Module: Introduction

Page: Introduction

CC0.1

Introduction
Please give a general description and introduction to your organization.

Founded in 1983, Advantech is a leader in providing trusted innovative embedded and automation products and solutions. Advantech offers comprehensive system integration, hardware, software, customer-centric design services, and global logistics support; all backed by industry-leading front and back office e-business solutions. Advantech has always been an innovator in the development and manufacture of high-quality, high-performance computing platforms. We cooperate closely with our partners to help provide complete solutions for a wide array of applications across a diverse range of industries. To realize our corporate vision of Enabling an Intelligent Planet, Advantech will continue collaborating and Partnering for Smart city & IoT Solutions.
At the core of Advantech's implementation of corporate citizenship is its commitment to Corporate Social Responsibility (CSR). In accord with that commitment, Advantech has established its Board, Audit Committee, Compensation Committee, Risk Management Committee and other mechanisms to oversee and help organize the corporate operation, audit institutions, improve corporate governance and make it fully responsible to its valued stakeholders. Moreover, through its quality management commitment which has been an essential part of its corporate culture, Advantech is devoted to consistent innovation in design, product quality and reliability, and in being responsible toward both its customers and the environment. Due to our on-going efforts, Advantech has not only grown steadily in size and profit, but also repeatedly won the endorsements of many well-known brands and product awards at home and abroad.
1. Building a Successful Sustainable LITA (altruistic) Enterprise:
Advantech believes, a corporation is just like an LITA (altruistic) tree rooted in the earth. To make the tree grow strongly, sunshine, air, water, and nutrients are needed, none is dispensable.
We think that perfect company governance and stakeholder balance will root the corporation deeply and establish a solid foundation. Sound organization development will grow into a strong trunk to support the corporation's operations; active talent cultivation will make the corporation flourish and expand with green shoots for market growth, and finally bear rich profitable fruit that the whole corporation can share together; and finally at last the fruit will drop to the ground to nourish the earth, so a corporation will also undertake full responsibility as a social citizen.
Advantech believes in altrusim, and considers the "altruist LITA tree" spirit is the core value of the corporation. We believe, as a social organism, a corporation must sow good deeds with an altruistic spirit, and naturally gain unlimited blessings through a continuous virtuous cycle.
Advantech is proud and conscientious about its social citizenship responsibilities, and is expected to lead the whole industry to a place where everyone can live and work in peace and contentment.
2. Consider Stakeholder Balance as the Base of Operation:
Advantech thinks the base of sustainable operation is, seeking the perfect balance of stockholders. Only if the foundation is solid, can the enterprise last and the

LITA tree spirit be implemented. We abandon the traditional narrow value that aims to maximize stockholder benefit as the only goal. We believe, that in addition to the support of stockholders, the growth of a corporation also needs active employee involvement, customer satisfaction and trust, along with all their share of virtuous social engagement.
For stockholders with long support, we promise we will always operate in an open and honest spirit and reward them with a stable dividend as we progress toward a sustainable operation.
For employees, we promise Advantech will provide an honest and open development environment where employees can enjoy a beautiful life and entrust themselves for a lifetime.
For customers that trust us, we promise we will always focus on being a global leader in the system integration service field, and take "Enabling an intelligent planet" as our long-term vision for future development.
For society that coexists and thrives together with us, we promise we will dedicate ourselves to becoming a model corporate citizen, actively promote an altruistic spirit, and benefit the public with our industrial results, and return the corporation's growth back to society.

CC0.2

Reporting Year
Please state the start and end date of the year for which you are reporting data.
The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first.
We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request. (This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year.
Please enter dates in following format: day(DD)/month(MM)/year(YYYY) (i.e. 31/01/2001).

Enter Periods that will be disclosed
Thu 01 Jan 2015 - Thu 31 Dec 2015

CC0.3

Country list configuration

Please select the countries for which you will be supplying data. If you are responding to the Electric Utilities module, this selection will be carried forward to assist you in completing your response.

Select country
Taiwan

CC0.4

Currency selection

Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.

TWD

CC0.6

Modules

As part of the request for information on behalf of investors, electric utilities, companies with electric utility activities or assets, companies in the automobile or auto component manufacture sub-industries, companies in the oil and gas sub-industries, companies in the information technology and telecommunications sectors and companies in the food, beverage and tobacco industry group should complete supplementary questions in addition to the main questionnaire.
If you are in these sector groupings (according to the Global Industry Classification Standard (GICS)), the corresponding sector modules will not appear below but will automatically appear in the navigation bar when you save this page. If you want to query your classification, please email respond@cdp.net.
If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below. If you wish to view the questions first, please see https://www.cdp.net/en-US/Programmes/Pages/More-questionnaires.aspx.

Further Information

Advantech CSR Website: http://www.advantech.com/csr/default.aspx

Module: Management

Page: CC1. Governance

CC1.1

Where is the highest level of direct responsibility for climate change within your organization?

Board or individual/sub-set of the Board or other committee appointed by the Board

CC1.1a

Please identify the position of the individual or name of the committee with this responsibility

1) At the core of Advantech's implementation of corporate citizenship is its commitment to Corporate Social Responsibility (CSR). In accord with that commitment, Advantech has established its Board, Audit Committee, Compensation Committee, Risk Management Committee and other mechanisms to oversee and help organize the corporate operation, audit institutions, improve corporate governance and make it fully responsible to its valued stakeholders.

2) The organization of risk management steering committee: Board Chairman : CEO; Director on Board: COO, CFO, CTO, CIO, HR, Procurement V.P., Logistics V.P., Manufactory V.P. Everyone in Advantech has responsibility for enterprise risk management. The Chief Executive Officer is ultimately responsible and assumes ownership. Management team supports the risk management policy & process, promote compliance with its risk appetite, and manage risks within their spheres of responsibility. All employees are expected to be familiar with this policy, take a risk management approach to their work and escalate issues to the management team. The region, group and function heads are responsible for implementing the policy, monitoring its implementation in the everyday activities of their division. The risk management steering committee consists of the key executives is required to review and monitoring of the risk management process semi-annually to ensure that risks are effectively identified and assessed and that appropriate controls and responses are in place. An irregular meeting is hold by CEO when significant risk is triggered.

3) Advantech also builds the CSR committee team to manage all the relative tasks. CSR team is lead by CEO and implement regular meeting to review all the CSR relative affairs.We invited cross-functional experts to join the CSR team and follow PDCA methodology to keep improvement.All the CSR program status reports to CEO and board of directors.Moreover,Advantech will implement AA1000 Type 2 assurance for 2015 CSR report.

Regarding the organizational framework of Advantech's CSR program, the CSR Steering Committee is led by the committee chairman who convenes regular meetings to review and confirm the status of and strategies for CSR promotion and approve the company's annual sustainability reports. The CSR Steering Committee manages a main office (known as the CSR Promotion Office) and the following six subcommittees: Corporate Governance Committee, Labor Relations Committee, Environmental Protection and Energy Conservation Committee, External Communications Committee, Social Care Committee, and Industry-Academia Collaboration Committee.

The CSR Promotion Office uses the "Plan-Do-Check-Act" (PDCA) Cycle management approach to regularly identify stakeholders, obtain and examine stakeholders' key concerns, and report these concerns during annual meetings to ensure all material aspects are covered. After approval from the CSR Steering Committee, the CSR Promotion Office executes action plans for CSR activities. The progress and outcome of
these activities are then reported to the CSR Steering Committee and company executives. Additionally, the

company executives participate in annual discussions regarding industry-academia collaboration and social welfare projects.

Please find the attachment "Advantech CSR committee introduction" as a detail reference.

CC1.2

Do you provide incentives for the management of climate change issues, including the attainment of targets?

Yes

CC1.2a

Please provide further details on the incentives provided for the management of climate change issues

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
Board chairman	Monetary reward	Emissions reduction project Energy reduction project	The Chief Executive Officer is ultimately responsible and assumes ownership.
Board/Executive board	Monetary reward	Emissions reduction project Energy reduction project	CFO (Chief Financial Officer) and Legal Manager e.g.exchange rate, interest rate, global regulation analysis
Director on board	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction project	COO, CFO, CTO, CIO, HR, Procurement V.P., Logistics V.P., Manufactory V.P. : 1.Financial Risks 2.Operational Risks 3.Technology Risks 4.Quality Risks 5.Human Resource Risks

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
		Energy reduction target Efficiency project Efficiency target	
Corporate executive team	Recognition (non-monetary)	Emissions reduction project Emissions reduction target Energy reduction project Energy reduction target Efficiency project Efficiency target	Overall environmental factors that cause potential threat to Advantech's operations and business ranging from exchange rate, interest rate, political situation, important social event, educational level of invested area, significant market booming or depression that causes demand fluctuation, commodity and material price changes posing a threat to Advantech's operation and business, etc.
Business unit managers	Recognition (non-monetary)	Energy reduction project Energy reduction target Efficiency project Efficiency target	The region, group and function heads are responsible for implementing the policy, monitoring its implementation in the everyday activities of their division.
All employees	Other non-monetary reward	Efficiency project	All employees are expected to be familiar with this policy, take a risk management approach to their work and escalate issues to the management team.

Further Information

Please refer to our BCP (Business Continuity Plan) procedure and slides as attachment. For CSR committee, please also refer to the Advantch CSR committee introduction as attachment.

Attachments

https://www.cdp.net/sites/2016/30/21330/Climate Change 2016/Shared Documents/Attachments/ClimateChange2016/CC1.Governance/E-009_Advantech Business Continuity Plan_A1.pdf
https://www.cdp.net/sites/2016/30/21330/Climate Change 2016/Shared Documents/Attachments/ClimateChange2016/CC1.Governance/Advantech CSR Committee Introduction.pdf
https://www.cdp.net/sites/2016/30/21330/Climate Change 2016/Shared Documents/Attachments/ClimateChange2016/CC1.Governance/Advantech BCP Plan 2016.pdf

Page: CC2. Strategy

CC2.1

Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities

Integrated into multi-disciplinary company wide risk management processes

CC2.1a

Please provide further details on your risk management procedures with regard to climate change risks and opportunities

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
Annually	Board or individual/sub-set of the Board or committee appointed by the Board	The risks facing an organization and its operations can result from factors both external and internal to the organization. The following five key risk categories and five risk sources are identified: Five Key risk categories: - Financial Risks - Operational Risks - Technology Risks - Quality Risks - Human Resource Risks Five risk sources: Natural Hazard: Significant geographical & natural environmental	> 6 years	Laws & Regulations: Laws & regulations those are relevant to Advantech's operation ranging from labor insurance, health care insurance, and environmental regulations, to accounting policies & financing regulation. Internal Resource: Misconduct or human mistake/error of management, staff, first-line personnel that causes serious damage or loss of Advantech's operations and business. Macro

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
		changes that pose impact or threat on Advantech's operation and business continuity.		Environment: Overall environmental factors that cause potential threat to Advantech's operations and business ranging from exchange rate, interest rate, political situation, important social event, educational level of invested area, significant market booming or depression that causes demand fluctuation, commodity and material price changes posing a threat to Advantech's operation and business, etc. External Resource: Resource outside the business scope of Advantech ranging from local community, financing resource (i.e. banks, bondholders, stockholders), government, suppliers, etc.

CC2.1b

Please describe how your risk and opportunity identification processes are applied at both company and asset level

The risks facing an organization and its operations can result from factors both external and internal to the organization. The following five key risk categories and five risk sources are identified: Five Key risk categories: - Financial Risks - Operational Risks - Technology Risks - Quality Risks - Human Resource Risks Five risk sources: Natural Hazard: Significant geographical & natural environmental changes that pose impact or threat on Advantech's operation and business continuity.

1. Risks/opportunities are assessed at a Company Level:
Advantech established BCP (Business Continuity Plan) based on both corporate vision and sustainability. We defined significant natural environmental changes that pose impact or threat on Advantech's operation and business continuity.

2. Risks/opportunities are assessed at Asset Level
EHS annual Management Review Meeting is arranged to review the KPIs and establishment of future direction and target. Advantech will collect data from all sites and review in the annual Management Review Meeting to the EHS Management Representative, Ys Yang.

3. Frequency of monitoring
Monthly: KPI Report
Annually: CSR committee meeting /Management Review Meeting

CC2.1c

How do you prioritize the risks and opportunities identified?

Basically, Advantech follow FMEA's concept to analyze the risk and opportunities by 4 dimensions: FSDO. Frequency, Scope, Detection and Other's factor. The procedure is established to investigate and verify which will have direct and indirect influence on environment and climate change.

CC2.1d

Please explain why you do not have a process in place for assessing and managing risks and opportunities from climate change, and whether you plan to introduce such a process in future

Main reason for not having a process	Do you plan to introduce a process?	Comment

CC2.2

Is climate change integrated into your business strategy?

Yes

CC2.2a

Please describe the process of how climate change is integrated into your business strategy and any outcomes of this process

Advantech ascribes to the altruistic LiTa Tree concept, where the growth of a corporation is compared to that of a tree and society can be considered the soil that provides a foundation and nourishment for growth. Therefore, similar to how fruits that fall from a tree renourish the soil, we must reinvest the "fruits" of our labor back into society. Although Advantech's achievements can be attributed to over 30 years of dedicated effort, their ongoing success depends on the continued

provision of environmental resources. Considering its responsibility to society and aim of creating a beautiful life, Advantech is committed to investing the utmost effort into improving the environment and ensuring labor safety. Accordingly, Advantech not only implemented the ISO 14001 Environmental Management System standards in 1996, OHSAS 18001 Occupational Safety and Health Management System standards in 2005, as well as practices that comply with government regulations for environmental protection, labor safety, and health, but also endeavors to reduce the environmental impact of its GHG management, product design/use, and waste disposal operations. Through these efforts, and the participation and commitment of employees, Advantech has established appropriate strategies that ensure environmental protection and sustainable corporate development.

1) Green Product Management - Eco-Friendly Product Design
Advantech has voluntarily achieved ENERGY STAR® certifications for 14 product lines . Moreover, all Advantech computer equipment and power supplies conform to the latest ENERGY STAR® regulations and requirements. This evidences Advantech's contribution to the development of green products.

Advantech amended its internal management standards according to various environmental protection policies (e.g., RoHS 2.0), and in 2009 incorporated the IECQ HSPM QC080000 Hazardous Substances Process Management standards. A green supply chain information management platform was established for controlling risks.

2) Environmental Protection Management
To sustain human life and protect the earth's natural environment, Advantech endeavors to reduce the impact of its product design/application and waste disposal operations. In addition to complying with relevant regulations, the company encourages all employees to participate in environmental protection and sustainable corporate development. To accomplish these goals, Advantech has initiated environmental protection management projects that emphasize energy conservation, carbon reduction, and waste reduction.

3) Advantech's environmental declarations and policies

3-1 Reduce impact on the environment
3-2 Fulfill environmental protection responsibilities
3-3 Implement resource recycling
3-4 Promote industrial waste reduction
3-5 Comply with environmental protection regulations

CC2.2b

Please explain why climate change is not integrated into your business strategy

CC2.2c

Does your company use an internal price of carbon?

No, and we currently don't anticipate doing so in the next 2 years

CC2.2d

Please provide details and examples of how your company uses an internal price of carbon

CC2.3

Do you engage in activities that could either directly or indirectly influence public policy on climate change through any of the following? (tick all that apply)

Direct engagement with policy makers
Funding research organizations

CC2.3a

On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
Mandatory carbon reporting	Support	In the establishment of environmental, health and safety management system, Advantech already hired environmental engineering expert to identify our activities, products and services process.	According to GRI KPI index, collect the data once a month.
Energy efficiency	Support	In the establishment of environmental, health and safety management system, Advantech already hired environmental engineering expert to identify our activities, products and services process.	According to GRI KPI index, collect the data once a month.
Clean energy generation	Support	In the establishment of environmental, health and safety management system, Advantech already hired environmental engineering expert to identify our activities, products and services process.	

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
Energy efficiency	Support	Advantech built the Linkou green building and implement Intelligent Building Energy Management to perform effective green energy management. Please refer the attachement report for detail reference.	2014 Aug to 2015 May Energy Saving : 11.9% , 290Myh Expense saving: NT$ 1.01M

CC2.3b

Are you on the Board of any trade associations or provide funding beyond membership?

CC2.3c

Please enter the details of those trade associations that are likely to take a position on climate change legislation

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?

CC2.3d

Do you publicly disclose a list of all the research organizations that you fund?

Yes

CC2.3e

Please provide details of the other engagement activities that you undertake

CC2.3f

What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

1. In the establishment of environmental, health and safety management system, Advantech already hired environmental engineering expert to identify our activities, products and services process which might be involved in legislation and regulations, and recorded it in list by assigner. 2. There are the consultants of the research organizations e.g. SGS, TUV and IST.

CC2.3g

Please explain why you do not engage with policy makers

Further Information

1. Please refer to Advantech BCP (Business Continuity Plan) as attachment. 2. Please refer Advantech Intelligent building solution report

Attachments

https://www.cdp.net/sites/2016/30/21330/Climate Change 2016/Shared Documents/Attachments/ClimateChange2016/CC2.Strategy/E-009_Advantech Business Continuity Plan_A1.pdf
https://www.cdp.net/sites/2016/30/21330/Climate Change 2016/Shared Documents/Attachments/ClimateChange2016/CC2.Strategy/Advantech I-building SRP.pptx

Page: CC3. Targets and Initiatives

CC3.1

Did you have an emissions reduction or renewable energy consumption or production target that was active (ongoing or reached completion) in the reporting year?

Intensity target

CC3.1a

Please provide details of your absolute target

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions covered by target (metric tonnes CO2e)	Target year	Is this a science-based target?	Comment

CC3.1b

Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions covered by target	Target year	Is this a science-based target?	Comment
Int1	Scope 2 (location-based)	97.29%	26.17%	Metric tonnes CO2e per unit FTE employee	2014	7911	2015	Yes	Note: 2015 electronic consuming is higher compared to 2014 is because of Advantech Linkou factory building construction 2014 : Emissions in scope 2= 7911 tones CO2e, 3229 employees (7911/3229=2.449) 2015 : Emissions in scope 2= 9700 tones CO2e, 3138 employees (9700/3138=3.09) Reduction target is (2.449-3.09)/2.449=- 26.17%
Int2	Scope 2 (location-based)	92.29%	1%	Other: Metric tonnes CO2e per annual value of production	2014	17715	2015	Yes	2014 : Emissions in scope 2= 17715 tones CO2e, 207856 annual value of production (207856/17715=10.79) 2015 : Emissions in scope 2= 18010 tones CO2e, 212976 annual value of production (212976/18010=10.91) Reduction target is (10.91-10.79)/10.79= 1%

CC3.1c

Please also indicate what change in absolute emissions this intensity target reflects

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment
Int1	Increase	18	No change	0	Advantech Taiwan Summary : 2014 : Emissions in scope 1= 260 tones CO2e, scope 2= 7911 tones CO2e 2015 : Emissions in scope 1= 270 tones CO2e, scope 2= 9700 tones CO2e (270+9700) - (260+7911) /(260+7911) = 18% Note: 2015 electronic consuming is higher compared to 2014 is because of Advantech Linkou factory building construction
Int2	Increase	1.2	No change	0	Advantech China Summary : 2014 : Emissions in scope 1= 1557 tones CO2e, scope 2= 17715 tones CO2e 2015 : Emissions in scope 1= 1507 tones CO2e, scope 2= 18010 tones CO2e (1507+18010) - (1557+17715) /(1557+17715) = 1.2%

CC3.1d

Please provide details of your renewable energy consumption and/or production target

ID	Energy types covered by target	Base year	Base year energy for energy type covered (MWh)	% renewable energy in base year	Target year	% renewable energy in target year	Comment

CC3.1e

For all of your targets, please provide details on the progress made in the reporting year

ID	% complete (time)	% complete (emissions or renewable energy)	Comment
Int1	100%	50%	Note: 2015 electronic consuming is higher compared to 2014 is because of Advantech Linkou factory building construction

CC3.1f

Please explain (i) why you do not have a target; and (ii) forecast how your emissions will change over the next five years

CC3.2

Do you classify any of your existing goods and/or services as low carbon products or do they enable a third party to avoid GHG emissions?

Yes

CC3.2a

Please provide details of your products and/or services that you classify as low carbon products or that enable a third party to avoid GHG emissions

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
Product	The ENERGY STAR® label was established by the U.S. Environmental Protection Agency in 1992 and has been adopted in many countries worldwide including Canada, Japan, Taiwan, Australia, New Zealand, and the European Union. ENERGY STAR® serves as the international standard for energy efficient consumer goods (e.g., computers, printers, photocopy machines, monitors, and scanners). Computer equipment is required to conform to the specifications of not only ENERGY STAR® Computer Specifications 5.0, but also ENERGY STAR® EPS 2.0.	Low carbon product	Low Carbon Investment (LCI) Registry Taxonomy	15%	More than 20% but less than or equal to 40%	Advantech has voluntarily achieved ENERGY STAR® certifications for 14 product lines. Moreover, all Advantech computer equipment and power supplies conform to the latest ENERGY STAR® regulations and requirements. This evidences Advantech's contribution to the development of green products.
Group of products	Advantech provides Intelligent Building (Energy Management System) solution to help Factory,Hospital and University for energy management. (Please refer the attachment report for detail reference) Core of central control system 1) Real time energy monitoring 2) Define reasonable & wasting usage 3) Solid reference for energy invest 4) Green company & building image	Low carbon product	Low Carbon Investment (LCI) Registry Taxonomy	10%	More than 20% but less than or equal to 40%	1) EMS concentrate all energy consumption data, and colleagues can setup condition to alarm all kinds of information to remedy issue immediately. 2) EMS recommend contract capacity and predict next period usage & unload device to control energy expense.Monitoring heavy power consumption equipment, (ex: Chiller / air compressor / heat pump), to eliminate UN-scheduled operation condition. 3) Optimize indoor temperature by sunshine degree and outdoor temperature from weather station, keeping

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
						human comfort at priority.

CC3.3

Did you have emissions reduction initiatives that were active within the reporting year (this can include those in the planning and/or implementation phases)

Yes

CC3.3a

Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings

Stage of development	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation		
To be implemented*		
Implementation commenced*		
Implemented*	1	430000
Not to be implemented		

CC3.3b

For those initiatives implemented in the reporting year, please provide details in the table below

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
Energy efficiency: Building services	Advantech Linkou I-building Solution System	430000	Scope 2 (location-based)	Voluntary	350000	15100000	1-3 years	>30 years	Advantech's Linkou Intelligent Campus features building energy management and people-sensing energy conservation systems, which include intelligent air-conditioning and parking systems, as well as all-in-one access cards aimed at achieving smarter buildings. By ensuring comprehensive detection, reliable transmission, and instrumented, interconnected, and intelligent processing, as well as cloud systems for convenient use, Advantech successfully constructed an intelligent building. Through intelligent management, effective energy Campus conservation can be achieved and resource wastage prevented. Intelligent power management is implemented by using a single button to control the lights and projectors in the conference

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
									room; various different settings such as presentation mode or discussion mode are also provided. This prevents unnecessary resource waste should employees forget to switch off the power supply.

CC3.3c

What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	EU ErP Directive, Energy Star, ISO14064, PAS2050
Dedicated budget for energy efficiency	Purchase energy efficient products
Dedicated budget for low carbon product R&D	EU ErP Directive, Energy Star, ISO14064, PAS2050 certificaion budget
Employee engagement	Control building temperature, Use energy efficient light bulbs , Promote use of stairs instead of elevators, Turn off lights when not in use, Greater use of public transportation
Financial optimization calculations	Budget review
Internal price of carbon	electricity CO2
Internal incentives/recognition programs	Advantech Energy Efficiency Programs
Partnering with governments on technology	Energy efficiency products development

Method	Comment
development	

CC3.3d

If you do not have any emissions reduction initiatives, please explain why not

Further Information

Attachments

https://www.cdp.net/sites/2016/30/21330/Climate Change 2016/Shared Documents/Attachments/ClimateChange2016/CC3.TargetsandInitiatives/2015 Advantech GHG Analysis_201605(China).pdf
https://www.cdp.net/sites/2016/30/21330/Climate Change 2016/Shared Documents/Attachments/ClimateChange2016/CC3.TargetsandInitiatives/Advantech I-building SRP.pptx
https://www.cdp.net/sites/2016/30/21330/Climate Change 2016/Shared Documents/Attachments/ClimateChange2016/CC3.TargetsandInitiatives/2015 Advantech GHG Analysis_201605.xlsx

Page: CC4. Communication

CC4.1

Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s)

Publication	Status	Page/Section reference	Attach the document	Comment

Publication	Status	Page/Section reference	Attach the document	Comment
In mainstream reports (including an integrated report) but have not used the CDSB Framework	Complete	page37,85	https://www.cdp.net/sites/2016/30/21330/Climate Change 2016/Shared Documents/Attachments/CC4.1/Advantech 2015 annual report .pdf	In Advantech annual report, we response to climate change and GHG emissions performance.
In voluntary communications	Complete	page1	https://www.cdp.net/sites/2016/30/21330/Climate Change 2016/Shared Documents/Attachments/CC4.1/SGS Assurance Statement.pdf	In Advantech CSR annual report, we response to climate change and GHG emissions performance. Advantech CSR report download Link: http://wfcache.advantech.com/www/csr/pdf/csr_2014_report.pdf

Further Information

Module: Risks and Opportunities

Page: CC5. Climate Change Risks

CC5.1

Have you identified any inherent climate change risks that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Risks driven by changes in regulation
Risks driven by changes in physical climate parameters
Risks driven by changes in other climate-related developments

CC5.1a

Please describe your inherent risks that are driven by changes in regulation

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Emission reporting obligations	Based on the current GHG emissions requirement in Taiwan, the company is still voluntary to report. However, organizational emissions may be enforced before the Law to establish baseline data. Therefore, the government probably will enforce all the companies to summit the GHS emission information as well as the carbon reduction plan.	Increased operational cost	1 to 3 years	Direct	Very likely	Medium	Although so far GHS emission reporting is not mandatory in Taiwan , in the future if the company refused to report GHG data, it will be fined approximately US$100 to US$2000.	Advantech conducted the first GHG emissions inventory and reduction planning based on the ISO14064-1 standard from 2010. The outcomes of which were published in relevant reports and on the company website. From last year, Advantech GHG data was verified by third party SGS , as well as participating in CDP disclosure. Advantech implemented the following energy-saving projects: 1) Advantech's Linkou Intelligent Campus features building energy management and people-sensing energy conservation	The cost of establishing the GHG inventory/ Green Building and passing third party verification is around US$40,000,000 .

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								systems, which include intelligent air-conditioning and parking systems, as well as all-in-one access cards aimed at achieving smarter buildings. By ensuring comprehensive detection, reliable transmission, and instrumented, interconnected, and intelligent processing, as well as cloud systems for convenient use, Advantech successfully constructed an intelligent building. Through intelligent management, effective energy conservation can be achieved and resource wastage prevented. 2) Intelligent power management is implemented by using a single button to control	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								the lights and projectors in the conference room; various different settings such as presentation mode or discussion mode are also provided. This prevents unnecessary resource waste should employees forget to switch off the power supply.	
Product efficiency regulations and standards	The carbon footprint of products is the major use due to energy consumption. In Taiwan, EPA has launched Taiwan Product Carbon Footprint Labeling System in 2010. Therefore, how to design the green and energy-saving product is an important issue now.	Reduced demand for goods/services	3 to 6 years	Direct	Likely	Medium	So far the green concept is emphasized as a well-known idea, a consumer become more realizing of energy-efficient product is important to environment protection. A product without energy-efficiency feature will have risk to loss clients' trust in market. Therefore, assuming a	Eco-Friendly Product Design Advantech believes in protecting the environment by preventing pollution, using less energy and raw materials, reducing waste generation, and using clean production technologies, which involves modifying production processes to reduce the	Cost of Energy Star verification is around USD 279,000

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							worse case 15% loss in the market share due to the poor energy-efficiency, it would have a financial impact around US$ 181 million decrease of the annual revenue.	pollutants generated rather than using end-of-pipe solutions to resolve pollution. Regarding waste reduction, the company recycles packaging materials and minimizesthe use of raw materials and energy when designing products and selecting technologies. The ENERGY STAR® label was established by the U.S. Environmental Protection Agency in 1992 and has been adopted in many countries worldwide including Canada, Japan, Taiwan, Australia, New Zealand, and the European Union. ENERGY STAR® serves as the international standard for energy efficient	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								consumer goods. Computer equipment is required to conform to the specifications of not only ENERGY STAR® Computer Specifications 5.0, but also ENERGY STAR® EPS 2.0. Advantech has voluntarily achieved ENERGY STAR® certifications for 14 product lines. Moreover, all Advantech computer equipment and power supplies conform to the latest ENERGY STAR® regulations and requirements. This evidences Advantech's contribution to the development of green products.	

CC5.1b

Please describe your inherent risks that are driven by changes in physical climate parameters

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Change in precipitation extremes and droughts	In Taiwan, the situation of precipitation extremes and droughts are get worse. The amount of precipitation that falls during the wet and dry seasons differs significantly. Because of the challenge involved in storing water resources, when water reserves are low, various industries can face severe water shortages. This unstable water supply will cause some operation risk.	Reduction/disruption in production capacity	Up to 1 year	Direct	Likely	Medium	According to Advantech's 2015 revenue report, if there is any production interruption per day caused, Advantech may loss of USD 4.8 million.	In order to manage this kind of risk, Advantech defined the BCP (business continuity plan) and water saving strategies, including the use of water-saving faucets and toilets, to reduce the average water consumption per capita. Advantech's campuses are located in developed industrial zones or technology parks in urban areas. For all of these campuses, tap water serves as the primary source of water, no extraction of underground or well water is conducted, and water	Advantech's main initiatives regarding water conservation are listed below and the cost is within USD 1 million. 1) Monitor/manage cooling water towers 2) Monitor/manage the conductivity of cooling water towers 3) Install water-saving faucets 4) Install an intelligent water-saving irrigation system 5) Monitor/manage cooling water and chiller systems

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								consumption activities exert no negative impact on the surrounding water resources.	
Change in mean (average) temperature	Currently, the average temperature in Taiwan is still getting higher which means it needs more consumption in electricity for air-conditioning.	Increased operational cost	Up to 1 year	Direct	Likely	Low-medium	According to Taiwan government's requirement, they request company should control the overall electronic consuming and the annual average energy-conservation rate have to reduce 1%. If companies cannot achieve it would cause a fine of NTD 20k-100k.	Advantech Taiwan implemented the following energy-saving projects: 1) Advantech's Linkou Intelligent Campus features building energy management and people-sensing energy conservation systems, which include intelligent air-conditioning and parking systems, as well as all-in-one access cards aimed at achieving smarter buildings. By ensuring comprehensive detection, reliable transmission, and	Over NT$5 billion was investigated in the construction of green buildings at the Linkou Smart Industrial Park.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								instrumented, interconnected, and intelligent processing, as well as cloud systems for convenient use, Advantech successfully constructed an intelligent building. Through intelligent management, effective energy 2) Intelligent power management is implemented by using a single button to control the lights and projectors in the conference room; various different settings such as presentation mode or discussion mode are also provided. This prevents unnecessary resource waste should employees forget	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								to switch off the power supply. 3) These intelligent energy-saving projects were officially implemented at Advantech's Linkou Campus in August 2014. Between August and December of 2014, 220,000 kWh of electricity was saved, reducing energy consumption by 16%. Intelligence-based estimates indicate that power consumption can be reduced by 17% in 2015.	

CC5.1c

Please describe your inherent risks that are driven by changes in other climate-related developments

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Reputation	With the green concept concerns, Advantech's customers pay much attention to climate change performance. This is one of the key factors when they evaluate the suppliers or affecting investor's decision. Due to consumer's green awareness, it will be a huge risk because bad green management will damage company's reputation.	Wider social disadvantages	Up to 1 year	Direct	Unlikely	Low	As a leader of IPC industry, Advantech is a publicly listed company and well-known international brand. Reputation to the public will affect the product sales but shareholders' willingness of investment.	Global climate change is a much concerned topic to us all. As a global citizen, Advantech is devoted to reducing greenhouse gas emission and reduce energy use, and pays attention to climate disaster risk management, and never stops the cause of energy conservation and carbon reduction. To create low carbon emission operating environment, based on the related greenhouse gas examination quantization, supervision, report and investigation systems provided by Taiwan greenhouse gas reduction laws and ISO 14064-1 standards, Advantech set up their "Greenhouse Gas Examination Executive Committee" to facilitate greenhouse gas examination and	The 3rd verification cost of CSR Report is about NTD 178,500 per year.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								reduction, gradually reducing direct or indirect emissions of CO2, CH4, N2O and HFCs. Advantech also joins the international organization CDP (Carbon Disclosure Project) from 2011, discloses the reduction plan and performance for carbon once a year.	

CC5.1d

Please explain why you do not consider your company to be exposed to inherent risks driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

CC5.1e

Please explain why you do not consider your company to be exposed to inherent risks driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

CC5.1f

Please explain why you do not consider your company to be exposed to inherent risks driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

Further Information

Page: CC6. Climate Change Opportunities

CC6.1

Have you identified any inherent climate change opportunities that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Opportunities driven by changes in regulation
Opportunities driven by changes in physical climate parameters
Opportunities driven by changes in other climate-related developments

CC6.1a

Please describe your inherent opportunities that are driven by changes in regulation

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Product efficiency regulations and	The ENERGY STAR® label was established by	New products/business services	Up to 1 year		Very likely	Medium-high	So far the green concept is emphasized	1) Providing Green Products We invest in green	Cost of Energy Star verification is around USD

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
standards	the U.S. Environmental Protection Agency in 1992 and has been adopted in many countries worldwide including Canada, Japan, Taiwan, Australia, New Zealand, and the European Union. ENERGY STAR® serves as the international standard for energy efficient consumer goods. Computer equipment is required to conform to the specifications of not only ENERGY STAR® Computer Specifications 5.0, but also ENERGY STAR® EPS 2.0. Advantech						as a well-known idea, a consumer become more realizing of energy-efficient product is important to environment protection. A product with excellent energy-efficiency feature will have change to win clients' trust in market. Therefore, assuming a best case to have 15% increasing in the market share, it would have around US$ 181 million increase of the annual revenue.	equipment and green product manufacturing, and apply Energy Star, CECP and other international certificates for all products. Product lifecycle assessment is also integrated into the process to guarantee sustainable development. 2) Manufacturing Green Equipment and Products Advantech focuses on developing and manufacturing energy-saving industrial equipment and products which are widely used in medical, production and machine automation, energy, finance,	279,000

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	has voluntarily achieved ENERGY STAR® certifications for 14 product lines. Moreover, all Advantech computer equipment and power supplies conform to the latest ENERGY STAR® regulations and requirements. This evidences Advantech's contribution to the development of green products.							transportation, hospitality and home application fields. 3)Energy Star Energy Star is a voluntary energy conservation plan jointly issued by the US Environmental Protection Agency and US Department of Energy. The purpose is to have consumers recognize energy efficient electronic products through the energy symbol on the products, and thus improve energy use efficiency, reduce energy consumption and mitigate the greenhouse effect. Energy	

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								Star compliance is the most representative energy conservation certificate in the world currently. 4)China Energy Conservation China issued and implemented the "Regulation on Energy Conservation Product Certification" in Feb 1999, and started to carry out its energy conservation symbol plan formally. The Energy Conservation Product Certification is voluntary, which is the only national authorized energy conservation certificate in Mainland China.	

CC6.1b

Please describe the inherent opportunities that are driven by changes in physical climate parameters

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Change in precipitation extremes and droughts	In order to prepare for the change in precipitation extremes and droughts, Advantech perform the water management to reduce the water consuming.	Reduced operational costs	Up to 1 year	Direct	Likely	Medium	Advantech's campuses are located in developed industrial zones or technology parks in urban areas. For all of these campuses, tap water serves as the primary source of water, no extraction of underground or well water is conducted, and water consumption activities exert no	Regarding to Advantech water saving strategies, it is including the use of water-saving faucets and toilets, to reduce the average water consumption per capita.	Advantech's main initiatives regarding water conservation are listed below and the cost is within USD 1 million. 6) Monitor/manage cooling water towers 7) Monitor/manage the conductivity of cooling water towers 8) Install water-saving faucets 9) Install an intelligent water-saving irrigation system 10) Monitor/manage cooling

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							negative impact on the surrounding water resources.		water and chiller systems
Change in mean (average) precipitation	Because the average temperature and electricity charges are rising in Taiwan, in order to reduce the operational cost, Advantech implemented the solar power generation to use the direct sunshine for internal use.	Reduced operational costs	Up to 1 year	Direct	Very likely	Medium	There are total 8155kWh solar energy was produced and internally used in Taiwan's factory.	Currently, the solar energy generated is mainly for internal use. Advantech will consider to build more solar panels in Linkou-campus to produce much green energy. Besides, Advantech implemented Energy Management System to reach the below goals. 1) Real time energy monitoring 2) Define reasonable & wasting usage 3) Solid reference for energy invest 4) Green company & building image Please refer the below video for better understanding https://www.youtube.com/watch?v=9Ax2wLIR6g8	Over NT$5 billion was investigated in the construction of green buildings at the Linkou Smart Industrial Park.

CC6.1c

Please describe the inherent opportunities that are driven by changes in other climate-related developments

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Reputation	Green Supply chain management is also a part of CSR. Advantech built SQA (supplier quality assurance) team to perform the on-site audit and evaluate vendors' green management such as capability to cope with risks from climate changes.	Wider social benefits	Up to 1 year	Indirect (Supply chain)	Virtually certain	Medium	Advantech Co.,Ltd. (TAIDEX:2395) is a leader in providing trusted, innovative products, services, and solutions. Advantech offers comprehensive system integration, hardware, software, customer-centric design services, embedded systems, automation products, and global logistics support. We cooperate closely with our partners to help provide complete solutions for a wide array of applications across a diverse range of industries. Our mission is to enable an intelligent planet with Automation and Embedded Computing products and solutions that empower the development of smarter working and living. Advantech	1) According to the Supplier survey questionnaire, Advantech require our suppliers to prepare contingency/backup plans to reduce the impact of some urgent situations. 2) By on-site audit to verify our vendors' environmental performance and risk level of climate change.	Only SQA team to arrange business trip cost for on-site audit, the total cost is around US$ 10,000.

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
							generated sales revenue of US$ 1201 million, compared to 2014 with an increase of 1.7 percent.		

CC6.1d

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

CC6.1e

Please explain why you do not consider your company to be exposed to inherent opportunities driven by physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

CC6.1f

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

Further Information

Advantech CSR website: http://www.advantech.com/csr/social_contribution/care_for_environment_overview/pgproducts

Attachments

https://www.cdp.net/sites/2016/30/21330/Climate Change 2016/Shared Documents/Attachments/ClimateChange2016/CC6.ClimateChangeOpportunities/Advantech I-building SRP.pdf

Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading

Page: CC7. Emissions Methodology

CC7.1

Please provide your base year and base year emissions (Scopes 1 and 2)

Scope	Base year	Base year emissions (metric tonnes CO2e)
Scope 1	Wed 01 Jan 2014 - Wed 31 Dec 2014	1817
Scope 2 (location-based)	Wed 01 Jan 2014 - Wed 31 Dec 2014	25626
Scope 2 (market-based)		

CC7.2

Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

Please select the published methodologies that you use
ISO 14064-1
IPCC Guidelines for National Greenhouse Gas Inventories, 2006
Taiwan - GHG Reduction Act

CC7.2a

If you have selected "Other" in CC7.2 please provide details of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

N/A, Advantech follow ISO14064-1 and IPCC.

CC7.3

Please give the source for the global warming potentials you have used

Gas	Reference
CO2	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	IPCC Fourth Assessment Report (AR4 - 100 year)

Gas	Reference
HFCs	IPCC Fourth Assessment Report (AR4 - 100 year)
PFCs	IPCC Fourth Assessment Report (AR4 - 100 year)
SF6	IPCC Fourth Assessment Report (AR4 - 100 year)
NF3	IPCC Fourth Assessment Report (AR4 - 100 year)

CC7.4

Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data at the bottom of this page

Fuel/Material/Energy	Emission Factor	Unit	Reference
Electricity	0.522	metric tonnes CO2e per MWh	
Diesel/Gas oil	2.263	kg CO2e per liter	
Cooling	1430	metric tonnes CO2 per metric tonne	

Further Information

Attachments

https://www.cdp.net/sites/2016/30/21330/Climate Change 2016/Shared Documents/Attachments/ClimateChange2016/CC7.EmissionsMethodology/2015 Advantech GHG Analysis_201605(Taiwan).xlsx
https://www.cdp.net/sites/2016/30/21330/Climate Change 2016/Shared Documents/Attachments/ClimateChange2016/CC7.EmissionsMethodology/2015 Advantech GHG Analysis_201605(China).pdf

Page: CC8. Emissions Data - (1 Jan 2015 - 31 Dec 2015)

CC8.1

Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

Operational control

CC8.2

Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e

1777

CC8.3

Does your company have any operations in markets providing product or supplier specific data in the form of contractual instruments?

No

CC8.3a

Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment
27710		Enlarge the reporting scope to Advantech China. 2015 Scope 2 emission (Taiwan) : 9700 2015 Scope 2 emission (China) : 18010 9700+18010= 27710

CC8.4

Are there are any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

CC8.4a

Please provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure

Source	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source (if applicable)	Explain why the source is excluded

CC8.5

Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	More than 2% but less than or equal to 5%	Metering/ Measurement Constraints	The uncertainly of Scope 1 emission comes from: 1.the mertering of actual consumptions of fossil fuels e.g. gasoline,diesel, 2.the assumption of the emissions from septic tank
Scope 2 (location-based)	More than 2% but less than or equal to 5%	Metering/ Measurement Constraints	The uncertainly of Scope 2 emission comes from: Regarding to submit CDP reporter, the latest electricity emissions factor in Taiwan is based on public data source for 2014, not exactly for 2015.
Scope 2 (market-based)			

CC8.6

Please indicate the verification/assurance status that applies to your reported Scope 1 emissions

Third party verification or assurance process in place

CC8.6a

Please provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported Scope 1 emissions verified (%)
Annual process	Underway but not complete for reporting year – previous statement of process attached	Reasonable assurance	https://www.cdp.net/sites/2016/30/21330/Climate Change 2016/Shared Documents/Attachments/CC8.6a/ISO14064温室气体核查证书.pdf	Please refer the attached report.	ISO14064-3	85
Annual process	Underway but not complete for reporting year – previous statement of process attached	Reasonable assurance	https://www.cdp.net/sites/2016/30/21330/Climate Change 2016/Shared Documents/Attachments/CC8.6a/SGS Assurance Statement.pdf	Page 1/ Please refer to the 3rd party SGS assurance statement. For detail report, please check Advantech CSR website as below. http://www.advantech.tw/csr/	ISO14064-3	15

CC8.6b

Please provide further details of the regulatory regime to which you are complying that specifies the use of Continuous Emissions Monitoring Systems (CEMS)

Regulation	% of emissions covered by the system	Compliance period	Evidence of submission

CC8.7

Please indicate the verification/assurance status that applies to at least one of your reported Scope 2 emissions figures

Third party verification or assurance process in place

CC8.7a

Please provide further details of the verification/assurance undertaken for your location-based and/or market-based Scope 2 emissions, and attach the relevant statements

Location-based or market-based figure?	Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 2 emissions verified (%)
Location-based	Annual process	Underway but not complete for reporting year – previous statement of process attached	Reasonable assurance	https://www.cdp.net/sites/2016/30/21330/Climate Change 2016/Shared Documents/Attachments/CC8.7a/ISO14064温室气体核查证书.pdf	please refer to verification statement in attached file	ISO14064-3	65

Location-based or market-based figure?	Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 2 emissions verified (%)
Location-based	Annual process	Underway but not complete for reporting year – previous statement of process attached	Reasonable assurance	https://www.cdp.net/sites/2016/30/21330/Climate Change 2016/Shared Documents/Attachments/CC8.7a/SGS Assurance Statement.pdf	Page 1/ Please refer to the 3rd party SGS assurance statement. For detail report, please check Advantech CSR website as below. http://www.advantech.tw/csr/	ISO14064-3	35

CC8.8

Please identify if any data points have been verified as part of the third party verification work undertaken, other than the verification of emissions figures reported in CC8.6, CC8.7 and CC14.2

Additional data points verified	Comment
No additional data verified	No additional data verified

CC8.9

Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

No

CC8.9a

Please provide the emissions from biologically sequestered carbon relevant to your organization in metric tonnes CO2

Further Information

Page: CC9. Scope 1 Emissions Breakdown - (1 Jan 2015 - 31 Dec 2015)

CC9.1

Do you have Scope 1 emissions sources in more than one country?

Yes

CC9.1a

Please break down your total gross global Scope 1 emissions by country/region

Country/Region	Scope 1 metric tonnes CO2e
Taiwan	270
China	1507

CC9.2

Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)

By facility
By GHG type

CC9.2a

Please break down your total gross global Scope 1 emissions by business division

Business division	Scope 1 emissions (metric tonnes CO2e)

CC9.2b

Please break down your total gross global Scope 1 emissions by facility

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
Taiwan	270	25.069357	121.582625
China	1507	31.419074	120.969291

CC9.2c

Please break down your total gross global Scope 1 emissions by GHG type

GHG type	Scope 1 emissions (metric tonnes CO2e)
CO2	767.82
CH4	280.23
N2O	4.57
HFCs	725.39
PFCs	0
SF6	0

CC9.2d

Please break down your total gross global Scope 1 emissions by activity

Activity	Scope 1 emissions (metric tonnes CO2e)

Further Information

Attachments

https://www.cdp.net/sites/2016/30/21330/Climate Change 2016/Shared Documents/Attachments/ClimateChange2016/CC9.Scope1EmissionsBreakdown(1Jan2015-31Dec2015)/2015 Advantech GHG Analysis_201605(China).pdf
https://www.cdp.net/sites/2016/30/21330/Climate Change 2016/Shared Documents/Attachments/ClimateChange2016/CC9.Scope1EmissionsBreakdown(1Jan2015-31Dec2015)/2015 Advantech GHG Analysis_201605(Taiwan).xlsx

Page: CC10. Scope 2 Emissions Breakdown - (1 Jan 2015 - 31 Dec 2015)

CC10.1

Do you have Scope 2 emissions sources in more than one country?

Yes

CC10.1a

Please break down your total gross global Scope 2 emissions and energy consumption by country/region

Country/Region	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
Taiwan	9700		18583	
China	18010		15878	

CC10.2

Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)

By facility

CC10.2a

Please break down your total gross global Scope 2 emissions by business division

Business division	Scope 2 emissions, location based (metric tonnes CO2e)	Scope 2 emissions, market-based (metric tonnes CO2e)

CC10.2b

Please break down your total gross global Scope 2 emissions by facility

Facility	Scope 2 emissions, location based (metric tonnes CO2e)	Scope 2 emissions, market-based (metric tonnes CO2e)
Taiwan	9700	
China	18010	

CC10.2c

Please break down your total gross global Scope 2 emissions by activity

Activity	Scope 2 emissions, location based (metric tonnes CO2e)	Scope 2 emissions, market-based (metric tonnes CO2e)

Further Information

Attachments

https://www.cdp.net/sites/2016/30/21330/Climate Change 2016/Shared Documents/Attachments/ClimateChange2016/CC10.Scope2EmissionsBreakdown(1Jan2015-31Dec2015)/2015 Advantech GHG Analysis_201605(Taiwan).xlsx
https://www.cdp.net/sites/2016/30/21330/Climate Change 2016/Shared Documents/Attachments/ClimateChange2016/CC10.Scope2EmissionsBreakdown(1Jan2015-31Dec2015)/2015 Advantech GHG Analysis_201605(China).pdf

Page: CC11. Energy

CC11.1

What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

CC11.2

Please state how much heat, steam, and cooling in MWh your organization has purchased and consumed during the reporting year

Energy type	Energy purchased and consumed (MWh)
Heat	0
Steam	0
Cooling	0

CC11.3

Please state how much fuel in MWh your organization has consumed (for energy purposes) during the reporting year

12.79

CC11.3a

Please complete the table by breaking down the total "Fuel" figure entered above by fuel type

Fuels	MWh
Diesel/Gas oil	12.79

CC11.4

Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor in the market-based Scope 2 figure reported in CC8.3a

Basis for applying a low carbon emission factor	MWh consumed associated with low carbon electricity, heat, steam or cooling	Comment
Other	8	Because the average temperature and electricity charges are rising in Taiwan, in order to reduce the operational cost, Advantech implemented the solar power generation to use the direct sunshine for internal use.There are total 8155kWh solar energy was produced and internally used in Taiwan’s factory.

CC11.5

Please report how much electricity you produce in MWh, and how much electricity you consume in MWh

Total electricity consumed (MWh)	Consumed electricity that is purchased (MWh)	Total electricity produced (MWh)	Total renewable electricity produced (MWh)	Consumed renewable electricity that is produced by company (MWh)	Comment
18583	18583	8	8	8	Solar power generated in Advantech Linkou campus is 8.155 MWh, please refer the attachment in further information

Further Information

Attachments

https://www.cdp.net/sites/2016/30/21330/Climate Change 2016/Shared Documents/Attachments/ClimateChange2016/CC11.Energy/Advantech Solar power generation.JPG

Page: CC12. Emissions Performance

CC12.1

How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to the previous year?

Increased

CC12.1a

Please identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year

Reason	Emissions value (percentage)	Direction of change	Please explain and include calculation
Emissions reduction activities	8	Increase	The total GHS emissions (scope 1 and 2) is 27443(Y2014) , 29687(Y2015) (27443-29687)/29687 = - 8%
Divestment		No change	Without significant change or not material
Acquisitions		No change	Without significant change or not material
Mergers		No change	Without significant change or not material
Change in output		No change	Without significant change or not material
Change in methodology		No change	Without significant change or not material
Change in boundary	8	Increase	Advantech enlarge the boundary and include China's factory. The total GHS emissions (scope 1 and 2) is 27443(Y2014) , 29687(Y2015) (27443-29687)/29687 = - 8%
Change in physical operating conditions		No change	Without significant change or not material
Unidentified		No change	Without significant change or not material
Other		No change	Without significant change or not material

CC12.1b

Is your emissions performance calculations in CC12.1 and CC12.1a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

CC12.2

Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per unit currency total revenue

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator: Unit total revenue	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
25	metric tonnes CO2e	25	Location-based	6	Increase	Note: Due to Advantech Linkou new building construction in 2015, we consumed much energy compared to 2014. 1.2014: (Emissions) / (total revenue) = (27443 ton CO2) / (1180 M,USD) =23.3 (ton CO2/ M,USD) 2. 2015: (Emissions) / (total revenue) = (29687 ton CO2) / (1201 M,USD) =24.7 (ton CO2/ M,USD) 3. Reduction % = (24.7.-23.3) / (23.3) = 6%

CC12.3

Please provide any additional intensity (normalized) metrics that are appropriate to your business operations

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator	Metric denominator: Unit total	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
9	metric tonnes CO2e	full time equivalent (FTE) employee	9	Location-based	10	Increase	Note: Due to Advantech Linkou new building construction in 2015, we consumed much energy compared to 2014. 1. 2014: (Emissions) / (Number of Employee) = (27443 ton CO2) / (5579 capita) = 4.91(ton CO2/ ppl) Taiwan 3229+ China 2350= 5579 2. 2015: (Emissions) / (Number of Employee) = (29687 ton CO2) / (5473 capita) = 5.42(ton CO2/ ppl) Taiwan 3138+ China 2335= 5473 3. Reduction % = (5.42- 4.91) / 4.91 = 10%

Further Information

Page: CC13. Emissions Trading

CC13.1

Do you participate in any emissions trading schemes?

No, and we do not currently anticipate doing so in the next 2 years

CC13.1a

Please complete the following table for each of the emission trading schemes in which you participate

Scheme name	Period for which data is supplied	Allowances allocated	Allowances purchased	Verified emissions in metric tonnes CO2e	Details of ownership

CC13.1b

What is your strategy for complying with the schemes in which you participate or anticipate participating?

CC13.2

Has your organization originated any project-based carbon credits or purchased any within the reporting period?

No

CC13.2a

Please provide details on the project-based carbon credits originated or purchased by your organization in the reporting period

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes of CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits cancelled	Purpose, e.g. compliance

Further Information

Page: CC14. Scope 3 Emissions

CC14.1

Please account for your organization's Scope 3 emissions, disclosing and explaining any exclusions

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Purchased goods and services	Not relevant, explanation provided				Scope 3 emissions (other indirect GHG emissions) are primarily attributed to emissions resulting from supply chains, employee business trips, product use and disposal, outsourced waste treatment, and external delivery and logistics operations. Currently, Advantech employees are encouraged to commute using public transportation in order to reduce GHG emissions. Emissions resulting from raw material sourcing and product shipments are handled by government-approved contractors.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
					Because Advantech's Scope 3 emissions primarily result from supply chains, in the future, relevant emissions inventories will be conducted in accordance with PAS2050/ISO14067 standards.
Capital goods	Not relevant, explanation provided				Scope 3 emissions (other indirect GHG emissions) are primarily attributed to emissions resulting from supply chains, employee business trips, product use and disposal, outsourced waste treatment, and external delivery and logistics operations. Currently, Advantech employees are encouraged to commute using public transportation in order to reduce GHG emissions. Emissions resulting from raw material sourcing and product shipments are handled by government-approved contractors. Because Advantech's Scope 3 emissions primarily result from supply chains, in the future, relevant emissions inventories will be conducted in accordance with PAS2050/ISO14067 standards.
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Not relevant, explanation provided				Scope 3 emissions (other indirect GHG emissions) are primarily attributed to emissions resulting from supply chains, employee business trips, product use and disposal, outsourced waste treatment, and external delivery and logistics operations. Currently, Advantech employees are encouraged to commute using public transportation in order to reduce GHG emissions. Emissions resulting from raw material sourcing and product shipments are handled by government-approved contractors. Because Advantech's Scope 3 emissions primarily result from supply chains, in the future, relevant emissions inventories will be conducted in accordance with PAS2050/ISO14067 standards.
Upstream transportation and distribution	Not relevant, explanation provided				Scope 3 emissions (other indirect GHG emissions) are primarily attributed to emissions resulting from supply chains, employee business trips, product use and disposal, outsourced waste

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
					treatment, and external delivery and logistics operations. Currently, Advantech employees are encouraged to commute using public transportation in order to reduce GHG emissions. Emissions resulting from raw material sourcing and product shipments are handled by government-approved contractors. Because Advantech's Scope 3 emissions primarily result from supply chains, in the future, relevant emissions inventories will be conducted in accordance with PAS2050/ISO14067 standards.
Waste generated in operations	Not relevant, explanation provided				Scope 3 emissions (other indirect GHG emissions) are primarily attributed to emissions resulting from supply chains, employee business trips, product use and disposal, outsourced waste treatment, and external delivery and logistics operations. Currently, Advantech employees are encouraged to commute using public transportation in order to reduce GHG emissions. Emissions resulting from raw material sourcing and product shipments are handled by government-approved contractors. Because Advantech's Scope 3 emissions primarily result from supply chains, in the future, relevant emissions inventories will be conducted in accordance with PAS2050/ISO14067 standards.
Business travel	Relevant, not yet calculated		Advnatech will colloect The total flight travel data to calculate the carbon emissions		Scope 3 emissions (other indirect GHG emissions) are primarily attributed to emissions resulting from supply chains, employee business trips, product use and disposal, outsourced waste treatment, and external delivery and logistics operations. Currently, Advantech employees are encouraged to commute using public transportation in order to reduce GHG emissions. Emissions resulting from raw material sourcing and product shipments are handled by government-approved contractors. Because Advantech's Scope 3 emissions primarily result from supply chains, in the future, relevant emissions inventories will

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
					be conducted in accordance with PAS2050/ISO14067 standards.
Employee commuting	Relevant, not yet calculated		Advantech employees are encouraged to commute using public transportation. In order to reduce GHG emissions,our employees take commute bus.		Scope 3 emissions (other indirect GHG emissions) are primarily attributed to emissions resulting from supply chains, employee business trips, product use and disposal, outsourced waste treatment, and external delivery and logistics operations. Currently, Advantech employees are encouraged to commute using public transportation in order to reduce GHG emissions. Emissions resulting from raw material sourcing and product shipments are handled by government-approved contractors. Because Advantech's Scope 3 emissions primarily result from supply chains, in the future, relevant emissions inventories will be conducted in accordance with PAS2050/ISO14067 standards.
Upstream leased assets	Relevant, not yet calculated				Scope 3 emissions (other indirect GHG emissions) are primarily attributed to emissions resulting from supply chains, employee business trips, product use and disposal, outsourced waste treatment, and external delivery and logistics operations. Currently, Advantech employees are encouraged to commute using public transportation in order to reduce GHG emissions. Emissions resulting from raw material sourcing and product shipments are handled by government-approved contractors. Because Advantech's Scope 3 emissions primarily result from supply chains, in the future, relevant emissions inventories will be conducted in accordance with PAS2050/ISO14067 standards.
Downstream transportation and distribution	Relevant, not yet calculated				Scope 3 emissions (other indirect GHG emissions) are primarily attributed to emissions resulting from supply chains, employee business trips, product use and disposal, outsourced waste treatment, and external delivery and logistics operations. Currently, Advantech employees are encouraged to commute

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
					using public transportation in order to reduce GHG emissions. Emissions resulting from raw material sourcing and product shipments are handled by government-approved contractors. Because Advantech's Scope 3 emissions primarily result from supply chains, in the future, relevant emissions inventories will be conducted in accordance with PAS2050/ISO14067 standards.
Processing of sold products	Not relevant, explanation provided				Scope 3 emissions (other indirect GHG emissions) are primarily attributed to emissions resulting from supply chains, employee business trips, product use and disposal, outsourced waste treatment, and external delivery and logistics operations. Currently, Advantech employees are encouraged to commute using public transportation in order to reduce GHG emissions. Emissions resulting from raw material sourcing and product shipments are handled by government-approved contractors. Because Advantech's Scope 3 emissions primarily result from supply chains, in the future, relevant emissions inventories will be conducted in accordance with PAS2050/ISO14067 standards.
Use of sold products	Not relevant, explanation provided				Scope 3 emissions (other indirect GHG emissions) are primarily attributed to emissions resulting from supply chains, employee business trips, product use and disposal, outsourced waste treatment, and external delivery and logistics operations. Currently, Advantech employees are encouraged to commute using public transportation in order to reduce GHG emissions. Emissions resulting from raw material sourcing and product shipments are handled by government-approved contractors. Because Advantech's Scope 3 emissions primarily result from supply chains, in the future, relevant emissions inventories will be conducted in accordance with PAS2050/ISO14067 standards.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
End of life treatment of sold products	Not relevant, explanation provided				Scope 3 emissions (other indirect GHG emissions) are primarily attributed to emissions resulting from supply chains, employee business trips, product use and disposal, outsourced waste treatment, and external delivery and logistics operations. Currently, Advantech employees are encouraged to commute using public transportation in order to reduce GHG emissions. Emissions resulting from raw material sourcing and product shipments are handled by government-approved contractors. Because Advantech's Scope 3 emissions primarily result from supply chains, in the future, relevant emissions inventories will be conducted in accordance with PAS2050/ISO14067 standards.
Downstream leased assets	Not relevant, explanation provided				Scope 3 emissions (other indirect GHG emissions) are primarily attributed to emissions resulting from supply chains, employee business trips, product use and disposal, outsourced waste treatment, and external delivery and logistics operations. Currently, Advantech employees are encouraged to commute using public transportation in order to reduce GHG emissions. Emissions resulting from raw material sourcing and product shipments are handled by government-approved contractors. Because Advantech's Scope 3 emissions primarily result from supply chains, in the future, relevant emissions inventories will be conducted in accordance with PAS2050/ISO14067 standards.
Franchises	Not relevant, explanation provided				Scope 3 emissions (other indirect GHG emissions) are primarily attributed to emissions resulting from supply chains, employee business trips, product use and disposal, outsourced waste treatment, and external delivery and logistics operations. Currently, Advantech employees are encouraged to commute using public transportation in order to reduce GHG emissions. Emissions resulting from raw material sourcing and product

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
					shipments are handled by government-approved contractors. Because Advantech's Scope 3 emissions primarily result from supply chains, in the future, relevant emissions inventories will be conducted in accordance with PAS2050/ISO14067 standards.
Investments	Not relevant, explanation provided				Scope 3 emissions (other indirect GHG emissions) are primarily attributed to emissions resulting from supply chains, employee business trips, product use and disposal, outsourced waste treatment, and external delivery and logistics operations. Currently, Advantech employees are encouraged to commute using public transportation in order to reduce GHG emissions. Emissions resulting from raw material sourcing and product shipments are handled by government-approved contractors. Because Advantech's Scope 3 emissions primarily result from supply chains, in the future, relevant emissions inventories will be conducted in accordance with PAS2050/ISO14067 standards.
Other (upstream)	Not relevant, explanation provided				Scope 3 emissions (other indirect GHG emissions) are primarily attributed to emissions resulting from supply chains, employee business trips, product use and disposal, outsourced waste treatment, and external delivery and logistics operations. Currently, Advantech employees are encouraged to commute using public transportation in order to reduce GHG emissions. Emissions resulting from raw material sourcing and product shipments are handled by government-approved contractors. Because Advantech's Scope 3 emissions primarily result from supply chains, in the future, relevant emissions inventories will be conducted in accordance with PAS2050/ISO14067 standards.
Other (downstream)	Not relevant, explanation				Scope 3 emissions (other indirect GHG emissions) are primarily attributed to emissions resulting from supply chains, employee

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
	provided				business trips, product use and disposal, outsourced waste treatment, and external delivery and logistics operations. Currently, Advantech employees are encouraged to commute using public transportation in order to reduce GHG emissions. Emissions resulting from raw material sourcing and product shipments are handled by government-approved contractors. Because Advantech's Scope 3 emissions primarily result from supply chains, in the future, relevant emissions inventories will be conducted in accordance with PAS2050/ISO14067 standards.

CC14.2

Please indicate the verification/assurance status that applies to your reported Scope 3 emissions

No emissions data provided

CC14.2a

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 3 emissions verified (%)

CC14.3

Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?

No, we don't have any emissions data

CC14.3a

Please identify the reasons for any change in your Scope 3 emissions and for each of them specify how your emissions compare to the previous year

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment

CC14.4

Do you engage with any of the elements of your value chain on GHG emissions and climate change strategies? (Tick all that apply)

Yes, our suppliers

CC14.4a

Please give details of methods of engagement, your strategy for prioritizing engagement and measures of success

Advantech's core business philosophies are to create mutual benefits for suppliers and customers, and to ensure that company supply chains and production principles conform to ethical and environmental standards. In addition to regularly evaluating supplier product quality, on-schedule delivery rate, degree of cooperation, labor safety management, and CSR management,

Advantech also maintains consistent supplier communication and relationship management. For suppliers that have performed CSR/GHS management outstandingly, the Company provides rewards, such as reduced invoice payment times, to ensure a mutually beneficial outcome. In 2010, the company established a Green Supply Chain management system.

CC14.4b

To give a sense of scale of this engagement, please give the number of suppliers with whom you are engaging and the proportion of your total spend that they represent

Number of suppliers	% of total spend (direct and indirect)	Comment
811	78%	Regarding suppliers' environmental management, Advantech has not only incorporated environment protection principles into its supplier management mechanisms, but in 2010 also adopted the EICC® Code of Conduct in an effort to encourage its suppliers to emphasize and promote the importance of CSR (for example, when encountering conflicting regulations). Currently, the company has integrated key CSR-related indicators, including RoHS (HSF) QC08000, ISO14000, OHSAS18000, and supplier localization, into its supplier evaluation and management criteria. Furthermore, Advantech requires that its suppliers uphold the protection of human rights and comply with relevant labor laws; these requirements are also included in the criteria for new suppliers.

CC14.4c

If you have data on your suppliers' GHG emissions and climate change strategies, please explain how you make use of that data

How you make use of the data	Please give details
We do not have any data	N/A

CC14.4d

Please explain why you do not engage with any elements of your value chain on GHG emissions and climate change strategies, and any plans you have to develop an engagement strategy in the future

Further Information

Module: Sign Off

Page: CC15. Sign Off

CC15.1

Please provide the following information for the person that has signed off (approved) your CDP climate change response

Name	Job title	Corresponding job category
Deryu Yin/ YS Yang/ NJ LIn	CSR,CDP Committee Chief/ Management Representative/ Executer	Board/Executive board

Further Information

Attachments

https://www.cdp.net/sites/2016/30/21330/Climate Change 2016/Shared Documents/Attachments/ClimateChange2016/CC15.SignOff/Advantech CDP CSR Committee Org.jpg

Module: ICT

Page: ICT1. Data center activities

ICT0.1a

Please identify whether "data centers" comprise a significant component of your business within your reporting boundary

No

ICT1.1

Please provide a description of the parts of your business that fall under “data centers”

ICT1.2

Please provide your absolute Scope 1 and 2 emissions and electricity consumption for the data centers component of your business

Business activity	Scope 1 emissions (metric tonnes CO2e)	Scope 2 emissions (metric tonnes CO2e)	Annual electricity consumption (MWh)	Electricity data collection method	Comment

ICT1.3

What percentage of your ICT population sits in data centers where Power Usage Effectiveness (PUE) is measured on a regular basis?

Percentage	Comment

ICT1.4

Please provide a Power Usage Effectiveness (PUE) value for your data center(s). You can provide this information as (a) an average, (b) a range or (c) by individual data center - please tick the data you wish to provide (tick all that apply)

ICT1.4a

Please provide your average PUE across your data centers

Number of data centers	Average PUE	% change from previous year	Direction of change	Comment

ICT1.4b

Please provide the range of PUE values across your data centers

Number of data centers	PUE Minimum Value	% change of PUE Minimum Value from previous year	PUE Maximum Value	% change of PUE Maximum Value from previous year	Direction of change	Comment

ICT1.4c

Please provide your PUE values of all your data centers

Data center reference	PUE value	% change from previous year	Direction of change	Comment

ICT1.5

Please provide details of how you have calculated your PUE value

ICT1.6

Do you use any alternative intensity metrics to assess the energy or emissions performance of your data center(s)?

ICT1.6a

Please provide details on the alternative intensity metrics you use to assess the energy or the emissions performance of your data center(s)

ICT1.7

Please identify the measures you are planning or have undertaken in the reporting year to increase the energy efficiency of your data center(s)

Status in reporting year	Energy efficiency measure	Comment

ICT1.8

Do you participate in any other data center efficiency schemes or have buildings that are sustainably certified or rated?

ICT1.8a

Please provide details on the data center efficiency schemes you participate in or the buildings that are sustainably certified or rated

Scheme name	Level/certification (or equivalent) achieved in the reporting year	Percentage of your overall facilities to which the scheme applies

ICT1.9

Do you measure the utilization rate of your data center(s)?

ICT1.9a

What methodology do you use to calculate the utilization rate of your data center(s)?

ICT1.10

Do you provide carbon emissions data to your clients regarding the data center services they procure?

ICT1.10a

How do you provide carbon emissions data to your clients regarding the data center services they procure?

ICT1.11

Please describe any efforts you have made to incorporate renewable energy into the electricity supply to your data center(s) or to re-use waste heat

Further Information

Page: ICT2. Provision of network/connectivity services

ICT0.1b

Please identify whether "provision of network/connectivity services" comprises a significant component of your business within your reporting boundary

No

ICT2.1

Please provide a description of the parts of your business that fall under "provision of network/connectivity services"

ICT2.2

Please provide your absolute Scope 1 and 2 emissions and electricity consumption for the provision of network/connectivity services component of your business

Business activity	Scope 1 emissions (metric tonnes CO2e)	Scope 2 emissions (metric tonnes CO2e)	Annual electricity consumption (MWh)	Electricity data collection method	Comment

ICT2.3

Please describe your gross combined Scope 1 and 2 emissions or electricity use for the provision of network/connectivity services component of your business as an intensity metric

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change	Comment

ICT2.4

Please explain how you calculated the intensity figures given in response to Question ICT2.3

ICT2.5

Do you provide carbon emissions data to your clients regarding the network/connectivity services they procure?

ICT2.5a

How do you provide carbon emissions data to your clients regarding the network/connectivity services they procure?

Further Information

Page: ICT3. Manufacture or assembly of hardware/components

ICT0.1c

Please identify whether "manufacture or assembly of hardware/components" comprises a significant part of your business within your reporting boundary

No

ICT3.1

Please provide a description of the parts of your business that fall under "manufacture or assembly of hardware/components"

ICT3.2

Please provide your absolute Scope 1 and 2 emissions and electricity consumption for the manufacture or assembly of hardware/components part of your business

Business activity	Scope 1 emissions (metric tonnes CO2e)	Scope 2 emissions (metric tonnes CO2e)	Annual electricity consumption (MWh)	Electricity data collection method	Comment

ICT3.3

Please identify the percentage of your products meeting recognized energy efficiency standards/specifications by sales weighted volume (full product range)

Product type	Standard (sleep mode)	Percentage of products meeting the standard by sales volume (sleep mode)	Standard (standby mode)	Percentage of products meeting the standard by sales volume (standby mode)	Standard (in use mode)	Percentage of products meeting the standard by sales volume (in use mode)	Comment

ICT3.4

Of the new products released in the reporting year, please identify the percentage (as a percentage of all new products in that product type category) that meet recognized energy efficiency standards/specifications

Product type	Standard (sleep mode)	Percentage of new products meeting the standard (sleep mode)	Standard (standby mode)	Percentage of new products meeting the standard (standby mode)	Standard (in use mode)	Percentage of new products meeting the standard (in use mode)	Comment

ICT3.5

Please describe the efforts your organization has made to improve the energy efficiency of your products

ICT3.6

Please describe the GHG emissions abatement measures you have employed specifically in your ICT manufacturing operations

ICT3.7

Do you provide carbon emissions data to your clients regarding the hardware/component products they procure?

ICT3.7a

How do you provide carbon emissions data to your clients regarding the hardware/component products they procure?

Further Information

Page: ICT4. Manufacture of software

ICT0.1d

Please identify whether "manufacture of software" comprises a significant component of your business within your reporting boundary

No

ICT4.1

Please provide a description of the parts of your business that fall under "manufacture of software"

ICT4.2

Please provide your absolute Scope 1 and 2 emissions and electricity consumption for the software manufacture component of your business

Business activity	Scope 1 emissions (metric tonnes CO2e)	Scope 2 emissions (metric tonnes CO2e)	Annual electricity consumption (MWh)	Electricity data collection method	Comment

ICT4.3

Please describe your gross combined Scope 1 and 2 emissions for the software manufacture component of your business in metric tonnes CO2e per unit of production

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change	Comment

ICT4.4

What percentage of your software sales (by volume) is in an electronic format?

ICT4.5

Do you provide carbon emissions data to your clients regarding the software products they procure?

ICT4.5a

How do you provide carbon emissions data to your clients regarding the software products they procure?

Further Information

Page: ICT5. Business services (office based activities)

ICT0.1e

Please identify whether "business services (office based activities)" comprise a significant component of your business within your reporting boundary

No

ICT5.1

Please provide a description of the parts of your business that fall under "business services (office based activities)"

ICT5.2

Please provide your absolute Scope 1 and 2 emissions and electricity consumption for the business services (office based activities) component of your business

Business activity	Scope 1 emissions (metric tonnes CO2e)	Scope 2 emissions (metric tonnes CO2e)	Annual electricity consumption (MWh)	Electricity data collection method	Comment

ICT5.3

Please describe your gross combined Scope 1 and 2 emissions for the business services (office based activities) component of your business in metric tonnes per square meter

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change	Comment

ICT5.4

Please describe your electricity use for the provision of business services (office based activities) component of your business in MWh per square meter

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change	Comment

Further Information

Page: ICT6. Other activities

ICT0.1f

Please identify whether "other activities" comprise a significant component of your business within your reporting boundary

No

ICT6.1

Please provide a description of the parts of your business that fall under "other"

ICT6.2

Please provide your absolute Scope 1 and 2 emissions and electricity consumption for the identified other activity component of your business

Activity	Scope 1 emissions (metric tonnes CO2e)	Scope 2 emissions (metric tonnes CO2e)	Annual electricity consumption (MWh)	Electricity data collection method	Comment

ICT6.3

Please describe your gross combined Scope 1 and 2 emissions for your defined additional activity using an appropriate activity based intensity metric

Activity	Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change	Comment

ICT6.4

If appropriate, please describe your electricity use for your defined additional activity using an appropriate activity based intensity metric

Activity	Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for change	Comment

Further Information

CDP 2016 Climate Change 2016 Information Request