

C0. Introduction

C0.1

**(C0.1) Give a general description and introduction to your organization.**

Note: This CDP Report contains forward-looking statements regarding Marvell’s environmental policies, procedures and future actions related thereto within the meaning of the federal securities laws that involve risks and uncertainties. Words such as “anticipates,” “expects,” “intends,” “plans,” “projects,” “believes,” “seeks,” “estimates,” “can,” “may,” “will,” “would” and similar expressions identify such forward-looking statements. These statements are not guarantees of results and should not be considered as an indication of future activity or future performance. Actual events or results may differ materially from those described in this CDP Report due to a number of risks and uncertainties, including, but not limited to: the ability of Marvell to implement its plans with respect to environmental matters in the time frame anticipated or at all; Marvell’s reliance on independent foundries and subcontractors for the manufacture, assembly and testing of its products; the impacts and costs associated with changes in environmental regulations; and other risks detailed in Marvell’s SEC filings from time to time. For other factors that could cause Marvell’s results to vary from expectations, please see the risk factors identified in Marvell’s Quarterly Report on Form 10-K for the fiscal year ended February 1, 2020 as filed with the SEC on March 23, 2020, and other factors detailed from time to time in Marvell’s filings with the SEC. Marvell undertakes no obligation to revise or publicly update any forward-looking statements.

Forward-Looking Statements under the Private Securities Litigation Reform Act of 1995

This press release contains forward-looking statements within the meaning of the federal securities laws that involve risks and uncertainties. Words such as “anticipates,” “expects,” “intends,” “plans,” “projects,” “believes,” “seeks,” “estimates,” “can,” “may,” “will,” “would” and similar expressions identify such forward-looking statements. These statements are not guarantees of results and should not be considered as an indication of future activity or future performance. Actual events or results may differ materially from those described in this press release due to a number of risks and uncertainties, including, but not limited to: risks related to the impact on our business of the novel coronavirus (COVID-19) pandemic which have impacted, and may continue to impact, our workforce and operations and the transportation and manufacturing of our products; risks related to the impact of the COVID-19 pandemic which have impacted, and may continue to impact the operations of our customers, distributors, vendors, suppliers, and partners; increased disruption and volatility in the capital markets and credit markets as a result of COVID-19, which could adversely affect our liquidity and capital resources; the impact of COVID-19, or other future pandemics, on the U.S. and global economies; disruptions caused by COVID-19 resulting in worker absenteeism, quarantines and restrictions on our employees’ ability to work and travel; the effects that the current credit and market conditions caused by, or resulting from, COVID-19 could have on the liquidity and financial condition of our customers and suppliers, including any impact on their ability to meet their contractual obligations; the impact of international conflict and economic volatility in either domestic or foreign markets including risks related to trade conflicts, regulations, and tariffs, including but not limited to, restrictions imposed on our Chinese customers; the risks associated with manufacturing and selling products and customers’ products outside of the United States; Marvell’s ability to define, design and develop products for the 5G market; Marvell’s ability to market its 5G products to Tier 1 infrastructure customers; the effects of transitioning to smaller geometry process technologies.

We are subject to laws and regulations worldwide, which may differ among jurisdictions, affecting our operations in areas including, but not limited to: intellectual property ownership and infringement; tax; import and export requirements; anti-corruption; foreign exchange controls and cash repatriation restrictions; data privacy requirements; competition; advertising; employment; product regulations; environment, health and safety requirements; and consumer laws. Although our management systems are designed to maintain compliance, we cannot assure you that we have been or will be at all times in compliance with such laws and regulations. If we violate or fail to comply with any of them, a range of consequences could result, including fines, import/export restrictions, sales limitations, criminal and civil liabilities or other sanctions. The costs of complying with these laws (including the costs of any investigations, auditing and monitoring) could adversely affect our current or future business.

C0.2

**(C0.2) State the start and end date of the year for which you are reporting data.**

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2019	December 31 2019	No	<Not Applicable>

C0.3

**(C0.3) Select the countries/areas for which you will be supplying data.**

- China
- Germany
- India
- Israel
- Japan
- Singapore
- Taiwan, Greater China
- United States of America
- Viet Nam

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

USD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Board-level committee	The Nominating and Governance Committee of the Board of Directors of Marvell is responsible for matters relating to the organization and membership of the Board, and for other issues relating to the Company's sound and proper corporate governance, including the publication and administration of the Company's Corporate Governance Guidelines and Practices including ESG related issues. The Committee is responsible for overseeing disclosures regarding corporate social responsibility and sustainability matters, monitoring and evaluating the Corporate Guidelines and other corporate policies to ensure that all governance standards are being met.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Overseeing major capital expenditures, acquisitions and divestitures	<Not Applicable>	The Committee is responsible for overseeing disclosures regarding corporate social responsibility and sustainability matters, monitoring and evaluating the Corporate Guidelines and other corporate policies to ensure that all governance standards are being met.

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Chief Operating Officer (COO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	As important matters arise

C1.2a

**(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).**

The COO oversees the execution of the Business Continuity Process, including analysis of current and potential disasters. If a disaster were to occur, as necessary, he would report the key climate change incidents, mitigation, and actions taken to the CEO. Information regarding a disaster would be reported to Security by employees. Security will then notify the Crises Management Team of the disaster as part of the Business Continuity Process. The Business Continuity team will then decide if the information regarding a disaster reported meets established criteria for declaring a company disaster. In the event of a company disaster the COO will make decisions for a resolution based on the assessment and options presented by the Crises Management team.

Some initiatives that the COO led included site reduction and divestments of facilities and continued relocation of data centers. These actions were taken with the goal of optimizing Marvell Portfolio.

Risks are managed through Marvell's internal processes such as the Business Continuity Process (BCP). This analysis is performed as part of our day-to-day business processes.

**C1.3**

**(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?**

	Provide incentives for the management of climate-related issues	Comment
Row 1	No, not currently but we plan to introduce them in the next two years	

**C2. Risks and opportunities**

**C2.1**

**(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?**

Yes

**C2.1a**

**(C2.1a) How does your organization define short-, medium- and long-term time horizons?**

	From (years)	To (years)	Comment
Short-term	0	3	Considering the pace of technological change, short term in the Hi-Tech sector is usually under 1 year.
Medium-term	1	3	Medium term is usually between 1 and 3 years
Long-term	3	5	Long term is usually above 3 years

**C2.1b**

**(C2.1b) How does your organization define substantive financial or strategic impact on your business?**

Marvell assesses climate and water-related risks as part of the ERM process by identifying a risk's potential impact. The scale of impact severity is defined as "1-1.99" for a "low risk/opportunity, but not substantive" which ranges < \$0-\$5 million as an impact, "2-3" for a "medium risk/opportunity, but not substantive" which ranges impacts that are less than \$15 to \$20 million, and "4-5" for a "high risk/opportunity, substantive" which ranges from any risk/opportunity impact of greater than \$20 million. As such, Marvell defines a substantive financial impact from any risk or opportunity that would impact the company by dollar amounts that are above \$20 million.

An example of a substantive impact that has been considered is Marvell's exposure to Taiwan Semiconductor Manufacturing Company (TSMC), which produces products that our suppliers use in production of Marvell's product lines. If unexpected floods or other climate related impacts occurred where access to the the TSMC, was impeded, Marvell can potentially see a decrease in more than \$20 million of revenue, as a results of potential shutdowns that would affect our suppliers. To date, this has not occurred as Marvell has a supply chain strategy with focuses on qualifying a second source to efficiently manage global manufacturing capabilities. This allows Marvell flexibility in managing capacity as volume production increases or in cases when a supplier is impacted by disasters due to climate change or other emergencies.

Marvell's Executive Leadership Team (ELT) identifies key risks in each of below listed categories and determines the absolute impact and likelihood. The risks are classified into a risk matrix and the ELT considers the risk tolerance relative to industry peers as well as areas of focus. Mitigation plans are developed and executed for each of these significant risks and areas of focus. Periodically, Marvell updates the assessment and discuss with the board of directors.

- Financial
- Operational
- Strategic
- Sales
- Engineering
- Information
- Organizational
- Legal / Regulatory

**C2.2**

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**(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.**

**Value chain stage(s) covered**

- Direct operations
- Upstream
- Downstream

**Risk management process**

Integrated into multi-disciplinary company-wide risk management process

**Frequency of assessment**

More than once a year

**Time horizon(s) covered**

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

**Description of process**

Marvell's Executive Leadership Team (ELT) identifies key risks in each of below listed categories and determines the absolute impact and likelihood. The risks are classified into a risk matrix and the ELT considers the risk tolerance relative to industry peers as well as areas of focus. Mitigation plans are developed and executed for each of these significant risks and areas of focus. Periodically, Marvell updates the assessment and discuss with the board of directors. • Financial • Operational • Strategic • Sales • Engineering • Information • Organizational • Legal / Regulatory

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**C2.2a**

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**(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?**

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Marvell's Executive Leadership Team (ELT) identifies key risks in each of listed categories and determines the absolute impact and likelihood. The risks are classified into a risk matrix and the ELT considers the risk tolerance relative to industry peers as well as areas of focus. Current regulation such as implementing carbon-pricing mechanisms to reduce GHG emissions, when applicable is under the category of Legal/Regulatory so it's always included in this process. Mitigation plans are developed and executed for each of these significant risks and areas of focus. Periodically, Marvell updates the assessment and discuss with the board of directors.
Emerging regulation	Relevant, always included	Marvell's Executive Leadership Team (ELT) identifies key risks in each of listed categories and determines the absolute impact and likelihood. The risks are classified into a risk matrix and the ELT considers the risk tolerance relative to industry peers as well as areas of focus. Emerging regulation such as the increase in climate-related litigation claims being brought by property owners, when applicable, is under the category of Legal/Regulatory so it's always included in this process. Mitigation plans are developed and executed for each of these significant risks and areas of focus. Periodically, Marvell updates the assessment and discuss with the board of directors.
Technology	Relevant, always included	Marvell's Executive Leadership Team (ELT) identifies key risks in each of listed categories and determines the absolute impact and likelihood. The risks are classified into a risk matrix and the ELT considers the risk tolerance relative to industry peers as well as areas of focus. Technology such as the timing and cost to develop renewable energy system or battery storage, when applicable, is under the category of Engineering so it's always included in this process. Mitigation plans are developed and executed for each of these significant risks and areas of focus. Periodically, Marvell updates the assessment and discuss with the board of directors.
Legal	Relevant, always included	Marvell's Executive Leadership Team (ELT) identifies key risks in each of listed categories and determines the absolute impact and likelihood. The risks are classified into a risk matrix and the ELT considers the risk tolerance relative to industry peers as well as areas of focus. Legal is under the category of Legal/Regulatory so it's always included in this process. Mitigation plans are developed and executed for each of these significant risks and areas of focus. Periodically, Marvell updates the assessment and discuss with the board of directors.
Market	Relevant, always included	Marvell's Executive Leadership Team (ELT) identifies key risks in each of listed categories and determines the absolute impact and likelihood. The risks are classified into a risk matrix and the ELT considers the risk tolerance relative to industry peers as well as areas of focus. Market risks such as changing customer preferences, when applicable, is under the category of Strategic so it's always included in this process. Mitigation plans are developed and executed for each of these significant risks and areas of focus. Periodically, Marvell updates the assessment and discuss with the board of directors.
Reputation	Relevant, always included	Marvell's Executive Leadership Team (ELT) identifies key risks in each of listed categories and determines the absolute impact and likelihood. The risks are classified into a risk matrix and the ELT considers the risk tolerance relative to industry peers as well as areas of focus. Reputation risks such as changing community perceptions due to climate change, when applicable is under the category of Strategic so it's always included in this process. Mitigation plans are developed and executed for each of these significant risks and areas of focus. Periodically, Marvell updates the assessment and discuss with the board of directors.
Acute physical	Relevant, always included	Marvell's Executive Leadership Team (ELT) identifies key risks in each of listed categories and determines the absolute impact and likelihood. The risks are classified into a risk matrix and the ELT considers the risk tolerance relative to industry peers as well as areas of focus. Acute physical risks such as typhoons or floods, when applicable, is under the category of Operational so it's always included in this process. Mitigation plans are developed and executed for each of these significant risks and areas of focus. Periodically, Marvell updates the assessment and discuss with the board of directors.
Chronic physical	Relevant, always included	Marvell's Executive Leadership Team (ELT) identifies key risks in each of listed categories and determines the absolute impact and likelihood. The risks are classified into a risk matrix and the ELT considers the risk tolerance relative to industry peers as well as areas of focus. Chronic physical risks such as high temperatures, when applicable, is under the category of Operational so it's always included in this process. Mitigation plans are developed and executed for each of these significant risks and areas of focus. Periodically, Marvell updates the assessment and discuss with the board of directors.

**C2.3**

**(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?**

No

**C2.3b**

**(C2.3b) Why do you not consider your organization to be exposed to climate-related risks with the potential to have a substantive financial or strategic impact on your business?**

	Primary reason	Please explain
Row 1	Risks exist, but none with potential to have a substantive financial or strategic impact on business	Marvell does not consider itself to be exposed to climate-related risks with the potential to have a substantive financial or strategic impact to business because only the Marvell Santa Clara site has been identified of having any risk and the risk is low. The Marvell Santa Clara site is adjacent to San Tomas Aquinas Creek to the east, and the Calabazas Creek to the west. It is classified as "Zone X" by the Santa Clara Valley Water District, and FEMA. "Zone X" is defined as: Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year floods. A 100-year flood is defined as: the flood elevation that has a 1% chance of being equaled or exceeded each year. A 500-year flood is defined as: the flood elevation that has a .2% chance of being equaled or exceeded each year. During a 100 year or a 500-year flood event, the water is expected to remain inside the creek beds. The main risk for flooding at Marvell Park would be during a levee failure, or a mechanical failure at a nearby pump station. In either case, it is reasonable to expect that Marvell Park could be covered with roughly one to three feet of flowing water and would remain flooded for 1-2 days. When a flood is imminent, the following activities will be delegated by the FERP leaders in order to reduce any flood-related damages and down time by advance planning. • Assign security and surveillance • Sandbag Building 4 exits and windows before leaving property • Keep fire protection systems operational during a flood • Unplug all ground-level electrical appliances • Ensure that a salvage crew is on alert and prepared to act • Send out a mass email to employees, asking them to place computers and other electronic equipment on top of their desks (if employees are still present) • Move electronic equipment, important records, etc. located on the first floor of each building to second floor areas or offsite

**C2.4**

**(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

No

**C2.4b**

**(C2.4b) Why do you not consider your organization to have climate-related opportunities?**

	Primary reason	Please explain
Row 1	Evaluation in progress	Marvell does not consider having climate related opportunities currently because we are evaluating our sites utility data from past years to current years in order to determine opportunities. To find opportunities we'll be comparing utility data for sites from past years to current years to see which sites we can reduce/improve usage.

Primary reason	Please explain
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### C3. Business Strategy

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#### C3.1

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**(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?**

Yes

#### C3.1a

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**(C3.1a) Does your organization use climate-related scenario analysis to inform its strategy?**

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

#### C3.1c

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**(C3.1c) Why does your organization not use climate-related scenario analysis to inform its strategy?**

Marvell does not use a climate-related scenario analysis to inform the strategy as we have not yet encountered any climate-related risk that would require us to perform such analyses and incorporate it as part of our normal business practice. Marvell does not consider itself to be exposed to climate-related risks with the potential to have a substantive financial or strategic impact to business because only the Marvell Santa Clara site has been identified of having any risk and the risk is low Marvell has incorporated and implemented contingency plans in critical processes in Operations such as: supply chain sourcing, data protection and facility emergency prevention and response

Marvell's Executive Leadership Team (ELT) identifies key risks in each of below listed categories and determines the absolute impact and likelihood. The risks are classified into a risk matrix and the ELT considers the risk tolerance relative to industry peers as well as areas of focus. Mitigation plans are developed and executed for each of these significant risks and areas of focus. Periodically, Marvell updates the assessment and discuss with the board of directors.

- Financial
- Operational
- Strategic
- Sales
- Engineering
- Information
- Organizational
- Legal / Regulatory

#### C3.1d

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**(C3.1d) Describe where and how climate-related risks and opportunities have influenced your strategy.**

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	No	Climate-related risks and opportunities have not influenced our strategy with regards to 'products and services' because Marvell does not manufacture its own product. Marvell has completed the transition of several mobile products to its customary fabrication facilities from Intel manufacturing operations. Processors will be manufactured utilizing the Company's standard fabrication partners. We developed implemented contingency plans in critical processes in Operations such as: supply chain sourcing, data protection and facility emergency prevention and response Also, the Executive Leadership Team (ELT) helps us to identify potential key risks in each of the below-listed categories and determines the absolute impact and likelihood. Thus, all risk identified has not caused us to re-evaluate our current strategy. • Financial • Operational • Strategic • Sales • Engineering • Information • Organizational • Legal / Regulatory Risks such as floods, hurricanes, typhoons, and earthquakes in Asia supplier sites have not impacted our products and services, and have not affected delivery expectations or revenues. The reason for this is that Marvell has a supply chain strategy, which focuses on qualifying a second source to efficiently manage global manufacturing capabilities. This allows Marvell flexibility in managing capacity as volume production increases or in cases when a supplier is impacted by disasters due to climate change or other emergencies.
Supply chain and/or value chain	No	Climate-related risks and opportunities have not yet influenced our strategy in 'Supply chain and/or value chain' as we have already maintaining a dual supply chain sourcing strategy. This allows Marvell flexibility in managing capacity if volume production increases or in cases when a supplier is impacted by disasters due to climate change or other emergencies. Climate-related risks and opportunities have not influenced our strategy in the 'supply chain and/or value chain' because Marvell has developed implemented contingency plans in critical processes in Operations such as: supply chain sourcing, data protection and facility emergency prevention. Also, the Executive Leadership Team (ELT) helps us to identify potential key risks in each of the below-listed categories and determines the absolute impact and likelihood. Thus, all risk identified has not caused us to re-evaluate our current strategy. • Financial • Operational • Strategic • Sales • Engineering • Information • Organizational • Legal / Regulatory Risks such as floods, hurricanes, typhoons, and earthquakes in Asia supplier sites have not impacted our supply chain and/or value chain, and have not affected delivery expectations or revenues The reason for this is that Marvell has a supply chain strategy, where we qualify a second source to efficiently manage global manufacturing capabilities. This allows Marvell flexibility in managing capacity as volume production increases or in cases when a supplier is impacted by disasters due to climate change or other emergencies.
Investment in R&D	No	Climate-related risks and opportunities have not yet influenced our strategy in 'Investment R&D' as we have not yet encountered any risk that would have a substantive impact on this area. Also, the Executive Leadership Team (ELT) helps us to identify potential key risks in each of the below-listed categories and determines the absolute impact and likelihood. Thus, all risk identified has not caused us to re-evaluate our current strategy Climate-related risks and opportunities have not yet influenced our strategy in 'Investment R&D' as we are focusing on the following key risks in each of below listed categories identified by Marvell's Executive Leadership Team (ELT) and determines the absolute impact and likelihood. • Financial • Operational • Strategic • Sales • Engineering • Information • Organizational • Legal / Regulatory
Operations	Yes	Climate-related risks and opportunities have impacted facilities strategy for operations. The Marvell Santa Clara Campus is adjacent to San Tomas Aquinas Creek to the east, and the Calabazas Creek to the west. It is classified as "Zone X" by the Santa Clara Valley Water District, and FEMA. "Zone X" is defined as: Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year floods. A 100-year flood is defined as: the flood elevation that has a 1% chance of being equaled or exceeded each year. A 500-year flood is defined as: the flood elevation that has a .2% chance of being equaled or exceeded each year. During a 100 year or a 500-year flood event, the water is expected to remain inside the creek beds. The main risk for flooding at Marvell Park would be during a levee failure, or a mechanical failure at a nearby pump station. In either case, it is reasonable to expect that Marvell Park could be covered with roughly one to three feet of flowing water and would remain flooded for 1-2 days. In the event of a Flood Marvell developed a Emergency response plan for Marvell park. This Flood Emergency Response Plan is intended to reduce any flood-related damages and down time by advance planning. When a flood is imminent, the following activities will be delegated by the FERP leaders: • Assign security and surveillance • Sandbag Building 4 exits and windows before leaving property • Keep fire protection systems operational during a flood • Unplug all ground-level electrical appliances • Ensure that a salvage crew is on alert and prepared to act • Send out a mass email to employees, asking them to place computers and other electronic equipment on top of their desks (if employees are still present) • Move electronic equipment, important records, etc. located on the first floor of each building to second floor areas or offsite If a flood has occurred -- once the water recedes, the following activities will be delegated by the FERP leaders: • Assess damages • Test fire protection system • Contact electrical service contractor(s) and secure service • Coordinate salvage/restoration contractor(s) and secure service

**C3.1e**

**(C3.1e) Describe where and how climate-related risks and opportunities have influenced your financial planning.**

	Financial planning elements that have been influenced	Description of influence
Row 1	None of the above	Climate-related risks and opportunities have not impacted the financial planning process this year. Marvell's Executive Leadership Team (ELT) identifies key risks in each of below listed categories and determines the absolute impact and likelihood. The risks are classified into a risk matrix and the ELT considers the risk tolerance relative to industry peers as well as areas of focus. Mitigation plans are developed and executed for each of these significant risks and areas of focus. As part of Marvell's business strategy with our supply chain, the company has a Business Continuity process that is used to identify alternate manufacturing site for every key manufacturer supplier with the same process capability, i.e. primary assembly manufacturing supplier for flip chip products is located in Kaoshiung, Taiwan, the qualified alternate manufacturing supplier is located in Chung Li, Taiwan. When severe typhoon occurs, the alternate manufacturing supplier is activated in case the primary manufacturing supplier is impacted by the disaster.

**C3.1f**

**(C3.1f) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).**

**C4. Targets and performance**

**C4.1**

**(C4.1) Did you have an emissions target that was active in the reporting year?**

No target

C4.1c

(C4.1c) Explain why you did not have an emissions target, and forecast how your emissions will change over the next five years.

	Primary reason	Five-year forecast	Please explain
Row 1	We are planning to introduce a target in the next two years	Marvell believes that our emissions will remain about the same over the next five years as we do not anticipate and major manufacturing from direct operations, as we are a Fabless semiconductor company.	Marvell plans to set a target by first increasing our understanding and data management for current and past inventories to better identify emission reduction opportunities and challenges within our operations. This includes developing a baseline GHG inventory that can be used to develop future targets. We plan to evaluate the feasibility and effectiveness of setting facility-level, corporate, or Science-based targets within the next two years as part of our ESG program. This timeline is dependent on our current and future actions to increase reporting and data management systems along with changes to our existing business.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

No other climate-related targets

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0
To be implemented*	0	0
Implementation commenced*	0	0
Implemented*	1	448.5
Not to be implemented	0	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Low-carbon energy generation	Solar PV
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Estimated annual CO2e savings (metric tonnes CO2e)

448.5

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

0

Investment required (unit currency – as specified in C0.4)

0

Payback period

No payback

Estimated lifetime of the initiative

Ongoing

Comment

Solar generation in Santa Clara that is used for charging electric vehicles. Because information on the monetary savings, investment required, and payback period are not available, we have inputted either "0" or "No payback."



## C4.3c

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**(C4.3c) What methods do you use to drive investment in emissions reduction activities?**

Method	Comment
Financial optimization calculations	As part of the BCP process, Marvell's emissions reduction initiatives are driven by efficiency improvement in its products and facilities. Improving efficiency also reduces our emissions.

## C4.5

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**(C4.5) 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?**

No

## C5. Emissions methodology

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### C5.1

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**(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).**

#### Scope 1

**Base year start**

January 1 2018

**Base year end**

December 31 2018

**Base year emissions (metric tons CO2e)**

1821.37

**Comment**

#### Scope 2 (location-based)

**Base year start**

January 1 2018

**Base year end**

December 31 2018

**Base year emissions (metric tons CO2e)**

25083.7

**Comment**

#### Scope 2 (market-based)

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

### C5.2

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**(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.**

Defra Voluntary 2017 Reporting Guidelines

IPCC Guidelines for National Greenhouse Gas Inventories, 2006

The Climate Registry: General Reporting Protocol

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

US EPA Mandatory Greenhouse Gas Reporting Rule

## C6. Emissions data

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### C6.1

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**(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?**

**Reporting year**

**Gross global Scope 1 emissions (metric tons CO2e)**

617.98

**Start date**

<Not Applicable>

**End date**

<Not Applicable>

**Comment**

C6.2

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**(C6.2) Describe your organization's approach to reporting Scope 2 emissions.**

**Row 1**

**Scope 2, location-based**

We are reporting a Scope 2, location-based figure

**Scope 2, market-based**

We have operations where we are able to access electricity supplier emission factors or residual emissions factors, but are unable to report a Scope 2, market-based figure

**Comment**

C6.3

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**(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?**

**Reporting year**

**Scope 2, location-based**

22416.19

**Scope 2, market-based (if applicable)**

<Not Applicable>

**Start date**

<Not Applicable>

**End date**

<Not Applicable>

**Comment**

C6.4

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**(C6.4) Are there 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

C6.5

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**(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.**

**Purchased goods and services**

**Evaluation status**

Relevant, calculated

**Metric tonnes CO2e**

10419523.95

**Emissions calculation methodology**

Quantified using Quantis Scope 3 Evaluator Tool.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

0

**Please explain**

## Capital goods

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

6992172.88

### Emissions calculation methodology

Quantified using Quantis Scope 3 Evaluator Tool.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Please explain

## Fuel-and-energy-related activities (not included in Scope 1 or 2)

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

Marvell does not participate in any fuel or emissions activities outside those included in Scope 1 and Scope 2.

## Upstream transportation and distribution

### Evaluation status

Relevant, not yet calculated

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

Marvell does not control any upstream activities, since all manufactured products are made by 3rd party companies. The contract manufacturers control all upstream operations, transportation, and distribution.

## Waste generated in operations

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

124.41

### Emissions calculation methodology

Non-Hazardous Landfill was estimated for all facilities it was not available based on square footage. Non-Hazardous Recycle and Hazardous Waste was reported for facilities which track these.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Please explain

## Business travel

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

9495.25

### Emissions calculation methodology

Includes Avis Rental Car, Domestic and International Air Travel, and Domestic and International Hotel Stay. The Travel Provider Methodology was used for emissions calculations.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

### Please explain

## Employee commuting

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

3769.74

### Emissions calculation methodology

Marvell was able to obtain all of their shipping records for 2019. The shipping records included the location of the Marvell warehouse (i.e., origin), the shipping location (i.e., destination), and the weight of the shipment. These parameters were used to calculate shipping emissions using emission factors from US EPA's Emission Factors For Greenhouse Gas Inventories (Table 8), which provides emission factors for transportation type in units of GHGs per ton-mile. The total distance traveled by each package was calculated using the Latitude and Longitude of the origin and destinations. This was much higher than the previous year due to increased manufacturing and shipping.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Please explain

## Upstream leased assets

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

There are no upstream leased assets that are not part of Marvell's Scope 1 and Scope 2 calculations.

## Downstream transportation and distribution

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

1013978.94

### Emissions calculation methodology

Marvell was able to obtain all of their shipping records for 2019. The shipping records included the location of the Marvell warehouse (i.e., origin), the shipping location (i.e., destination), and the weight of the shipment. These parameters were used to calculate shipping emissions using emission factors from US EPA's Emission Factors For Greenhouse Gas Inventories (Table 8), which provides emission factors for transportation type in units of GHGs per ton-mile. The total distance traveled by each package was calculated using the Latitude and Longitude of the origin and destinations. This was much higher than the previous year due to increased manufacturing and shipping.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Please explain

## Processing of sold products

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

96.44

### Emissions calculation methodology

Marvell's boards and ICs must pass through a welding machine before they can be installed. This process uses approximately 0.0048 kwh per board and 0.000016 kwh per IC. These factors were multiplied by the total number of boards and ICs shipped during the reporting year. Emissions were then allocated to different regions where there products were processed using regional electricity emission factors. This was much higher than the previous year due to increased manufacturing and shipping.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Please explain

## Use of sold products

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

12412040.59

### Emissions calculation methodology

Marvell's QLE2692 adapter board uses 8.5 watts of power and AntiguaUL (1053) integrated circuit system on chip uses 2.6 watts. Assuming the processor is used 24 hours a day for 365 days per year (which may be a slight overestimate), we calculated GHGs using the GHG Protocol tools for energy/electricity use for one product over a one year time frame. This was then multiplied by the number of products sold to get final values for the reporting year. The total electricity consumption associated with powering all of Cavium's sold products throughout the year was multiplied by regional electricity emission factors. This was much higher than the previous year due to increased manufacturing and shipping.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Please explain

## End of life treatment of sold products

### Evaluation status

Relevant, not yet calculated

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

Marvell does not control the end of life treatment of our products because Marvell products are used in the User products built by the original equipment manufacturer who has end of life/usability disposal responsibility. This is out of the operational control of Marvell.

## Downstream leased assets

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

Marvell has no leased downstream assets.

## Franchises

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

Marvell is not a retailer and does not have franchises.

## Investments

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

Marvell is not a financial company, but rather has employees that help develop our products.

## Other (upstream)

### Evaluation status

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

**Other (downstream)**

**Evaluation status**

**Metric tonnes CO2e**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

**Please explain**

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**C6.7**

**(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?**

No

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**C6.10**

**(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.**

**Intensity figure**

0.010997371

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)**

23034.17

**Metric denominator**

square foot

**Metric denominator: Unit total**

2094516

**Scope 2 figure used**

Location-based

**% change from previous year**

1.37

**Direction of change**

Decreased

**Reason for change**

This is our second year of reporting, but the reporting boundary of included facilities increased between 2018 and 2019. Last year, the calculated intensity was 0.011150382. The intensity calculated this year decreased by 1.37%. The total Scope 1 + 2 emissions decreased from 26,905.08 metric tons CO2e in 2018 to 23,034.17 metric tons CO2e in 2019 due to emission reduction activities and generation of solar energy for use at the Santa Clara HQ. The total square feet decreased from 2,412,929 in 2018 to 2,094,516 in 2019 as well.

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**Intensity figure**

4.37745534

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)**

23034.17

**Metric denominator**

full time equivalent (FTE) employee

**Metric denominator: Unit total**

5262

**Scope 2 figure used**

Location-based

**% change from previous year**

12.55

**Direction of change**

Decreased

**Reason for change**

This is our second year of reporting, but the reporting boundary of included facilities increased between 2018 and 2019. Last year, the calculated intensity was 5.005596279. The intensity calculated this year decreased by 12.55%. The total Scope 1 + 2 emissions decreased from 26,905.08 metric tons CO2e in 2018 to 23,034.17 metric tons CO2e in 2019 due to emission reduction activities and generation of solar energy for use at the Santa Clara HQ. The total FTE decreased from 5,375 in 2018 to 5,262 in 2019 as well.

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**C7. Emissions breakdowns**

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### C7.1

**(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?**

Yes

### C7.1a

**(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).**

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	460.94	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	0.34	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	0.28	IPCC Fifth Assessment Report (AR5 – 100 year)
HFCs	156.42	IPCC Fifth Assessment Report (AR5 – 100 year)

### C7.2

**(C7.2) Break down your total gross global Scope 1 emissions by country/region.**

Country/Region	Scope 1 emissions (metric tons CO2e)
United States of America	554.97
China	14.43
India	12.41
Israel	36.17
Singapore	0
Japan	0
Germany	0
Viet Nam	0

### C7.3

**(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.**

By business division

By facility

### C7.3a

**(C7.3a) Break down your total gross global Scope 1 emissions by business division.**

Business division	Scope 1 emissions (metric ton CO2e)
Owned Operations	62.56
Leased Operations	555.42

### C7.3b

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**(C7.3b) Break down your total gross global Scope 1 emissions by business facility.**

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Marvell HQ	455.76	37.411241	-121.981969
Cavium - Irvine	2.28	33.682059	-117.753979
Cavium - Marlborough	60.28	42.334319	-71.596319
US - NC - Morrisville	0	35.864276	-78.83532
US - AZ Chandler	0	33.279736	-111.808505
US - CO - Longmont	36.65	40.135547	-105.127442
De Eettingen	0	48.94094	8.40763
Marvell - Shanghai	0	31.170243	121.590054
Marvell - Singapore	0	1.335613	103.887531
Marvell - Yokneam	30.27	31.5	34.75
Marvell - Israel (PTK)	5.9	32.10261	34.863928
Marvell - Taiwan (Taipei)	0	25.04776	121.53185
Marvell - Taiwan (Hsinchu)	0	24.80361	120.96861
Marvell - India - Pune	3.23	18.8671	73.9801
Marvell - India - Hyderabad	6.6	17.426957	78.452392
Marvell - India - Bangalore	2.57	12.97194	77.59369
Marvell - Nanjing	0	32.06167	118.77778
Marvell - Chengdu	14.43	30.66242	104.063321
Marvell - Beijing	0	39.906217	116.391275
JP - Tokyo - MTJYK	0	35.6341	139.7179
Marvell - Vietnam	0	10.82302	106.62965

**C7.5**

**(C7.5) Break down your total gross global Scope 2 emissions by country/region.**

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
United States of America	9207.07		38364.44	
China	3022.38		3956	
India	2334.45		2727.17	
Singapore	458.2		916.4	
Israel	7147.26		9831.17	
Japan	65.55		131.89	
Germany	181.18		379.84	
Viet Nam	0.09		0.21	

**C7.6**

**(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.**

- By business division
- By facility

**C7.6a**

**(C7.6a) Break down your total gross global Scope 2 emissions by business division.**

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Owned Operations	2806.48	
Leased Operations	19609.71	

**C7.6b**



**(C7.6b) Break down your total gross global Scope 2 emissions by business facility.**

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Marvell HQ	5299.45	
Cavium - Irvine	2077.71	
Cavium - Marlborough	744.5	
US - NC - Morrisville	438.97	
US - AZ - Chandler	526.66	
US - CO - Longmont	119.77	
De Ettlingen	181.18	
Marvell - Shanghai	1434.27	
Marvell - Singapore	458.2	
Marvell - Yokneam	2664.18	
Marvell - Israel (PTK)	4483.09	
Marvell - Taiwan (Taipei)	690.29	
Marvell - Taiwan (Hsinchu)	333.55	
Marvell - India - Pune	625.07	
Marvell - India - Hyderabad	423.89	
Marvell - India - Bangalore	1285.5	
Marvell - Nanjing	130.43	
Marvell - Chengdu	338.46	
Marvell - Beijing	95.38	
JP - Tokyo - MTJYK	65.55	
Marvell - Vietnam	0.09	

**C7.9**

**(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?**

Increased

**C7.9a**

**(C7.9a) 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.**

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	448.5	Decreased	1.66	The change in Scope 1 and 2 emissions decreased by 448.50 metric tonnes due to change in renewable energy consumption. (448.50 metric tonnes change due to RE / 26,905.07 metric tonnes Scope 1 + 2 2018) * 100% = 1.66%
Other emissions reduction activities	0	No change	0	The change in Scope 1 and 2 emissions did not change due to other emission reduction activities.
Divestment		<Not Applicable >		
Acquisitions		<Not Applicable >		
Mergers		<Not Applicable >		
Change in output		<Not Applicable >		
Change in methodology		<Not Applicable >		
Change in boundary		<Not Applicable >		
Change in physical operating conditions		<Not Applicable >		
Unidentified		<Not Applicable >		
Other		<Not Applicable >		

**C7.9b**

**(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?**

Location-based

**C8. Energy**

**C8.1**

**(C8.1) What percentage of your total operational spend in the reporting year was on energy?**

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

**C8.2**

**(C8.2) Select which energy-related activities your organization has undertaken.**

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

**C8.2a**

**(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.**

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	0	4476.82	4476.82
Consumption of purchased or acquired electricity	<Not Applicable>	0	56307.12	56307.12
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	1983	<Not Applicable>	1983.31
Total energy consumption	<Not Applicable>	0	62767.24	62767.24

**C8.2b**

**(C8.2b) Select the applications of your organization's consumption of fuel.**

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	No
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

**C8.2c**

**(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.**

**Fuels (excluding feedstocks)**

Natural Gas

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

2370

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**

<Not Applicable>

**Emission factor**

53.06

**Unit**

kg CO2 per million Btu

**Emissions factor source**

U.S. EPA. Emission Factors for Greenhouse Gas Inventories. Last Modified: 9 March 2018. [https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors\\_mar\\_2018\\_0.pdf](https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf)

**Comment**

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**Fuels (excluding feedstocks)**

Diesel

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

89.96

**MWh fuel consumed for self-generation of electricity**

89.96

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**

<Not Applicable>

**Emission factor**

10.21

**Unit**

kg CO2 per gallon

**Emissions factor source**

U.S. EPA. Emission Factors for Greenhouse Gas Inventories. Last Modified: 9 March 2018. [https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors\\_mar\\_2018\\_0.pdf](https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf)

**Comment**

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**Fuels (excluding feedstocks)**

Motor Gasoline

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

32.42

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**

<Not Applicable>

**Emission factor**

8.78

**Unit**

kg CO2 per gallon

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**Emissions factor source**

U.S. EPA. Emission Factors for Greenhouse Gas Inventories. Last Modified: 9 March 2018. [https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors\\_mar\\_2018\\_0.pdf](https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf)

**Comment**

**Fuels (excluding feedstocks)**

Propane Liquid

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

1.26

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self-cogeneration or self-trigeneration**

<Not Applicable>

**Emission factor**

5.72

**Unit**

kg CO2 per gallon

**Emissions factor source**

U.S. EPA. Emission Factors for Greenhouse Gas Inventories. Last Modified: 9 March 2018. [https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors\\_mar\\_2018\\_0.pdf](https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf)

**Comment**

**C8.2d**

**(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.**

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	1983.31	1983.31	1983.31	1983.31
Heat	0	0	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

**C9. Additional metrics**

**C9.1**

**(C9.1) Provide any additional climate-related metrics relevant to your business.**

**C10. Verification**

**C10.1**

**(C10.1) Indicate the verification/assurance status that applies to your reported emissions.**

	Verification/assurance status
Scope 1	No third-party verification or assurance
Scope 2 (location-based or market-based)	No third-party verification or assurance
Scope 3	No third-party verification or assurance

## C10.2

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**(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?**

No, but we are actively considering verifying within the next two years

## C11. Carbon pricing

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### C11.1

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**(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?**

No, and we do not anticipate being regulated in the next three years

### C11.2

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**(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?**

No

### C11.3

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**(C11.3) Does your organization use an internal price on carbon?**

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

## C12. Engagement

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### C12.1

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**(C12.1) Do you engage with your value chain on climate-related issues?**

Yes, our suppliers

Yes, our customers

Yes, other partners in the value chain

### C12.1a

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**(C12.1a) Provide details of your climate-related supplier engagement strategy.**

**Type of engagement**

Compliance & onboarding

**Details of engagement**

Included climate change in supplier selection / management mechanism

**% of suppliers by number**

100

**% total procurement spend (direct and indirect)**

100

**% of supplier-related Scope 3 emissions as reported in C6.5**

1

**Rationale for the coverage of your engagement**

We actively engage with all suppliers to participate and comply with RBA requirements, as RBA keeps track of many standards that our sector should be following. For example, it keeps track of whether or not respondents comply with the use of Conflict Minerals. We perform periodic audits to ensure their participation is active and in compliance with environmental issues, including their business continuity programs, to mitigate climate change impacts.

**Impact of engagement, including measures of success**

We engaged these suppliers in processing IC and boards products. Suppliers are required to utilize RoHS-REACH compliant materials. Success means that Marvell's product passes the material compliance evaluation test, i.e. Suppliers that manufacture Marvell's processors are passing RoHS-REACH compliance certification. For example, in 2019, all of our suppliers achieved RoHS or REACH compliance. This means that components were produced with chemicals that are below set thresholds according to RoHS-REACH standards. By complying with these standards, Marvell's suppliers are producing components that minimize the release of harmful material into the environment. As a result, no energy is expended for environmental clean-up of EU restricted substances, resulting in a reduction of their GHG emissions. We define our success measures by products meeting these requirements. Customer satisfaction for products that are compliant with regulations and achieve highest standards of product quality is a priority for Marvell. Suppliers that meet these KPIs are considered successful. Suppliers that are not able to meet these standards and regulations are deprioritized. Product qualification allows Marvell to produce a more environmentally/green product for shipment to our customers.

**Comment**

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**C12.1b**

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**(C12.1b) Give details of your climate-related engagement strategy with your customers.**

**Type of engagement**

Education/information sharing

**Details of engagement**

Share information about your products and relevant certification schemes (i.e. Energy STAR)

**% of customers by number**

100

**% of customer - related Scope 3 emissions as reported in C6.5**

1

**Portfolio coverage (total or outstanding)**

<Not Applicable>

**Please explain the rationale for selecting this group of customers and scope of engagement**

We engage with our direct customers through the Responsibility Business Alliance (RBA), an organization of which Marvell is a member. RBA's responsibility is to assist companies in collecting information on their corporate activities and their supply chain activities. This responsibility is also part of Marvell's standard operations. The RBA environmental platform allows Marvell and its suppliers to share their initiatives, including corporate and social responsibility metrics, as well as environmental metrics, with its valued customers that request Marvell to submit completed questionnaires to the RBA. This involves discussion of Marvell's extensive compliance program aimed to meet various US and global regulations focused on minimizing impact to the environment and climate change. The following are some of the regulations and legislation that Marvell's compliance program is based upon: Dodd-Frank Conflict Minerals Legislation; European Union Directives: on waste electrical and electronic equipment (WEEE Directive), on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS Directive), and on improving the protection of human health and the environment through the better and earlier identification of the intrinsic properties of chemical substances by the four processes of REACH, namely the registration, evaluation, authorization and restriction of chemicals. Another effort as part of this program to reduce waste and minimize negative impact to the environment and climate change is the responsible scrapping of Marvell's non-useable products and electronic equipment. Scrap materials are disposed of through certified contractors that participate in responsible recycling programs. This ensures that Marvell's scrapped proprietary products are responsibly scrapped and any precious metals reclaimed are reimbursed back to Marvell. This program includes all Marvell discarded or scrapped products and non-useable electronic office equipment, i.e. computers, cables, monitors, etc. and ensures that they are responsibly disposed of in compliance to local laws and regulations.

**Impact of engagement, including measures of success**

Engagement with direct customers on environmental compliance requirements are prioritized to ensure that Marvell products meet and exceed industry and specific customer requirements. Marvell's RBA annual SAQ and environmental surveys are accessible to Marvell customers upon request, where Marvell's corporate and associated facilities information can be reviewed. Impacts from these engagements in 2019 found that all of our suppliers achieved compliance including RoHS-REACH, where components are produced with chemicals that are below set thresholds according to EU standards. By complying with these standards, our customers received 100% RoHS/REACH compliant products. Marvell and its suppliers are producing components that are actively reducing their GHG emissions by minimizing the release of harmful material into the environment. As a result, customers receive the benefit of purchasing environmentally/green products. In addition, RBA also requests information regarding waste and water. With continuous product testing, Marvell is able to track compliance to EU RoHS-REACH requirements and are reported to our customers who request us to respond. We define our success based upon customer acceptance of Marvell RoHS-REACH product certification and after reviewing Marvell's data in RBA's reporting system. Marvell considers it a success when our customers request us to respond their request for RoHS-REACH certification and RBA access to our report, this customers are more likely to work with us on efficiencies and buy our products, as opposed to customers that to not require information.

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**C12.1d**

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**(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.**

Marvell reaches out to its own employees (other partners in the value chain) through Marvell's internal Intranet that includes notes on how Marvell is working to be more sustainable and efficient in its own practices. Our facilities also include the use of lighting that turns off automatically.

Our employees are involved in our annual Earth Day activities. During the company's Earth Day activity last year, booths were set up that introduced and encouraged employees to ride bicycles going to and from work, explained the benefits of solar panel installations, and discussed how to reduce adding more trash to landfills. Organic produce samples were brought in and presented to those interested, encouraging employees to plant these samples to reduce water use on their homes. Marvell encourages employees to participate in the annual Bike to Work Day, where a designated station is set up on the edge of Marvell's property to give water to bikers.

Additional engagements with our employees include the availability of paper recycle bins in our facilities, encouragement of double-sided printing and e-reading options, participation in an annual Spring-cleaning event for waste disposal in the workplace, swapping non-essential travel for video conferencing, and offering options for bike storage, ride-share, and carpool information.

Marvell considers our contractors and general vendors important partners in the value chain as part of our commitment set by our Supplier Code of Conduct. The code outlines that we engage with them to ensure they are able to adhere to best practices in environmental protection, which includes climate change-related engagements.

An important partner in Marvell's value chain is our partners in the investment community. As part of our Environmental, Health and Safety Policy, Marvell is committed to regularly communicating our environmental performance to stakeholders, and we encourage them to join in our initiatives such as the annual Silicon Valley Bike to Work Day, where we proudly host an "energizer station" by providing refreshments and encouragement to all who participate in the event.

Other partners in Marvell's value chain include Component Manufacturers (suppliers to our suppliers) where we engage by using RoHS/REACH and a third party tool to verify that all suppliers are in compliance with RoHS/REACH standards. Our strategy for engagement with component manufacturers is based upon whether or not the manufacturer is 100% compliant with RoHS/REACH. Companies that are compliant with RoHS/REACH will be prioritized over companies that are not 100% compliant (Example, companies that have products that are only 95% RoHS/REACH compliant, or unavailable, will not be selected as a manufacturer for Marvell). Measure of success is determined by the amount of component manufacturers that are 100% compliant with RoHS/REACH. If the percentage drops, then Marvell does not consider engagement a success and will require redevelopment or new iterations of products that are manufactured for Marvell.

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**C12.3**

**(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?**

Trade associations  
Other

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**C12.3b**

**(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?**

Yes

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**C12.3c**

**(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.**

**Trade association**

Semiconductor Industry Association (SIA)

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

Semiconductors are a foundation of modern computers, information technology, and communications products, and our products are also ubiquitous in advanced manufacturing processes, transportation systems, health care devices, building controls, energy generation equipment, and other sectors of the economy. As a result, semiconductors are a key enabling technology to improve energy efficiency and reduce energy consumption throughout the economy. In short, semiconductors are a key part to addressing global climate change while also advancing economic growth.

**How have you influenced, or are you attempting to influence their position?**

Marvell's President and CEO sits on the board of the SIA. Marvell supports SIA's overall Environment, Health & Safety policies and initiatives.  
<https://www.semiconductors.org/policies/environment-health-safety/>

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**C12.3e**

**(C12.3e) Provide details of the other engagement activities that you undertake.**

i) Method of engagement: Marvell reports to the Responsible Business Alliance (RBA) supplier modules on an annual basis. Marvell became a member of IPC, an association connecting electronics industries and American Society Quality (ASQ), a global industry knowledge network that links the best ideas, tools, and experts. ASQ has the reputation and reach to bring together the diverse quality champions who are transforming our world. Our engagement in these organizations include attending conferences and meetings to share best practices. Some of the points we discuss in order to reduce GHG emissions include packing materials (i.e. materials used, amount of materials used), shipping methods, and energy efficiency of manufacturing and energy efficiency of products. Marvell also has employees that are members of the International Facilities Management Association, who attended meetings to learn how to reduce energy and water consumption.

ii) Topic of engagement: RBA is an organization whose responsibility is to assist companies with collecting information on their corporate activities and their supply chain activities. RBA's environmental platform allows Marvell and its suppliers to share their initiatives, including corporate and social responsibility metrics, as well as environmental metrics, with its valued customers. IPC often works with the EPA to address environmental issues associated with the manufacturing of electronics products. ASQ is a quality organization that believes that quality is inherently tied to social responsibility. ASQ was selected by the American National Standards Institute (ANSI) to administer and develop the U.S. position on a new international social responsibility standard.

iii) Nature of engagement: Marvell is a member of the RBA and completes the annual supplier reports on corporate, social, and environmental compliance and initiatives. RBA's platform allows Marvell to review and influence its top tier supply chain to submit annual reports on corporate, social, and environmental compliance and activities related to climate change. Marvell is also a member of the IPC and ASQ, both of which provide integral connections and information on industry initiatives related to corporate social and environmental activities especially climate change impact.

iv) Actions being advocated: RBA acts as an association that works with regulatory agencies to better inform its members about required and voluntary reporting requirements and provide advice to regulators on industry concerns about existing or developing regulations. IPC often works with the EPA to address environmental issues associated with the manufacturing of electronics products. ASQ is working to improve environmental and social practices of companies by providing a forum for community of people passionate about quality who make our world work better. Marvell supports these actions through our engagement as a member company of the RBA, IPC and ASQ

**C12.3f**

**(C12.3f) 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?**

Marvell is committed to conducting its business in a lawful and ethical manner, including engaging with suppliers that are committed to the principles set forth in the Marvell Supplier Code of Conduct ("Supplier Code").

Marvell's Supplier Code encourages suppliers to operate in full conformance with the laws, rules and regulations of the countries in which they operate and to meet internationally recognized environmental, social and governance standards.

The business and labor practices of our Suppliers and their employees, agents and subcontractors (collectively referred to as "Suppliers") must adhere to the standards of this Supplier Code when conducting business with or on behalf of Marvell. Suppliers are required to promptly inform Marvell when any situation develops that causes the Supplier to operate in violation of this Supplier Code. Compliance with this Supplier Code is required in addition to any other obligations in any agreement Suppliers may have with Marvell.

Marvell is committed to protecting the environment, and environmental responsibility is at the core of how we operate. Suppliers shall comply with applicable environmental laws and regulations; develop, implement and maintain environmentally responsible business practices; obtain and keep current all required environmental permits, and comply with any reporting requirements applicable to such permits; and implement systematic approaches to identifying, managing, reducing and disposing or recycling all hazardous and non-hazardous waste, including any wastewater.

Marvell also has a concern line where any person can send a report through the Marvell Concern Line at <http://concernline.marvell.com> or by phone using the numbers provided at that website. The Concern Line is administered by a third-party vendor, and is available 24 hours per day, every day. Reports will be treated as confidential to the extent possible and may be submitted anonymously where permitted by law.

By joining the Responsible Business Alliance (RBA), a dynamic industry association consisting of over 140 leading companies, Marvell commits to work with its suppliers to improve the front lines of the manufacturing process – the lives, rights and working environment of the people building electronic products we can't imagine our lives without.

Through our membership with the RBA, we believe we can promote higher environmental, social and governance standards across the industry in partnership with our customers and peers and align our approach with industry-wide best practices.

RBA members support the RBA Code of Conduct (RBA Code) that establishes standards for labor, health & safety, environmental practices, and ethics and management systems. Marvell is committed to adopting and implementing the RBA Code, internally at Marvell and externally with our supply chain partners. With a goal to create a responsible supply chain, Marvell aims to work alongside our supply chain to ensure our partners are aligned and in compliance with the RBA Code.

**C12.4**



**(C12.4) 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**

Other, please specify (Corporate Global Citizenship Website)

**Status**

Underway – this is our first year

**Attach the document**

**Page/Section reference**

**Content elements**

Strategy

Other, please specify (Enhanced Disclosure)

**Comment**

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**C15. Signoff**

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**C-FI**

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**(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.**

**C15.1**

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**(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.**

	Job title	Corresponding job category
Row 1	COO - Chief Operations Office	Chief Operating Officer (COO)

**SC. Supply chain module**

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**SC0.0**

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**(SC0.0) If you would like to do so, please provide a separate introduction to this module.**

**SC0.1**

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**(SC0.1) What is your company's annual revenue for the stated reporting period?**

	Annual Revenue
Row 1	

**SC0.2**

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**(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?**

No

**SC1.1**

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**(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.**

**SC1.2**

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**(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).**

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SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
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SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

Please select

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

Please select

SC3.1

(SC3.1) Do you want to enroll in the 2020-2021 CDP Action Exchange initiative?

Please select

SC3.2

(SC3.2) Is your company a participating supplier in CDP's 2019-2020 Action Exchange initiative?

Please select

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

Please select

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission	Are you ready to submit the additional Supply Chain Questions?
I am submitting my response	Investors Customers	Public	Yes, submit Supply Chain Questions now

Please confirm below

I have read and accept the applicable Terms