was developed sector by sector and over time, tailored for the physical infrastructure of the 16 countries, to provide decision makers with the technological and cost requirements of different options for meeting the country's emissions reduction goal. Deep decarbonization pathways begin with a 2050 emissions target to determine the steps on how to get there.

IRENA
International Renewable Energy Agency

IRENA

IRENA's REmap determines the potential for countries, regions and the world to scale up renewables in order to ensure an affordable and sustainable energy future. REmap assesses worldwide renewable energy potential assembled from the bottom-up, starting with country analyses – in collaboration with country experts, and then aggregating these results to arrive at a global picture. REmap accounts for renewable power technologies, but also considers technology options in heating, cooling and transport. In determining the potential to scale up renewables REmap focuses on possible technologies pathways and assesses numerous other metrics, including: technology, sector and system costs; investment needs; externalities relating to air pollution and climate; CO_2 emissions; and economic indicators such as employment and economic growth. Based on these country driven results, REmap provides insights to policy and decision makers for areas in which action is needed.

Using climate-related scenario analysis to inform the strategy

Developed a low-carbon transition plan

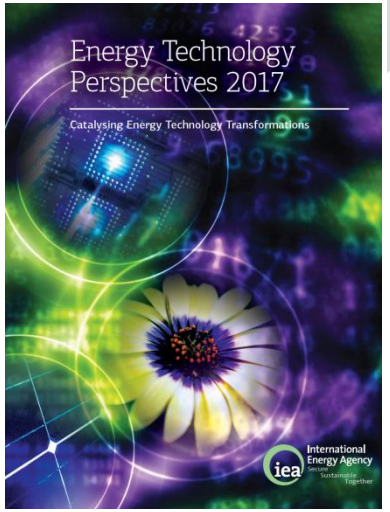
A plan on how to transition the company to a business model compatible with a net-zero carbon economy

Some historical statistics are the most update statistics released by IEA

Selection of applied climate related scenarios and models

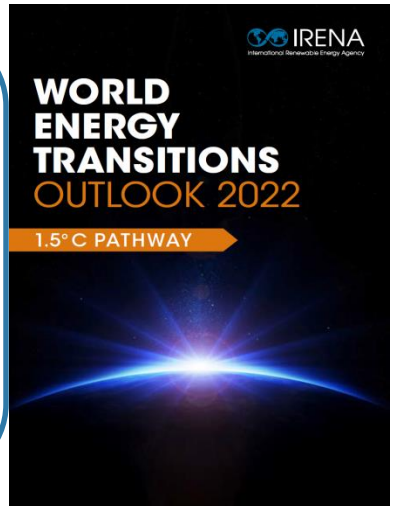
Before 2021 ：
Energy Technology Perspectives 2017
Catalysing Energy Technology Transformations

iea International Energy Agency



After 2022 ：
WORLD ENERGY TRANSITIONS OUTLOOK 2022 1.5° C PATHWAY

IRENA
International Renewable Energy Agency

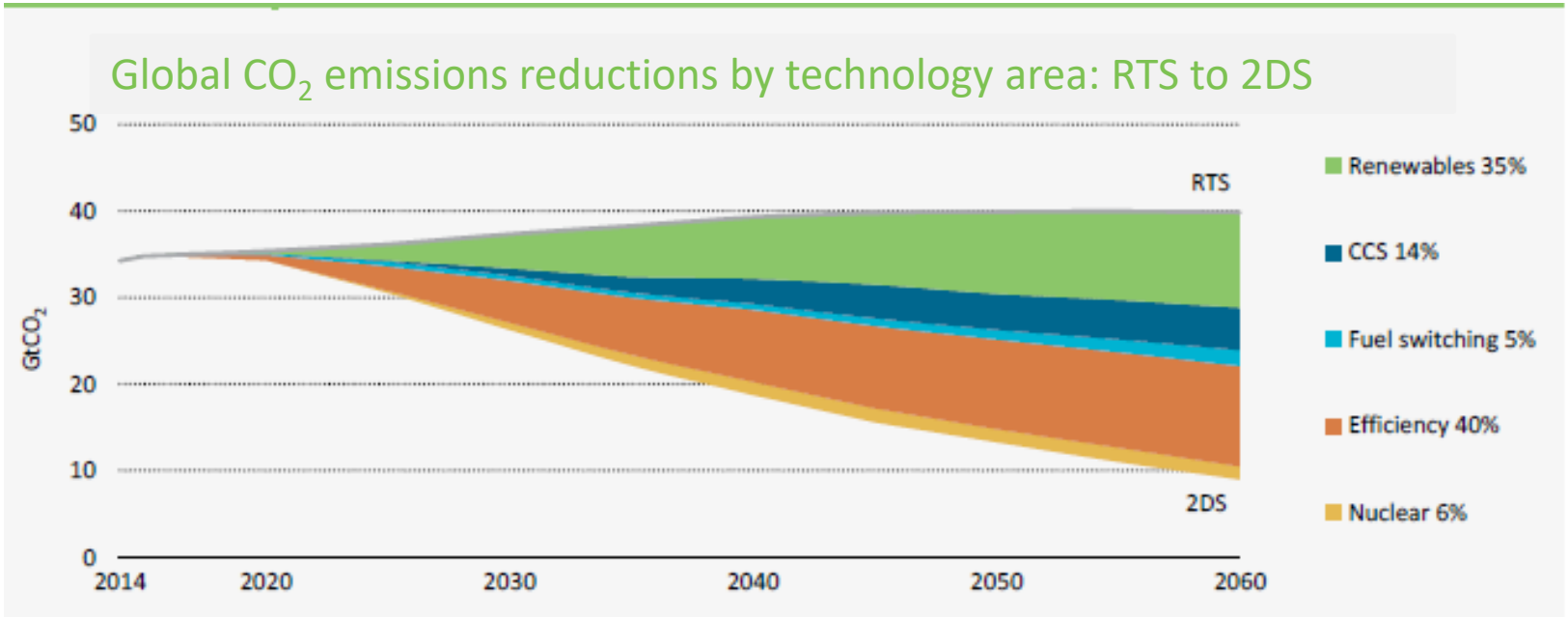


Using climate-related scenario analysis to inform the strategy

VPT uses climate-related scenario analysis ：

We selected "Energy Technology Perspectives 2017—Catalysing Energy Technology Transformations' before 2021, comprehensively understood and interpreted as the basis for climate related scenario analysis of VPT, and priority used the beyond 2 ° C scenario (B2DS) analysis, if there was no beyond 2 ° C scenario, used 2 ° C scenario (2DS) analysis.

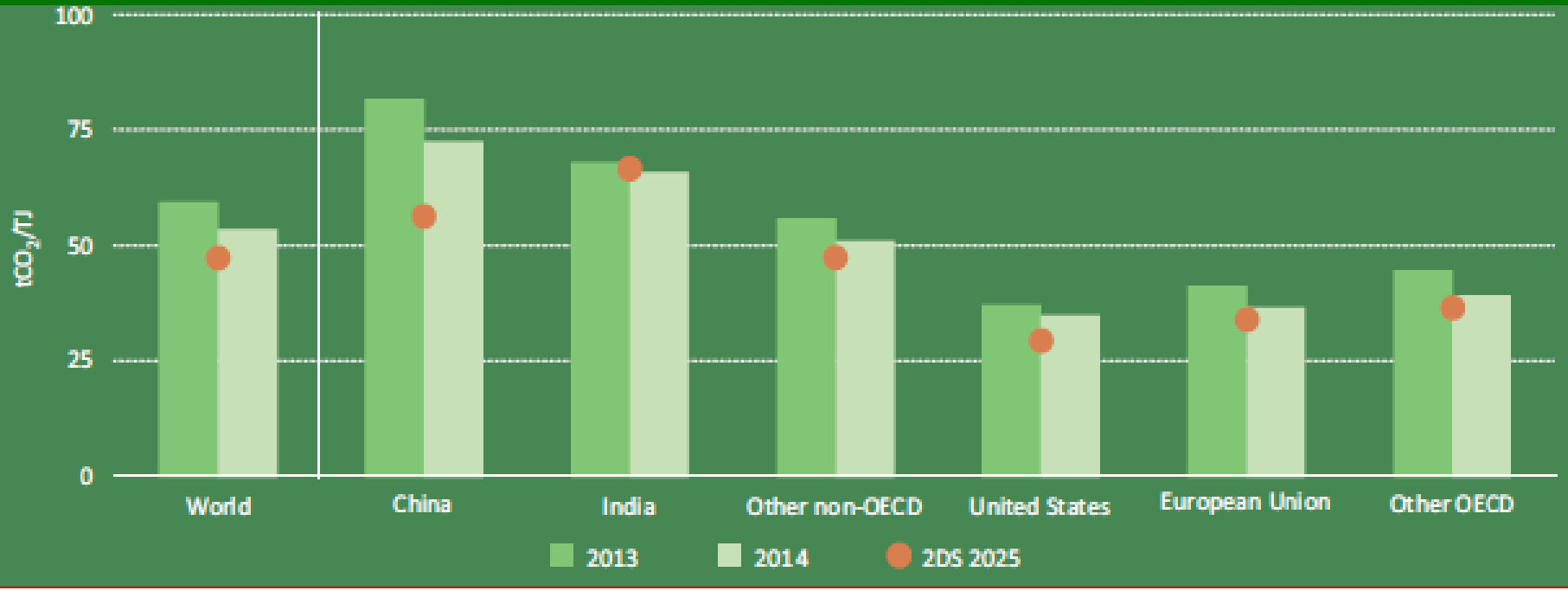
However, even used B2DS, the goal of net zero emission will not be reached until 2060, which is not in line with the goal of VPT's value chain to achieve net zero emission by 2050. Therefore, after 2022, VPT will switch to "WORLD ENERGY TRANSITIONS OUTLOOK 2022 —1.5° C PATHWAY", using 1.5DS.



According to 2DS, by 2060, the Global CO_2 emissions reductions by technology area 40% will depend on Energy Efficiency and 35% on Renewables. All products of VPT have Energy Efficiency benefits, and some products have both Energy Efficiency and Renewables benefits.

Using climate-related scenario analysis to inform the strategy

CO_2 intensity of industrial energy consumption by region



The statistics of CO_2 intensity of industrial energy consumption by region are based on China, India, Other non-OECD, United States, European Union and Other OECD. VPT is the world's largest UPS ODM manufacturer, with customers in 135 countries and regions. In a single country, the top three customers of VPT are the United States, China and India respectively. Therefore, VPT will also use six regions, including China, India, Other non-OECD, United States, European Union and Other OECD, to calculate the sales amount, sales volume and market analysis..





European Union

OECD

China

India

United States

Germany

Netherlands

Belgium

Luxembourg

France

Italy

Denmark

Ireland

Greece

Spain

Portugal

Sweden

Finland

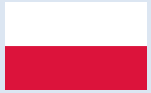
Austria

Cyprus

Estonia

Latvia

Lithuania



Poland

Czechia

Slovakia

Hungary

Malta

Slovenia

Romania

Bulgaria

Croatia

The country name is the name of the Country profiles on the EU website

Other OECD

Canada
Island
Norway
Switzerland
Turkey
United Kingdom
Japan
Australia
New Zealand
Mexico
Korea
Chile
Israel
Colombia
Costa Rica

The country name is the name of the Country profiles on the OECD website

Other non-OECD

Other countries and regions not listed above

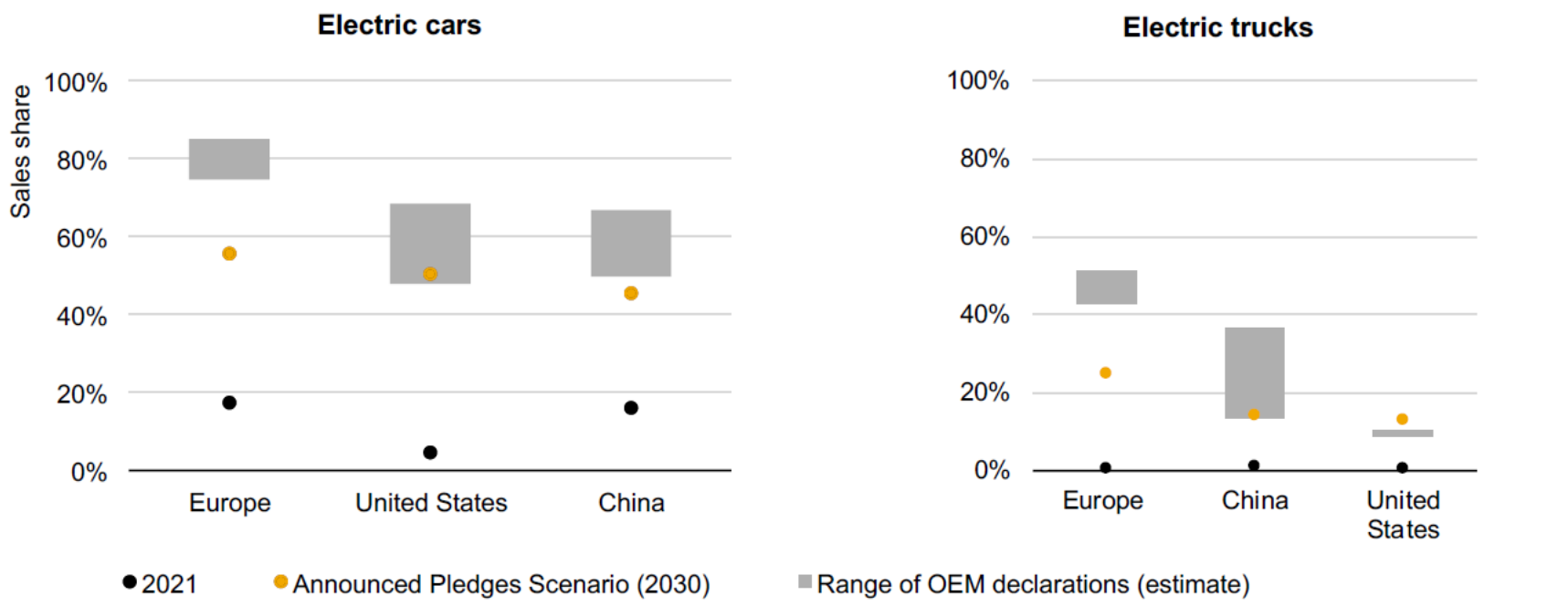
World map of OECD countries (blue)
countries hat OECD cooperates with (dark red)
other non-OECD countries (light red)

Global Electric Vehicle Outlook 2022

Presentation to the press, 23 May 2022

Dr Timur Gül, Dr Leonardo Paoli

EVs secure an increasing market share across modes to 2030



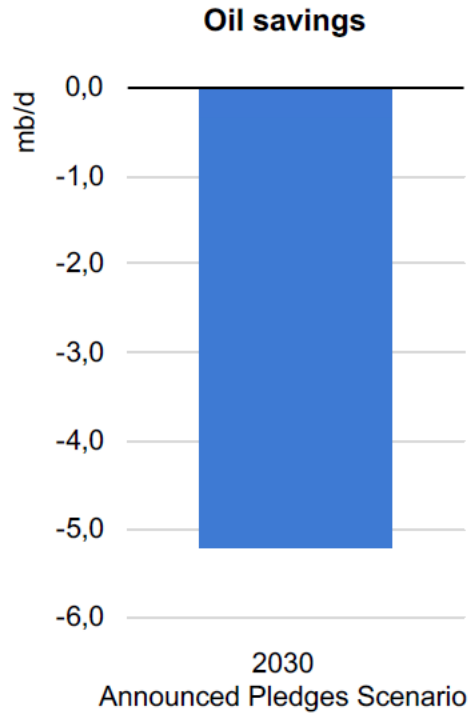
Electric vehicles are set to play a key role for road transport to reduce emissions in line with countries' climate goals; yet, for reaching net-zero emissions by 2050, the market share has to rise further to around 60% by 2030.

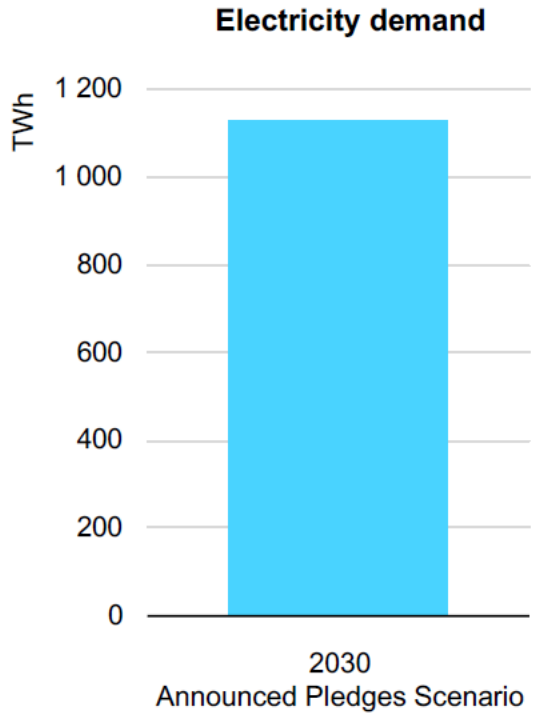
Global Electric Vehicle Outlook 2022

Presentation to the press, 23 May 2022

Dr Timur Gül, Dr Leonardo Paoli

A change in road transport fuel use benefits climate





A strong push for EVs can meaningfully reduce oil use in the medium-term, with lasting impacts. The combined effect of EV uptake & power sector decarbonisation to meet government targets can save 500 Mt CO_{2eq} by 2030

In terms of energy demand, land transport vehicles have developed towards plug-in hybrid electric vehicle (PHEV). A charging station, also called an EV charger, electric vehicle supply equipment (EVSE) or simply charger is a piece of equipment that supplies electrical power for charging plug-in electric vehicles.

Therefore, with the promotion and development of EV , EV charger will be a hot industry. VPT has also invested in the R & D and production of EV charger for electric two-wheelers and electric cars.

AC EV Charger
3.5kW–45kW

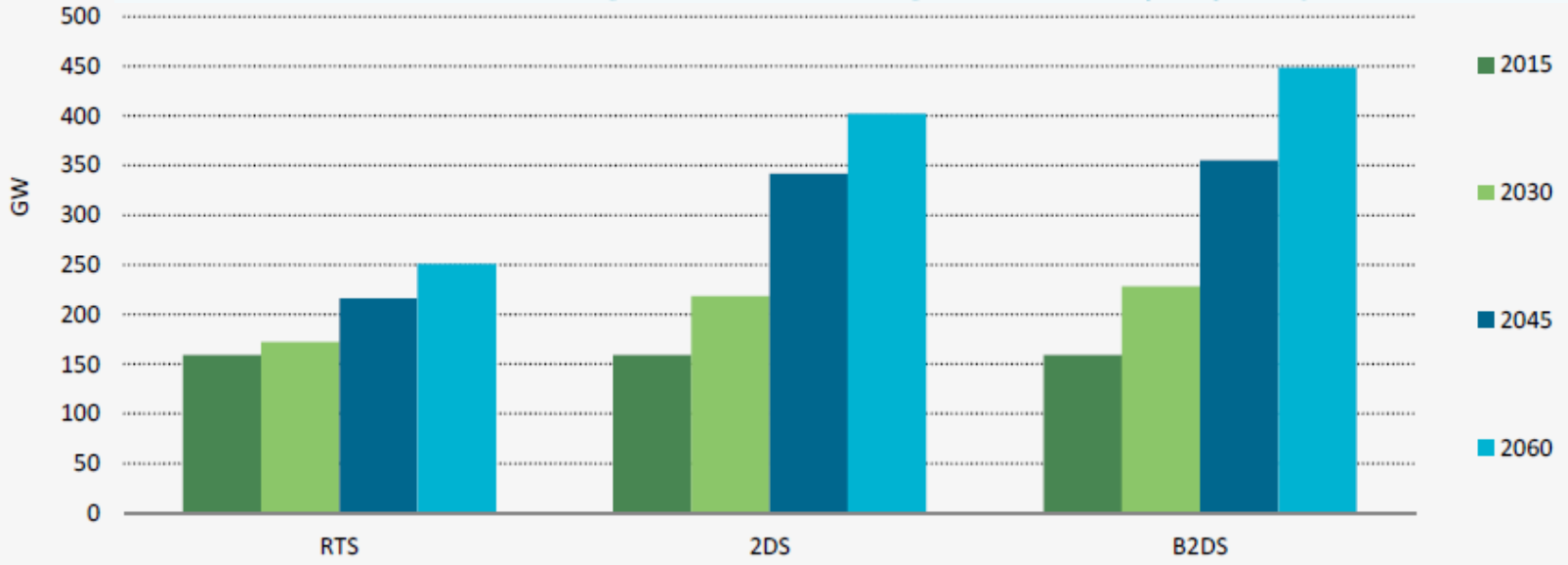
DC EV Charger
25 kW–60 kW

DC EV Charger
30 kW

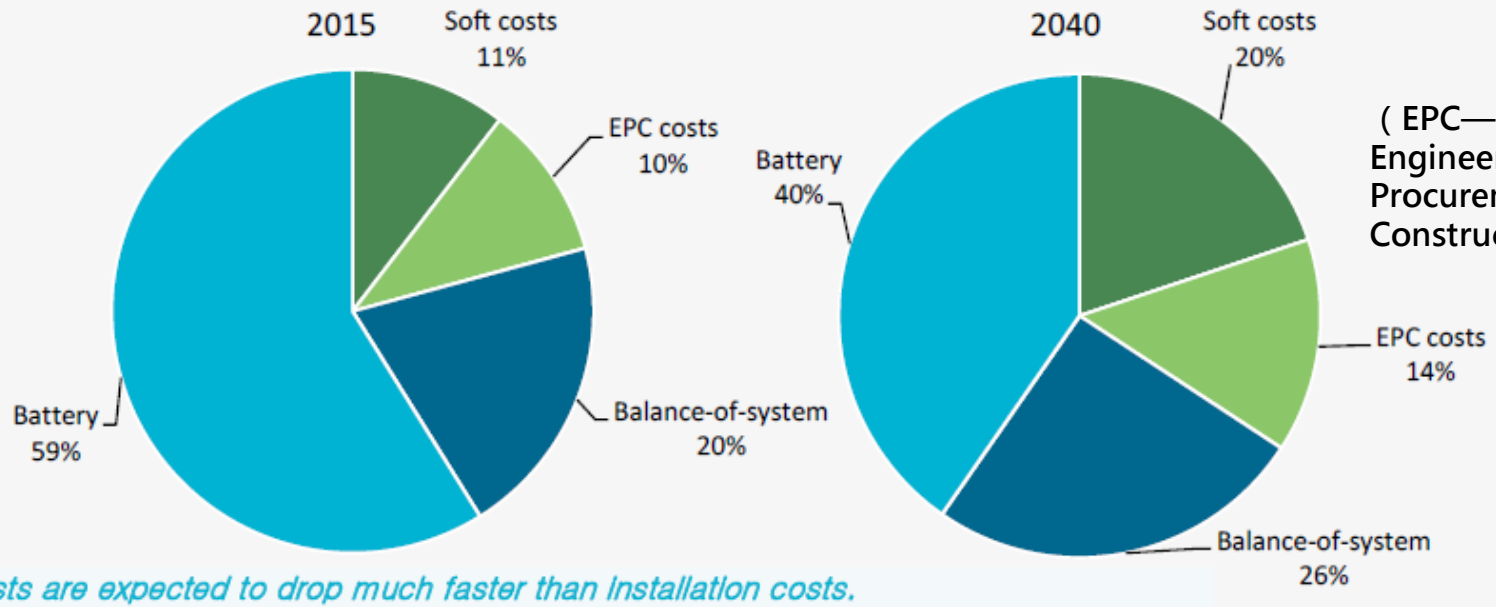
DC Fast EV Charger
60 kW–180 kW

Deployment of storage technologies in the scenarios

The lion's share of future storage will use technologies other than pumped hydro.



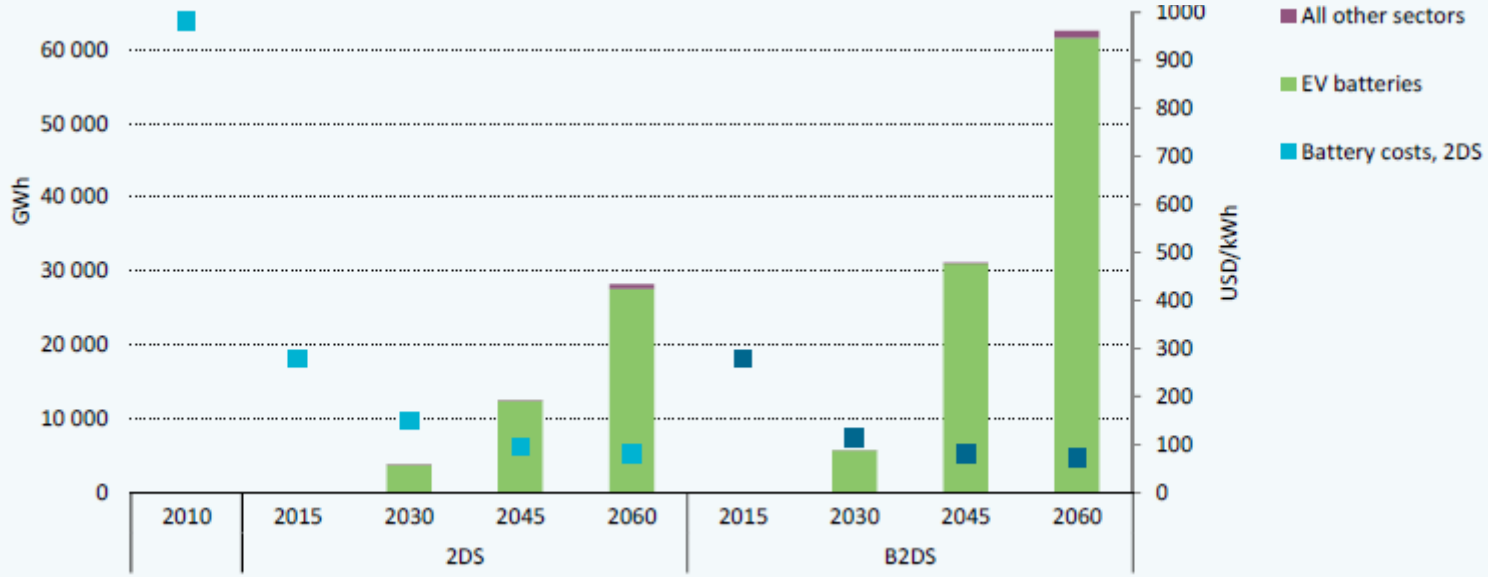
Cost components in battery storage in the scenarios



（EPC—Engineering、Procurement、Construction）

Battery costs are expected to drop much faster than installation costs.

Figure: Battery scale-up in the 2DS and B2DS



Key point: Batteries experience a huge scale-up in the B2DS, with EV battery markets leading other sectors in size.

Energy Storage

Lead authors George Kamiya
Contributors Shai Hassid Pablo Gonzalez

Lithium-ion technology remains dominant, benefitting from spillovers in EV deployment

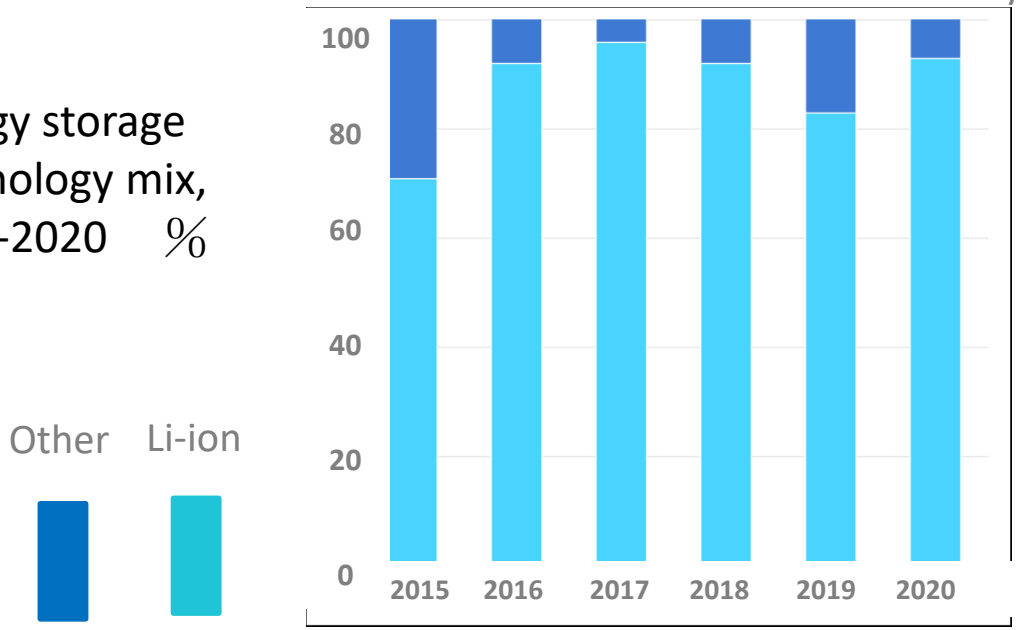
In the IEA's Net Zero by 2050 Scenario, total installed capacity expands by 35-fold between 2020 and 2030 to 585 GW. Over 120 GW of battery storage capacity is added in 2030, up from 5 GW in 2020, implying an average annual growth rate of 38%.

Operational and market reforms are also necessary to ensure electricity security throughout clean energy transitions. For example, it is important that markets and regulations to place adequate value on electricity system flexibility and contributions to system adequacy in order to provide signals for investment compatible with net zero pathways.

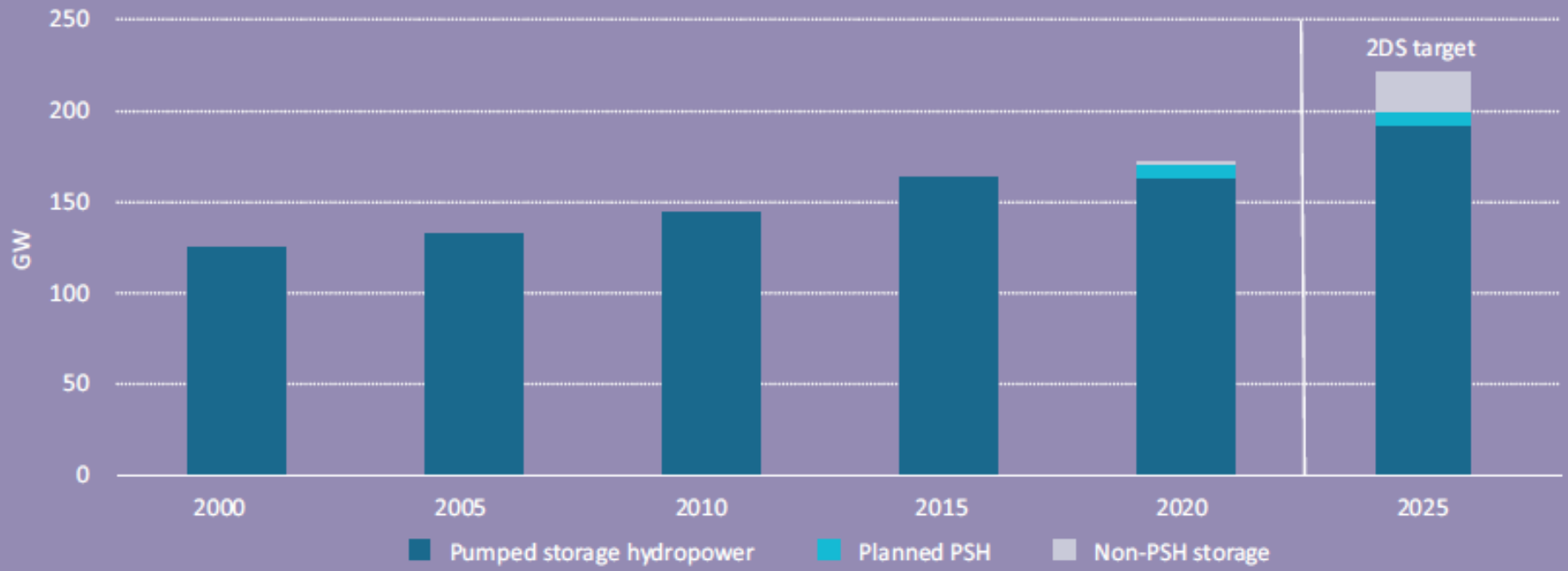
The technology mix in 2020 remained largely unchanged from 2019. Lithium-ion battery storage continued to be the most widely used, making up the majority of all new capacity installed.

A key speculation for the future of energy storage is the extent to which EV technology developments can "spill over" into grid-scale batteries. Given that the market for EV batteries is already ten times larger than for grid-scale batteries, the indirect effects of innovation and cost reductions in mobility applications could provide a significant boost.

Energy storage technology mix, 2015-2020 %



Globally installed electricity storage (GW)



Pumped storage hydropower (PSH) is a type of hydroelectric energy storage. It is a configuration of two water reservoirs at different elevations that can generate power as water moves down from one to the other (discharge), passing through a turbine. The system also requires power as it pumps water back into the upper reservoir (recharge). PSH acts similarly to a giant battery, because it can store power and then release it when needed.

In terms of energy integration, energy storage deployment is on track with 2DS due to positive market and policy trends, And it is deployed towards "Non-PSH storage ", and Li-ion is the most important part of " Non-PSH storage " (> 90%).VPT is also actively engaged in the R & D and manufacturing of Li-ion Energy Storage System.

ESS510 Energy Storage System

5.5KW Solar Inverter with 5KWH Lithium-ion battery

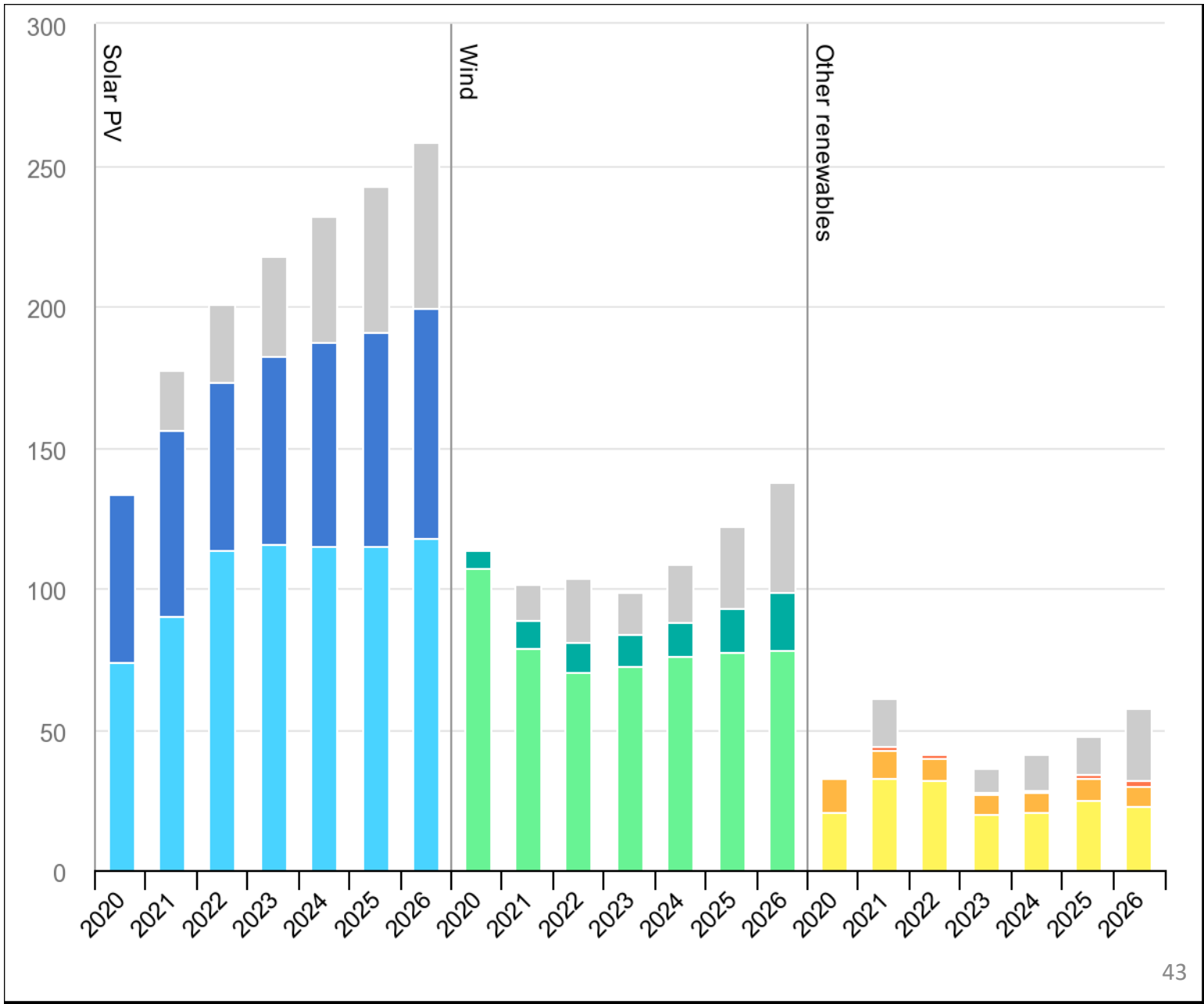
ESS810 Energy Storage System

8KW Off-Grid solar inverter with 5KWh Lithium-ion battery

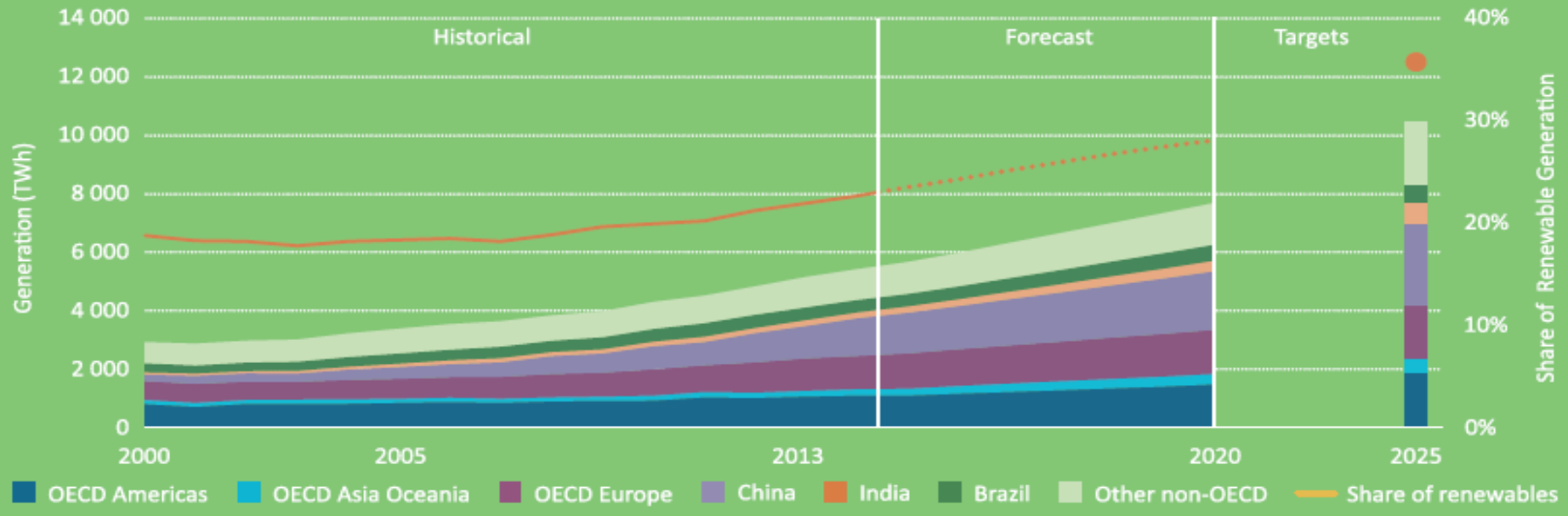
LIO II-4810

Scalable 48VDC 100AH Lithium-ion Battery Module

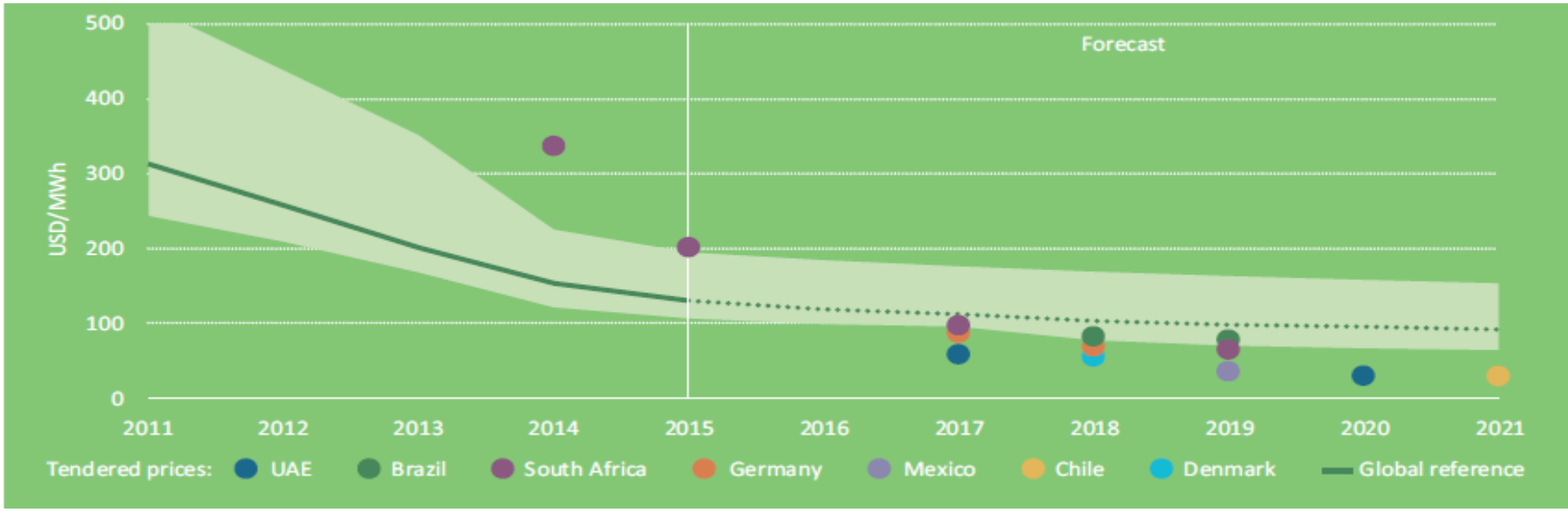
Annual capacity additions of solar PV, wind and other renewables, 2020-2026



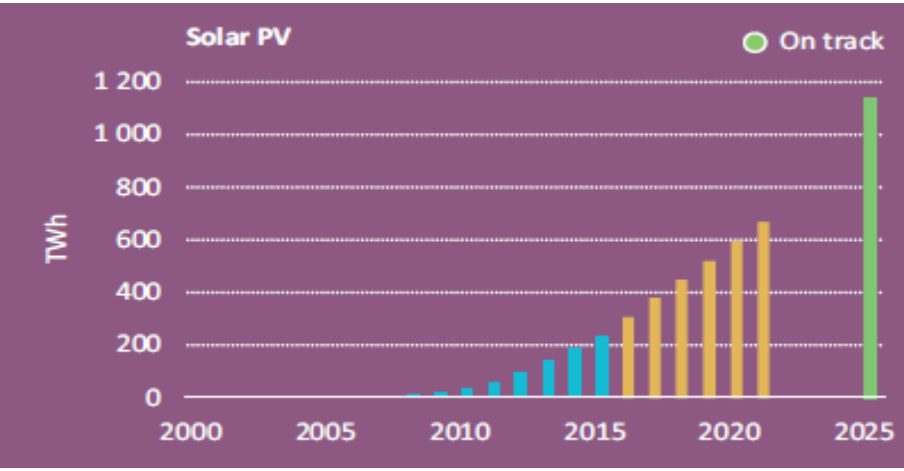
Total renewable power generation by region

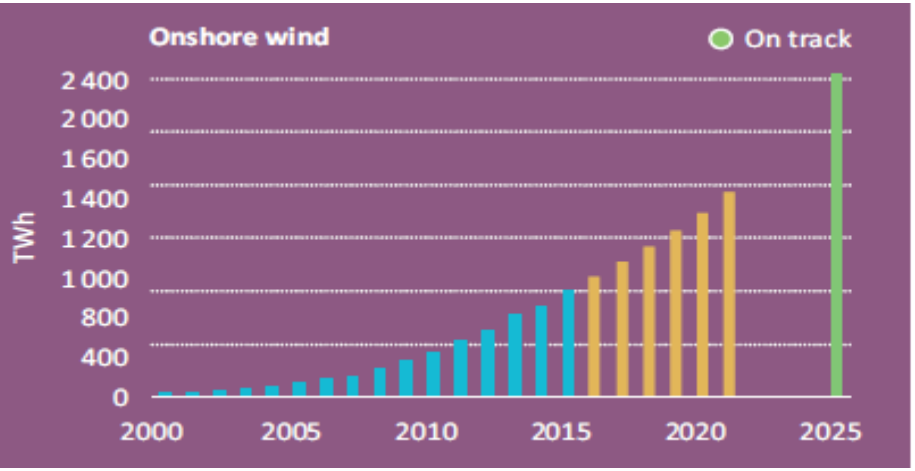


Solar PV LCOE and contract prices



Tracking by technology and region






Hydropower
Need improvement
TWh
5 200
4 800
4 400
4 000
3 600
3 200
2 800
2 400
2 000
1 600
1 200
800
400
0
2000
2005
2010
2015
2020
2025
Offshore wind
Need improvement
TWh
300
250
200
150
100
50
2000
2005
2010
2015
2020
2025
Bioenergy
Not on track
TWh
1 000
800
600
400
200
0
2000
2005
2010
2015
2020
2025
Geothermal
Not on track
TWh
250
200
150
100
50
0
2000
2005
2010
2015
2020
2025
CSP
Not on track
TWh
200
150
100
50
0
2000
2005
2010
2015
2020
2025
Ocean
Not on track
TWh
10
5
0
2000
2005
2010
2015
2020
2025
World
Forecast
Target

Identified opportunities

Products and Services

All products have Energy Efficiency ERBs, PV Inverter has Energy Efficiency and Renewables ERBs, called Sustainability products. Energy Storage System and EV Charger are emerging Sustainability products.

Short-term → Medium-term → Long-term

- UPS
- PV Inverter
- Energy Storage System
- Variable Frequency Drive
- EV Charger

ODM (R&D, UL Certified)

Sustainability Sector

EE RE

United Nations SUSTAINABLE DEVELOPMENT GOALS

VPT's SDGs

UPS	Energy Efficiency ：V　Renewables：V	CO_2 ERB
DC & Standby UPS	AKA 350-800VA - Powerstrip-type standby UPS	V
	CFL UPS - 40W DC UPS	V
	ePower - Built-in Li-ion battery	V
	Nano 400VA-800VA - Perfect for home or small office	V
	Nano-APFC 400VA-800VA - High frequency design	V
	Scudo 400VA-600VA - Simulated sine wave output	V
Line Interactive UPS	Amber 400VA-1KVA - Multi-socket UPS	V
	Apex 400VA-2KVA - LI UPS to protect computers	V
	Ara 1K/1.5K - Gaming UPS	V
	Atlas 600/800/1K/1.2K/1.5K - Slim Tower Line Interactive Sinewave	V
	Imperial 750VA-2KVA - Tower Line Interactive Sinewave UPS	V
	Library 600VA-2KVA - Backup power during long-term outage	V
	Otima II 800VA-3KVA - Rack Line Interactive Sinewave	V
	Otima II LiFePO4 RT & Tower 1KVA-3KVA - LiFePO4 battery UPS	V
	Otima II Tower 800VA-5KVA - Line Interactive Sinewave	V
	Outdoor UPS - Outdoor UPS	V
	Prime 550VA-1.5KVA - Slim Tower Line Interactive UPS	V
	Prosine 600VA/800VA - Tower Line Interactive Sinewave UPS	V
	Vesta 450VA-3KVA - Compact LI UPS from 450VA-3KVA	V
Lithium UPS	Compact 1U 1KVA - 1U Online UPS for server-grade equipment	V
Single phase - Online UPS	Galleon II 1K-3KVA - PF0.9 Online UPS with wide input voltage range	V

	Galleon II Rackmount/Rack Tower - 2U 1KVA-3KVA Online UPS	V
	Galleon One 1KVA-10KVA - Premium featured Online UPS	V
	Galleon One 5KL-48V - 48VDC 5KVA Online UPS	V
	Galleon One LiFePO4 RT & Tower 1KVA-3KVA - LiFePO4 battery UPS	V
	Galleon One RT 1KVA-10KVA - Premium featured Online UPS	V
	Galleon Pro 6KVA/10KVA - Split phase Online UPS	V
	Galleon X9 6KVA/10KVA Rack/Tower - DSP technology applied	V
	Galleon X9 II 1K-3KVA Rack/Tower - User-friendly and easy-shift LCD display	V
	Giant Elite 1P/1P 6K-10K - Transformer-type Online UPS	V
	Solar Online UPS 1KVA-3KVA - Online UPS with solar charger	V ; V
	Solar UPS 5KW - Online UPS with solar charger	V ; V
	Winner Pro 1KVA-10KVA - The best pricing Online UPS	V
	Winner Pro Value - Cost-effective Online UPS	V
	Winner Pro+ 1KVA-10KVA - The best pricing Online UPS	V
Three phase - Online UPS	+Power E - Supports 1+1 cabinet parallel operation	V
	+Power Modular UPS - Maximum 300KW in single 42U cabinet	V
	APlus - The Highest Power Density 3-phase Modular Online UPS	V
	Arena Modular Online UPS - Scalable online UPS, up to 10 in parallel	V
	Galleon II 3P/3P 100KL-200KL - Unity output power factor	V
	Galleon II 3P/3P 10K-80K - PF1, three-level inverter, common battery	V
	Galleon II 3P/3P RT 10K-60K - PF 1.0 high frequency UPS	V
	Galleon III 3P/3P 30KL-200KL - Pluggable power module	V

	Galleon Pro 3P/1P 10KVA-30KVA - PF0.9, high power density UPS	V
	Galleon Pro 3P/3P 10KVA-30KVA - PF0.9, high power density UPS	V
	Galleon Pro 3P/3P Rackmount - PF0.9 rackmount version online UPS	V
	Giant 3P/3P 10KVA-200KVA - Embedded with isolation transformer	V
	Giant Elite 3P/1P 6K/7.5K/10KVA - Embedded with isolation transformer	V
	Giant Elite 3P/3P 10K-40KVA — Embedded with isolation transformer	V
	Giant II 33 10KVA-200KVA - Embedded with isolation transformer	V
	Giant iND II 3P/1P 220VDC 10KVA-120KVA - Patented chassis structure offers 100% front access	V
	Giant iND II 3P/1P 384VDC 10KVA-80KVA - Patented chassis structure offers 100% front access	V
	Giant iND II 3P/3P 10KVA-160KVA - Patented chassis structure offers 100% front access	V
	Winner Pro 3P/1P - The best pricing Online UPS	V
Accessory	ATS - Provides seamless power switch for IT equipment	V
	Modbus Card - Supports Modbus RTU protocol	V
	Wifi Smart Card - Wireless management solution	V

PV Inverter	Energy Efficiency ：V　Renewables：V	CO_2 ERB
Off-Grid Inverter	Alfa 3KVA/5KVA - Boost and buck AVR	V ; V
	Axpert EX 1.5KVA/3KVA - Enhance AC charger to 60A	V ; V
	Axpert King 3KVA/5KVA - Zero transfer time	V ; V
	Axpert King II 5KVA - Zero transfer time	V ; V
	Axpert KS 1KVA-5KVA - Sine Wave Inverter Charger	V ; V
	Axpert MAX 3.6K-7.2KCustomizable status LED bar with RGB lights	V ; V
	Axpert MAX II 8KVA - Customizable status LED ring with RGB lights	V ; V
	Axpert MEX 1.5KVA/3KVA - Enhance AC charger to 60A	V ; V
	Axpert MKS 1KVA-5KVA - with MPPT solar charger	V ; V
	Axpert MKS II 5KVA/6KVA - with MPPT solar charger	V ; V
	Axpert MKS IV 3.6KVA/5.6KVA - with MPPT solar charger	V ; V
	Axpert MKS Plus 2KVA/3KVA - with MPPT solar charger	V ; V
	Axpert Plus Duo/Tri 1.5K/3K/5K - 2 or 3 MPPT trackers	V ; V
	Axpert SE 3K/5K - Pure sine wave solar Inverter	V ; V
	Axpert V 1K/2K/3KVA/5KVA - Cost-effective solar inverter	V ; V
	Axpert VM II 3KVA/5KVA - High PV input voltage range	V ; V
	Axpert VM III 1.5KVA/3KVA/5KVA - Detachable LCD design with bluetooth	V ; V
	Axpert VM IV 3.6KVA/5.6KVA - Touchable button with large 4.3" colored LCD	V ; V
	Jaguar-M 1.2KVA/2.4KVA - With built-in MPPT solar charger	V ; V
On-Grid with Energy-Storage Inverter	Infini V IV WP - Hybrid inverter features IP65 rated enclosure	V ; V

	Infini VII WP - Hybrid inverter features IP65 rated enclosure	V ; V
	InfiniSolar 10KW-15KW - Hybrid inverter	V ; V
	InfiniSolar 2KW-5KW - Hybrid inverter	V ; V
	InfiniSolar E 5.5KW - 2 enhanced MPPT trackers	V ; V
	InfiniSolar Super 4KW - Parallel operation up to 6 units	V ; V
	InfiniSolar TX 3P/3P 20KW - Built-in isolation transformer	V ; V
	InfiniSolar TX-PA 30KW - Parallel operation up to 4 units	V ; V
	InfiniSolar V 1K-5K - Self-consumption and feed-in to the grid	V ; V
	InfiniSolar V II 1.5KW/2KW/3KW/5KW/6KW - High PV voltage range	V ; V
	InfiniSolar V IV - Customizable status LED ring with RGB lights	V ; V
	InfiniSolar VII 6KW (Split Phase) - Split-phase hybrid inverter	V ; V
	InfiniSolar VIII - High PV voltage range	V ; V
	InfiniSolar WP 10KW-15KW - Hybrid inverter features IP65 rated enclosure	V ; V
	InfiniSolar WP 30KW - 3-phase IP65 hybrid solar inverter supports 150% unbalance load	V ; V
	InfiniSolar WP LV 6K-10K - IP 65 Hybrid Inverter Supports Split-Phase or Single Phase	V ; V
Solar Charge Controller	SCC-MPPT - MPPT solar charge controller	V ; V
	SCC-PWM - PWM solar charge controller	V ; V
Application-Specific Product	Aspire Solar Pump Inverter - Solar Pump Inverter	V ; V
	DC Converter - DC converter 3KW	V ; V
	SolaLight - Solar Lighting Solution	V ; V
	SolaPalm - Portable solar lighting	V ; V

Solar Accessory	GPRS/3G Card - Built-in SIM card slot SNMP web Card, SNMP Box - Remote management solution Wifi Card - Wireless management solution Wifi Module - Remote monitoring and controlling experience for inverters	V ; V V ; V V ; V V ; V
AVR	Aegis AVR - Robust AVR Defendo AVR - Compact design AVR Power AVR - Compact design AVR Scudo AVR - Stylish design AVR Shieldo AVR - Wide Input Voltages	V ; V V ; V V ; V V ; V V ; V
Inverter	+Nova - 3-in-1 inverter/Rectifier/Solar Charger Atom - Built-in transformer EPS - Emergency Power System Genie - Sinewave tower type inverter Lobo - Built-in 50A PWM solar charger	V ; V V ; V V ; V V ; V V ; V
Energy Storage System	Energy Efficiency : V Renewables : V	CO_2 ERB
ESS	ESS510 Energy Storage System - 5.5KW Solar Inverter with 5KWH Lithium-ion battery ESS810 Energy Storage System - 8KW Off-Grid solar inverter with 5KWh Lithium-ion battery	V ; V V ; V
Battery	LIO II-4810 - Scalable 48VDC 100AH Lithium-ion Battery Module	V
Variable Frequency Drive	Energy Efficiency : V Renewables : V	CO_2 ERB
VFD	Variable Frequency Drive - Variable Frequency Drive	V

EV Charger	Energy Efficiency ：V　Renewables：V	CO_2 ERB
AC EV Charger	AC EV Charger 3.5kW–45kW	V
DC EV Charger	DC EV Charger 25 kW–60 kW	V
	DC EV Charger 30 kW	V
	DC Fast EV Charger 60 kW–180 kW	V

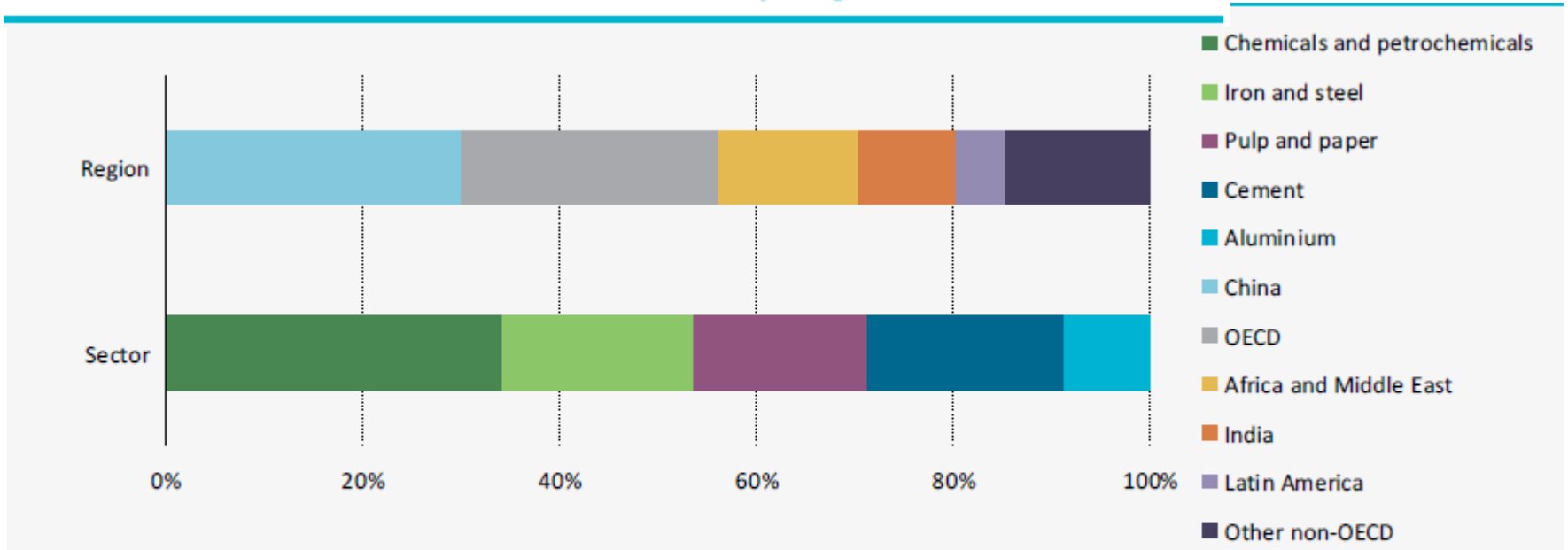
All products have Energy Efficiency ERBs, PV Inverter has Energy Efficiency and Renewables ERBs, obtain the assurance report of International Standard on Assurance Engagements 3410 from Independent Certified Public Accountants, as shown in Appendix.

Advancing the low-carbon transition in industry

Industry plays a critical role in the energy system. In 2014, it accounted for more than a third of final energy consumption and about a quarter of energy-related carbon dioxide (CO_2) emissions worldwide. The challenges of decoupling expanding industrial production from CO_2 emissions require significant improvements in material and energy efficiency, deployment of best available technologies (BATs), shifts to lower-carbon fuels and feedstocks, and rapid deployment of innovative technologies, including carbon capture and storage (CCS). Reaching the 2°C Scenario (2DS) pathway, and going beyond, would require collaborative efforts across industrial sectors and regions to decrease energy and CO_2 emissions impacts.

Investment needs for deep CO_2 emissions reductions in energy-intensive industry

Cumulative investment needs in B2DS by region and sector

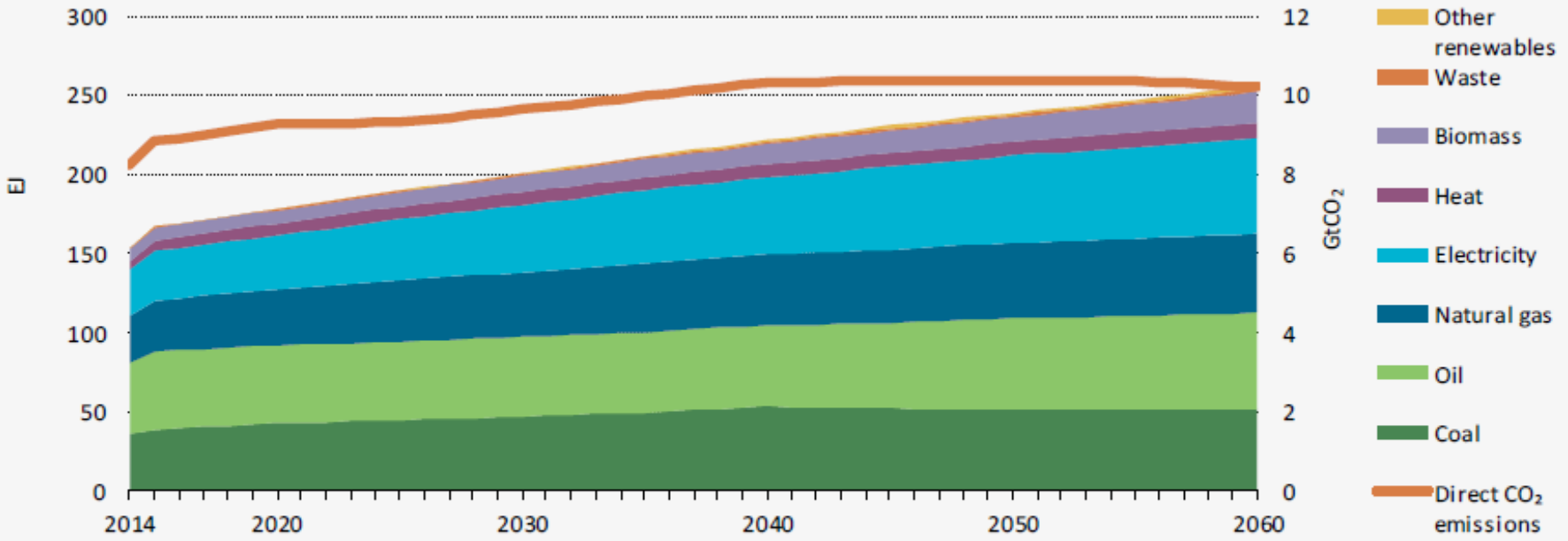


Notes: Costs shown are associated with low–range industrial production estimates. Investment costs are cumulative to 2030 and to 2060.

Key point *China would contribute the most investment in energy–intensive industry in the B2DS, and chemicals and petrochemicals would be the most important subsector.*

Figure

Final energy use and CO_2 emissions in industry in the RTS



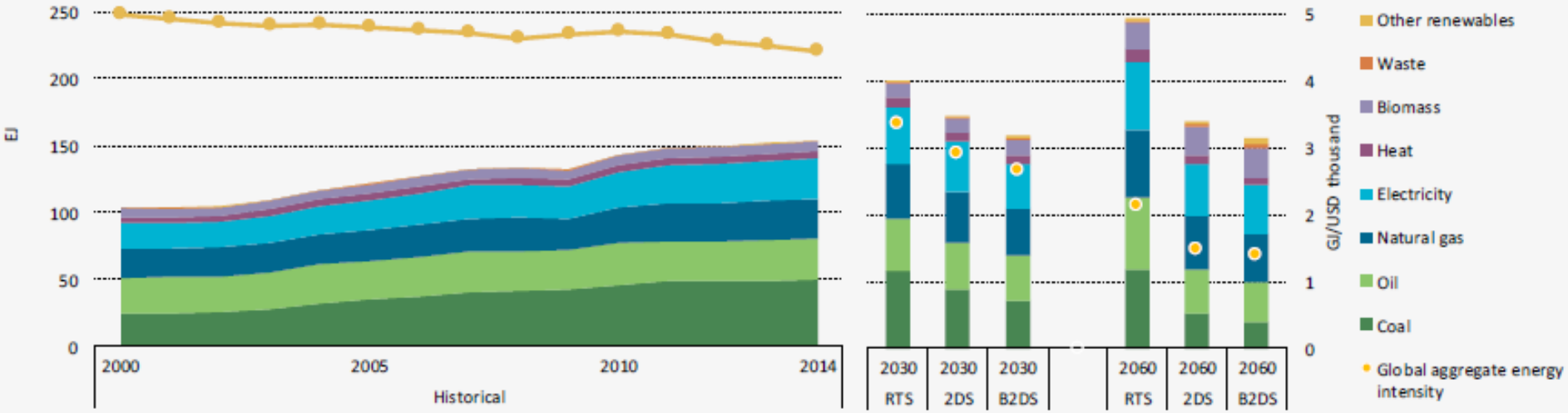
Note: $GtCO_2$ = gigatonnes of carbon dioxide.

Source: IEA (2016), *World Energy Balances 2016*.

Key point *Industrial direct CO_2 emissions in the RTS peak by 2055 while energy use continues to grow.*

Figure

Energy use and aggregated energy intensity in industry per value added by scenario



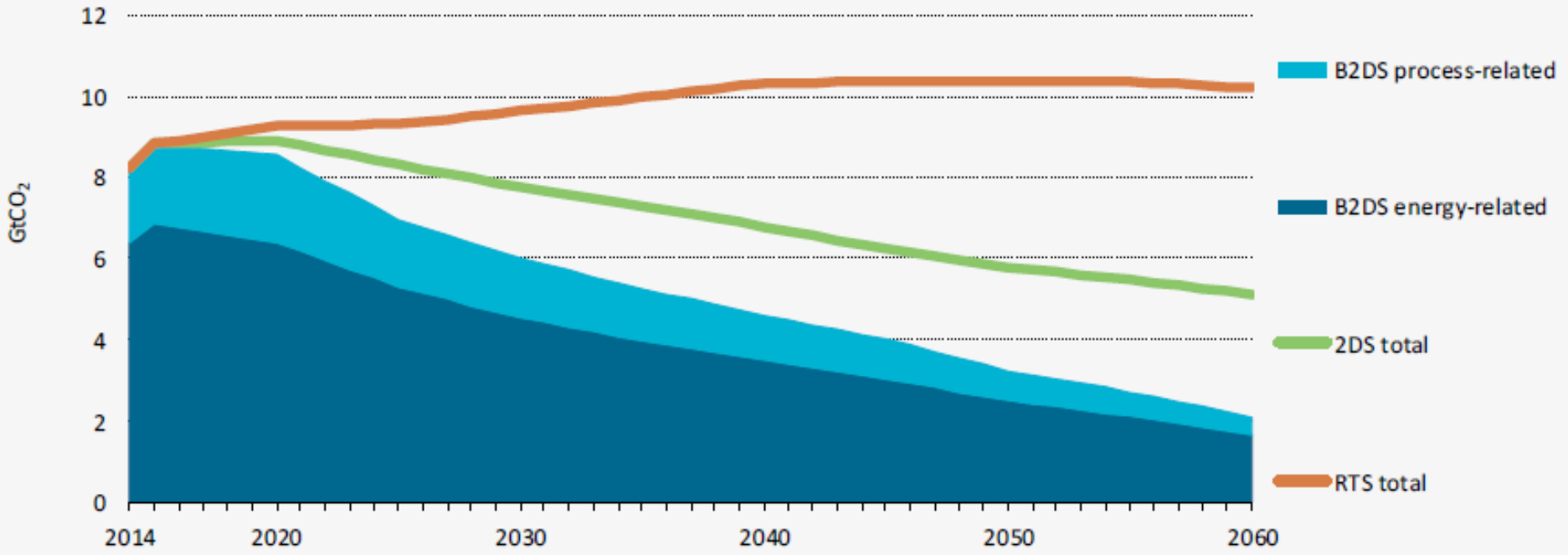
Notes: Final industrial energy use includes blast furnaces (BFs), coke ovens (COs) and petrochemical feedstocks. Energy intensity is given in gigajoules (GJ) per thousand United States dollars (USD) of aggregated industrial value added.

Source: IEA (2016), *World Energy Balances 2016*.

Key point *Final industry energy intensity decreases dramatically by 2060 in the low-carbon scenarios.*

Figure

Global direct CO_2 emissions from industry by scenario

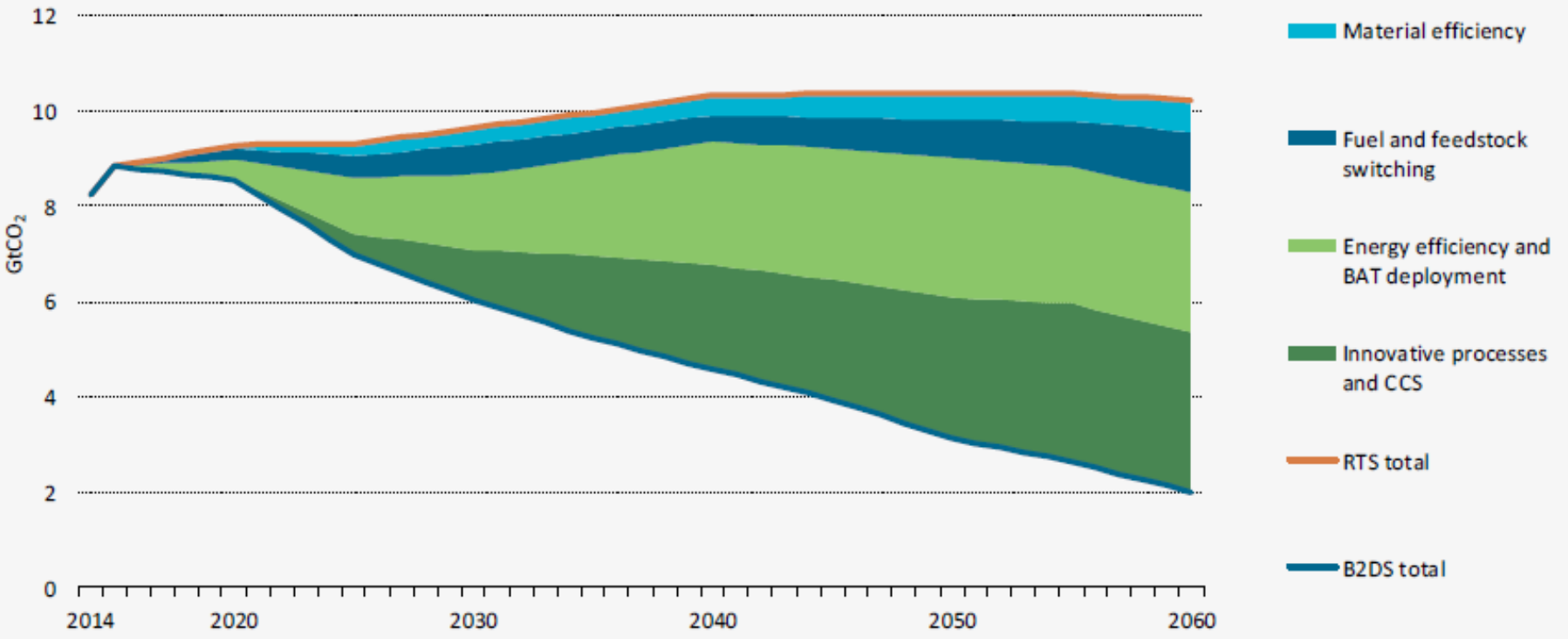


Note: Process CO_2 emissions refer to those generated in industrial processes from the use of carbon-based raw materials.

Key point *Direct CO_2 emissions from industry in the B2DS are cumulatively 47% below RTS levels.*

Figure

Direct CO_2 emissions in industry by mitigation strategy in the B2DS compared with the RTS



Key point

While energy efficiency and fuel switching dominate carbon mitigation impact in the near term, low-carbon innovative processes become crucial in the long term to meet the B2DS.

Table: Policy recommendations to support the low-carbon transition for industry

Focus	Short term	Long term
Tracking progress	■ Improve publicly available statistics. ■ Encourage benchmarking initiatives at the industry subsector level to overcome confidentiality challenges.	■ Set stable long-term targets and choose appropriate indicators to track progress towards those goals.
Energy efficiency and BAT **BAT (Best Available Techniques)**	■ Incentivise implementation of BATs for new capacity additions. ■ Implement and progressively strengthen equipment performance standards. ■ Implement internationally co-ordinated carbon pricing mechanisms. ■ Remove fossil fuel subsidies. ■ Support deployment of energy management systems and energy audits.	■ Continue to incentivise energy efficiency for new processes and technologies. ■ Update benchmarks and targets as BAT improves.
Material efficiency	■ Incorporate price signals into consumer products related to environmental externalities of materials. ■ Encourage reuse prior to recycling. ■ Improve post-consumer scrap collection and recycling. ■ After reuse and recycling, valorise post-consumer waste for energy recovery.	■ Improve post-consumer scrap collection infrastructure in all countries. ■ Encourage R&D for new processes and products that optimise use of industrial materials.

Fuel and feedstock switching	■ Implement internationally co-ordinated carbon pricing mechanisms. ■ Remove fossil fuel subsidies. ■ Encourage technology development and RD&D (research, development & demonstration) focused on use of low-carbon alternative fuels and feedstocks.	■ Develop assessments of long-term availability of alternative fuels and feedstocks to enable effective planning for industrial development that adequately considers sustainability issues of resources and impacts.
Low-carbon innovation	■ Ensure that a broad range of technologies are the subject of research in order to ensure viable post-2030 options. Ensure timely demonstration of successful options at scale. ■ Strengthen intellectual property rights. ■ Encourage public-private partnerships and international collaboration among industry stakeholders. ■ Implement internationally co-ordinated carbon pricing mechanisms. ■ Explore permanent storage sites for captured CO_2.	■ Roll out transport and storage infrastructure to enable CCS deployment. ■ Facilitate international technology transfer and capacity building.
Transition to a low-carbon energy system	■ Perform integrated geospatial assessments of heat demand and available energy resources to facilitate use of waste heat. ■ Streamline regulations to allow for industrial demand response in electricity markets.	■ Valorise industrial potential to contribute to sustainability of other sectors, through innovative new products, utilisation of industrial byproducts, energy recovery and demand management.

- Develop life-cycle assessments for industrial materials and consumer products.
- Increase awareness of a broad range of technology options for low-carbon production in industry.

Policy implications of B2DS

Going further than the 2DS towards more ambitious climate objectives – as postulated in the B2DS – would require similar policy levers in the areas described in the previous section, but they would need to be much more aggressively deployed. This could mean unprecedented ambition in climate policy, including higher carbon pricing, stronger incentives, additional support for RDD&D, and strengthened cross-sectoral and cross-regional co-ordination on energy technology and carbon mitigation options in the industry sector, among other policy options. As with the 2DS, long-term stability and visibility of the policy framework is important for investment decision making in the industry sector. Additionally, in the B2DS, policy action to support the low-carbon transition would need to occur earlier and support a more rapid scale-up and deployment of innovative low-carbon technologies. This early action would come with a cost, as the industry sector must transform itself more quickly, and de-risking and incentive mechanisms would need to be implemented to ensure the competitiveness and viability of the industry sector in a B2DS world.

VPT is not one of the following five industries with the largest final energy consumption in the world, is a Sustainability Industry; Moreover, the energy demand for its own operation mainly is electricity (> 99%).

- Chemicals and petrochemicals
- Iron and steel
- Pulp and paper
- Cement
- Aluminium

Identified opportunities

Resource Efficiency

Since the energy demand for its own operation mainly is electricity (>99%) and is municipal power supply ,set up solar panels and Energy Storage System in the self built factory in Zhongshan on the mainland to improve the self-made rate of electricity.

The amount of emissions of CO_2 released per million US dollars of sales amount is taken as the carbon intensity test index , we are committed to the goal of low-carbon intensity production.

Energy Source

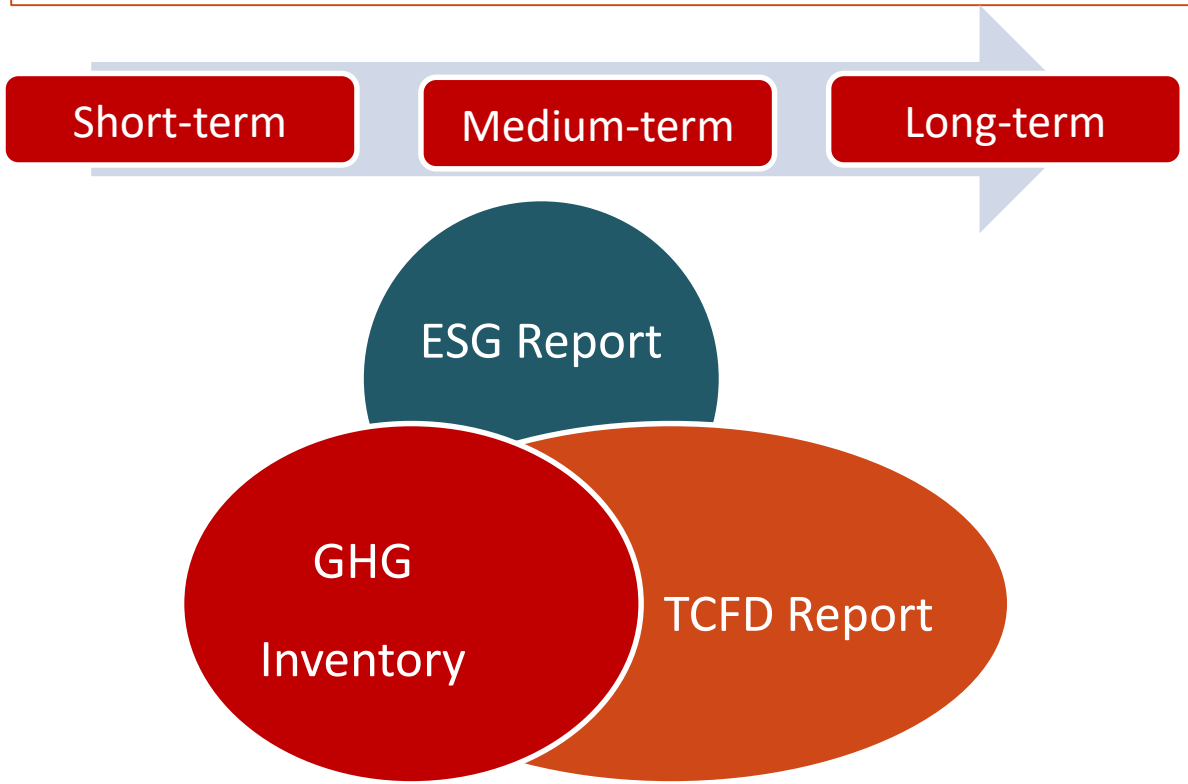
In order to effectively control the carbon emission of the value chain and improve the delivery capacity through vertical integration, we are committed to improve the self-made rate of components other than semiconductors and batteries.

Short-term → Medium-term → Long-term

Risk Disclosure

Transition Risks - Emerging regulation

Net zero emissions are the trend issue faced by global enterprises. The inventory, certification and / or assurance, reporting of GHG emissions, and the preparation, certification and / or assurance, announce and register of ESG Report and Climate-related Financial Disclosure report are the obligations of global enterprises. The net zero emissions of the value chain involves the risk driving of upstream, direct operation and downstream. Therefore, the complete inventory of GHG emissions and low-carbon intensity products of the value chain are the trend of regulatory requirements from now to the future.



Core Elements of Recommended Climate-Related Financial Disclosures

Risk Management

The processes used by the organization to identify, assess, and manage climate-related risks

Core Disclosures

a) Describe the organization's processes for identifying and assessing climate-related risks.

b) Describe the organization's processes for managing climate-related risks.

c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.

Management Processes

Explanation of terms

Climate-related Risk

Refers to the potential negative impacts of climate change on an organization. Physical risks emanating from climate change can be event-driven (acute) such as increased severity of extreme weather events (e.g., cyclones, droughts, floods, and fires). They can also relate to longer-term shifts (chronic) in precipitation, temperature and increased variability in weather patterns (e.g., sea level rise). Climate-related risks can also be associated with the transition to a lower-carbon global economy, the most common of which relate to policy and legal actions, technology changes, market responses, and reputational considerations.

Climate-related Opportunity

Refers to the potential positive impacts on an organization resulting from efforts to mitigate and adapt to climate change, such as through resource efficiency and cost savings, the adoption and utilization of low-emission energy sources, the development of new products and services, and building resilience along the supply chain. Climate-related opportunities will vary depending on the region, market, and industry in which an organization operates.

Risk Management

Risk management involves identifying, assessing and responding to risk to make sure organizations achieve their objectives. It must be proportionate to the complexity and type of organization involved.

Process for identifying, assessing, and responding to climate-related risks and opportunities

Risk Management Committee

- Understand the contents of various international initiatives, reports and evaluation criteria related to climate change, and construct the implementation plan of the company to identify, assess and respond to climate related risks and opportunities.

- Operate an Enterprise Risk Management program to integrate and manage the Transition Risks and Physical Risks of climate change that represent potential negative consequences to operations and financial results. Adopt a risk map for assessing the the possibility, frequency, vulnerability and impact of major climate change risk events on operations, and defines the risk level and prioritization of risk controls as well as implementing risk management strategies that corresponds to the risk levels.

ESG Executive Committee

- According to the implementation plan and the identified transformation risks, entity risks and risk management strategies of climate change proposed by Risk Management Committee, invite Risk Management Committee and Climate Change Management Committee to hold a cross-committee "Climate Change Risk and Opportunity identifying meeting" to identify the main short-term, medium-term and long-term risks and opportunities, and conduct corresponding strategies and financial impact assessment.

- According to the contents of the "Climate Change Risk and Opportunity identifying meeting " to formulate and implement the company's short-term, medium-term and long-term climate change governance strategies and plans. Formulate the annual climate related risk and opportunity management strategy and plan objectives according to the climate change governance strategy and plan, and submit them to Climate Change Management Committee for implementation after being approved by the Board of Directors, is also responsible for supervising the implementation performance of the Climate Change Management Committee .

Process for identifying, assessing, and responding to climate-related risks and opportunities

Value chain stage(s) covered

- Direct operations
- Upstream
- Downstream

Time horizon(s) covered

- Short-term
- Medium-term
- Long-term

management process

Integrated into multi-disciplinary company-wide risk management process

Integrated into multi-disciplinary company-wide risk management processes: a documented process where climate-related risks and opportunities are identified and assessed in an integrated way in the company's centralized enterprise risk management program covering all possible types/sources of risks and opportunities

Frequency of assessment

Annually

- ESG Executive Committee
- Risk Management Committee
- Climate Change Management Committee

Define short-term, medium-term and long-term time horizons

Time horizon	From	To
Short-term	1 year	2 years
Medium-term	2 years	8years
Long-term	8 years	39 years

If it is only Short-term, Medium-term or Long-term, only list Short-term, Medium-term or Long-term;
If it is Short-term to Medium-term, list Short-term and Medium-term;
If it is Short-term to Long-term, list Short-term and Medium-term and Long-term.

Although all climate related risks seem to be “long-term”, arising in 10+ years; however, transitional risks such as policies, technology, and markets are emerging earlier than this, and physical risks including the frequency and intensity of storms, floods, and droughts are recognized risks today. Evaluating exposure to climate-related risks over a range of time horizons allows for a strategy for the transition to a low-carbon economy as recognized in the Paris Agreement and UN SDGs.

Therefore, the company defines the timeframes according to the life of the assets, the profile of the climate-related risks faced, and the sectors and geographies in which it operates, and in assessing climate-related issues is sensitive to the timeframes used to conduct the assessments.

The company conducts operational and financial planning over a 1-2 year timeframe is defined as short-term, strategic and capital planning over a 2-8 year timeframe is defined as medium-term, other climate-related risks may have implications over a longer period are defined as long-term.

Define substantive financial or strategic impact on the business.

Substantive impact: an impact that has a considerable or relatively significant effect on an organization at the corporate level. This could include operational, financial or strategic effects that undermine the entire business or part of the business.

Analyze the company's financial statements for the last five years:

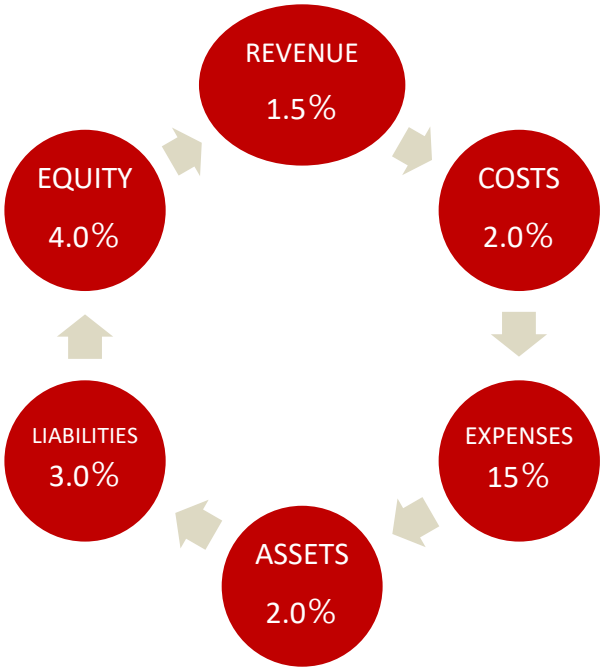
Item	2017	2018	2019	2020	2021
OPERATING REVENUE	NT9,862 Million	NT11,408 Million	NT12,936 Million	NT13,652 Million	NT16,957 Million
OPERATING COSTS	NT7,168 Million	NT8,303 Million	NT9,151 Million	NT9,634 Million	NT12,646 Million
GROSS PROFIT (%)	NT2,695 Million (28%)	NT3,105 Million (27%)	NT3,785 Million (29%)	NT4,018 Million (29%)	NT4,311 Million (25%)
PROFIT FROM OPERATIONS (%)	NT1,829 Million (19%)	NT2,117 Million (19%)	NT2,557 Million (20%)	NT2,730 Million (20%)	NT2,925 Million (17%)
NET PROFIT FOR THE YEAR	NT1,364 Million	NT2,131 Million	NT2,197 Million	NT2,197 Million	NT2,359 Million
EPS	NT17.37	NT21.94	NT25.73	NT25.14	NT26.97
TOTAL ASSETS	NT7,237 Million	NT8,286 Million	NT10,340 Million	NT11,921 Million	NT13,384 Million
TOTAL EQUITY	NT4,179 Million	NT4,450 Million	NT4,880 Million	NT5,339 Million	NT5,708 Million

Define substantive financial or strategic impact on the business.

The GROSS PROFIT rate of the company falls between 25% and 28%, and the PROFIT FROM OPERATIONS rate falls between 17% and 20%. The most relevant to the company's operational, financial or strategic effects should be the PROFIT FROM OPERATIONS rate. Therefore, the impact value of 10% of the PROFIT FROM OPERATIONS is selected as the quantitative index of the company's substantive impact, that is, 10% of the PROFIT FROM OPERATIONS of NT2,925 million in 2021, NT292 million.

The ratio of the substantive impact of the following adjustments to each item shall be taken as the substantive financial or strategic impact standard defined by the company.

Item	REVENUE	COSTS	EXPENSES	ASSETS	LIABILITIES	EQUITY
actual substantive impact	1.722%	2.309%	21.067%	2.182%	3.804%	5.116%
adjusted substantive impact	1.5%	2.0%	15%	2.0%	3.0%	4.0%



Climate change Risk and Opportunity Assessment and Management

1. The Future Faced

1.1 Climate Environment

In the Comprehensive Report of the 5th Assessment Report on Climate Change (AR5) issued by the Intergovernmental Panel of Experts on Climate Change (IPCC) in November 2014, the United Nations clearly asserts that human activities are the culprits of climate warming. If carbon emissions continue, the worst scenario is that the sea level will rise by 82 centimeters at the end of this century when the temperature rises by 4.8 degrees C, which is even less optimistic than the 2007 assessment that the temperature rises by up to 4 degrees C and the sea level rises by up to 60 centimeters.

If the global temperature rises over 1.5-2.5 degrees C, the ecosystem structure and species distribution will face significant changes, and some animals and plants may face extinction risk; the average temperature rise will affect farming and food production potential; extreme weather events will also lead to increased deaths, diseases and injuries; and more people will be affected by floods due to rising sea levels, the low-lying deltas with dense populations in Asia and Africa are the most affected, while small islands are more vulnerable.

The types of impacts of global climate change are:

1) water shortage and drought;
2) sea level rise;
3) aggravating the gap between rich and poor;
4) intense high temperature;
5) more frequent and severe storms and floods;
6) agricultural productivity decline and food security issues;
7) public health issues.

1.2 Possible impacts

In addition to direct disastrous shocks, climate change also includes many indirect hidden economic cost shocks, such as declining productivity, emergency shelter, more complex management procedures, and non-market impacts such as disease spread and ecosystem destruction. For manufacturing industry, there are three kinds of operation and revenue impacts, including: 1) facing resource shortage and higher input costs (such as energy, water and raw materials); 2) accelerated damage to materials, equipment and infrastructure; 3) facing more extreme weather events.

Under the climate change, enterprises are faced with the following topics: 1) flooding; 2) declining market purchasing power; 3) water supply interruption; 4) unstable power supply; 5) supply chain interruption; 6) rising raw material costs.

The direct and indirect impacts of climate change on manufacturing are as follows:

Climate change	Climate impact	Disaster pattern	Direct impacts	Indirect impacts
Temperature rise	Average temperature rise	Seasonal climate change (ecosystem change)	—	Change in source of raw materials (e.g. from domestic raw materials to imports)
	Continuous high temperature in summer	heat wave	1. Fire prone 2. Equipment heat dissipation is not easy	1. Increasing energy consumption of cooling equipment

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			to reduce yield 3. Employees suffer heatstroke and even die	2. Cooling water temperature is too high 3. Oil and electricity prices are feared to rise 4. Increased demand for air conditioning 5. Power Limitation Crisis
Typhoon/Wind Disaster	Uneven distribution of rainfall	Drought	1. Fire prone 2. Water shortage causes shutdown	Water prices are feared to rise
	Increased heavy rainfall Typhoon intensity and frequency increase	The Flood	1. Shutdown due to flooding 2.Equipment/Tank Damage 3. Water quality deterioration (increased turbidity of raw water) affects process water use	Shortage of raw materials due to road interruption
		Windstorm	Equipment/Tank Damage	1. Shortage of raw materials due to road interruption

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				2. Power and water blackouts caused by damage to public equipment
		Debris flow	1. The factory was submerged by debris flow. 2.Equipment/Tank Damage	1. Shortage of raw materials due to road interruption 2. Power and water blackouts caused by damage to public equipment
Sea Level Rise	1. Violent flood tide (combined with typhoon) 2. Violent flood tide (combined with low-lying areas)	The Flood	1. Shutdown due to flooding 2.Equipment/Tank Damage	Shortage of raw materials due to road interruption
		Inundation of coastal areas		Neighborhood avoidance makes it difficult for factories to move inward

Therefore, must grasp the impact and vulnerability of the company to the impact of climate change, and strengthen the company's ability to adjust to avoid major losses caused by the impact of climate change (including equipment repair and renewal, supply chain interruption, order transfer loss, delivery delay compensation, rush cost, etc.).

Climate change Risk and Opportunity Assessment and Management

1.3 Various types of risks

Among the impacts caused by climate change, the most concerned risks are concentrated in the environment and operation, including raw materials, water resources, energy, extreme climate, etc., which will directly impact and damage the operation of enterprises, among which the most serious threats are the increase of the cost of natural resources and raw materials and the shortage of water resources. In addition to the direct impact of environment and operation, there are many indirect derivative risks, which impact management, law, market, finance and even corporate reputation.

The risk types of enterprises under climate change are as follows:

Risk types	Examples
External Environment and Operational Risks	—Changes in temperature and precipitation patterns have led to reduced supply of key raw materials and higher prices. —Increased uncertainty in water and energy supply. —Extreme weather can lead to traffic or building damage, supply chain problems, reduced productivity, or increased insurance expenses.
Supervision , Management and Legal Risks	In order to adapt to climate change, countries and regions have established a series of regulatory tools to facilitate more effective management of natural resources and disaster risk reduction. For example, new land planning methods, building laws and regulations, etc.
Financial Risks	For enterprises that cannot effectively analyze climate risks or take positive adjustment actions, investors' confidence declines and their investment in the enterprise is reduced.

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Market Risks	With the increase of climate change or consumers' awareness of climate change, the demand for certain goods decreases and the market shrinks.
Political Risks	When developing countries confront natural resources, food security and health and economic challenges, they face more domestic political conflicts, which in turn affect market stability.
Corporate Image Risks	Enterprises that have not joined the ranks of mitigating climate change are regarded by consumers as the victims of climate change and affect the corporate image. For example, companies refuse to disclose their carbon footprints or do not disclose carbon, which is resisted by consumers.

1.4 Opportunities for Climate Change

When adapting to climate change, enterprises should also consider how to maintain competitiveness and grasp business opportunities, including the following directions:

(1) When formulating long-term operational strategies, climate change factors should be taken into account and climate risks assessed.

(2) Climate risk management needs to be integrated with business management strategies.

(3) When developing new markets and products, we should take climate change into account and establish product characteristics.

(4) Develop market products with life cycle considerations.

(5) To conduct market observation and survey on new goods or services that may derive from future climate change.

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(6) Early response to climate change can enhance corporate image and attract customers.

2. Enterprises' Strategies in Response to Climate Change

2.1 Improving Cognition

Understanding the range of possible impacts of climate change

A study of future climate prediction and impacts of climate change in the region where the enterprise is located can help to assess the expected impacts of climate change on the operation of the enterprise and its suppliers.

Improving the Knowledge of Climate Change within Enterprise

Climate change adjustment requires the participation of employees of the entire organization, including business, legal, financial and other units. Because of the wide range of risks that climate change may bring, enterprises need to pool knowledge and share knowledge, so that they can better understand the impact of climate change on the company as a whole.

Collect Business Adjustment Cases

Find out the vulnerability of enterprises facing the impact of climate change, and focus on loopholes, early prevention and improvement. In addition, enterprises in other related fields or facing the same problems can be collected to refer to their adjustment methods facing the impact of climate change.

2.2 Assessment and management of risks and opportunities

There are three key steps in assessing and managing climate change risks and opportunities:

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Identifying business Risks and Opportunities

By means of assessment methods and tools, we can find out the vulnerabilities of enterprises facing climate change, and consider the business opportunities they can derive when assessing risks. Risks and business opportunities encompass many areas, possibly assets and infrastructure, human resources, supply chains and markets.

Management of Priority Risks and Opportunities

Priority depends on the likelihood, frequency and magnitude of the consequences of climate change. Once risks are known, immediate responses to risks are needed to find potential solutions and build long-term resilience. Opportunities derived from climate change should be well captured and new markets, services and business opportunities developed.

Implementation and Monitoring

Climate change is a state of continuity, and it does not end only once. Therefore, enterprises need to continue to pay attention to climate change and track the impact of climate change, and incorporate climate change and adjustment management into their future strategic planning and decision-making processes.

2.3 Establishing Enterprise's Response to Climate Change

In order to enable enterprises to respond well to climate change, there are three key steps to be taken:

Responsibility Allocation of Management

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Climate change may affect all levels of enterprises. Therefore, it is essential for managers to attach importance to climate change issues and formulate management policies and commitments. Managers should declare the importance of enhancing climate change adaptability and take action, and publish the information to the whole company so that all departments of enterprises can cooperate with the implementation.

Revising the existing management process of enterprises

Enterprises are accustomed to using established management processes, such as risk management, quality assurance and business continuity planning. New management processes should be re-examined and revised or established to cope with the impact of climate change, so that the overall business operation can adapt to the impact of climate change.

Exposing Climate Change Risks to Investors

Investors should be regularly reported on the risks of climate change and related management actions faced by the company, improve the information disclosure procedures, and actively participate in the progress and information related to climate adjustment.

3. Action Plan of Enterprises in Response to Climate Change

3.1 Establishment of Climate Change Management Committee

Organizational division of work	Job duties
Top Management	1. Implement and maintain climate change risk assessment and adjustment management policies.

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	2. Appoint a risk management representative and approve the establishment of an adjustment management team. 3. Provide the resources needed to establish, implement, maintain and implement risk assessment and adjustment management. 4. The importance of communicating risk management to all parties in the organization. 5. Identify the scope and boundaries of high-risk projects. 6. Adjusting the implementation schedule of the action plan and improving performance recognition. 7. Follow-up operational planning should include climate change risk considerations.
Risk Management Representative	1. Establish a risk assessment system and plan and implement the adjustment action plan. 2. Appoint risk management commissioners in various departments of the plant for risk management 3. Report risk assessment and management performance adjustment to top management.
Executive Secretary	1. Assist risk management representative to promote risk management related affairs.

	2. Assist in convening risk assessment and adjustment management meetings, and be responsible for pre-conference preparations. 3. Collect the impact records of annual climate shocks. 4. Collect and update the impact information of future climate change. 5. Identification, assessment and analysis of climate impact risk. 6. Planning and review of adjustment action plans. 7. Discuss the opportunity of climate change impact derivation.
Departmental Risk Management Commissioner	1. Provide relevant information for risk assessment to assist the assessment department in formulating risk and adjustment action plans. 2. Handling and managing the risk management communication of the department. 3. Attend risk assessment and adjustment management meeting. 4. To carry out the assignment in accordance with the resolutions of the meeting.
Departmental Undertakers	1. Assist the Executive Secretary in promoting climate change adjustment and management. 2. To collect records of past operations affected by natural disasters within the unit. 3. Provide information about the potential future impact of natural disasters on production processes or facilities within the unit. 4. Participate in the planning of the adjustment action plan. 5. Assist in planning possible opportunities for climate change.

Climate change Risk and Opportunity Assessment and Management

3.2 Risk Identification

3.2.1 Survey of Current Adjustment Ability

Firstly, according to the internal situation of enterprises, the impact and status of climate change impact on five aspects of organization and operation are preliminarily investigated, including Assets (building structure, plant location). Manufacturing Process (resource consumption, equipment location etc.), Personnel (employee education and training, emergency response plan, etc.), Supply Chains (supplier vulnerability to climate change) and Financial (climate disaster insurance, etc.), through the inventory of adjustment capacity, investigate all aspects of the project that have not yet been completed, and understand the current situation of adjustment capacity.

3.2.2 Basic Information and Production Facilities Inventory

The investigation contents of the environmental area of the plant area include the geographical environment (the location and surrounding topography of the plant area, sea level height, hydrology and transportation situation, etc.), the establishment of drainage system, the distribution of lightning protection equipment, the transportation route of raw materials and products supply chain. Based on the survey of the whole plant area, as the basis for defining the evaluation category, the production equipment in the category is checked to find out whether the plant area equipment is in a risk-prone location.

3.2.3 Historic Climate Shock Survey

The extreme climate phenomena caused by climate change are becoming more and more serious

and frequent. Natural disasters that occurred in the past in the factory area are likely to occur again in the future. With the increase of the intensity of natural disasters, the impact of the operation of the factory area will be greater. Therefore, it is necessary to collect, collect and analyze the past climate impacts first, and prioritize them as risk identification items. The collected items include disaster types, occurrence time, description of occurrence events, direct/indirect impacts, actions and responses, etc.

3.2.4 Climate Factors and Identification of Affected Equipment

By means of cross-sectorial meetings and discussions, investigate the key equipment or activities of various units and the climate impact events that have occurred in the past. Based on the urgency and severity of impacts, we preliminarily assess the importance of key equipment or activities to the operation of enterprises, and complete the identification of climate impact risk. Further in-depth evaluation of projects that have an impact on the results of risk identification will be carried out in the follow-up estimate.

3.3 Risk Analysis

Risk assessment is calculated by referring to the definitions of the Specific Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adjustment (SREX) and IPCC Fifth Assessment Report (IPCC AR5) published by the Intergovernmental Panel on Climate Change (IPCC) in 2012: Risk = Hazard * Vulnerability * Exposure.

Hazard: The natural variation factors and degree of disaster occurrence, such as the frequency or frequency of strong rainfall and typhoon.

Vulnerability: The degree to which a system is vulnerable to specific hazards, such as flooding or slope collapse, occurs in the area.

Exposure: The nature of the objects that may be affected by disasters.

3.4 Risk Assessment

After hazard-vulnerability and exposure assessment, each risk value can be obtained according to the risk assessment formula, and presented in the form of 6 *6 two-dimensional matrixes. The more to the upper right block, the greater the risk faced. The advantage of risk matrix presentation is that it makes it easy for business managers to understand and rank the degree of risk of various climate shocks. It does not need to spend time to understand various assessment processes and too much information. Under limited time and resources, priority is given to adjusting action plans for high-risk projects to reduce future losses in the face of climate shocks.

3.5 Risk Management

According to the above-mentioned risk assessment process, enterprises can formulate adjustment action plans for high-risk impact projects. For different risks, managers can use different treatment methods, including risk avoidance, risk loss control, risk transfer and risk retention. These four countermeasures can be used as the existing time and resource limits. Adjust relevant decision-making under the system. In addition, the risks brought by climate change shocks may also be the business opportunities, which can be another direction for enterprises to think about.

Risk Avoidance: Interruption of the source of risk may result in potential losses or uncertainties.

Such risks usually have a great impact and need to be dealt with immediately to reduce hazards.

Risk loss control: To reduce the probability of occurrence or mitigate the impact by adjusting management methods or systems. Its purpose is not to make the risk no longer occur, but to control the risk in its own acceptable level.

Risk Transfer: Transfer the liability for loss and its cost to other organizations through engineering contracts, insurance or other means. Although it can transfer existing risks, it is necessary to consider whether other risks will arise (such as management inconvenience, financial burden).

Risk retention: Risk loss is within the scope of self-acceptance, or action is quite limited, and it is possible to assess that the cost of adjustment action plans is far greater than the benefits of improvement. Therefore, it is necessary to retain the status quo and adjust such risks if new management systems/engineering technologies are developed in the future.

3.5.1 Assessment of priorities for implementation of adjustment action plans

For high-risk impact projects, we can list the adjustment action plans for future planning and implementation, and analyze them according to five aspects: urgency, derivative benefits, economic benefits, technical feasibility and institutional feasibility. First, we discuss the priority levels of each aspect in the current situation by referring to the criteria defined by priority level, and compare the importance of the five aspects to enterprises. Combined with the above considerations, prioritize the implementation of various adjustment plans.

3.5.2 Climate Shock Derivative Opportunities

Enterprises can consider possible derivative opportunities in terms of reducing operating costs, increasing product demand, developing new products or technologies, and increasing social image. While implementing adaptation plans to mitigate impacts in response to climate change, can grasp the opportunities and business opportunities derived from them. Through the Corporate Social Responsibility Report (CSR) and the Dow Jones Sustainability Index (DJSI), etc., can reveal in detail the relevant climate change of enterprises. In order to enhance the competitiveness and sustainable development of enterprises under the future climate change, should increase the willingness of external investors and obtain the support of stakeholders by relocating risks and opportunities, objectives, outcomes, commitments and planning of sustainable operation and social responsibility.

3.6 Inspection and Improvement

Adjustment action plan can reduce risk impact, but the risk may not be fully mitigated, there are still some residual risks, should be periodically inspected for affordability or need to be further improved. In addition, regular inspection is carried out annually in the general direction of climate and environmental change trends and adaptation program implementation. First, in the climate and environmental change trend section, the risk assessment information that needs to be updated in the risk management process is inspected. Specific inspection items include disaster information updating and internal and external organizational changes. Secondly, in the implementation part of adaptation program, the adaptation action plan is tracked. Implementing

the effectiveness, reviewing and improving the adjustment action plan which has not achieved good results or lagged behind schedule.

3.6.1 Confirmation of climate and environmental change trend

Annual management review is required to check whether a risk assessment needs to be re-conducted. The review project includes the following items.

(1) Projects that have suffered disasters in the past need to be reviewed annually. If IPCC and other research institutes publish new research results or simulated drawings, the Executive Secretary needs to call an adjustment management team to confirm them.

(2) If the scope of the original assessment changes (e.g. plant expansion or relocation), the external geographical environment of the company has changed significantly, and the internal process equipment has been improved, the Executive Secretary needs to recruit an adjustment management team to re-evaluate the risk.

3.6.2 Review the Effectiveness of the Implementation of Adjustment Programs

Departmental risk management commissioners shall regularly review the progress and results of the implementation of the adjustment action plan and review it according to its completion:

(1) Improvement completion: Departmental risk management committees need to carry out implementation results after the completion of the adjustment action plan, and submit supporting information to the Executive Secretary for review. The Executive Secretary needs to reanalyze the climate impact, assess its residual risks, and complete the closing process after the completion of the adjustment action plan by the risk management representative.

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2) Failure to improve completion: If for some reason it is not completed within the scheduled completion date, the departmental risk management committee shall explain the reasons and propose extension, alteration or termination to the risk management representative.

4. Possible adjustment actions

Enterprises should consider when formulating adjustment actions: education, resource efficiency, accident planning, regular maintenance/inspection, design standards, upgrading/replacement facilities, demand management, market opportunities, monitoring, available support, stakeholder support and sponsorship, specify possible climate change shocks and adjustment actions, provide enterprise planning direction, and formulate appropriate adjustment actions. Actions to effectively reduce risk shocks.

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Climate Risk Assessment - Physical Risks

Has the company assessed physical risks related to climate change?

❍ Yes, we have completed an assessment of material physical climate risks for our company.

Methodology

❑ We publicly report on our scenario analysis

❍ We use qualitative and quantitative climate-related scenario analysis

If the organization uses climate-related scenarios for physical risks, please select any that apply:

❑ RCP 6

Rich client platform (RCP), which is the specification for numerical simulation (future climate estimation) as a climate model, is a description of the 21st century scenario under four different greenhouse gas emissions, air pollution emissions and land use conditions

❑ rcp2.6 is a very low radiation forcing mitigation scenario;

❑ rcp4.5 and ❑ rcp6.0 are medium stable situations;

❑ rcp8.5 is a scenario of high greenhouse gas emissions.

In the absence of additional restrictions on emissions, it will be a scenario that is interposed to rcp6.0 and rcp8.5. Rcp2.6 represents a situation where global warming may be maintained within 2 degrees Celsius above the pre industrial revolution.

The simulation of future situation is consistent with the conclusion that the more carbon dioxide is emitted by human, the higher the degree of warming.

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Compared with 1986-2005, the average temperature in the middle of this century (2046-2065) may rise by 0.4-2.6 degrees Celsius, and the average sea level height may rise by 0.17-0.38 m.

Scope and focus of assessment

❑ We publicly report on the scope and focus of the assessment

❑ The scope of our assessment includes our own operations

Please select the type(s) of assessment that apply:

❍ General level assessment on the physical impacts of climate change

Climate Risk Assessment - Transition Risks

Has the company assessed transition risks related to climate change?

❍ Yes, we have completed an assessment of material transition climate risks for our company.

Methodology

❑ We publicly report on our scenario analysis

❍ We use qualitative and quantitative climate-related scenario analysis

If your organization uses climate-related scenarios for transition risks, please select any that apply:

❑ IEA 2DS

International Energy Agency (IEA), from the perspective of global and energy supply and demand departments, analyzes how to analyze the real situation from the perspective of reference technology scenario, through the integration, development, application, deployment and innovation of feasible technologies, can accelerate the low-carbon transformation of the energy sector to achieve the 2 ℃ Scenario (2DS).

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❏ IEA B2DS

Beyond 2℃ Scenario, B2DS.

Scope and focus of assessment

❏ We publicly report on the scope and focus of the assessment

❏ The scope of our assessment includes our own operations

Please select the type(s) of assessment that apply:

❏ Assessment of transition risk based on potential scenarios for legislation, technological development or market conditions

Physical Climate Risk Adaptation

Based on your climate risk assessment, has your company set up a plan to adapt to the identified physical climate risks?

❏ We publicly report on our plan to adapt to physical risks

❍ Yes, we have a context-specific plan to adapt to physical climate risks

❏ The risk assessment and plan to adapt to physical climate risks cover the following share of our existing operations (Percentage of total revenues) ：purchasing, manufacturing and sales, account for 100% of the total revenue.

The plan includes a target to implement relevant adaptation measures within the following timeline for existing operations:

❍ More than 10 years

Climate change Risk and Opportunity Assessment and Management

❏ The risk assessment and plan to adapt to physical climate risks cover the following share of our new operations (Percentage of new operations):

❏ We have no new asset planned.

❍ Yes, we have an overall plan to adapt to potential physical climate risks.

The plan includes a target to implement relevant adaptation measures within the following timeline:

❍ More than 10 years

Climate-Related Targets

Does company have any corporate-level climate-related targets? Please fill out the “Alternative Method” table only if organization does not use the Standard Method.

❍ Alternative Method - Have other key climate-related targets:

1）VPT signed the declaration of supporting the Paris Agreement to reach Net-Zero-Emission by 2050 in 2019

VPT supports the Paris Agreement to reach the declaration of Net-Zero-Emission by 2050

Although Taiwan is not a member of the United Nations and cannot participate in the United Nations or other international organizations, as one of the citizens of international enterprises, VPT supports the declaration of achieving Net-Zero-Emission in 2050 under the Paris Agreement.

VPT agrees to measure and report greenhouse gas emissions on a regular basis, implement decarburization strategies through real business change and innovation, including improving

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efficiency, renewable energy, material reduction and other carbon emission elimination strategies, and neutralize all remaining offsets with additional, quantifiable, real, lasting and social benefits in accordance with the Paris Agreement Carbon emissions, by 2050 to achieve a year-round Net-Zero-Emission.

Voltronic Power Technology Corp.

Chairperson cum General Manager: Hsieh Juor-Ming

2）VPT's declaration in 2020

To fulfill the responsibilities and obligations of becoming major international customers' supplier, VPT added the following carbon emission reduction targets in 2020：

Net Zero Emissions in our own operation by 2035.
Net Zero Emissions in the value chain by 2050.

Risk Disclosure

The risk types which are considered in organization's climate-related risk assessments

Have identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on business

Transition Risks

Risk 1：Current regulation（all climate-related litigation claims）

Primary climate-related risk driver：	Primary potential financial impact：
– Exposure to litigation	– Increased costs and/or reduced demand for products and services resulting from fines and judgments

In the value chain the risk driver occurs：	Time horizon：	Likelihood：	Magnitude of impact：	Relevance & inclusion
– Direct operations – Downstream	– Short-term – Medium-term – Long-term	– Very unlikely（0-10%）	– Low	– Relevant, always included

Company - specific description：The company's primary business is the professional DMS (Design & Manufacturing Service) of UPS (Uninterruptible Power System), PV Inverter, Energy Storage System, Variable Frequency Drive, EV Charger which all are manufactured in accordance with the product specifications and quality laws and regulations of each customer's location, and most (> 95%) of the greenhouse gas emissions from direct operations are from scope 2 (all are municipal power supply) , therefore, not happened neither found there is risk of climate-related litigation claims under the current laws and regulations.

Is able to provide a potential financial impact figure?	Potential financial impact figure (currency)	Type of financial impact
- No, does not have this figure	- No	– No

Explanation of financial impact figure：No
- The approach was employed to calculate the figure：
- The figures used in calculation：
- Any assumption the figure is dependent on：

Cost of response to risk：No

Description of response and explanation of cost calculation：No

Risk Disclosure

The risk types which are considered in organization's climate-related risk assessments

Have identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on business

Transition Risks

Risk 2：Emerging regulation（ policy developments that attempt to constrain actions that contribute to the adverse effects of climate change or policy developments that seek to promote adaptation to climate change ）

Primary climate-related risk driver：	Primary potential financial impact：
– Increased pricing of GHG emissions – Enhanced emissions-reporting obligations – Mandates on and regulation of existing products and services	– Increased operating costs (e.g., higher compliance costs, increased insurance premiums) – Write-offs, asset impairment, and early retirement of existing assets due to policy changes

In the value chain the risk driver occurs：	Time horizon：	Likelihood：	Magnitude of impact：	Relevance & inclusion
– Direct operations – Upstream – Downstream	– Short-term – Medium-term – Long-term	– Virtually certain （99–100%）	– Low	– Relevant, always included

Company - specific description： Net zero emissions are the trend issue faced by global enterprises. The inventory, certification and / or assurance, reporting of GHG emissions, and the preparation, certification and / or assurance, announce and register of ESG Report and Climate-related Financial Disclosure report are the obligations of global enterprises. The net zero emissions of the value chain involves the risk driving of upstream, direct operation and downstream. Therefore, the complete inventory of GHG emissions and low-carbon intensity products of the value chain are the trend of regulatory requirements from now to the future.

Is able to provide a potential financial impact figure?	Potential financial impact figure (currency)	Type of financial impact
– Yes, an estimated range	– NT10 million to NT 20 million	– Increased indirect (operating) costs

Explanation of financial impact figure：
– he approach was employed to calculate the figure：see the following "Description of response and explanation of cost calculation"
– The figures used in calculation：Statistics of the actual expenses incurred in the year and be calculated according to the following assumptions.
– Any assumption the figure is dependent on：Assumed that the development trend of emerging regulation fees in the future is twice of the current.

Cost of response to risk：NT10 million to NT 20 million

Description of response and explanation of cost calculation：Not happened neither found there is of any event that may lead to the write-offs, asset impairment, and early retirement of existing assets due to the current and future emerging regulation, so there is no such financial impact. In addition, the company’s primary business is professional DMS (Design & Manufacturing Service) , and its operating income is DMS income, there not happened neither found operating costs due to increased pricing of GHG emissions in the current and future emerging regulation. The possible costs are the above listed "Company - specific description" to enhance emissions-reporting obligations and the mandates on and regulation of existing products and services, which are summary statistics.

Risk Disclosure

The risk types which are considered in organization's climate-related risk assessments

Have identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on business

Transition Risks

Risk 3：Technology（all risks associated with technological improvements or innovations that support the transition to a lower-carbon, energy-efficient economic system）

Primary climate-related risk driver：	Primary potential financial impact：
– Substitution of existing products and services with lower emissions options – Unsuccessful investment in new technologies – Costs to transition to lower emissions technology	– Write-offs and early retirement of existing assets – Reduced demand for products and services – Research and development (R&D) expenditures in new and alternative technologies – Capital investments in technology development – Costs to adopt/deploy new practices and processes

In the value chain the risk driver occurs：	Time horizon：	Likelihood：	Magnitude of impact：	Relevance & inclusion
– Direct operations – Downstream	– Short-term – Medium-term – Long-term	– Very unlikely（0-10%）	– Low	– Relevant, always included

Company - specific description：All products have Energy Efficiency ERBs, PV Inverter has Energy Efficiency and Renewables ERBs, called Sustainability products. Energy Storage System and EV Charger are emerging Sustainability products, therefore, the transition risk in Technology is not identified.

Is able to provide a potential financial impact figure?	Potential financial impact figure (currency)
- No, does not have this figure	- No

Explanation of financial impact figure：No
- The approach was employed to calculate the figure：
- The figures used in calculation：
- Any assumption the figure is dependent on：

Cost of response to risk：No

Description of response and explanation of cost calculation：No

Risk Disclosure

The risk types which are considered in organization's climate-related risk assessments

Have identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on business

Transition Risks

Risk 4：Market（all shifts in supply and demand for certain commodities, products, and services）

Primary climate-related risk driver：	Primary potential financial impact：
– Changing customer behavior – Uncertainty in market signals – Increased cost of raw materials	– Reduced demand for goods and services due to shift in consumer preferences – Increased production costs due to changing input prices (e.g., energy, water) and output requirements (e.g., waste treatment) – Abrupt and unexpected shifts in energy costs – Change in revenue mix and sources, resulting in decreased revenues – Re-pricing of assets (e.g., fossil fuel reserves, land valuations, securities valuations)

In the value chain the risk driver occurs：	Time horizon：	Likelihood：	Magnitude of impact：	Relevance & inclusion
– Direct operations – Downstream	– Short-term – Medium-term – Long-term	– Very unlikely（0-10%）	– Low	– Relevant, always included

Company - specific description：All products have Energy Efficiency ERBs, PV Inverter has Energy Efficiency and Renewables ERBs, called Sustainability products. Energy Storage System and EV Charger are emerging Sustainability products, therefore, the transition risk in Market is not identified.

Is able to provide a potential financial impact figure?	Potential financial impact figure (currency)
- No, does not have this figure	- No

Explanation of financial impact figure：No
- The approach was employed to calculate the figure：
- The figures used in calculation：
- Any assumption the figure is dependent on：

Cost of response to risk：No

Description of response and explanation of cost calculation：No

Risk Disclosure

The risk types which are considered in organization's climate-related risk assessments

Have identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on business

Transition Risks

Risk 5：Reputation（all risks tied to changing customer or community perceptions of an organization’s contribution to or detraction from the transition to a lower-carbon economy）

Primary climate-related risk driver：	Primary potential financial impact：
– Shifts in consumer preferences – Stigmatization of sector – Increased stakeholder concern or negative stakeholder feedback	– Reduced revenue from decreased demand for goods/services – Reduced revenue from decreased production capacity (e.g., delayed planning approvals, supply chain interruptions) – Reduced revenue from negative impacts on workforce management and planning (e.g., employee attraction and retention) – Reduction in capital availability

In the value chain the risk driver occurs：	Time horizon：	Likelihood：	Magnitude of impact：	Relevance & inclusion
– Direct operations – Downstream	– Short-term – Medium-term – Long-term	– Very unlikely（0-10%）	– Low	– Relevant, always included

Company - specific description：All products have Energy Efficiency ERBs, PV Inverter has Energy Efficiency and Renewables ERBs, called Sustainability products. Energy Storage System and EV Charger are emerging Sustainability products, therefore, the transition risk in Reputation is not identified.

Is able to provide a potential financial impact figure?	Potential financial impact figure (currency)
- No, does not have this figure	- No

Explanation of financial impact figure：No
- The approach was employed to calculate the figure：
- The figures used in calculation：
- Any assumption the figure is dependent on：

Cost of response to risk：No

Description of response and explanation of cost calculation：No

Risk Disclosure

The risk types which are considered in organization's climate-related risk assessments

Have identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on business

Physical Risks

Risk 6：Acute（ risks that are event-driven, including increased severity of extreme weather events, such as cyclones, hurricanes, or floods ）

Primary climate-related risk driver：
– Increased severity of extreme weather events such as cyclones and floods

Risk 7：Chronic（ longer-term shifts in climate patterns (e.g. sustained higher temperatures) that may cause sea level rise or chronic heat waves ）

Primary climate-related risk driver：
– Changes in precipitation patterns and extreme variability in weather patterns
– Rising mean temperatures
– Rising sea levels

Primary potential financial impact：
– Reduced revenue from decreased production capacity (e.g., transport difficulties, supply chain interruptions)
– Reduced revenue and higher costs from negative impacts on workforce (e.g., health, safety, absenteeism)
– Write-offs and early retirement of existing assets (e.g., damage to property and assets in “high-risk” locations)
– Increased operating costs (e.g., inadequate water supply for hydroelectric plants or to cool nuclear and fossil fuel plants)
– Increased capital costs (e.g., damage to facilities)
– Reduced revenues from lower sales/output
– Increased insurance premiums and potential for reduced availability of insurance on assets in “high-risk” locations

In the value chain the risk driver occurs：	Time horizon：	Likelihood：	Magnitude of impact：	Relevance & inclusion
– Direct operations – Downstream	– Short-term – Medium-term – Long-term	– Very unlikely （0-10%）	– Low	Relevant, sometimes included

Company - specific description：No physical Risks have been identified.

Is able to provide a potential financial impact figure?	Potential financial impact figure (currency)
- No, does not have this figure	- No

Explanation of financial impact figure：No
- The approach was employed to calculate the figure：
- The figures used in calculation：
- Any assumption the figure is dependent on：

Cost of response to risk：No

Description of response and explanation of cost calculation：No

Opportunity Disclosure

Identified climate-related opportunities with the potential to have a substantive financial or strategic impact on business

Details of opportunities identified with the potential to have a substantive financial or strategic impact on business

Opportunity 1：Resource Efficiency（opportunities related to improving resource efficiency across production and distribution processes, buildings, machinery/appliances, and transport/mobility）

Primary climate-related opportunity driver： – Use of more efficient modes of transport – Use of more efficient production and distribution processes – Use of recycling – Move to more efficient buildings – Reduced water usage and consumption	Primary potential financial impact： – Reduced operating costs (e.g., through efficiency gains and cost reductions) – Increased production capacity, resulting in increased revenues – Increased value of fixed assets (e.g., highly rated energy-efficient buildings) – Benefits to workforce management and planning (e.g., improved health and safety, employee satisfaction) resulting in lower costs

In the value chain the opportunity driver occurs： – Direct operations	Time horizon： – Short-term – Medium-term – Long-term	Likelihood： – Virtually certain（99–100%）	Magnitude of impact： – Low	Relevance & inclusion – Relevant, always included

Company - specific description：Set up Energy Storage System in the self built factory in Zhongshan on the mainland to improve the Energy Efficiency .

Is able to provide a potential financial impact figure? - No, does not have this figure	Potential financial impact figure (currency) -

Explanation of financial impact figure：It has been set up since 2022, and its potential financial impact data can only be evaluated after the actual construction and use.
- The approach was employed to calculate the figure：
- The figures used in calculation：
- Any assumption the figure is dependent on：

Cost to realize opportunity：40million to 80 million (NT)

Strategy to realize opportunity and explanation of cost calculation：Construction of Energy Storage System and its estimated construction cost.

Opportunity Disclosure

Identified climate-related opportunities with the potential to have a substantive financial or strategic impact on business

Details of opportunities identified with the potential to have a substantive financial or strategic impact on business

Opportunity 2：Energy Source（opportunities related to shifting energy usage toward low emission energy sources）

Primary climate-related opportunity driver：	Primary potential financial impact：
– Use of lower-emission sources of energy – Use of supportive policy incentives – Use of new technologies – Participation in carbon market – Shift toward decentralized energy generation	– Reduced operational costs (e.g., through use of lowest cost abatement) – Reduced exposure to future fossil fuel price increases – Reduced exposure to GHG emissions and therefore less sensitivity to changes in cost of carbon – Returns on investment in low-emission technology – Increased capital availability (e.g., as more investors favor lower-emissions producers) – Reputational benefits resulting in increased demand for goods/services

In the value chain the opportunity driver occurs：	Time horizon：	Likelihood：	Magnitude of impact：	Relevance & inclusion
– Direct operations	– Short-term – Medium-term – Long-term	– Virtually certain（99–100%）	– Low	– Relevant, always included

Company - specific description：Set up solar panels in the self built factory in Zhongshan on the mainland to improve the self-made rate of electricity.

Is able to provide a potential financial impact figure?	Potential financial impact figure (currency)
- No, does not have this figure	- No

Explanation of financial impact figure：It has been set up since 2022, and its potential financial impact data can only be evaluated after the actual construction and use.
- The approach was employed to calculate the figure：
- The figures used in calculation：
- Any assumption the figure is dependent on：

Cost to realize opportunity：10million to 20 million (NT)

Strategy to realize opportunity and explanation of cost calculation：Construction of solar panels and its estimated construction cost.

Opportunity Disclosure

Identified climate-related opportunities with the potential to have a substantive financial or strategic impact on business

Details of opportunities identified with the potential to have a substantive financial or strategic impact on business

Opportunity 3：Products and Services（opportunities related to innovation and development of new low-emission and climate adaptation products and services.）

Primary climate-related opportunity driver： – Development and/or expansion of low emission goods and services – Development of climate adaptation and insurance risk solutions – Development of new products or services through R&D and innovation – Ability to diversify business activities – Shift in consumer preferences	Primary potential financial impact： – Increased revenue through demand for lower emissions products and services – Increased revenue through new solutions to adaptation needs (e.g., insurance risk transfer products and services) – Better competitive position to reflect shifting consumer preferences, resulting in increased revenues

In the value chain the opportunity driver occurs： – Direct operations – Downstream	Time horizon： – Short-term – Medium-term – Long-term	Likelihood： – Virtually certain（99–100%）	Magnitude of impact： – high	Relevance & inclusion – Relevant, always included

Company - specific description：All products have Energy Efficiency ERBs, PV Inverter has Energy Efficiency and Renewables ERBs, called Sustainability products. Energy Storage System and EV Charger are emerging Sustainability products. . Expanding the production and sale of these products is our most important goal.

Is able to provide a potential financial impact figure? - Yes	Potential financial impact figure (currency) - annual OPERATING REVENUE will increase by 938 million (NT) in the future - annual PROFIT FROM OPERATIONS will increase by 159 million (NT) in the future

Explanation of financial impact figure (The approach was employed to calculate the figure, The figures used in calculation, Any assumption the figure is dependent on)：

The growth rate of OPERATING REVENUE in each of the past four years was 12%, 13.39%, 5.53% and 24.20% respectively, of which the minimum 5.53% was taken as the growth rate of annual OPERATING REVENUE in the future. It is estimated that the annual OPERATING REVENUE will increase by 938 million (NT) in the future(This figure is only for the purpose of “TCFD Report information” and not for the purpose of “Publication of Financial Forecasts information”, please read it carefully.)

The PROFIT FROM OPERATIONS rate of each year in the past five years was 19%, 19%, 20%, 20% and 17% respectively, of which the minimum 17% was taken as the net PROFIT FROM OPERATIONS rate for the future years, multiplied by the estimated increase annual OPERATING REVENUE for the future years, the annual PROFIT FROM OPERATIONS will increase by 159 million (NT) in the future (This figure is only for the purpose of "TCFD Report information" and not for the purpose of "Publication of Financial Forecasts information", please read it carefully.)

Cost to realize opportunity：The total annual OPERATING COSTS and OPERATING EXPENSES will increase by 779 million (NT) in the future (This figure is only for the purpose of "TCFD Report information" and not for the purpose of "Publication of Financial Forecasts information", please read it carefully.)

Strategy to realize opportunity and explanation of cost calculation：The increase annual OPERATING COSTS and OPERATING EXPENSES in the future are calculated by deducting the increase annual PROFIT FROM OPERATIONS in the future from the increase annual OPERATING REVENUE in the future.

Analyze the company's financial statements for the last five years:

Item	2017	2018	2019	2020	2021
OPERATING REVENUE	NT9,862 Million	NT11,408 Million	NT12,936 Million	NT13,652 Million	NT16,957 Million
OPERATING COSTS	NT7,168 Million	NT8,303 Million	NT9,151 Million	NT9,634 Million	NT12,646 Million
GROSS PROFIT (%)	NT2,695 Million (28%)	NT3,105 Million (27%)	NT3,785 Million (29%)	NT4,018 Million (29%)	NT4,311 Million (25%)
PROFIT FROM OPERATIONS (%)	NT1,829 Million (19%)	NT2,117 Million (19%)	NT2,557 Million (20%)	NT2,730 Million (20%)	NT2,925 Million (17%)

Opportunity Disclosure

Identified climate-related opportunities with the potential to have a substantive financial or strategic impact on business

Details of opportunities identified with the potential to have a substantive financial or strategic impact on business

Opportunity 4：Markets（ opportunities in new markets or types of assets that may help organizations to diversify their activities and better position themselves for the transition to a lower-carbon economy. ）

Primary climate-related opportunity driver： – Access to new markets – Use of public-sector incentives – Access to new assets and locations needing insurance coverage	Primary potential financial impact： – Increased revenues through access to new and emerging markets (e.g., partnerships with governments, development banks) – Increased diversification of financial assets (e.g., green bonds and infrastructure)

In the value chain the opportunity driver occurs： – Direct operations – Downstream	Time horizon： – Short-term – Medium-term – Long-term	Likelihood： – Virtually certain（99–100%）	Magnitude of impact： – high	Relevance & inclusion – Relevant, always included

Company - specific description：Incorporate into Opportunity 3: Products and Services

Is able to provide a potential financial impact figure? - Incorporate into Opportunity 3: Products and Services	Potential financial impact figure (currency) - Incorporate into Opportunity 3: Products and Services

Explanation of financial impact figure：Incorporate into Opportunity 3: Products and Services
- The approach was employed to calculate the figure：
- The figures used in calculation：
- Any assumption the figure is dependent on：

Cost to realize opportunity：Incorporate into Opportunity 3: Products and Services

Strategy to realize opportunity and explanation of cost calculation：Incorporate into Opportunity 3: Products and Services

Opportunity Disclosure

Identified climate-related opportunities with the potential to have a substantive financial or strategic impact on business

Details of opportunities identified with the potential to have a substantive financial or strategic impact on business

Opportunity5：Resilience （ opportunities related to the development of adaptive capacity to respond to climate change. They may be especially relevant for organizations with long-lived fixed assets or extensive supply or distribution networks; those that depend critically on utility and infrastructure networks or natural resources in their value chain; and those that may require longer-term financing and investment. ）

Primary climate-related opportunity driver： – Participation in renewable energy programs and adoption of energy-efficiency measures – Resource substitutes/diversification	Primary potential financial impact： – Increased market valuation through resilience planning (e.g., infrastructure, land, buildings) – Increased reliability of supply chain and ability to operate under various conditions – Increased revenue through new products and services related to ensuring resiliency

In the value chain the opportunity driver occurs： – Direct operations – Downstream	Time horizon： – Short-term – Medium-term – Long-term	Likelihood： – Very unlikely （0-10%）	Magnitude of impact： – Low	Relevance & inclusion – Relevant, always included

Company - specific description：No Resilience Opportunity have been identified.

Is able to provide a potential financial impact figure? - No, does not have this figure	Potential financial impact figure (currency) - No

Explanation of financial impact figure：No
- The approach was employed to calculate the figure：
- The figures used in calculation：
- Any assumption the figure is dependent on：

Cost to realize opportunity：No

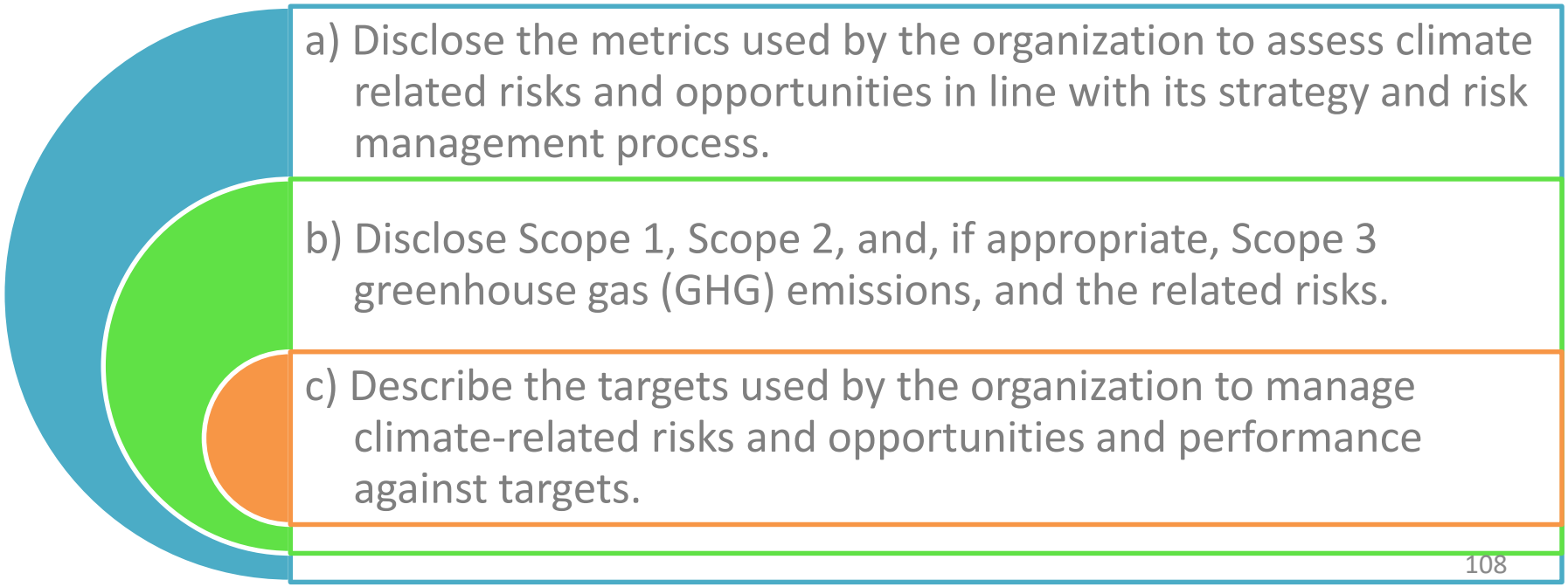
Strategy to realize opportunity and explanation of cost calculation：No

Core Elements of Recommended Climate-Related Financial Disclosures

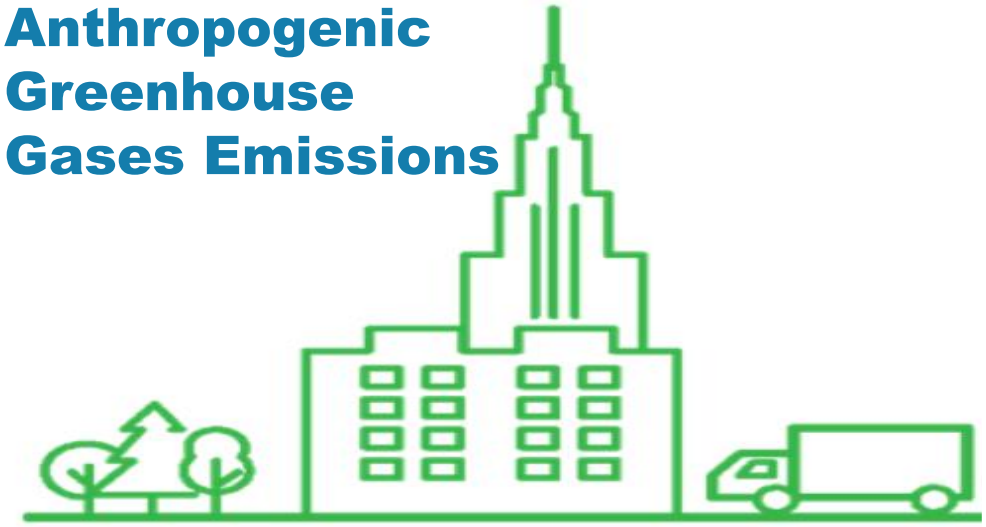
Metrics and Targets

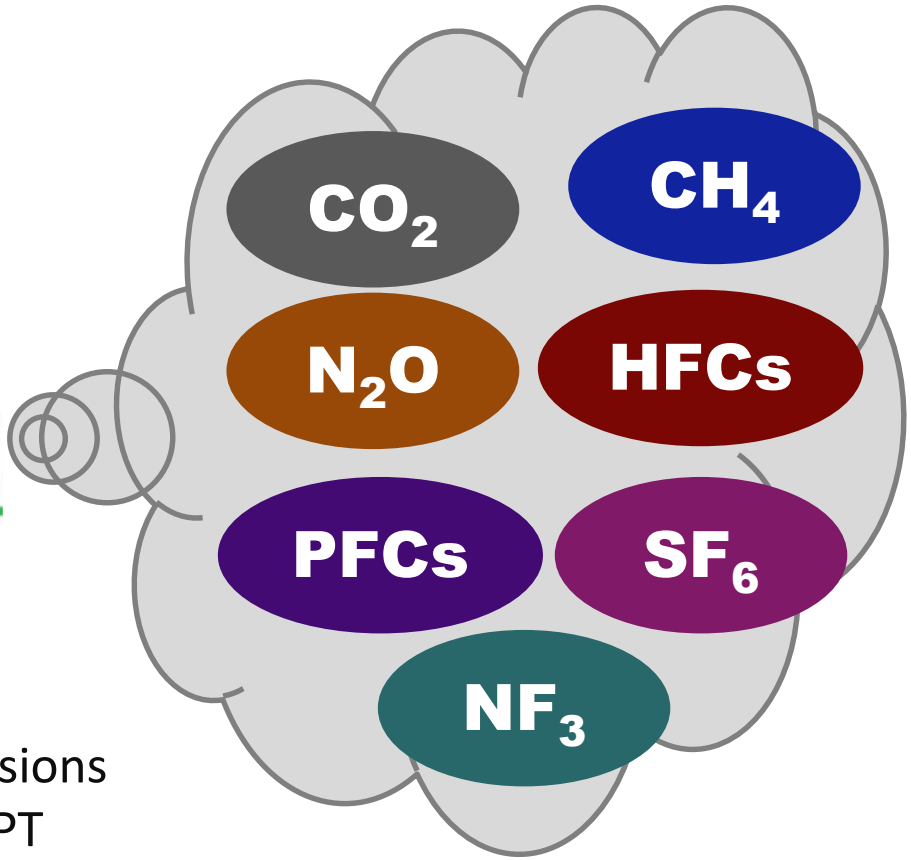
Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

Core Disclosures



Anthropogenic Greenhouse Gases Emissions



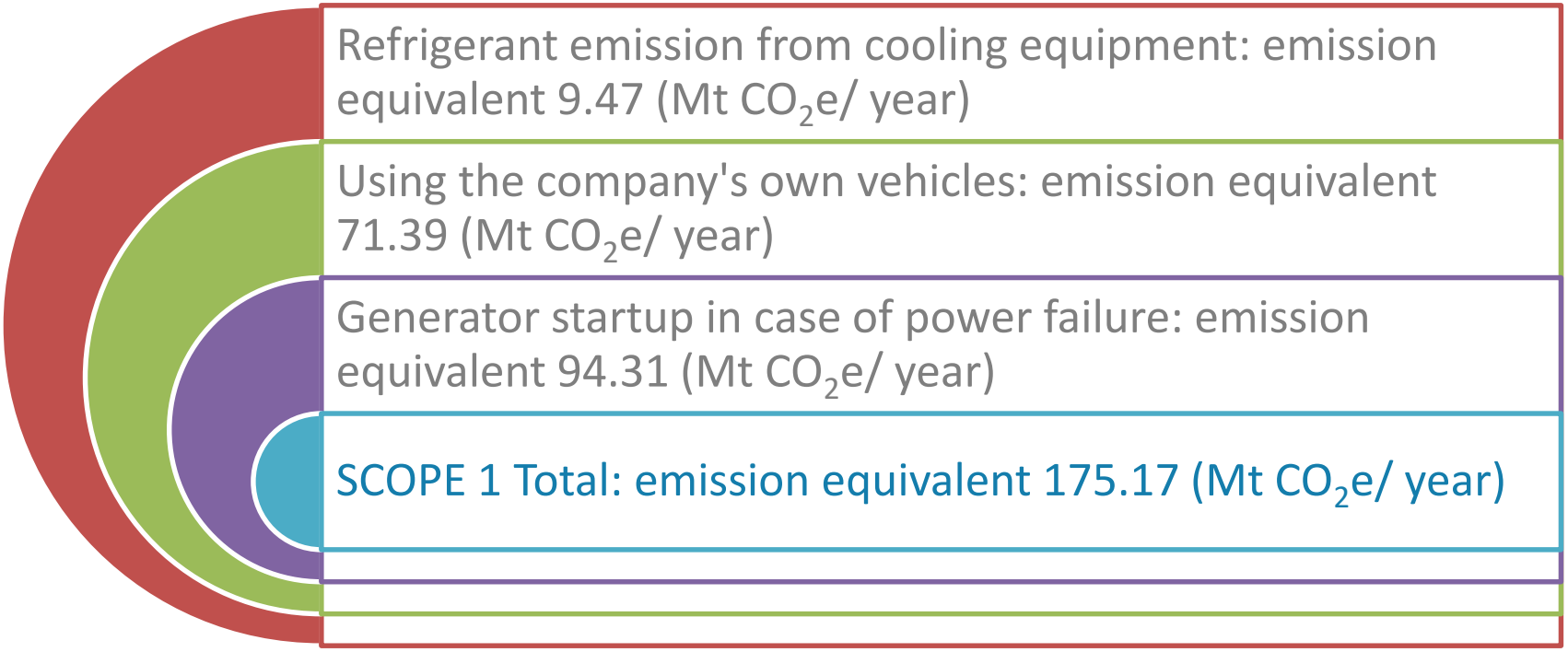


SCOPE 1

DIRECT EMISSIONS

EMISSION SOURCE：All direct emissions within the operational control of VPT

VPT has no direct greenhouse gas emissions in the manufacturing process. The direct emission in Scope 1 of VPT is only the CO_2 emission from the use of refrigerant in cooling equipment, the use of the company-owned vehicles and the use of generators in case of power failure, which accounts for a fairly small proportion of the overall greenhouse gas emission.



PUBLIC REPORTING

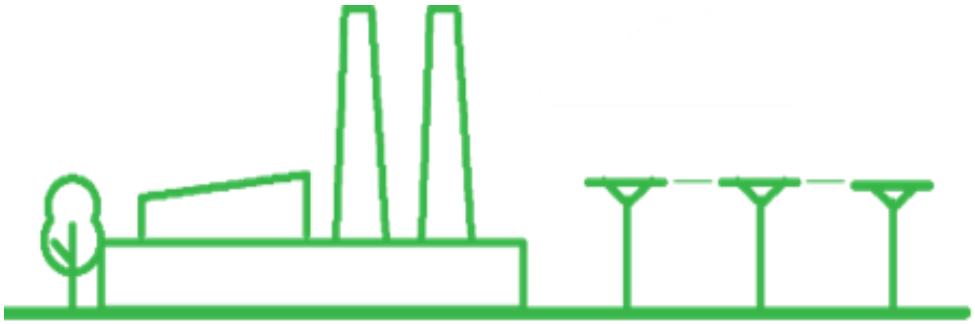
❑ Our data is publicly available.

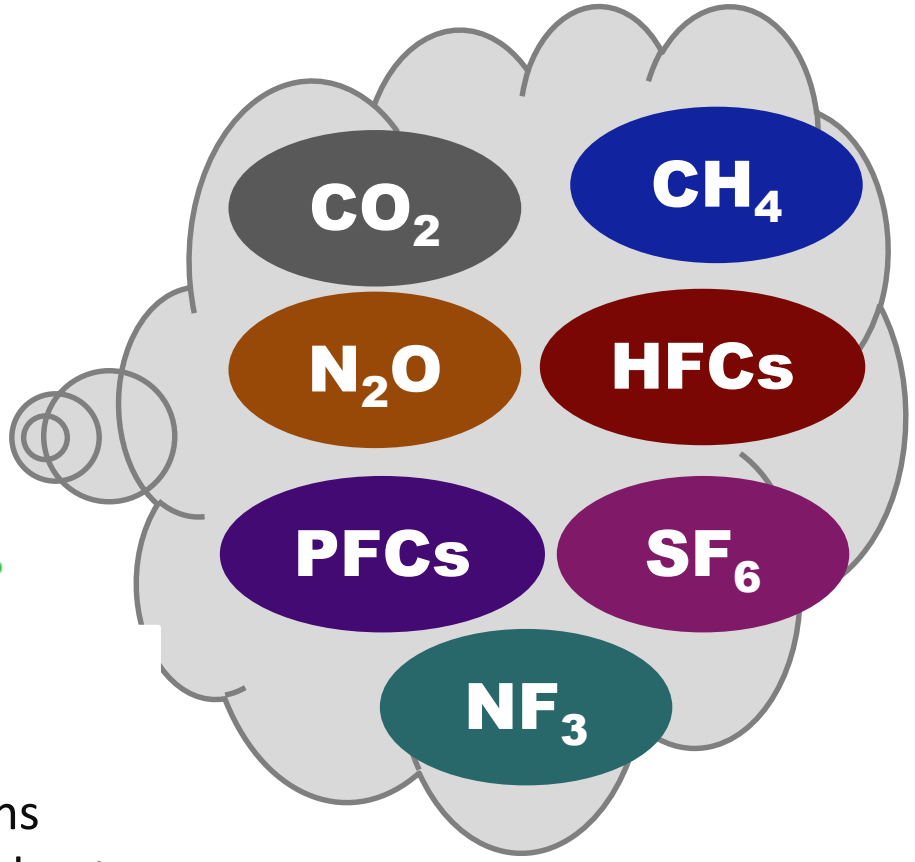
THIRD-PARTY VERIFICATION

❑ Our data has been third-party verified in the most recent financial year reported.

Please see Appendix

Anthropogenic Greenhouse Gases Emissions





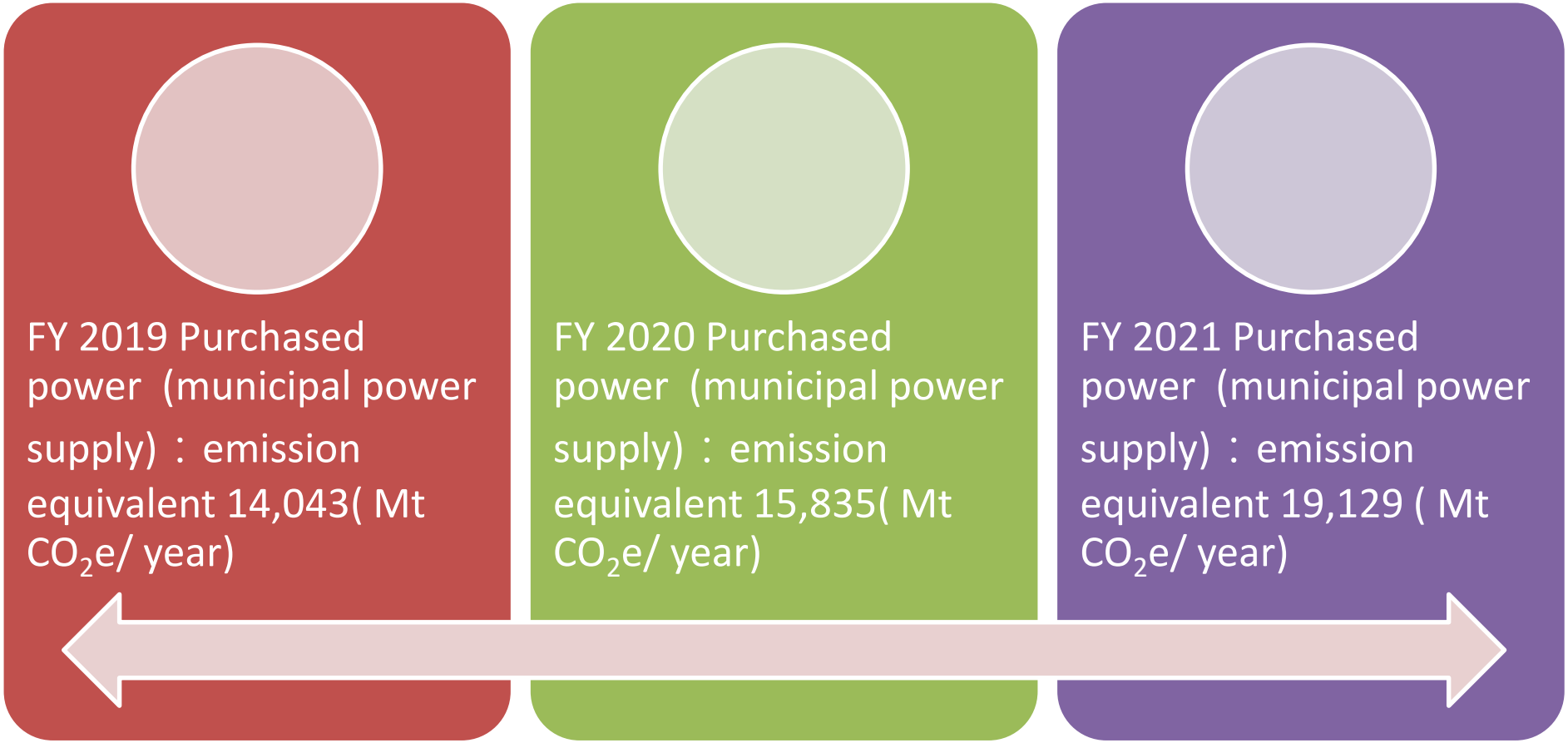
SCOPE 2

INDIRECT EMISSIONS

EMISSION SOURCE：Indirect emissions generated from purchased electricity, heat, steam or cooling.

Scope 2 greenhouse gas emission source of VPT is only the CO_2 emission generated by the purchased power (municipal power supply) required by the company's operation and production.

The greenhouse gas emission in Scope 2 is the main greenhouse gas emission source of VPT.



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Please see Appendix

Company self-operating Carbon Intensity test ：SCOPE 1 DIRECT EMISSIONS and SCOPE 2 INDIRECT EMISSIONS

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
SCOPE 1 DIRECT EMISSIONS	93* $MtCO_2e$	94* $MtCO_2e$	126* $MtCO_2e$	143 $MtCO_2e$	175 $MtCO_2e$
SCOPE 2 INDIRECT EMISSIONS	10,374 $MtCO_2e$	10,461 $MtCO_2e$	14,043 $MtCO_2e$	15,835 $MtCO_2e$	19,129 $MtCO_2e$
SCOPE 1 and SCOPE 2 total	10,467 $MtCO_2e$	10,555 $MtCO_2e$	14,169 $MtCO_2e$	15,978 $MtCO_2e$	19,304 $MtCO_2e$
OPERATING REVENUE	330.4 Million dollars	371.2 Million dollars	431.5 Million dollars	478.6 Million dollars	612.4 Million dollars
Company self-operating Carbon Intensity **	31.68	28.43	32.84	33.84	31.52

*Has not been third-party verified

**Company self-operating Carbon Intensity = SCOPE 1 and SCOPE 2 total $MtCO_2e$ / OPERATING REVENUE Million dollars

In 2021, VPT sets 31.7, the comprehensive average Carbon Intensity self-operation in the past five years, as one of the targets used to manage climate-related risks and opportunities and performance.

Anthropogenic Greenhouse Gases Emissions

SCOPE 3

INDIRECT EMISSIONS

EMISSION SOURCE：

All other indirect emissions from sources such as business travel, waste management, and the value chain.

V：VPT has the Emission

X：VPT has no the Emission

Purchased goods and services	V
Capital goods	V
Fuel- and energy- related activities	X
Upstream transportation and distribution	V
Waste generated in operations	V
Business travel	V
Employee commuting	V
Upstream leased assets	X
Downstream transportation and distribution	V
Processing of sold products	X
Use of sold products	V
End-of-life treatment of sold products	V
Downstream leased assets	X
Franchises	X
Investments	X

SCOPE 3 INDIRECTE MISSIONS

Mt CO_2e

Category	Category description	FY2021
1.Purchased goods and services	Includes all upstream (i.e., cradle-to-gate) emissions from the production of products purchased or acquired by the reporting company in the reporting year. Products include both goods (tangible products) and services (intangible products).	18,964
2.Capital goods	Includes all upstream (i.e., cradle-to-gate) emissions from the production of capital goods purchased or acquired by the reporting company in the reporting year. Emissions from the use of capital goods by the reporting company are accounted for in either scope 1 (e.g., for fuel use) or scope 2 (e.g., for electricity use), rather than in scope 3.	1,249
4. Upstream transportation and distribution	Emissions from transportation and distribution of products when purchasing components and raw materials from tier 1 suppliers.	128
5.Waste generated in operations	Includes emissions from third-party disposal and treatment of waste generated in the reporting company's owned or controlled operations in the reporting year. This category includes emissions from disposal of both solid waste and wastewater.	11
6.Business travel	Includes emissions from the transportation of employees for businessrelated activities in vehicles owned or operated by third parties, such as aircraft, trains, buses, and passenger cars.	23

SCOPE 3 INDIRECTE MISSIONS

Mt CO_2e

7. Employee commuting	Includes emissions from the transportation of employees between their homes and their worksites. Emissions from employee commuting may arise from: • Automobile travel • Bus travel • Rail travel • Air travel • Other modes of transportation (e.g., subway, bicycling, walking).	646
9.Downstream transportation and distribution	Includes emissions that occur in the reporting year from transportation and distribution of sold products in vehicles and facilities not owned or controlled by the reporting company.	189
11. Use of sold products	Includes emissions from the use of goods and services sold by the reporting company in the reporting year. A reporting company's scope 3 emissions from use of sold products include the scope 1 and scope 2 emissions of end users. End users include both consumers and business customers that use final products.	747,299
12.End-of-life treatment of sold products	Includes emissions from the waste disposal and treatment of products sold by the reporting company (in the reporting year) at the end of their life. This category includes the total expected end-of-life emissions from all products sold in the reporting year.	373
Total		768,882

PUBLIC REPORTING

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Please see Appendix

Source	Explanation for relevance	Metric tons CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners
❍Purchased goods and services (upstream)	Major components of the company's product costs and some operating expenses	18,964	Spend-based method – estimates emissions for goods and services by collecting data on the economic value of goods and services purchased and multiplying it by relevant secondary (industry average) emission factors (average emissions per monetary value of goods).	
❍Capital goods	Constituting part of the company's product cost and	1,249	Average spend-based method, which involves estimating emissions for	

	part of the operating expenses		goods by collecting data on the economic value of goods purchased and multiplying by relevant secondary (e.g., industry average) emission factors (e.g., average emissions per monetary value of goods).	
❍Employee commuting	Constituting part of the company's product cost and part of the operating expenses	646	Average-data method, which estimating emissions from employee commuting based on average data on commuting patterns.	

Internal Carbon Pricing

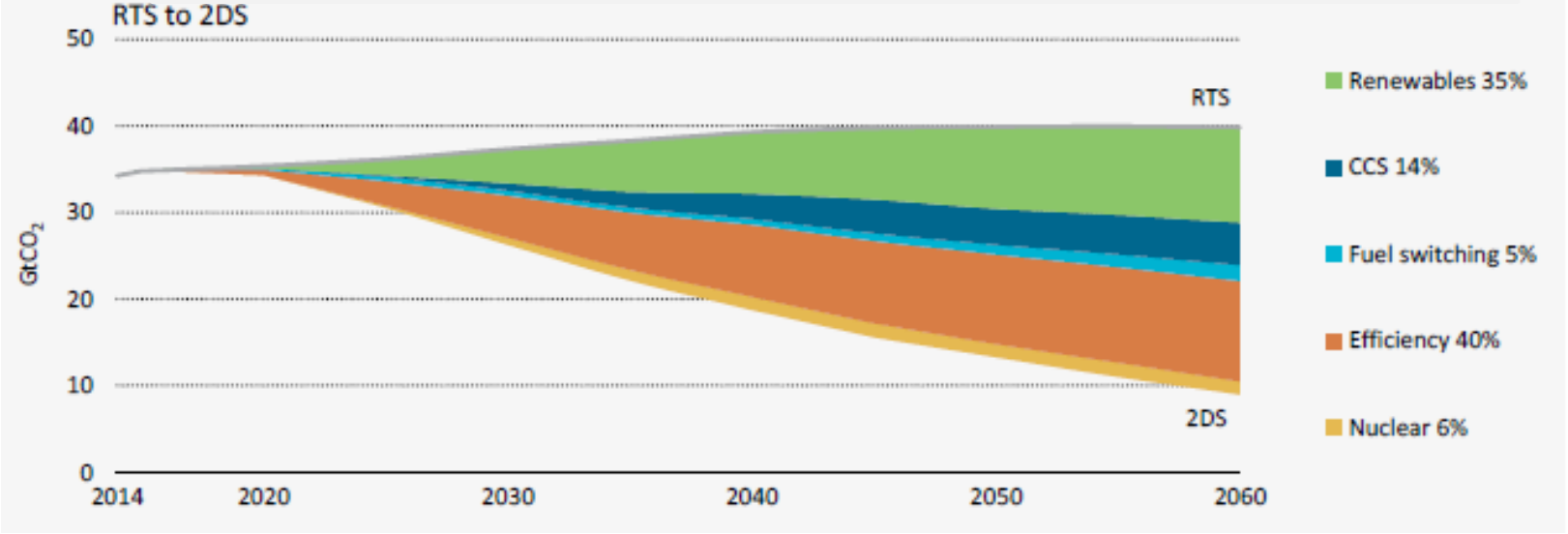
Indicate if company uses an internal price of carbon. If yes, specify company's objective to implement an internal carbon price and provide details of how this is being used within the organization and what the internal carbon price is. In case company uses more than one type of internal carbon prices, report the price that has the greatest impact on your organization (i.e. price * quantity of emissions generated).

❍ No, do not use an internal price of carbon

Using climate-related scenario analysis to inform the strategy

According to "Energy Technology Perspectives 2017—Catalysing Energy Technology Transformations' 2DS, by 2060, the Global CO_2 emissions reductions by technology area 40% will depend on Energy Efficiency and 35% on Renewables.

Global CO_2 emissions reductions by technology area: RTS to 2DS



All products have Energy Efficiency ERBs, PV Inverter has Energy Efficiency and Renewables ERBs, called Sustainability products. Energy Storage System and EV Charger are emerging Sustainability products.

Product Name	Explanation for Calculation of emission reduction benefits
UPS	By comparing the EE of EU Code of Conduct for UPS, the energy savings are calculated according to the number of UPS shipped in 2021, and then converted into ERBs.
PV Inver	By comparing the EE of the minimum average EE 97.5% of the ENERGY STAR Market and Industry Scoping Report, the energy savings are calculated according to the number of PV Inver shipped in 2021, and then converted into ERBs.
Energy Storage System	By comparing the minimum required of EE by customer's specifications, , the energy savings are calculated according to the number of Energy Storage System shipped in 2021, and then converted into ERBs.
Variable Frequency Drive	By comparing the minimum required of EE by customer's specifications, , the energy savings are calculated according to the number of Energy Storage System shipped in 2021, and then converted into ERBs.
EV Charger	By comparing the minimum required of EE by customer's specifications, , the energy savings are calculated according to the number of Energy Storage System shipped in 2021, and then converted into ERBs.
FY 2021	Energy Efficiency 298,920 $MtCO_2e$ · Renewables 466,390 $MtCO_2e$
	Total 765,310 $MtCO_2e$

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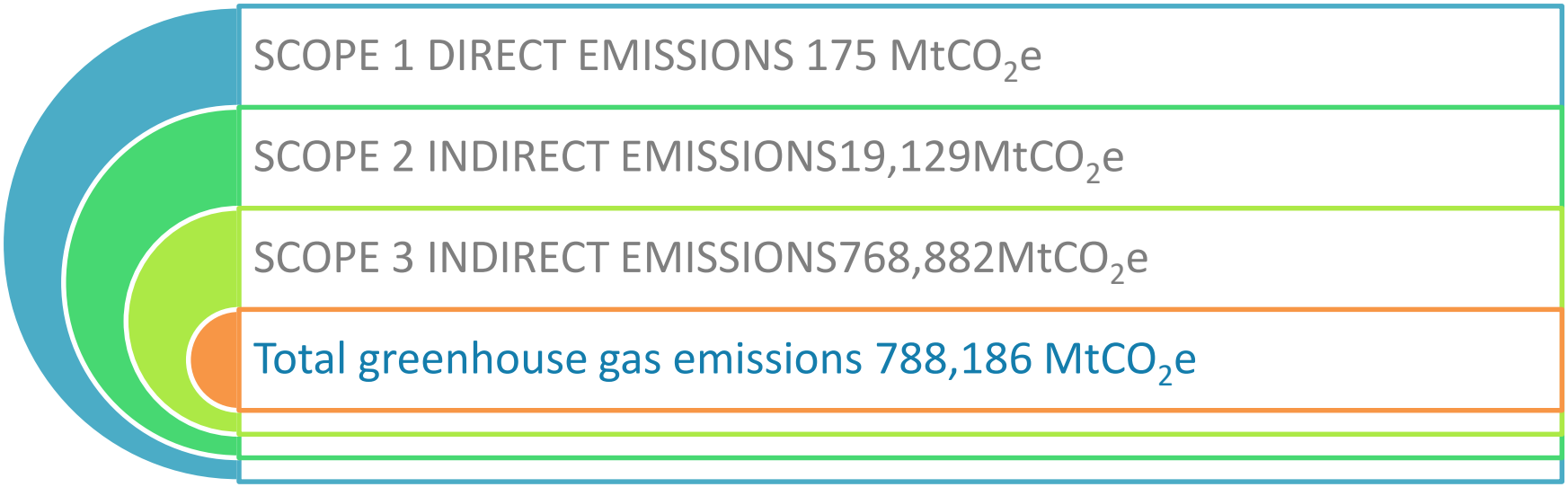
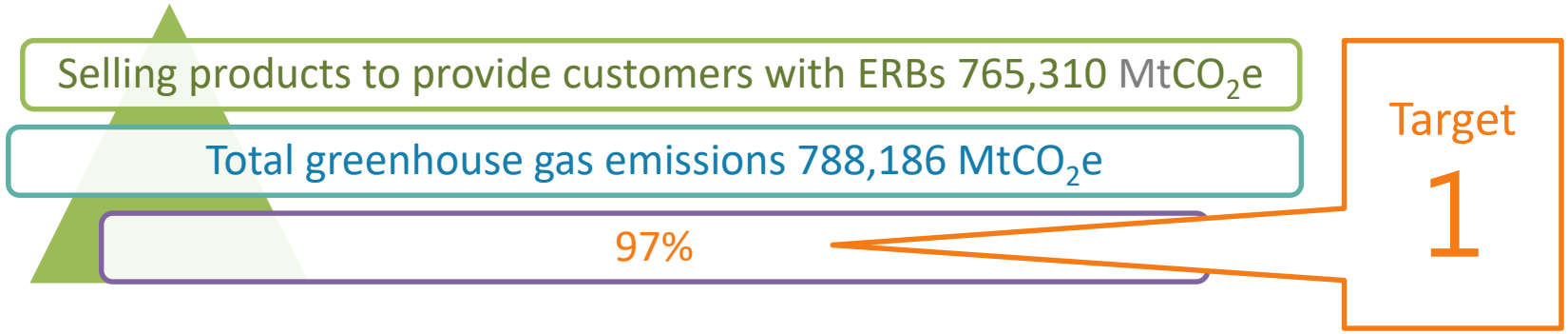
Please see Appendix





Appendix

Independent Auditor's Assurance Report on the Identified Sustainability and Climate-related Performance Information

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Independent Auditor's Assurance Report on the Identified Sustainability and Climate-related Performance Information of the comparative years 2021 and 2020 Reported in Voltronic Power Technology Corp.'s Sustainability Report for the Years Ended December 31 , 2021 and 2020, and TCFD Report for the Year Ended December 31 , 2021

To the Directors of Voltronic Power Technology Corp.

Reasonable Assurance Opinion and Limited Assurance Conclusion on Identified Sustainability and Climate-related Performance Information

We have undertaken an assurance engagement on identified sustainability and climate-related performance information, as described below, and presented in Voltronic Power Technology Corp.'s (VPT's) Sustainability Report for the Years Ended December 31 , 2021 and 2020, and TCFD (Task Force on Climate-Related Financial Disclosures) Report for the Year Ended December 31, 2021. This engagement was conducted by a multidisciplinary team with experience in sustainability performance, carbon emissions and climate change.

a. Reasonable assurance opinion

In our opinion (and subject to the inherent limitations outlined elsewhere in this report):

- The identified sustainability and climate-related performance information and related disclosures for the Years Ended December 31 , 2021 and 2020 identified below in Appendix A (reasonable assurance sustainability and climate-related performance information) are prepared in all material respects, in accordance with VPT management's measurement and reporting criteria applied for preparing that information.
- In relation to the VPT's Sustainability Report for the Years Ended December 31 , 2021 and 2020, and TCFD Report for the Year Ended December 31 , 2021, VPT has in all material respects, implemented systems and approaches to manage its material sustainability risks and opportunities in respect of the

sustainability and climate-related performance information.

b. Limited assurance conclusion

Based on the procedures we have performed and the evidence we have obtained (and subject to the inherent limitations outlined elsewhere in this report), nothing has come to our attention that causes us to believe:

- In relation to the identified sustainability and climate-related performance information for the Years Ended December 31 , 2021 and 2020 identified below in Appendix A (limited assurance sustainability and climate-related performance information), that the information presented in those Reports is not prepared, in all material respects, in accordance with VPT management's measurement and reporting criteria applied for preparing that information.
- In relation to VPT's self-declared assertion for the Years Ended December 31 , 2021 and 2020 of the Sustainability Report that the Report is presented in accordance with the "Core Option" GRI Standards, which VPT has not complied in all material respects with the relevant GRI Standard requirements for making that assertion.

Specific subject matter

We have been engaged to provide a reasonable assurance opinion and a limited assurance conclusion on the following information presented in the Report.

a. Reasonable assurance opinion

Our reasonable assurance engagement was performed in respect of the following sustainability performance information, in our opinion (and subject to the inherent limitations outlined elsewhere in this report):

- The identified sustainability and climate-related performance information and related disclosures for the Years Ended December 31 , 2021 and 2020 identified below in Appendix A (reasonable assurance sustainability and climate-related performance information) are prepared in all material respects, in accordance with the requirements of S&P Global Corporate

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Sustainability Assessment（CSA）2022 and 2021.

b. Limited assurance conclusion

Based on the procedures we have performed and the evidence we have obtained (and subject to the inherent limitations outlined elsewhere in this report), nothing has come to our attention that causes us to believe:

- In relation to the identified sustainability and climate-related performance information for the Years Ended December 31 , 2021 and 2020 identified below in Appendix A (limited assurance sustainability and climate-related performance information), that the information presented in those Reports is not prepared, in all material respects, in accordance with the requirements of S&P Global Corporate Sustainability Assessment（CSA）2022 and 2021.

VPT's responsibilities

VPT's board of directors is responsible for the selection, preparation and presentation of the identified sustainability and climate-related performance information in accordance with management's criteria. This responsibility includes the identification of stakeholders and stakeholder requirements, key issues, commitments with respect to sustainability and climate-related performance, and design, implementation and maintenance of internal control and maintaining adequate records and making estimates that are relevant to the preparation of the Report and the GRI statement, such that it is free from material misstatement, whether due to fraud or error. In addition, VPT's board of directors is responsible for, in relation to application of the GRI Standards to preparation of the Report, ensuring the Report is prepared in accordance with the GRI Reporting Principles and the "Core option" GRI Standards. The board of directors is also responsible for determining the appropriateness of the measurement and reporting criteria in view of the intended users of the identified sustainability performance information and for ensuring that those criteria are publicly available to the Report users.

Inherent limitations

Where VPT's reporting of the identified sustainability and climate-related performance information relies on factors derived by independent third parties, our assurance work has not included examination of the derivation of those factors and other third-party information.

Our assurance report does not extend to any disclosures or assertions relating to management's future performance plans, forward-looking statements or strategies disclosed in the Report.

The absence of a significant body of established practice on which to draw to evaluate and measure non-financial information allows for different, but acceptable, measures and measurement techniques and can affect comparability between entities.

In addition, greenhouse gas ("GHG") quantification is subject to inherent uncertainty because of incomplete scientific knowledge used to determine emissions factors and the values needed to combine emissions of different gases.

Limitation

Due to the influence of the new coronal pneumonia virus (covid-19), the assurance engagement was limited to carry out at the headquarter and factory of VPT in Taipei, Taiwan. We also conducted video inspection on the major manufacturing unit located at Shenzhen and ZhongShan, China and Vietnam. We have not observed any significant situations to limit our assurance engagement. The assurance engagement is carried out based on the data and information provided by VPT, assuming they are complete and true.

Independence and Quality Control

We have complied with the independence and other ethical requirements of the Code of Professional Conduct for Registered Auditors issued by the Independent Regulatory Board for Auditors (IRBA Code), which is founded on fundamental

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principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior. The IRBA Code is consistent with the corresponding sections of the International Ethics Standards Board for Accountants' International Code of Ethics for Professional Accountants (including International Independence Standards).

Our firm also applies International Standard on Quality Control 1, Quality Control for Firms that Perform Audits and Reviews of Financial Statements, and other Assurance and Related Service Engagements, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Our responsibilities

Our responsibility is to express either a reasonable assurance opinion or limited assurance conclusion on the identified sustainability performance information and climate change as set out in the Reasonable Assurance and Limited Assurance sections of the Subject Matter paragraph, based on the procedures we have performed and the evidence we have obtained. We conducted our assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised), Assurance Engagements other than Audits or Reviews of Historical Financial Information, and, in respect of the greenhouse gas emissions, in accordance with ISAE 3410, Assurance Engagements on Greenhouse Gas Statements, issued by the International Auditing and Assurance Standards Board. Those Standards require that we plan and perform our engagement to obtain the appropriate level of assurance about whether the identified sustainability and climate-related performance information is free from material misstatement.

The procedures performed in a limited assurance engagement vary in nature and timing and are less in extent than for a reasonable assurance engagement. As a

result, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement.

Summary of work performed

a. Reasonable assurance opinion

A reasonable assurance engagement in accordance with ISAE 3000 (Revised) and ISAE 3410 involves performing procedures to obtain evidence about the measurement of the identified sustainability performance information and climate change in the Report. The nature, timing and extent of procedures identified depend on the auditor's professional judgement, including the assessment of the risks of material misstatement of the identified sustainability and climate-related performance information, whether due to fraud or error. In making those risk assessments, we have considered internal control relevant to VPT's preparation of the identified sustainability and climate-related performance information.

- For the relevant sustainability and climate-related performance information (listed in Appendix A), we:
  - Tested the suitability and application of management's criteria to the reported information on a sample basis;
  - Performed analytical procedures to evaluate the relevant data generation and reporting processes against management's criteria;
  - Inspected supporting documentation on a sample basis to corroborate the statements of management and senior executives in our interviews;
  - Evaluated the reasonableness and appropriateness of significant estimates and judgements made by the directors in preparing the sustainability and climate-related performance information;
- Established and documented the existence and status of the implementation of systems and approaches that VPT uses to manage identified risks and

opportunities related to its sustainability and climate-related performance.

- We also performed such other procedures as we considered necessary in the circumstances

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our reasonable assurance opinion.

b. Limited assurance conclusion

A limited assurance engagement undertaken in accordance with ISAE 3000 (Revised) and ISAE 3410 involves assessing the suitability in the circumstances of VPT's use of its reporting criteria as the basis of preparation for the identified sustainability and climate-related performance information, assessing the risks of material misstatement of the identified sustainability and climate-related performance information whether due to fraud or error, responding to the assessed risks as necessary in the circumstances, and evaluating the overall presentation of the identified sustainability and climate-related performance information. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks. The procedures we performed were based on our professional judgement. A limited assurance engagement consists of making enquiries, primarily of persons responsible for preparing the subject matter and related information, and applying analytical and other appropriate procedures.

- For the identified sustainability and climate-related performance information (listed in Appendix A), we:
  - Interviewed management and senior executives to obtain an understanding of the internal control environment, risk assessment process and information systems relevant to reporting sustainability and climate-related performance information and identified material sustainability and climate change risks and opportunities;
  - Performing limited tests of detail on the identified sustainability and

climate-related performance information, on a selective basis, as part of assessing whether (i) the data has been appropriately measured, recorded, collated and reported; and (ii) activities set out by management are appropriately evidenced and reported; and

- Performing analytical procedures to evaluate the relevant data generation and reporting processes against management's criteria.

- We examined the GRI content index prepared by management to assess whether management has made disclosures in accordance with all the GRI Standards requirements for presenting the Report in accordance with the GRI Standards "Core Option", to obtain limited assurance about management's assertion to that effect.
- We also performed such other procedures as we considered necessary in the circumstances.

We believe that the evidence obtained is sufficient and appropriate to provide a basis for our limited assurance conclusions.

Restriction of Liability

Our report, including our opinion/conclusions, has been prepared solely for the Board of Directors of VPT in accordance with the agreement between us and for no other purpose. We permit this report to be published in VPT's FY 2021 Sustainability Report and FY2021 TCFD Report, to assist the Board of Directors in responding to their governance responsibilities by obtaining an independent assurance report in connection with the identified sustainability performance information.

To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Board of Directors and VPT for our work or for our report and the conclusion contained therein. We agree to publication of our assurance report within VPT's Reports provided it is clearly understood by recipients or readers of the Reports that they enjoy such receipt for information

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only and that we accept no duty of care to them whatsoever in respect of our assurance report.

Maintenance and integrity of VPT's website is the responsibility of VPT's management. Our procedures did not involve consideration of these matters and, accordingly we accept no responsibility for any changes to either the identified sustainability and climate-related performance information as reported, or our independent assurance report that may occur subsequent to the initial date of publication of the Report on VPT's website.

HangSeng Sustainability

Wu, Shin

Certified Public Accountant

Taiwan, 5th June 2022

APPENDIX A：

List of the identified sustainability and climate-related performance information (KPIs) in the scope of the assurance engagement

Category	Selected KPIs	Management's Measurement and Reporting Criteria	FY2021	FY2020	GRI CSA disclosure	Level of assurance
Emissions	Direct (Scope 1) GHG emissions	a. Gross direct (Scope 1) GHG emissions in metric tons of CO_2 equivalent. b. Gases included in the calculation; whether CO_2, CH_4, N_2O, HFCs, PFCs, SF_6, NF_3, or all. c. Biogenic CO_2 emissions in metric tons of CO_2 equivalent.	175 $MtCO_2e$	143 $MtCO_2e$	GRI 305-1 CSA 2.3.1	Reasonable
Emissions	Energy indirect (Scope 2) GHG emissions	a. Gross location-based energy indirect (Scope 2) GHG emissions in metric tons of CO_2 equivalent	19,129 $MtCO_2e$	15,835 $MtCO_2e$	GRI 305-2 CSA 2.3.2	Reasonable
Energy Consumption	The energy consumption	a. Energy consumption within the organization b. Energy consumption outside of the organization c. Energy intensity	21,742 MWh	18,163 MWh	GRI 302 CSA 2.3.3	Reasonable
Water Consumption	Total water withdrawal	a.Total water withdrawal from all areas in megaliters	0.169671 megaliters	0.116858 megaliters	GRI 303-3 CSA 2.3.4	Reasonable
Emissions	Energy indirect (Scope 3) GHG emissions	a. Gross other indirect (Scope 3) GHG emissions in metric tons of CO_2 equivalent.	768,882 $MtCO_2e$	643,103 $MtCO_2e$	GRI 305-3 CSA 2.3.8	Limited
Emission Reduction Benefits	Emission reduction benefits of selling goods	All products have Energy Efficiency ERBs, PV Inverter has Energy Efficiency and Renewables ERBs.	765,310 $MtCO_2$	670,301 $MtCO_2$	GRI 305-4 CSA 2.4.3	Limited
Waste	Waste Disposal	Company's total solid waste disposed (i.e. not recycled, reused or incinerated waste for energy recovery) for the part of company's operations	624 Mt	490 Mt	GRI 306 CSA 2.3.5	Limited
Waste	Hazardous Waste	Company's direct hazardous waste generation for the part of company's operations	2.41 Mt	1.45 Mt	GRI 306 CSA 2.3.6	Reasonable
Occupational Health and Safety	Fatalities	work-related fatalities	0	0	GRI403	Reasonable
Occupational Health and Safety	Lost-Time Injury Frequency Rate (LTIFR) - Employees	Company's lost-time injury frequency rate for employees (per one million hours worked)	1.64	1.85	GRI403	Reasonable
Occupational Health and Safety	Occupational Illness Frequency Rate (OIFR) - Employees	Company's occupational illness frequency rate for employees (per one million hours worked)	0.49	1.18	GRI403	Reasonable

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