Palo Alto Networks - Climate Change 2023

C0. Introduction

C0.1

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

Palo Alto Networks, the global cybersecurity leader, is shaping the cloud-centric future with technology that is transforming the way people and organizations operate. Our mission is to be the cybersecurity partner of choice, protecting our digital way of life. We help address the world's greatest security challenges with continuous innovation that seizes the latest breakthroughs in artificial intelligence, analytics, automation, and orchestration. By delivering an integrated platform and empowering a growing ecosystem of partners, we are at the forefront of protecting tens of thousands of organizations across clouds, networks, and mobile devices. Our vision is a world where each day is safer and more secure than the one before.

Our platform of products and services enable global businesses to secure their enterprise (Strata business products and services), secure their cloud (Prisma products and services) and secure their future (Cortex products and services). The company provides support services; and professional services, including architecture design and planning, configuration, and firewall migration, as well as education training services. Palo Alto Networks, Inc. sells its products and services through its channel partners, as well as directly to medium to large enterprises, service providers, and government entities operating in various industries, including education, energy, financial services, government entities, healthcare, Internet and media, manufacturing, public sector, and telecommunications.

Founded in 2005, Palo Alto Networks at the end of FY2022 employed over 12,000 employees serving 85,000 customers across 150 countries - with revenues greater than $5.5B. Palo Alto Networks partners with contract manufacturers to produce our hardware products, and as a result our Customer Use or "Use of Sold Products" and Purchased Goods and Services (PG&S) are the largest contributors to our environmental footprint. In 2021 we set our Science-Based Targets, long-term Net Zero (>90% elimination for 2030 (Scopes 1+2) and 2040 (all Scopes)) and 100% renewable energy goals, the foundation of our public Climate Commitments. In FY2022 we submitted them to the SBTi for verification the first week of our FY2023 (and they were recently validated by the SBTi) . Our environmental stewardship efforts have focused on ways in which we can best drive impact by adopting best practices throughout our operations and by mobilizing employees -- not just in engagement opportunities, but throughout every role, in every business unit -- to be data-driven, to follow climate science, clean energy deployment, decarbonization in the communities where we work and live, local and regional policy advocacy, and stewards of biodiversity.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.

Reporting year

Start date
August 1 2021

End date
July 31 2022

Indicate if you are providing emissions data for past reporting years
Yes

Select the number of past reporting years you will be providing Scope 1 emissions data for
2 years

Select the number of past reporting years you will be providing Scope 2 emissions data for
2 years

Select the number of past reporting years you will be providing Scope 3 emissions data for
2 years

C0.3

(C0.3) Select the countries/areas in which you operate.

Australia
China
France
India
Israel
Japan
Netherlands
Singapore
United Arab Emirates
United Kingdom of Great Britain and Northern Ireland
United States of America

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

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	US6974351057

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 or committee	Responsibilities for climate-related issues
Board-level committee	Palo Alto Networks (PANW) has been refining and scaling its corporate responsibility (CR) programs over the last several years, making great strides to execute collaborative, integrated and formal strategies. From early decisions in 2017 to embrace LEED standards for our sites to attaining LEED certs in over 70% of our leased properties for the past three years; in FY22 making social impact investments that address biodiversity; in FY21 setting ambitious Science-Based Targets (SBTs) aligned to 1.5C guidance; in FY22 submitting them to the SBTi for validation (validated recently), and approve our long-term Net Zero (>90% elimination for 2030 (Scopes 1+2) and 2040 (all Scopes)) and 100% renewable energy goals. These are the foundation of our public Climate Commitments. The Board has been aware of, and advocates for, sound CR programs under the management of functional leaders and coordination through cross-functional teams. PANW's Board-level committee responsible for climate strategies is called the "ESG & Nominating Committee". The ESG & Nominating Committee is the main, multidisciplinary committee related to climate action, decision making, and oversight of ESG-related matters. As part of the Committee's Charter, in FY22 the ESG & Nominating Committee had oversight of the development and release of the FY22 ESG Report (supplemental to PANW's 10-K and Annual Report (Proxy). In addition to the above in FY22, the ESG & Nominating Committee also advised and ultimately approved the recommendation to commit to approve PANW entering into a contract with our HQ's utility to purchase 100% renewable energy for the entire HQ footprint, which is >60% of our global footprint. ESG & Nominating Committee oversight of the Company's ESG practices reinforces our commitment to continuous improvement and development of key strategies, on scaling sustainability impact through strategic alignment, and aligning our sustainability reporting with our financial reporting. The ESG & Nominating Committee meets on a quarterly basis or more frequently, as needed, during which it may discuss, review, and approve climate-related initiatives, and provide recommendations and guidance based on the meeting agenda. The Audit Committee has oversight of the quality and controls of the ESG disclosures included in the ESG Report. The Audit Committee meets on a quarterly basis, or more frequently, as needed, during which it may discuss, review and approve climate-related initiatives.
Chief Executive Officer (CEO)	Palo Alto Networks (PANW) CEO, who sits on the board of directors, has the highest initiative approval and budgetary responsibility for climate-related issues, and has monetary incentives for oversight of all ESG outcomes. All major decision-making and approval is with the CEO along with the ESG Executive Council (which is comprised of the Chief People Officer (CPO), Chief Financial Officer (CFO) and General Counsel). The ESG Executive Council gives direction to and receives updates from the ESG Steering Committee (a cross-functional leadership body chaired by the Senior Director of Corporate Responsibility (who in 2020 lead all Sustainability initiatives and hired our dedicated Sustainability Strategist (Head of Sustainability) in FY21)). The ESG Steering Committee is comprised of executives representing Accounting, Legal, Internal Audit, Operations, Product, Investor Relations and other executives as necessary. Following are examples of actions and initiatives proposed to the CEO and other leads mentioned in the section in FY22: the ESG Executive Council (including CEO, CFO, CPO and General Counsel) approved our our SBTs and related submission to the SBTi for validation (validated recently), and approve our long-term Net Zero (>90% elimination for 2030 (Scopes 1+2) and 2040 (all Scopes)) and 100% renewable energy goals, along with projected budget and financial impact, and approval to join environmental coalitions such as Ceres and the GreenBiz Executive Network. The CEO also agreed to be signatory to several climate related advocacy measures through coalitions include the World Economic Forum, Ceres and others. The CEO has visibility across the entire company and its value chain, meets with Palo Alto Networks board of directors regularly, and has the final sign-of for major climate-related initiatives, as needed.
Chief Financial Officer (CFO)	PANW's Chief Financial Officer CFO designated budgetary responsibility for climate-related initiatives. In FY22, this role has been the sustainability C-suite lead for initiatives across production and operations, including approval for budget on renewable energy purchases, as above, as well as approval for a partnership with major cloud and hardware manufacturing suppliers. Additionally, this role has visibility across all of the company's value chain (suppliers, customers, investors), with the Board and meets with PANW's board of directors regularly.
Other C-Suite Officer	PANW's Chief People Officer (CPO) / EVP of People and Places, has oversight and ownership of all People (HR), Places (facilities), and Corporate Responsibility (CR) functions, including overall management, decision making, strategies, initiatives, budget, and reporting of our Sustainability strategy. Along with the ESG Executive Council, the CPO has approval and oversight of all climate-related initiatives and as leader of the CR team, was a key decision-maker and C-level advocate of setting Science-Based Targets (SBTs) aligned to 1.5C guidance, having them validated by the SBTi, as well as 2 long-term Net Zero targets (2030 for Scopes 1+2, 2040 for Scopes 1,2,3), RE100 goals, the budget, 3rd party verification of all GHG footprint and Sustainability data, the overall sustainability strategy, and the approval to report to CDP Climate (including the final sign-off, here) since 2019. The CPO also has oversight and approval for PANWs real estate portfolio, including its philosophy to prioritize LEED certified properties and several new lease agreements for LEED properties in FY22.

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 Overseeing and guiding the development of a transition plan Monitoring the implementation of a transition plan	<Not Applicable>	As climate change and overall ESG practices became an increasingly important topic to our stakeholders, the ESG & Nominating Committee incorporated ESG oversight into its charter. In coordination with the General Counsel's office, the Chief People Office and the Sr. Director Global Corporate Responsibility provide recurring updates on the ESG strategies and performance to the ESG & Nominating Committee. ESG related discussions in FY22, led by the Sr. Dir., of Corporate Responsibility (CR), who reports directly to the Chief People Officer (CPO) and the Sustainability Strategist (head of Sustainability), included the monitoring and reporting of work projects being performed under the leadership of the ESG Steering Committee which is comprised of SVP of Operations, VP Operations, SVP Investor Relations, VP Internal Audit, Chief Accounting Officer (all of whom report to the CFO), VP Legal - Compliance and VP Legal -Governance (each of whom report to the General Counsel), VP Product (who reports to Chief Product Officer) to advance our overall ESG strategy. In FY22, ESG governance was included quarterly, or more frequently as needed and/or appropriate. And as an example, the Chief Accounting Officer and his team was engaged in Sustainability reporting and applying rigor, accuracy, consistency, and security of all Sustainability data and the reports from which the data was derived. Other primary actions in this fiscal year included 1). a review of our ESG performance as measured by external ESG ratings and assessment entities, 2). a gap analysis between our current performance that may not be captured by those assessments, 3). a gap analysis of our ESG roadmap and desired outcomes of those assessments, 4). recommendations to close all gaps in a) near term actions and b) long term actions. Additional actions included project plans for FY23 ESG Reporting - content, disclosures and approach to data collection and controls, including use of 3rd party platforms and external assurance of data, including transparent reporting practices with CDP and other entities.

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1	Yes	At PANW there is Board level awareness of the company's action on climate change. Requests from Board members following meetings for Sustainability and ESG queries. For example, for the second year in a row, following an FY22 meeting, Board members reached out to the CEO and CPO ("Places & People" EVP) to understand PANW's leadership position on Sustainability, how it is measured, and what specific actions we would be taking this year to make progress on our SBTs and RE100 goals. After this, approval came for our recommendation to enter into a 100% renewable electricity partnership with our local utility for our California HQ, which is >60% of our global footprint, budget to get our SBTS validated by the SBTi, budget and oversight (ex. SOCs alignment) to get our Sustainability data 3rd-party verified for a second year in a row. The approval for developing and releasing our FY 2022 ESG Report was also board-level, which was then finalized and posted on our public website in November 2023. Additionally, Board level awareness prompted a board member to make recommendations to use external environmental reporting services and 3rd party verification. The Lead Independent Director of the Board, who chairs the ESG & Nominating committee receives regular briefings on our ESG initiatives and progress.	<Not Applicable>	<Not Applicable>

C1.2

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

Position or committee
Other committee, please specify (Palo Alto Networks ESG Executive Council)

Climate-related responsibilities of this position
Implementing a climate transition plan
Integrating climate-related issues into the strategy
Managing climate-related risks and opportunities
Other, please specify (As above in C1.1a, this committee is composed of Board and C-Level executives and owns approval of any and all initiatives, strategies, transition plans, and major budget.)

Coverage of responsibilities
<Not Applicable>

Reporting line
Reports to the board directly

Frequency of reporting to the board on climate-related issues via this reporting line
More frequently than quarterly

Please explain
The ESG Executive Council meets on a quarterly basis or more frequently, as needed, during which it may discuss, review, and approve climate-related initiatives, and

provide recommendations and guidance based on the meeting agenda. For example, in FY 2022 the Sr. Dr. of CR (leadership of all ESG) approached the Council more frequently than quarterly to receive approval on our SBTs, Net Zero, and RE100 goals -- all of which were approved by the committee -- this, in addition to other reviews related to overall ESG reporting (ex. scope and timing of the ESG Report and proxy to the SEC 10-K) were accepted.

Position or committee
Other C-Suite Officer, please specify (Chief People and Places Officer)

Climate-related responsibilities of this position
Managing annual budgets for climate mitigation activities
Providing climate-related employee incentives
Integrating climate-related issues into the strategy
Monitoring progress against climate-related corporate targets
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities
<Not Applicable>

Reporting line
CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line
More frequently than quarterly

Please explain
As above, the CPO/EVP of People and Places is part of the Palo Alto Networks ESG Executive Council and, as such, participates in every meeting, which happened to be more frequently than quarterly due to decision making and/or milestones arising between quarterly meetings.

The Chief People Of ficer ("CPO") reports directly to the CEO and Chairman of The Board and is responsible for all environmental strategies and overall approach to ESG. The CPO is uniquely positioned to oversee ESG because of the highly cross-functional nature of the work. Other roles with key environmental responsibilities report into the CPO such as the VP Global Places & Security and the Sr. Dir. Corporate Responsibility.

Position or committee
Other, please specify (Senior Vice President of Worldwide Operations)

Climate-related responsibilities of this position
Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)
Setting climate-related corporate targets
Monitoring progress against climate-related corporate targets
Managing value chain engagement on climate-related issues
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities
<Not Applicable>

Reporting line
Finance - CFO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line
More frequently than quarterly

Please explain
The SVP of Worldwide Operations is part of the Palo Alto Networks ESG Steering Committee and, as such, participates in every meeting, which happened to be more frequently than quarterly due to decision making and/or milestones arising between quarterly meetings.

Overview: The SVP WW Operations, who reports directly to the Chief Financial Officer, is called out specifically because of the important role our Supply Chain plays in our climate action strategies. The SVP WW Operations is responsible for executing environmental compliance of the company's products, for supply chain management (which includes expectations of our supply chain to adhere to environmental standards), for the shipment of products and for company travel. This individual has these responsibilities because of the multifaceted intersection between our products, our supply chain and the climate-related impacts involved.

Position or committee
Sustainability committee

Climate-related responsibilities of this position
Managing annual budgets for climate mitigation activities
Providing climate-related employee incentives
Developing a climate transition plan
Implementing a climate transition plan
Integrating climate-related issues into the strategy
Conducting climate-related scenario analysis
Setting climate-related corporate targets
Monitoring progress against climate-related corporate targets
Managing public policy engagement that may impact the climate
Managing value chain engagement on climate-related issues
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities
<Not Applicable>

Reporting line
Corporate Sustainability/CSR reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

More frequently than quarterly

Please explain
The ESG Steering Committee (aka "Sustainability Committee") consists of executives from multiple functions including: SVP Operations, VP Internal Audit, Chief Accounting Office, VP Legal (Ethics & Compliance), VP Legal (Corporate Governance), SVP Investor Relations, VP Product, VP Operations and is chaired by the Sr. Dir., Global Corporate Responsibility. Participates attend monthly meetings which happened to be more frequently than quarterly due to decision making and/or milestones arising between quarterly meetings.

Position or committee
Environment/ Sustainability manager

Climate-related responsibilities of this position
Managing annual budgets for climate mitigation activities
Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)
Managing climate-related acquisitions, mergers, and divestitures
Providing climate-related employee incentives
Developing a climate transition plan
Implementing a climate transition plan
Integrating climate-related issues into the strategy
Conducting climate-related scenario analysis
Setting climate-related corporate targets
Monitoring progress against climate-related corporate targets
Managing public policy engagement that may impact the climate
Managing value chain engagement on climate-related issues
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities
<Not Applicable>

Reporting line
Corporate Sustainability/CSR reporting line

Frequency of reporting to the board on climate-related issues via this reporting line
More frequently than quarterly

Please explain
The "Sustainability Strategist" or head of Sustainability, reports to the Head of CR/ESG, and has either indirect (through any of the executives above) or direct contact (sitting in on occasional quarterly and most of the more frequent reporting meetings) with the ESG Steering Committee, which happened to be more frequently than quarterly due to decision making and/or milestones arising between quarterly meetings.

Position or committee
Other, please specify (Sr. Dir. Corporate Responsibility)

Climate-related responsibilities of this position
Managing annual budgets for climate mitigation activities
Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)
Providing climate-related employee incentives
Developing a climate transition plan
Integrating climate-related issues into the strategy
Monitoring progress against climate-related corporate targets
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities
Other, please specify (Leading the ESG Steering Committee (overall ESG Governance lead))

Coverage of responsibilities
<Not Applicable>

Reporting line
Other, please specify (Reports directly to the Chief People (and Places) Officer)

Frequency of reporting to the board on climate-related issues via this reporting line
More frequently than quarterly

Please explain
The Head of CR/ESG is the lead of the Palo Alto Networks ESG Steering Committee and, as such, participates in every meeting, which happened to be more frequently than quarterly due to decision making and/or milestones arising between quarterly meetings.

The Sr. Dir. Corporate Responsibility, who reports directly to the Chief People Officer (as noted above, at PANW the "Chief People Officer" is the head of People Strategies (in other companies known as HR)), is responsible for:
1. Tracking overall Environmental Social & Governance (ESG) activities,
2. Performance and assessments;
3. Assessing and recommending approaches to advance the company's ESG position and programs;
4. Monitoring climate-related projects including employee engagement and communication initiatives.
5. Transparent reporting of climate-related outcomes.

In Fiscal Year 2022 (FY22), this individual owned these responsibilities because the role is able to reach across all business units and work at the intersection of multiple functions. Because employee behavior is a key component to the success of our environmental programs it is useful that this role be within our People function. The Sr. Dir. Corporate Responsibility collaborates with the VP Global Places & Security, SVP WW Operations and other executive members of the ESG Steering Committee, to ensure the climate-related activities of each role are aligned and tie to an overall strategic approach to ESG.

In FY22 the Sr. Dir. of CR, led monthly meetings of the ESG Steering Committee (aka "Sustainability Committee" - the main oversight group of climate-focused related leaders). These individuals serve as steering members (or the approving authority) and/or other business unit (BU) managerial leaders, as well as subject matter experts (SMEs) from cross-disciplinary business units (the "working groups", including SMEs from Procurement, Operations, Production, Investor Relations, Sales, Marketing,

Legal, etc.) is the main team responsible for all climate-related governance, oversight, and decisions made during FY22 reporting period. This committee is comprised of representatives from CR, Finance, Operations, People Resources, Engineering, IT, Communications, Marketing, Supply Chain, and others. This team was consulted multiple times in FY21 and FY22 to formulate and execute PANW's Sustainability Strategy, to define necessary resources to refine the strategy and work toward achieving its goals, and to assesses and manages risks and opportunities according to company commitments and goals, such as PANW's initial net-zero sustainability strategy, the decision to set a carbon neutral goal by 2030, the proposal to elevate our Climate Commitments from "carbon neutral by 2030" to set 100% renewable goal.

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	Yes	Palo Alto Networks (PANW) provides incentives, both monetary and non-monetary, for the management of climate-related issues, including the attainment of targets. This is explained in C1.3a for leadership in ESG, CR, Sustainability and in the C-suite with our CPO and CEO who is Chairman of the Board. Across the employee population, there are a variety of incentives for employees to support environmental stewardship, to execute climate-related goals, and to support climate causes. From individual incentives to participate in climate related activities and events, using our peer-to-peer recognition platform, earning bonuses tied to personal goals and milestones, as well as charitable giving and volunteers for causes.

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive
Board Chair

Type of incentive
Monetary reward

Incentive(s)
Other, please specify (Both monetary and non-monetary rewards known internally as "ESG Modifier")

Performance indicator(s)
Board approval of climate transition plan
Progress towards a climate-related target
Company performance against a climate-related sustainability index (e.g., DJSI, CDP Climate Change score etc.)

Incentive plan(s) this incentive is linked to
Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)
PANW's CEO is also the Chairman of the Board and is incentivized ("ESG Modifier", starting in 2021) for the oversight/management of all ESG and climate-related issues. There are monetary and non-monetary rewards (internally, "ESG Modifier") and/or recognition, or both, depending on the achievement. Recognition, monetary bonus, or both, depending on the achievement, the success of an initiative by the program lead, and the significance of the impact on the business. A typical example is positive customer, supplier, and/or media attention on the company's sustainability performance (ex. CDP, MSCI, announcement of global HQ running on 100% renewables, etc.) recognized at a Board meeting (non-monetary recognition). Another would be CFO promotion of an initiative to change employee behaviors (behavior change indicator, ex. travel reduction), reduce emissions and OpEx, which may have a positive impact on EPS.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
The performance indicators are linked to KPIs within the transition plan and toward making progress on our Science-Based Targets, Net Zero goals, and renewable electricity by 2030 goal (RE100). The approval to create, set, and verify all of these targets was given by the CEO, Board Chair, and "ESG & Nominating Committee" (board-level steering and oversight committee. Additionally, this is where budgetary decisions on all Sustainability and Climate related initiatives are made. In coming years the transition for creation of ambitious goals turns toward making progress against them and this is where the ESG Modifier will be focused.

Entitled to incentive
Corporate executive team

Type of incentive
Monetary reward

Incentive(s)
Other, please specify (Both monetary and non-monetary rewards known internally as "ESG Modifier")

Performance indicator(s)
Increased engagement with suppliers on climate-related issues
Increased engagement with customers on climate-related issues
Company performance against a climate-related sustainability index (e.g., DJSI, CDP Climate Change score etc.)
Other (please specify) (Customer partnerships enabled by Sustainability leadership)

Incentive plan(s) this incentive is linked to
Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)
PANW's Named Executive Officers (NEO) are incentivized ("ESG Modifier", begun in 2021) for the oversight/management/execution of ESG and climate-related issues. There are monetary and non-monetary rewards (internally, "ESG Modifier") and/or recognition, or both, depending on the achievement. Recognition, monetary bonus, or both, depending on the achievement, the success of an initiative by the program lead, and the significance of the impact on the business. A typical example is positive customer, supplier, and/or media attention on the company's sustainability performance (ex. CDP, MSCI, announcement of global HQ running on 100% renewables, etc.) recognized at a Board meeting (non-monetary recognition). Another would be NEO promotion of an initiative to change employee behaviors (behavior change indicator, ex. travel reduction), reduce emissions and OpEx, which may have a positive impact on EPS.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
The performance indicators are linked to KPIs within the transition plan and toward making progress on our Science-Based Targets, Net Zero goals, and renewable electricity by 2030 goal (RE100). The approval to create, set, and verify all of these targets was given by the CEO, Board Chair, and "ESG & Nominating Committee" (board-level steering and oversight committee. Additionally, this is where budgetary decisions on all Sustainability and Climate related initiatives are made. In coming years the transition for creation of ambitious goals turns toward making progress against them and this is where the ESG Modifier will be focused.

Entitled to incentive
Other C-Suite Officer

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary

Performance indicator(s)
Implementation of an emissions reduction initiative
Reduction in absolute emissions
Energy efficiency improvement
Company performance against a climate-related sustainability index (e.g., DJSI, CDP Climate Change score etc.)
Implementation of employee awareness campaign or training program on climate-related issues

Incentive plan(s) this incentive is linked to
Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)
The Chief People Officer ("CPO", who is the Executive Vice President of all People (HR) and Places (Operations)) has responsibility and oversight for ESG strategies and all environmental initiatives. Achievement of these "Goals & Milestones" (setting and verifying Science-Based Targets (SBTs), Net Zero goals, RE100 goal, all Sustainability GHG inventory, 3rd party verification, and reporting, etc.) results in monetary rewards. Non-monetary rewards also impact other ares of the CPO agenda. For example, strong environmental performance -- achieving the 2022 CDP Climate A-List -- has a positive impact on employer brand and subsequently impacts the Company's ability to attract and retain employees, a critical asset in getting the very best Silicon Valley (and technology in general) talent.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
As in the previous question, setting and verifying Science-Based Targets (SBTs), Net Zero goals, RE100 goal, all Sustainability GHG inventory, 3rd party verification, and reporting, etc. results in monetary rewards. The performance indicators are linked to KPIs within the transition plan and toward making progress on our Science-Based Targets, Net Zero goals, and renewable electricity by 2030 goal (RE100) are among the KPIs going forward. The approval to create, set, and verify all of these targets was given by the CEO, Board Chair, and "ESG & Nominating Committee" and the Chief People Officer. Additionally, this is where budgetary decisions on all Sustainability and Climate related initiatives are made with the CPO being the direct manager and owner of. the budget.

Entitled to incentive
Environment/Sustainability manager

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary
Bonus – set figure
Salary increase

Performance indicator(s)
Achievement of climate transition plan KPI
Progress towards a climate-related target
Achievement of a climate-related target
Implementation of an emissions reduction initiative
Reduction in absolute emissions
Reduction in emissions intensity
Energy efficiency improvement
Increased share of renewable energy in total energy consumption
Increased engagement with suppliers on climate-related issues
Increased engagement with customers on climate-related issues
Increased supplier compliance with a climate-related requirement
Increased value chain visibility (traceability, mapping, transparency)
Company performance against a climate-related sustainability index (e.g., DJSI, CDP Climate Change score etc.)
Implementation of employee awareness campaign or training program on climate-related issues
Other (please specify) (Customer engagement, to partner with our customers to drive the "Use of Sold Products" emissions down by ensuring our PANW products are increasingly powered with renewable energy.)

Incentive plan(s) this incentive is linked to
Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)
Palo Alto Networks (PANW) gained approval to hire its very first "Sustainability Strategist" (aka "Sustainability Lead") in FY21. The individual in this role has been tasked with and monetarily compensated and incentivized to develop the company's first overall Sustainability Strategy. This included the driving the company's 100% renewable energy (RE100) goal, two Net Zero goals, as well as our 3 SBTi validated, 1.5-aligned, Science-Based Targets (SBTs) (covering >90% of our GHG footprint), including two (2) SBTs to address PANW's Scope 3 emissions: 1. GHG category: 3.1 purchased goods and services, Suppliers representing 65% of purchased goods and services by spend to set Science-Based Targets by 2027; and, 2. GHG Category 3.11 Product Use ("Use of Sold Products"): Reduce tonnes CO2e per $USD gross profit by 40% from a 2021 baseline by 2027-end. The "Sustainability Strategist" (herein referred to by this title) has compensation, both monetary and non-monetary, tied to KPIs encompassing all the elements listed under "Activity incentivized": Setting all climate, clean energy, zero waste, water stewardship, policy advocacy, internal and external stakeholder relations, transparent, genuine, and verifiable reporting (ex. CDP etc.) and everything related toward vetting, gaining approval (including C-level, Board, etc.) on the overall Sustainability Strategy for PANW. There are monetary and non-monetary rewards and/or recognition, or both, depending on the achievement, the significance of the impact on the business, and meeting our goals. A typical example is positive customer, supplier, and/or media attention on the company's sustainability performance (ex. CDP, MSCI, announcement of global HQ running on 100% renewables, etc.) recognized at a Board meeting (non-monetary recognition). Another would be CFO promotion of an initiative to change employee behaviors (behavior change indicator, ex. travel reduction), energy efficiency or energy reduction initiative (ex. virtualizing R&D servers

and networking equipment from offices/sites to cloud) reduce emissions and OpEx, all of which may have a positive impact on EPS.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
The performance indicators are linked to KPIs within the transition plan and toward making progress on our Science-Based Targets, Net Zero goals, and renewable electricity by 2030 goal (RE100) are among the KPIs going forward. The approval to create, set, and verify all of these targets was given by the CEO, Board Chair, and "ESG & Nominating Committee" and the Chief People Officer. Additionally, this is where budgetary decisions on all Sustainability and Climate related initiatives are made with the Sustainability Strategist being the implementor and owner of the KPIs of the climate transition plan.

Entitled to incentive
Other C-Suite Officer

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary
Bonus – set figure
Salary increase
Shares

Performance indicator(s)
Board approval of climate transition plan
Achievement of climate transition plan KPI
Progress towards a climate-related target
Implementation of an emissions reduction initiative
Reduction in absolute emissions
Reduction in emissions intensity
Increased share of renewable energy in total energy consumption
Increased engagement with suppliers on climate-related issues
Increased engagement with customers on climate-related issues
Increased value chain visibility (traceability, mapping, transparency)
Company performance against a climate-related sustainability index (e.g., DJSI, CDP Climate Change score etc.)
Implementation of employee awareness campaign or training program on climate-related issues

Incentive plan(s) this incentive is linked to
Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)
The Sr. Dir., of CR is also Head of ESG and is incentivized to drive the overall sustainability initiatives of the company. The Sr. Dir., of CR has served as the head of all ESG for PANW. This role is monetarily incentivized to meet and exceed all of the activities listed here. Incentives can be recognition, monetary bonus or both, depending on the achievement, the ownership of the program lead, and the significance of the impact on the business, as appropriate. A typical example is positive media attention on the company's sustainability performance (CDP, DJSI, ISS, MSCI, an operational leadership announcement, etc.) recognized at a Board meeting (non-monetary recognition). Another would be CFO promotion of an initiative to change employee behaviors (behavior change indicator, ex. travel reduction), reduce emissions and OpEx, which may have a positive impact on EPS.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
The performance indicators are linked to KPIs within the transition plan and toward making progress on our Science-Based Targets, Net Zero goals, and renewable electricity by 2030 goal (RE100) are among the KPIs going forward. The approval to create, set, and verify all of these targets was given by the CEO, Board Chair, and "ESG & Nominating Committee" and the Chief People Officer. As the manager of the Sustainability Strategist, direct report to the CPO/EVP People and Places, and sitting. onthe ESG and Nominating Committee (C-level, Board committee), this is where budgetary decisions on all Sustainability and Climate related initiatives are made with the Sustainability Strategist being the implementor and owner of the KPIs.

Entitled to incentive
Procurement manager

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary
Bonus – set figure
Salary increase

Performance indicator(s)
Increased engagement with suppliers on climate-related issues
Increased supplier compliance with a climate-related requirement
Company performance against a climate-related sustainability index (e.g., DJSI, CDP Climate Change score etc.)

Incentive plan(s) this incentive is linked to
Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)
Value chain, specifically supplier, engagement is critical in the success of a sophisticated cybersecurity company, and it has been a hallmark of PANW from partnering with responsible and trusted suppliers; collaborating with peers to move suppliers to measure, report, and eliminate their emissions; and with our customers who we expect to demand the same from us throughout our digital supply chain. A number of positions throughout Procurement / Supply Chain, may have sustainability performance requirements (Goals & Milestones) built directly into their incentive structure, which can be monetary, recognition, or both, depending on the achievement. This can be throughout PANW Procurement, from the head of Procurement, the managers, and their procurement teams.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
Climate transition plan KPIs tied to this role and that of Buyers is primarily environmental compliance but in FY 2022 has been tied to numbers of RFPs completed with all environmental questions, KPIs associated with partnering with ESG and Sustainability, specifically, and in support in achieving the CDP Supply Chain Leaderboard.

Entitled to incentive
Facilities manager

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary
Bonus – set figure
Salary increase

Performance indicator(s)
Reduction in absolute emissions
Energy efficiency improvement
Increased share of renewable energy in total energy consumption
Company performance against a climate-related sustainability index (e.g., DJSI, CDP Climate Change score etc.)
Implementation of employee awareness campaign or training program on climate-related issues

Incentive plan(s) this incentive is linked to
Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)
Regional and site facility manager's Goals & Milestones may be tied directly to responsible and sustainable operations for each site. This includes reportable (annual) reductions in energy consumption and subsequent reduction in emissions. It also includes supply chain engagement with Procurement for including energy efficiency, resource reduction and other environmental criteria in purchases for operations, IT technology refreshes, and the built environment.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
Climate transition plan KPIs tied to these roles are focused on energy efficiency, employee engagement (ex. all Earth Month activities, employee education, waste reduction, etc.), renewable energy deployment, LEED certification -- at PANW over 70% of our global footprint is LEED certified -- and all site sustainability initiatives. Looking ahead, decarbonization (ex. moving to non-HFC refrigerants where possible, replacing natural gas appliances with all-electric, etc.) will be a KPI where possible (local control).

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	Palo Alto Network's ESG Steering Committee (mentioned in C1), led by the Senior Director of Corporate Responsibility (Sr. Dir. of CR), includes cross functional representation from leaders in Operations, Legal, Finance, Accounting, Audit, and Investor Relations as well as subject matter experts (working group SMEs) from cross-disciplinary business units provides inputs on risk and opportunities which contribute to the companies overall enterprise risk management process. We define risk and opportunity time horizons from 0 years (immediate) to 3 years as "short term" relative to their subject matter. We recognize that timeframes vary based on the type of risk (ex. power outages, extreme climate disruption, and other transition risks), opportunities (ex. customer adoption of cybersecurity due to climate impacts, grid modernization, and other transitions), as well as scenario (ex. partnerships, collaborations; with longer range assessment data, such as is available in the sustainability risk category, the time horizon may be extended.
Medium-term	3	5	As above, PANW defines a "medium-term" horizon as a risk or opportunity or scenario that would commence planning in the short-term with project or program commencement within a timeframe that would be solved, addressed, or proactively constructed in a 3-5 year timeframe. For example, this could be the renovation or design and construction of a new building/workspace, the selection of a new site to lease (ex. it can provide letters of attestation for RE, be LEED certified, etc.), moving from the first milestone of setting a Science-Based Target (SBTs, set in FY21) to a second milestone of gaining approval to submitting them to the SBTi for validation (in FY22). Other examples include the 2018 planning to submit PANW's first CDP report in 2020 (2019 data); the decision to sunset the "carbon neutral" set in 2022 and socialize, get approval, assign budget, and set two long-term "net zero" goals (Scopes 1+2 by 2030, all Scopes by 2040, eliminating 90% of emissions before mitigating anything) before the end of FY21, and to elevate the ambition of our Climate Commitments to set 1.5C ambition SBTs and a 100% renewable energy (RE100) goal in 2021 (3-year timeline to set and then elevate goals). This was lead initially by the Sr. Dir. of CR, and in 2021 taken over by the Sustainability Strategist, with the ESG Steering Committee members that includes steering (or approving authority) managerial leaders, as well as subject matter experts (SMEs) from cross-disciplinary business units (Procurement, Operations, Production, etc.) in moving these medium-term initiatives forward.
Long-term	5	15	As above, a long-term horizon would be for milestones that are longer than 5 years and even up to 15 years. For example, the goals to become "two long-term "net zero" goals (Scopes 1+2 by 2030, all Scopes by 2040, eliminating 90% of emissions before mitigating anything), with three 1.5C -aligned Science-Based Targets (SBTs) all with the objective of meeting them by FY 2027-end to be in good position to meet or exceed our Net Zero and 100% Renewable Energy goals by FY 2030-end. In this case, PANW set clearly defined milestones -- our SBTs and RE100 goal -- with a FY21 baseline, a medium-term SBT (2027-end), and long-term Net Zero goals (Scope 1 and 2 for 2030,) and a longest-term (greater than 15 years) net zero goal (Scopes 1, 2, and 3 by 2040). All socialized, reviewed, and approved by PANW's ESG Steering Committee.

C2.1b

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

At Palo Alto Networks (PANW), for events or decisions to have substantive financial or strategic impacts on the business, it must reach a level of financial materiality relative to our overall business measures and objectives, derived from generally accepted principles adopted by the accounting profession which are used to compile our published financial results. Specifically, PANW defines substantive financial or strategic impact from climate-related risks as one or more risks that has the potential to significantly affect, or change, our business strategy or our ability to deliver continuous customer services. Leadership on climate change risk resides with our functional working climate committee, at PANW called the "ESG Steering Committee", led by our Senior Director of Corporate Responsibility (Sr. Dir. of CR). Annually, the team assesses PANW's climate-related physical and transition risks and opportunities across the business portfolio using quantitative and qualitative scenario analyses (including an assessment of climate-related physical risks conducted in the first year (CY 2019) and again in present reporting year (FY 2022) and an assessment of climate-related physical and transition risks and opportunities initiated in FY2022 (the reporting period), along with other risk assessments (including the use of internal company methods). The results from these analyses are assessed and validated through consultation with the cross-functional leads in the committee lead by the Sr. Dir. of CR and then used to inform PANW's leadership (C-level), as necessary and appropriate. The Sr. Dir. of CR and the ESG Steering Committee's risk assessment process is used to assess the size, scope, financial impact, and relative significance of any risk -- in this case related to climate, clean energy, and value chain decarbonization -- that the company may face, today and into the future.

The process generally involves categorizing risks according to their inherent impact on a scale of 1 (minimal) to 5 (critical) in four categories: trust or repeutational; operational scope; legal, compliance or environmental; and revenue bearing. Risks are then rated according to their inherent likelihood on a scale of 1 (remote) to 5 (expected). These two ratings are used to produce an inherent risk score and are then aggregated with a management action/control effectiveness rating for a residual risk calculation. For climate stability, the amount of change that indicates a substantive impact depends on the most relevant inherent impact category with a probability over 35 percent that would likely occur and either create a significant loss of trust with customers, partners, members, or shareholders; have a significant impact on business operations within one or more business units (BUs) or geographies; prohibit the company from conducting business in certain product lines or markets; or cause a significant reduction in market capitalization. 2. Substantive Financial and/or Strategic Impact on business: PANW recognizes that specific potential climate-related risks could have substantive impact on our business: drought, power outages, and lack of clean water, disruption of our digital supply chain grids, and reputational damage from negative media due to lack of action on climate-related issues, legal actions, or employee and community health impacts on continuity of business -- all of which have substantive impact on a cybersecurity business such as ours. We acknowledge that there are potential 'substantive financial and reputational risks to the business from severe/extreme events (ex. loss of life, destruction of a site or data center, severe compliance violation, etc.) that can require immediate funds, or may demand that we increase planning budgets to proactively avoid a potential climate-risk, depending on the risk, the timing/urgency, and/or the agreed upon priority, as necessary. PANW has learned through meaningful collaboration with peers, suppliers, and customers what they have either experienced first-hand or proactively planned budget for risk mitigation and most agree that a substantive financial impact may potentially be one that could exceed a defined threshold of a $0.01 US hit on EPS or 1% or greater impact on revenue (~$1B US). However, even a broad negative media campaign where even a $1M "clean-up" campaign (ex. due to a failed climate commitment or negative marketing recovery effort) presents a lower threshold but substantive reputational risk to the company. PANW does not have the experiential data to definitively provide a financial number but we accept that this is used by peer companies as a baseline and we include that as a potential set of estimates, here.

C2.2

(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
Risk Assessment: At a company level, the ESG Steering Committee (functional working climate committee mentioned throughout this report) that was lead initially in CY2020 by the Senior Director of Corporate Responsibility (Sr. Dir. of CR) and then joined on by PANW's first-ever Sustainability Strategist (Head of Sustainability) hired in late FY21 (Fiscal Year 2021, August 1,2020 - July 31, 2021 - herein referred to as FY21 for brevity). The Sr. Dir. of CR is the head of all ESG activities, the lead of the the ESG Steering Committee, and the "steering" (management level of the the ESG Steering Committee, essentially steering, or approving authority management) committee, and is the reporting manager for the Sustainability Strategist, who is the lead of the Sustainability Working Committee, which has BU points of contact as well as subject matter experts (SMEs) from cross-disciplinary business units (Procurement, Operations, Production, etc.), to bring sustainability representatives together from across PANW to identify which short-, medium- and long-term climate risks and opportunities could have substantive financial or strategic impact on the organization. Two or more members of this team engaged on an ongoing basis in FY22 -- more frequently than quarterly -- depending on BU expertise and climate-related priorities, as needed. This is complemented by formal identification and assessment processes:
(1) In FY22, PANW initiated quantitative and qualitative physical (medium-term) and transition (long-term) risk and opportunity assessments for PANW operations, cloud and production suppliers, and the regions where they operate (typical examples of assessments lead by Operations/workplaces, Procurement, and Production teams). In addition, we have evaluated and assessed our alignment with the Task Force on Climate-related Financial Disclosures (TCFD) to ensure we are properly managing these risks and opportunities within our business and adequately planning for the future and to report all relevant data and outcomes in the FY 2022 ESG Report (supplement to the SEC 10-K, each year published and publicly posted on PANW's public website (since 2021).
(2) The ESG Steering Committee works with subject matter experts from across the company (including Tech Ops/Cloud, real estate and facility, devices, and supplier teams) to identify climate risks and opportunities that have potential material (cost or revenue, respectively) impacts.
(3) PANW Operations assesses property risks (short term) annually to value, at minimum, the global property insurance program using industry-standard risk models to estimate the probable impact from hazards like extreme drought -- seen in Fy 2022 throughout the US West, including extreme drought in CA and TX where we have our HQ and major operation, respectively and with it came wildfires, bad air days, and power outages, hurricanes, floods and fires, each of which may be subject to increasing frequency and severity due to climate change. This may be more frequent than annual assessment, which, indeed did happen throughout each quarter or within the year based on urgency, may also include supplier mapping (to assess our exposure to supply chain disruptions), and subjective assessment of political risks, which may be amplified by stresses on communities where we work, operate, and live arising from climate change.

Climate-related risk management is integrated into PANW's multi-disciplinary company-wide risk management process. The objective of this procedure is to identify and control risks to ensure the positive business development of the organization and effective risk reporting, in compliance with laws and regulations.
The process used to determine which climate-related risks and opportunities could have a substantive financial or strategic impact applies to all value chain stages. For each element of the value chain covered:
(1) Direct Operations: for example, drought and subsequent wildfires have become an increasing concern for both the health of our employees as well as the potential disruption of our California power grid. As the frequency of this risk has increased over the past decade, steps have been taken to increase the resilience of our local power grid (Santa Clara CA) as well as the provisioning of employee work-from-home options. As it turns out, this became an extremely valuable risk assessment and initiative during the COVID-19 pandemic, as there was no disruption of business during the wildfires, during the pandemic, and created best practices across global operations -- and even the implementation of our "FLEXWORK" philosophy which supported employe choice on remote/hybrid/in-office working.
(2) Upstream: for example, in both FY21 and FY22, freezing temperatures in Texas, a location where our clouds suppliers site their data centers, caused disruption of the ERCOT power grid and could have potentially affected delivery of digital cybersecurity product to our customers. For risks such as this, computing power can be instantaneously re-routed through data centers in other locations (McClean VA, for example) where no disruption of service would be taking place. This risk is evaluated across PANW (company-wide risk management process) with each stakeholder's evaluation and communication being critical elements. Because of this agility with our digital products, PANW has assessed this risk as "very low",
(3) Downstream: PANW is in the business of eliminating downstream risk! The entire objective of cybersecurity, and PANW, is to keep everyone safe online. PANW is a leader in this space by being out in front of every potential digital risk, whether it is through a cloud supplier or a customer's use of a PANW hardware product, this risk is constantly assessed across the company and addressed before it can become a risk. For PANW for our customers, this is a fundamental business opportunity.

C2.2a

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Current regulation risks and opportunities are included in the meetings lead in FY22 by PANW's Sr. Dir. of CR, the Sustainability Strategist, and relevant SMEs, as appropriate, which are in place to identify and assess key risks, in order to protect the company from a material impact that may impede achievement of strategic priorities, and to improve or create business resiliency and strategic advantage. These risks are identified, evaluated and prioritized to determine whether they help or hinder PANW's ability to compete effectively. For example, while they are not deemed a major risk, PANW is subject to various regulations such as energy efficiency and local data center mandates in the EU which will have bearing on cloud supplier requirements in RFPs.
Emerging regulation	Relevant, always included	Emerging regulation risks and opportunities are included in the meetings lead in FY22 by PANW's Sr. Dir. of CR, the Sustainability Strategist, and relevant SMEs which are in place to identify and assess key risks, in order to protect the company from a material impact that may impede achievement of strategic priorities, and to improve or create business resiliency and strategic advantage. These risks are identified, evaluated and prioritized to determine whether they help or hinder PANW's ability to compete effectively. For example, while it is not considered a major risk, potential for a carbon tax and the risks and opportunities such a policy would have on the cybersecurity business landscape in the United States is considered.
Technology	Relevant, always included	Technology risks and opportunities are included in the meetings lead in FY22 by PANW's Sr. Dir. of CR, the Sustainability Strategist, and relevant SMEs, to identify and assess key risks, in order to protect the company from a material impact that may impede achievement of strategic priorities, and to improve or create business resiliency and strategic advantage. PANW's mission is "zero tolerance" in always staying ahead of cybersecurity threats which can have a direct impact in preventing environmental disasters (ex. ransomware halting a solar array from functioning). These risks are identified, evaluated and prioritized to determine whether they help or hinder PANW's ability to compete effectively and deliver the most relevant products and services. Examples considered include new technology that could deliver insights to climate action, such as AI and machine learning, or the use of cloud providers to host products and applications, thus reducing the company's carbon footprint.
Legal	Relevant, always included	PANW, via the Committee meetings lead in FY22 by PANW's Sr. Dir. of CR and the Sustainability Strategist, identifies and assess where we have potential for legal risk related to climate change, though we have not seen this materialize in any way to date and it is presently associated as a low risk. As an example of a relevant risk, PANW has not had climate-related litigation, nor do we believe we have financial liability for causing climate change due to the nature of our business—PANW is a cybersecurity company, that is agile and resilient in terms of staying ahead of risk (be it cyber risk or climate risk), and is in a sector that is leading in driving a zero carbon economy. The most relevant example is for the continuity of our services in the event of extreme weather causing disruptions along the digital supply chain. It is assessed as low since serving our cybersecurity software can quickly and completely effectively move from a data center at climate risk to one where there is zero risk -- and not incur the potential for any legal recourse from suppliers or customers.
Market	Relevant, always included	Market risks may be affected by climate-related issues and are included in the meetings lead in FY22 by PANW's Sr. Dir. of CR, the Sustainability Strategist, and relevant SMEs, as part of our corporate-wide risk assessment process (which reviews all other market risks). Review may be ad hoc (as needed) or conducted in meetings lead in CY2020 by PANW's Sr. Dir. of CR, which reviews the potential for and impacts of market risks, and reports findings to our CPO and to the CEO, as appropriate. Although considered very low risk, examples of areas we include in our risk assessment process are changing customer needs and preferences towards low carbon products and services. We began to address this risk in CY20, continuing through FY21 and beyond, and the outcome was PANW's evolution of our net zero / carbon neutral by 2030 goal (developed in CY20), purchase of renewable energy for our HQ (60+% of our global footprint), and the elevation of our goals to Science-Based Targets aligned to 1.5C guidance, to bolster our developing sustainability commitments.
Reputation	Relevant, always included	Reputational risks may be affected by climate-related issues and are included in our corporate-wide risk assessment process. Review may be ad hoc (as needed) or conducted in our the meetings lead in FY22 by PANW's Sr. Dir. of CR, the Sustainability Strategist, and relevant SMEs, which reviews the potential for and impacts of reputational risks, and reports findings to our CPO and to the CEO, as appropriate. Although considered very low risk examples of areas we review in our risk assessment process include the reputational impact of our environmental initiatives and stance, as well as our position as a leader in cybersecurity and how that can avert any infrastructure crises. We began to address this risk in CY20, continuing through FY22 and beyond, and the outcome was PANW's evolution of our Net Zero by 2030 across Scopes 1+2 and Net Zero across Scopes 1, 2, 3 by 2040, going with 90% emissions elimination before mitigating anything, the decision to purchase 100% renewable electricity for our HQ in FY22 (60+% of our global footprint, commencing January 1, 2023), and the evolution of our goals to 1.5C -aligned Science-Based Targets, to bolster our developing sustainability commitments.
Acute physical	Relevant, always included	Acute physical risks may be affected by climate-related issues and are included in our corporate-wide risk assessment process. Review may be ad hoc (as needed) or conducted in our the meetings lead in FY22 by PANW's Sr. Dir. of CR, the Sustainability Strategist, and relevant SMEs, which reviews the potential for and impacts of acute physical risks, and reports findings to our CPO and to the CEO, as appropriate. As above, although considered very low risk, examples of areas we review in our risk assessment process include increased frequency of extreme weather events causing disruption in digital supply chain (ex. power outages, as shown above). However, digital agility and resilience is a critical focus throughout our digital supply chain through immediate transfer of computing from a cloud in a region of risk to one with extremely low risk.
Chronic physical	Relevant, always included	PANW has assessed that chronic climate-related impacts such as sea-level rise (impacting our workspaces and employee population), persistent extreme drought (causing fire and power outages), and extreme weather (tornados, flooding, freezing, etc.) could increase the cost of both physical (hardware) and digital (cloud) cybersecurity products through potentially at-risk data centers over time.

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?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical	Other, please specify (Increased likelihood of all types of extreme climate (drought, wildfires, floods, cyclones, etc.))

Primary potential financial impact

Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

In FY 2022 (and we will review each FY going forward), PANW Sustainability performed a scenario analysis on potential climate-related risk associated with physical risk in regions where critical IT infrastructure (supplier clouds, specifically, since we do not own any data centers). PANW believes that there is potential physical risk due to increased extreme weather events in areas where PANW has physical infrastructure (ex. US HQ (Santa Clara CA - drought, power outages) sites/offices that contain R&D labs or server rooms (ex. Plano TX - tornados, extreme heat or cold grid outages, etc.)), delivers cybersecurity through partner/supplier data centers (ex. Texas, Virginia, and other areas where our cloud suppliers have sited their data centers), and makes and provides physical products (ex. China). These physical risks have the potential to disrupt business continuity, as examples mentioned above, and are therefore, prioritized based on potential impacts. When reviewing potential impact on operations, we take multiple areas into consideration including: negative impacts to customers (ex. power outage in Texas leading to potential delays in digital service but instantaneously deployed to data centers in regions with very low risk), ability to serve cybersecurity (ex. 24/7/365 monitoring interrupted by a data center outage in Texas), and ability to

sustain global operations (ex. power outage at CA global HQ and simultaneously at leaderships' homes in the Bay Area). As with our risk assessment process, we measure the potential impact, if any, of a significant natural disaster (ex. earthquake in the Bay Area) or extreme weather event (ex. tornado in Texas where our cloud providers' data centers are sited) would have on our global operations. We assess that there is a potential acute physical risk, and we assess this risk to be very low but relevant to assess for potential supplier RFP requirements, to both our operations and potential cost to sustain operations if an event were to occur.

Time horizon
Medium-term

Likelihood
Virtually certain

Magnitude of impact
Low

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
10000

Potential financial impact figure – maximum (currency)
100000

Explanation of financial impact figure
$10K is typical of consultancy minimum costs on climate-related projects (ex. consultancy for scoping PPAs, regulations, leases or agreements). The $100K US figure is calculated as a maximum possible cost for:
(1) Additional costs for renewable energy purchases in CA (ex. "deep green" Santa Clara CCE),
(2) Maximum up-front costs to install on-site renewables and/or storage (ex. solar, geothermal, various battery systems). The maximum potential impact figure is also a calculation of potential "soft" (non-capital) costs that could be up to $100,000 per building/leased facility if external energy consultants, possible renewable energy developers, legal fees, or other service organizations are deployed to assess risks and make recommendations. In the event PANW would need to sequester capital equipment costs to resolve this issue the costs would exceed this estimate -- but PANW assesses that this risk has an extremely low impact on PANW's business continuity. Even if inherent risks driven by climate change were to impact services, the resulting financial impact of this risk to the business would fall below the threshold that we consider substantive: as an example, a 1% or greater impact on revenue (or ~$3B US), or even a $1M "clean-up" campaign, as mentioned above.

Cost of response to risk
100000

Description of response and explanation of cost calculation
Cost range estimates typical of "soft" costs associated with evaluating risks that require present programs to be assessed for resiliency and likely create demand for new initiatives. Similar projects that new initiatives involve soft costs to PANW: in FY 2022 PANW investigated investing in vPPAs to deploy renewable energy across our US portfolio. PANW hired external consultants, with soft costs in the range listed here, to scope out locations (US grids, ex. ERCOT, SPP, CAISO), research regulations (ex. DA in CA, green tariffs, etc.); new technologies (battery/storage, etc.), & potential incentive programs ("SGIPs" in the US). Timeline: first performed in FY 2022, is ongoing in coming FYs, until:
(1) We have reached our RE100 by 2030-end goal, and/or
(2) We assess this physical risk has been mitigated/eliminated.
Specific "STAR" description of this process:
Situation: The "Places" Team (Ops, risk & compliance), CR Sr. Dir. & Sustainability Strategist, Government Relations, and other internal stakeholders as appropriate, as well as 3rd party consultants, met monthly to identify potential regulatory issues and risks, evaluate the cost of RE, costs of potential power outages at our CA HQ and surrounding area (WFH employees), & costs of onsite battery storage, as well as other potential options.
Task: PANW has analyzed that clean energy sourcing can reduce financial uncertainty in energy procurement. In FY22, PANW identified renewable investments (ex. @ HQ in CA) that meet internal financial ROI targets while providing GHG reductions and price certainty.
Action: Ex., in regulated states with a large PANW energy footprint such as California, in FY22 we worked with our local utility to provide a 100% RE green tariff that will begin in 2023. This will deliver GHG reduction over the next two decades. Other potential investments include, but may not be limited to, vPPAs, other US Green Tariffs, storage, Tax Equity investments, & onsite renewables. We have set a true RE100 goal (no offsets, unbundled RECs) and our analysis benefits this goal.
Result: We conclude that while this risk to the continuity of our business is very low, RE procurement provides multiple benefits (RE goal, SBTs), lowers overall risk, falls within this cost of response ($10K - $100K), and the resulting financial impact of this risk falls below the threshold that we consider substantive: ex. 1% or greater impact on revenue (or ~$3B US), or even a $1M "clean-up" campaign.

Comment
Please note: while we recognize that extreme weather events are now inevitable, we assess that the risk to PANW's business continuity is very low. This is because the agility and resiliency of our cybersecurity platform is very high and can be instantaneously deployed to regions of low- to no-risk. Also, the financial figures listed here are experiential estimates based on site-by-site risk evaluations (ex. power outages in CA, water riots in Bangalore, etc.), the ability to equip employees to work from home (WFH) and or hybrid, cloud supplier agility (instantaneous movement of computing load from an at risk region to one with low- to no- risk, and back, as needed). At this point in time, we have examples of what may be considered substantive are at very low risk.

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?
Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier
Opp1

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Products and services

Primary climate-related opportunity driver
Development of new products or services through R&D and innovation

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
PANW believes being the most sustainable cybersecurity company enjoys a competitive advantage to our customers, over companies who have not set ambitious 1.5C aligned Science-Based Targets (SBTs) as we have, who report to CDP as we do, and who increasingly are measuring and reporting on their emissions, in particular Scope 3 emissions so that our customers have specific data on what their share of PANW's emissions are -- included their use of PANW produced products. PANW offers both cloud-based cybersecurity products (ex. Prisma Cloud) as well as hardware firewalls, so that customers can be protected whether they source their computing from the cloud or run on their own data centers. FY22 demonstrated a significant increase in cloud, data center, and enterprise cybersecurity demand -- for PANW, our revenues grew by a whopping 29% -- and it is expected to continue to rise given the growing threat of global cyberattacks. While we experience growth for both cloud and hardware products, it is our hardware products where we have measured their annual energy consumption and subsequent emissions in their Scope 3.11 "Use of Sold Products". This is the largest component of our Scope 3 emissions, reported as our baseline in FY21 and set a specific SBT to address it: Scope 3 Product Use (“Use of Sold Products”)
Reduce tonnes CO2e per $USD gross profit by 40% from a 2021 baseline by 2027-end. We see this as another competitive advantage because it directly addresses our customers' need to report their scope 3 emissions and to look to PANW as a partner in their work. We also see this as an opportunity to lower the overall MT/$US by working across our value chain -- from suppliers to customers -- to deploy renewable energy in the data centers and computing platforms where they run our products, and to report this back to us to help us, in partnership, lower the emissions generated by this ecosystem. So far, we are seeing great willingness by customers to partner with us and to begin the process of reducing our Scope 3.11 emissions despite double digit increase in sales. For these reasons, we know that while cybersecurity threats are on the rise, we believe the most efficient, forward-thinking (and acting), and sustainable product offering will be in the highest position of advantage going forward. As we reduce and eliminate our environmental impact, we also reduce and eliminate the emissions throughout our value chain.

Time horizon
Short-term

Likelihood
Very likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
2230000000

Potential financial impact figure – maximum (currency)
1119000000

Explanation of financial impact figure
The global cybersecurity market will grow from $201.33 billion in 2022 to $223.7 billion in 2023 at a compound annual growth rate (CAGR) of 11.1%. The global cybersecurity market is expected to grow at a compound annual growth rate of 12.0% from 2022 to 2030 to over USD 600.0 billion by 2030. If just 1% of this market requires its suppliers to to set set, validated public "net zero" (defined as 90% reduction in emissions for the scope target), and/or ambitious 1.5C aligned Science-Based Targets (SBTs) as we have, to report to CDP Climate and CDP Supply Chain as we do, and Science-Based Targets, as we have, with 100% true renewable energy goals, which we have, and set other meaningful climate targets (such as those impacting carbon capture and biodiversity), we believe we could capture an additional $2.23B per year. If 5% requires this, we have the potential to capture at least $11.19B. With PANW's FY22 gross profit at $3.7828B, we see this as a very realistic outcome.

Cost to realize opportunity
300000

Strategy to realize opportunity and explanation of cost calculation
As explained in the risk1 in C2.3, this type of opportunity is typical in the kind that would require present programs be evaluated for elevated effectiveness and likely create demand for new sustainability initiatives. In this case, ongoing initiatives in FY22 such as: global carbon footprint analysis (partnering with Watershed Climate to do this), 3rd party verification (Apex), SBT setting (Anthesis), global renewable energy evaluation to evaluate present and future electricity consumption and what is possible and when to deploy 100% renewable energy (RE, Competitive Energy Services), all involve "soft costs", many of which in the past has required about $200K in the first analysis with an additional$100K in sequestered funds/budget per year to stay updated. In this example, the costs are for strategy consultancy, renewable energy evaluations, costs associated with CDP and third-party emissions verification, to name a few examples. Additionally, the strategy for sequestering budget and subsequent services utilized the STAR framework:
Situation: PANW has set out to be a sustainability leader, to be the most sustainable cybersecurity company, and to take advantage of the potential $2.1B-10B incremental market for customers that require their suppliers to have set SBTs and RE goals.
Task: to secure budget to set the highest ambition SBTs, to evaluate the renewable energy market for PANW and set a true 100% Renewable Energy (RE) goal, and to raise the ambition of our original "carbon neutral" goal to point to true net zero goals.
Action: call for RFPs from the top advisories for each, evaluate which organizations can help us se the best goals and then help PANW work over the short- to medium-terms to meet and/or exceed the goals, and to do it in a way that aligns with our company's mission to keep everyone safe online (and to do it sustainably) by doing it genuinely (no offsets or unbundled RECs).
Result: PANW's SBTs are: Scope 1 and 2, Reduce emissions by 75% from 2021 to 2027; Scope 3 Supply Chain, Suppliers representing 65% of purchased goods and services by spend to set Science-Based Targets by 2027; Scope 3 Product Use (“Use of Sold Products”), Reduce tonnes CO2e per $USD gross profit by 40% from a 2021 baseline by 2027-end. We set 100% RE (RE100) goals to reach a true, 90% emissions reduction across our Scope 1 and 2 emissions by 2030-end, and signed The Climate Pledge to be net zero across all scopes by 2040.

Comment
As the market for Cybersecurity grows, and its customers -- from large enterprises to SMBs to consumers -- adopt the technology. We believe there are significant potential opportunities for sustainability leadership to play a role in purchasing decisions.

C3. Business Strategy

C3.1

(C3.1) Does your organization's strategy include a climate transition plan that aligns with a 1.5°C world?

Row 1

Climate transition plan

Yes, we have a climate transition plan which aligns with a 1.5°C world

Publicly available climate transition plan

Yes

Mechanism by which feedback is collected from shareholders on your climate transition plan

We have a different feedback mechanism in place

Description of feedback mechanism

PANW's transition plan aligns with 1.5C guidance and is the outcome of having SBTi validated, Science-Based Targets across Scopes 1, 2, and 3 (supplier and Use of Sold Products), two long-term Net Zero goals, and an RE100 goal. As an example, the process focused on setting a transition plan aligned with a 1.5C world, with a robust feedback mechanism in place, the goals were developed at the sustainability strategy level, vetted by the Sr. Dir. of CR (head of ESG) and the ESG Steering Committee . Once approved, socialized to the CPO and CEO/Chairman of the Board, and then to the Board of Directors ESG & Nominating Committee, who then made recommendations, as needed. In most cases, this is an example of the process and feedback mechanism. However, approvals and/or Annual Shareholder Meeting (aka AGM) input and/or voting may be done on an as needed/approved basis. As an example, our first set of Climate Commitments were included in Annual Reports that were subsequently approved during an Annual Shareholder Meeting (aka AGM), and then implemented. This allowed the first set of budget dedicated to sustainability strategy, including risks and opportunities, to hire the company's first Sustainability lead (CSO) to set 1.5C-aligned SBTs, RE100 goals, and the strategy to achieve them. Because of the specificity of the SBTs, setting them was socialized and approved by the ESG Steering Committee - not by a single meeting but with each lead (ex. Procurement for our Supply Chain SBT, Product Ops SVP+leads for our "Use of Sold Products" SBT, "Places" teams for our Scope 1 & 2 SBT & RE100 goal) who has ownership in each SBT. Strategies like these are socialized with and presented to shareholders via reports and the AGMs as needed and appropriate. For "relevant documents" below, we do not have a general set but, rather, each specific document for a plan, strategy, or initiative: ex. the SBT verification document attached, below. An additional, but increasingly important, mechanism for collecting feedback and questions from shareholders on our transition plan is directly through PANW's Investor Relations team. With increasing requests for Sustainability & ESG data, and specifics on our climate transition plan (from 1-2/qtr. in FY 2021 to 1-2/mo. in FY 2022), the Sr. Dir. and/or Sustainability lead provides public documents posted our our website (CDP, 3rd party verification, ESG Report, etc.) to IR as well as respond to questionnaires, meetings, etc. as needed.

Frequency of feedback collection

More frequently than annually

Attach any relevant documents which detail your climate transition plan (optional)

Palo Alto Networks' Science-Based Targets submission to the SBTi for validation (submitted August 6, 2022, validated June 6, 2023)
2021 PANW SBTi-Target-Submission-Form v2.pdf

Explain why your organization does not have a climate transition plan that aligns with a 1.5°C world and any plans to develop one in the future

<Not Applicable>

Explain why climate-related risks and opportunities have not influenced your strategy

<Not Applicable>

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario analysis to inform strategy	Primary reason why your organization does not use climate-related scenario analysis to inform its strategy	Explain why your organization does not use climate-related scenario analysis to inform its strategy and any plans to use it in the future
Row 1	Yes, qualitative and quantitative	<Not Applicable>	<Not Applicable>

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Physical climate scenarios: RCP 8.5	Company-wide	<Not Applicable>	PANW has used the SDA Tool v8.5 IPCC scenario analysis to look at the business impacts on our assets and supply chain in different temperature increase scenarios, including a 1.5 degree C change. Business risks include identifying office locations and critical data centers for business continuity, and an assessment of how operations would be affected by sea-level rise, extreme weather events caused by climate change, and drought. For example, Drought in California (60+% of our global footprint) -- and the grid power outages that accompany them over the past few years -- have forced us to review our plans for business continuity in a scenario where our HQ and many of our employees homes may be impacted with a power outage. We have had to adjust our risk models accordingly to plan for and develop business continuity plans for the near future. Although the scenarios were worked internally, PANW has not released these externally. An example business continuity change would be determining which of our cloud suppliers are most at risk for extreme weather events due to climate change (ex. power outages due to drought and wildfires in CA and extreme heat or cold in TX) and transitioning our cybersecurity platforms to clouds in regions with less physical risk (ex. from TX to VA in mid-winter to avoid excessive cold power outages, like those in early 2021). As we look to raise the ambition on our climate goals, we look to the IPCC guidance to assure we set meaningful targets.
Transition scenarios: IEA NZE 2050	Company-wide	<Not Applicable>	The Net Zero Emissions by 2050 Scenario (NZE) is a normative IEA scenario that shows a pathway for the global energy sector to achieve net zero CO2 emissions by 2050, with advanced economies reaching net zero emissions in advance of others. The sustainability strategy leads at PANW have specifically benchmarked our Net Zero (2) and 100% renewable energy (RE100) goals to align with with this guidance and be more ambitious by setting our Net Zero goals at 2030 (Scopes 1+2), 2040 (all Scopes), and renewable electricity (RE100) at 2030 -- this is minimally 10 years ahead of the 2050 guidance. As with the other scenario analyses, PANW uses the same short, medium and long-term time horizons as described in C2.2 to be consistent across our risk identification and scenario analysis for planning purposes. We look to the the IEA NZE 2050 guidance specifically for three reasons: (1) It has a focus on innovating and deploying new technologies -- which is part of our mission. Specifically, "The uptake of all the available technologies and emissions reduction options is dictated by costs, technology maturity, policy preferences, and market and country conditions." (2) It is global. Specifically inviting all countries co-operate towards achieving net zero emissions worldwide. This involves all countries participating in efforts to meet the net zero goal, working together in an effective and mutually beneficial way, and recognizing the different stages of economic development of countries and regions, and the importance of ensuring a just transition. " These are core values of our company to ensure collaboration to eliminate climate injustice. (3) It pushes for collaboration between large companies and their local utilities. Something we strongly believe in to make clean energy affordable and available to everyone in the communities where we work and live. In the IEA's words, "An orderly transition across the energy sector. This includes ensuring the security of fuel and electricity supplies at all times, minimizing stranded assets where possible and aiming to avoid volatility in energy markets." As an example of a specific, physical action PANW has taken as a result of the physical scenario analysis, PANW has partnered with our Santa Clara HQs utility, SVP, to provide 24/7/365 load-match clean electricity (solar+wind) to our HQ (which is >60% of our global footprint) and the first year results will be reported in out 2024 CDP Climate disclosure.
Transition scenarios: Greenpeace	Company-wide	<Not Applicable>	The Greenpeace Advanced Energy [R]evolution (5th Edition) scenario sets a specific, ambitious pathway toward a fully decarbonized energy system by 2050. PANW uses the same short, medium and long-term time horizons as described in C2.2 to be consistent across our risk identification and scenario analysis for planning purposes. We look to the Greenpeace guidance specifically for three reasons: 1. It is ambitious, focuses on real impact, and advocates additionality in renewable energy deployment and the use of bundled renewable energy with their attributes (RECs) to make renewable energy claims, 2. It advocates for technology companies to support renewable energy policy and completely decarbonize the grids where businesses operate, and 3. It pushes companies to report complete Scope 1, 2, and 3 emissions and act directly to eliminate them. PANW's net-zero (Scope 1 & 2) by 2030 and all scopes by 2040 aligns with, but also exceeds, the Greenpeace 2050 goal and scenario analysis.

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

As in 3.2a, PANW investigates specific scenarios for each region (ex. Santa Clara CA HQ; Tel Aviv, Israel; Bangalore, India) and uses the above scenario analyses as an additional for of input for evaluation of the overall strategy. In this example, the objective to maintain business continuity required a specific scenario analysis that included elements of climate risk, specifically in determining which of our cloud suppliers are most at risk for extreme weather events due to climate change (ex. power outages due to drought and wildfires in CA and extreme heat or cold in TX) and transitioning our cybersecurity platforms to clouds in regions with less physical risk (ex. from TX to VA in mid-winter to avoid excessive cold power outages, like those in early 2021 and 2022).

Again, with RCP 8.5, for example, drought, wildfires, and subsequent grid power outages in California (60+% of our global footprint) have forced us to review our plans for business continuity in a scenario where our HQ and many of our employees homes may be impacted with employee downtime because of a power outage. We have had to adjust our risk models accordingly to plan for and develop business continuity plans for the near future and in this specific case, a focal question arising from climate change that must be addressed: What are our employees local alternatives? Can they come to our HQ and have guaranteed wifi, clean air and running water, etc.? And to resolve the latter, what is our plan for business continuity when our HQ is under such a power outage? And what is the probability (5%?) that this will happen at this location? This is very localized, very "focused", and must roll up to an overall corporate strategy -- and it does.

Results of the climate-related scenario analysis with respect to the focal questions

Per above, specific, "focused", strategies are in place as a collaboration between site leads, security operations, facilities management, IT, sustainability, and any other critical internal and external (ex. utilities, landlords, law enforcement, suppliers, customers) stakeholder, as appropriate. This is the case for the major sites (ex. Santa Clara CA HQ; Tel Aviv, Israel; Bangalore, India) and each strategy is a compilation of scenario analysis, be it related to natural disasters (ex. earthquakes in CA), to local upheaval (ex. political protests that close streets, as the example in Bangalore on water scarcity in 2019), to climate-related scenario analysis (ex. drought/power outages in CA, floods or extreme weather in Texas, etc.). To be a leader in cybersecurity, PANW must be out in front of any threat, risk, or possible disruption -- this is a fundamental requirement of this business. And because of the agility required in the cybersecurity business, risk scenario analysis -- be it from cyber threats, natural disasters, political upheaval, or climate related events -- PANW has to be out-in-front of all of this. In this example, engaging physical climate scenario analysis like RCP 8.5 and transition scenarios like The Greenpeace Advanced Energy [R]evolution (5th Edition) scenario to address these risks is part of the overall cloud and firewall operational, cybersecurity sector, and regional or site-specific (in this case CA or TX) scenario analysis.

C3.3

(C3.3) 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	Yes	Climate-related risks and opportunities are influencing our strategy on products and services currently and our short-medium term (>1-3 years) strategy. PANW's cybersecurity software runs on clouds/data centers that have committed to be powered by 100% renewable electricity. PANW assesses that clouds that run on 100% RE are at lower risk, more innovative, and customer-centric than those that do not. Additionally, product energy efficiency regulations pose a minor risk over short-medium term (>1-3 years) strategy. For example, EU LOT 9 is preparing to remove the lowest performing energy efficient products from the EU market. EU LOT 9 is specifically for enterprise servers, data storage and ancillary equipment -- which physical, hardware firewalls fall under, and are products that are important to PANW's business. PANW needs to remain competitive with energy efficiency -- arguably tracking to Moore's Law or better -- otherwise we could experience decreased revenue for our firewall hardware products.
Supply chain and/or value chain	Yes	PANW's expects that existing and future customers will increasingly measure and report on all of their substantial activities, including cloud computing and and what runs in those clouds, including cybersecurity software. PANW has set, and SBTi has validated, three Science-Based Targets (SBTs), two of which are in place to address our Supply Chain and Customer Use Emissions, covering our entire value chain. These were put in place specifically to cover over 90% of our GHG footprint but also, in the coming years, to secure that our products, and the value chain that delivers our products, is safe, secure, and sustainable. As with above, we need to work with our 3rd party suppliers of hardware products to assure we are producing the most energy efficient hardware products possible. And we will continue to work with our customers to set 100% renewable energy (RE100) goals, as well as SBTs, so that their use of our cybersecurity products are continuously on a path toward zero emissions.
Investment in R&D	Yes	PANW is exploring ways our products can be engineered to run more efficiently, faster, and out in front of all security and climate risks. As an example, writing efficient code and optimizing existing code ("Green Coding") can not only run faster, and have reduced latency at the customer/user end, it can also require less lines of code to operate which means reduced energy consumption through the clouds it is run on. Another example would be use of AI/Machine Learning to do this automatically. This is active within engineering and PANW is looking at ways to quantify the energy efficiency, and subsequent emissions reduction or avoidance.
Operations	Yes	Over 70% of PANWs workplace footprint is LEED certified. We prioritize green building certifications as part of our real estate process and pursue innovative smart building technology to operate high-performance, sustainable buildings. Opportunities have also guided our electricity procurement decisions, and in FY 2022 we worked diligently with our HQ's utility (which is over 60% of our global footprint) to power our Santa Clara CA HQ with 100% renewable energy. The end result: in 2023 we will be powering our entire HQ with true renewable energy with a combination of local grid (CAISO) solar, wind, and hydro power generation to load match our electricity consumption. This is the kind of action we all need to take -- to parter with local utilities, versus entering into vPPAs, so that everyone in the communities where we work and live have the ability to consume affordable, clean energy. We are looking into do this at all our global sites, as well as smaller leased sites where renewable energy procurement is purchased by our landlords (NYC, London, Amsterdam, Tel Aviv, Bangalore, Singapore, etc.).

C3.4

(C3.4) 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	Revenues Indirect costs Assets	Climate-related impacts have influenced PANW's financial planning for several elements: Indirect (operating) costs. In FY 2022, we assessed the purchase 100% renewable energy from Santa Clara's Silicon Valley Power Large Customer Renewable Energy (LCRE) program where our global HQ is based (>60% of our workplace footprint) as a first step toward net-zero GHG emissions by 2030. As a result, in 2023 we will be powering our entire HQ with true renewable energy with a combination of local grid (CAISO) solar, wind, and hydro power generation to load match our electricity consumption, as mentioned in C3.3. PANW has now sunsetted any and all purchases of unbundled RECs and/or carbon offsets going forward and will focus purely on purchases of 100% renewable energy (RE), in parallel with operational decarbonization, and energy efficiency excellence as the only way to achieve Science-Based Targets across our Scope 1, 2, and 3 (3.1 suppler setting SBTs and 3.11 Use of Sold Products) emissions, and allows us to set a net zero (Scopes 1 & 2) by 2030 goal and develop climate-focused partnerships and collaborations. While doing do so has the potential to raise our operating costs (over the short term but likely not over the long term if done thoughtfully and strategically), the internal price on carbon has incentivized greater investment in energy efficiency, such as capital allocation/expenditures toward our green building strategy (assets) and pursuing other sustainable operations projects that have economically feasible pay back periods. Based on our assessments we believe that over time, this strategy will reduce overall operating costs, can reduce associated capital allocation and expenditures, and increase the value of our assets. This process is reviewed through business reviews of our environmental sustainability programs, provided to our CPO by Sr. Dir. of CR in partnership with our SVP of Operations and our Sustainability Strategist. And also we believe a meaningful sustainability strategy can provide a competitive advantage and increase revenues, especially in the next 1-3 years (short-term horizon).

C3.5

(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition?

	Identification of spending/revenue that is aligned with your organization's climate transition	Indicate the level at which you identify the alignment of your spending/revenue with a sustainable finance taxonomy
Row 1	Yes, we identify alignment with our climate transition plan	<Not Applicable>

C3.5a

(C3.5a) Quantify the percentage share of your spending/revenue that is aligned with your organization's climate transition.

Financial Metric
OPEX

Type of alignment being reported for this financial metric
Alignment with our climate transition plan

Taxonomy under which information is being reported
<Not Applicable>

Objective under which alignment is being reported
<Not Applicable>

Amount of selected financial metric that is aligned in the reporting year (unit currency as selected in C0.4)
2000000000

Percentage share of selected financial metric aligned in the reporting year (%)
65

Percentage share of selected financial metric planned to align in 2025 (%)
70

Percentage share of selected financial metric planned to align in 2030 (%)
90

Describe the methodology used to identify spending/revenue that is aligned
All of PANW's operational footprint falls under this metric and this covers our Places OPEX. In FY 2022 we had over 70% of our global footprint as LEED certified or LEED equivalent (BREEAM, WELL, etc.) and in this reporting year we partnered with our HQ's utility to transition away from offering large customers unbundled Green-e RECs to make renewable energy claims, to entering into 100% renewable electricity PPAs as the main offering. Our Santa Clara CA HQ was over 64.5% of our global footprint at the end of FY 2022, and in 2023 we will be purchasing 100% renewable electricity to cover our entire footprint there. We want to replicate this at all our major sites, to obtain clean electricity across our portfolio, as well as obtain sleeved RE through letters of attestation with our landlords, etc. to cover 90+% as well as decarbonizing (eliminating all natural gas use) by 2030.

C4. Targets and performance

C4.1

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

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number
Abs 1

Is this a science-based target?
Yes, and this target has been approved by the Science Based Targets initiative

Target ambition
1.5°C aligned

Year target was set
2022

Target coverage
Company-wide

Scope(s)
Scope 1
Scope 2

Scope 2 accounting method
Market-based

Scope 3 category(ies)
<Not Applicable>

Base year
2021

Base year Scope 1 emissions covered by target (metric tons CO2e)
874

Base year Scope 2 emissions covered by target (metric tons CO2e)
8735

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target (metric tons CO2e)
<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)
9609

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1
100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2
100

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)
<Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes
100

Target year
2027

Targeted reduction from base year (%)
35

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]
6245.85

Scope 1 emissions in reporting year covered by target (metric tons CO2e)
1240

Scope 2 emissions in reporting year covered by target (metric tons CO2e)
13385

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)
14625

Does this target cover any land-related emissions?
No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]
-149.145890013826

Target status in reporting year
New

Please explain target coverage and identify any exclusions
Coverage: 100%. With zero exclusions. Per above, PANW does not have any land-related emissions.

Plan for achieving target, and progress made to the end of the reporting year
Near-term Scope 1 and 2 Science-Based Target (SBT):, validated by the SBTi :
PANW will reduce Scope 1 & 2 GHG emissions by 35% from a FY 2021 baseline by doing the following:
(1) Meeting our 100% renewable energy (RE100) goals across our Places portfolio, including working with landlords to “invest and attest” in renewable electricity by 2030. It should be noted here that as of January 1, 2023, PANW's Santa Clara CA HQ -- which is >60% of our global footprint -- is in a contract (sleeved renewable electricity PPA, combining wind and solar to load match 24/7 electricity consumption) for renewable electricity for 100% of our HQ footprint. It is a strategy and actions like this that will accelerate our progress toward exceeding the 35% (SBTi aligned and validated by SBTi, but our internal goal is to exceed 65%) reduction by FY 2027-end) SBT, and minimally meeting our RE100 goals and other Scope 3 SBTs, below.
(2) Operational excellence through energy efficiency and committing to LEED certifications. At the end of FY 2022, >70% of our global real estate portfolio was LEED or equivalent (BREEAM, Well, etc.) and PANW is committed to this level of efficiency, GHG reduction, and health for our workspaces. It must be noted that PANW does not own any of our workspaces or a data center. This means we will leverage major sites where we have local control (we pay the utility bill, as with our HQ) or we will work and negotiate with our landlords to invest in renewable electricity and storage, and to provide us with letters of attestation (the "invest and attest" strategy mentioned in (1)) to prove that it is 100% renewable electricity (and not unbundled RECs or offsets).
(3). Decarbonize major sites and leveraging state and governments incentives to produce optimal payback. Again, this is as above for major sites and partnering with our landlords, where we can.
(4). Transition away from high GHG, or HFCs, to zero-GHG emissions refrigerants. It is important to note that we began measuring our HFC usage (versus calculating estimates based on sq. ft.). at our HQ in 2021 -- a pandemic year where usage was very low. It has begun to rise with increased occupancy but we are making every effort to limit and transition away from refrigerants that contain HFCs.
Again, this is as above for major sites and partnering with our landlords, where we can.

List the emissions reduction initiatives which contributed most to achieving this target
<Not Applicable>

Target reference number
Abs 2

Is this a science-based target?
Yes, and this target has been approved by the Science Based Targets initiative

Target ambition
1.5°C aligned

Year target was set
2022

Target coverage
Company-wide

Scope(s)
Scope 1
Scope 2
Scope 3

Scope 2 accounting method
Market-based

Scope 3 category(ies)
Category 1: Purchased goods and services
Category 2: Capital goods
Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)
Category 4: Upstream transportation and distribution
Category 5: Waste generated in operations

Category 6: Business travel
Category 7: Employee commuting
Category 8: Upstream leased assets
Category 11: Use of sold products
Category 12: End-of-life treatment of sold products
Category 15: Investments

Base year
2021

Base year Scope 1 emissions covered by target (metric tons CO2e)
874

Base year Scope 2 emissions covered by target (metric tons CO2e)
8735

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)
157937

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)
14744

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)
701

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)
20923

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)
123

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)
4813

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)
4205

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)
94

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)
765515

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)
832

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)
36768

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target (metric tons CO2e)
1006655

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)
1016264

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1
100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2
100

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)
100

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)
100

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)
100

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)
100

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)
100

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)
100

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)
100

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)
100

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)
100

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)
100

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)
100

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)
100

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes
100

Target year
2040

Targeted reduction from base year (%)
100

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]
0

Scope 1 emissions in reporting year covered by target (metric tons CO2e)
1240

Scope 2 emissions in reporting year covered by target (metric tons CO2e)
13385

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)
185254

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)
16175

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)
5578

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
34216

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)
1140

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)

19729

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)
8660

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)
289

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)
1053045

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)
969

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)
134355

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)
1459410

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)
1474035

Does this target cover any land-related emissions?
No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]
-45.0444963119819

Target status in reporting year
New

Please explain target coverage and identify any exclusions
Target coverage is 100% of Scope 1, 2, & 3 emissions with no exclusions

Plan for achieving target, and progress made to the end of the reporting year
This target, listed here as Abs2, is our long-term (>15 years) absolute Net Zero Target (and is listed again as such in C4.2c) . It is aligned with the Science-Based Targets Initiative (SBTi) 1.5C guidance, of eliminating >90% of our baseline FY 2021 emissions and then mitigating what is left by the end of FY 2040. The main elements of our strategy to meet this goal are as above in Abs1 for Scopes 1+2 and below in C4.2c NZ2 for all Scopes:
(1) Driving energy efficiency excellence,
(2) In parallel, decarbonize/electrify the operations we can (we do not own any of our sites, all are leased as of FY 2021-end) or move to sites that are fully decarbonized, and
(3) Deploy 100% true renewable energy to every site either by partnering with our utilities to provide RE to everyone on their grids (through vPPAs, Direct Access, Green Tariffs, CCEs, etc.), purchasing it on our own, or partnering with our landlords to invest in true 100% renewable energy and storage, and then providing letters of attestation to PANW as proof (our "invest and attest" strategy).
(4) Eliminate use of HFCs and other fugitive GHG emissions wherever possible.

For PANW's Scope 3 emissions, we will:
(1) Drive 65% of our suppliers to set SBTs by FY27-end, and
(2) To inspire our cloud suppliers and all customers to run our products on renewable energy to reduce our "Use of Sold Products" tonnes CO2e / $USD gross profit by 40% from a 2021 baseline by 2027-end (intensity target),
(3) To produce energy efficient hardware products (aligned to Moore's Law).
In late FY 2021 budget was set and dedicated for FY 2022, the reporting year here, to consulting services to accurately assess our footprint, set SBTs, achieve verification from the SBTi, and to begin making progress on our goals in 2023. Recognizing that we may have no choice but to mitigate remaining emissions in 2030, in the years leading up to 2030, we will secure budget for consultation in helping to define and recommendations on which potential mitigation investment(s) are the best fit for PANW.

List the emissions reduction initiatives which contributed most to achieving this target
<Not Applicable>

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number
Int 1

Is this a science-based target?
Yes, and this target has been approved by the Science Based Targets initiative

Target ambition
1.5°C aligned

Year target was set
2022

Target coverage
Company-wide

Scope(s)
Scope 3

Scope 2 accounting method
<Not Applicable>

Scope 3 category(ies)
Category 11: Use of sold products

Intensity metric
Metric tons CO2e per USD($) value-added

Base year
2021

Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)
765515

Intensity figure in base year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for total Scope 3 (metric tons CO2e per unit of activity)
1006655

Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)
1016264

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure
<Not Applicable>

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 1: Purchased goods and services covered by this Scope 3, Category 1: Purchased goods and services intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 2: Capital goods covered by this Scope 3, Category 2: Capital goods intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) covered by this Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution covered by this Scope 3, Category 4: Upstream transportation and distribution intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 5: Waste generated in operations covered by this Scope 3, Category 5: Waste generated in operations intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 6: Business travel covered by this Scope 3, Category 6: Business travel intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 7: Employee commuting covered by this Scope 3, Category 7: Employee commuting intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 8: Upstream leased assets covered by this Scope 3, Category 8: Upstream leased assets intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution covered by this Scope 3, Category 9: Downstream transportation and distribution intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 10: Processing of sold products covered by this Scope 3, Category 10: Processing of sold products intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 11: Use of sold products covered by this Scope 3, Category 11: Use of sold products intensity figure
100

% of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products covered by this Scope 3, Category 12: End-of-life treatment of sold products intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 13: Downstream leased assets covered by this Scope 3, Category 13: Downstream leased assets intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 14: Franchises covered by this Scope 3, Category 14: Franchises intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 15: Investments covered by this Scope 3, Category 15: Investments intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Other (upstream) covered by this Scope 3, Other (upstream) intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Other (downstream) covered by this Scope 3, Other (downstream) intensity figure
<Not Applicable>

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this total Scope 3 intensity figure
76.05

% of total base year emissions in all selected Scopes covered by this intensity figure
75.33

Target year
2027

Targeted reduction from base year (%)
40

Intensity figure in target year for all selected Scopes (metric tons CO2e per unit of activity) [auto-calculated]
609758.4

% change anticipated in absolute Scope 1+2 emissions
35

% change anticipated in absolute Scope 3 emissions
70.31

Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)
1053045

Intensity figure in reporting year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for total Scope 3 (metric tons CO2e per unit of activity)
1459410

Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)
1474035

Does this target cover any land-related emissions?
No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]
-112.611240779955

Target status in reporting year
New

Please explain target coverage and identify any exclusions
This SBTi validated target covers 100% of our Scope 3.11 Use of Sold Products emissions with no exclusions.

Plan for achieving target, and progress made to the end of the reporting year
Scope 3 Product Use (“Use of Sold Products”), SBTi validated target, to reduce tonnes CO2e per $USD gross profit by 40% from a 2021 baseline by 2027-end will be achieved by:

(1) Collaborating with our hardware product teams and 3rd party supplier(s) (Flex) to drive efficiencies that go beyond standard industry progress (Moore's Law).
(2) Driving code optimization in our software teams to deliver cleaner, reduced redundancy and latency code that also saves energy consumption at the server.
(3) Partnering across our value chain with our:
(3.1) Major enterprise customers to help them set and meet 100% renewable energy goals, and
(3.2) Cloud suppliers to help them set SBTs (key to our Supply Chain SBT, 65% by spend) as well as RE100 goals.
(4) Engaging with major coalitions whose working groups are both PANW customers and suppliers, such as the Future of Internet Power (FOIP, part of the Clean Energy Buyers Alliance (CEBA)), GreenBiz Executive network (GBEN), others, to work with stakeholders across our value chain on reducing Scope 3 emissions.

List the emissions reduction initiatives which contributed most to achieving this target
<Not Applicable>

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?
Target(s) to increase low-carbon energy consumption or production
Net-zero target(s)
Other climate-related target(s)

C4.2a

(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.

Target reference number
Low 1

Year target was set
2022

Target coverage
Company-wide

Target type: energy carrier
Electricity

Target type: activity
Consumption

Target type: energy source
Renewable energy source(s) only

Base year
2021

Consumption or production of selected energy carrier in base year (MWh)
31347

% share of low-carbon or renewable energy in base year
0

Target year
2030

% share of low-carbon or renewable energy in target year
100

% share of low-carbon or renewable energy in reporting year
0

% of target achieved relative to base year [auto-calculated]
0

Target status in reporting year
New

Is this target part of an emissions target?
This target is serving as a strategy to achieve three goals, listed here:
SBT1: Scope 1 and 2: reduce emissions by 35% from FY 2021 to FY 2027-end
NZ1: Achieve net zero scope 1 and 2 emissions by 2030 by reducing emissions by 90% from 2021 to 2030, and mitigating any remaining emissions through carbon removal investments.
NZ2: Achieve net zero scope 1, 2 and 3 emissions by 2040 by reducing emissions by 90% from 2021 to 2030 and mitigating any remaining emissions through carbon removal investments

Is this target part of an overarching initiative?
RE100

Please explain target coverage and identify any exclusions
Coverage: Achieve 100% renewable energy across all major sites and regions by Fiscal 2030-end. There are no exclusions.

Plan for achieving target, and progress made to the end of the reporting year
The strategy for achieving this target, and making progress made to the end of the reporting year :
(1) Meeting our 100% renewable energy (RE100) goals across our Places portfolio, including working with landlords to “invest and attest” in renewable electricity by 2030. It should be noted here that as of January 1, 2023, PANW's Santa Clara CA HQ -- which is >60% of our global footprint -- is in a contract (sleeved renewable electricity PPA, combining wind and solar to load match 24/7 electricity consumption) for renewable electricity for 100% of our HQ footprint. It is a strategy and actions like this that will accelerate our progress toward exceeding the 35% (SBTi aligned and validated by SBTi, but our internal goal is to exceed 65%) reduction by FY 2027-end) SBT, and minimally meeting our RE100 goals and other Scope 3 SBTs, below.
(2) Operational excellence through energy efficiency and committing to LEED certifications. At the end of FY 2022, >70% of our global real estate portfolio was LEED or equivalent (BREEAM, Well, etc.) and PANW is committed to this level of efficiency, GHG reduction, and health for our workspaces. It must be noted that PANW does not own any of our workspaces or a data center. This means we will leverage major sites where we have local control (we pay the utility bill, as with our HQ) or we will work and negotiate with our landlords to invest in renewable electricity and storage, and to provide us with letters of attestation (the "invest and attest" strategy mentioned in (1)) to prove that it is 100% renewable electricity (and not unbundled RECs or offsets).
(3) Decarbonize major sites and leveraging state and governments incentives to produce optimal payback but also to reduce electricity consumption costs. Again, this is as above for major sites and partnering with our landlords, where we can. PANW does not own any fleets, private airplanes, or back-up diesel generators.
(4) Transition away from high GHG, or HFCs, to zero-GHG emissions refrigerants. It is important to note that we began measuring our HFC usage (versus calculating estimates based on sq. ft.). at our HQ in 2021 -- a pandemic year where usage was very low. It has begun to rise with increased occupancy but we are making every effort to limit and transition away from refrigerants that contain HFCs.
Again, this is as above for major sites and partnering with our landlords, where we can.

List the actions which contributed most to achieving this target
<Not Applicable>

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number
Oth 1

Year target was set
2022

Target coverage
Company-wide

Target type: absolute or intensity
Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Engagement with suppliers	Percentage of suppliers (by procurement spend) with a science-based target

Target denominator (intensity targets only)
<Not Applicable>

Base year
2021

Figure or percentage in base year
12

Target year
2027

Figure or percentage in target year
65

Figure or percentage in reporting year
30

% of target achieved relative to base year [auto-calculated]
33.9622641509434

Target status in reporting year
New

Is this target part of an emissions target?
This verified Science-Based Target is a key part of our other targets:
SBT3: Scope 3 Product Use (“Use of Sold Products”) reduce tonnes CO2e per $USD gross profit by 40% from a 2021 baseline by 2027-end

NZ2: Achieve net zero scope 1, 2 and 3 emissions by 2040 by reducing emissions by 90% from 2021 to 2030 and mitigating any remaining emissions through carbon removal investments

Is this target part of an overarching initiative?
Science Based Targets initiative – approved supplier engagement target
Science Based Targets initiative – approved customer engagement target

Please explain target coverage and identify any exclusions
Coverage is 65% of suppliers by spend to set SBTs. There are no exclusions to the target.

Plan for achieving target, and progress made to the end of the reporting year
The strategy to achieve this target will be by:
(1) Collaborating with our hardware product teams and 3rd party supplier(s) (Flex, who as of this reporting cycle has validated 1.5-aligned SBTs) to drive efficiencies that go beyond standard industry progress (Moore's Law).
(3) Partnering across our value chain with our:
(3.1) Major enterprise customers, many of which are suppliers to PANW as well, to help them set and meet 100% renewable energy goals, and
(3.2) Cloud suppliers to help them set SBTs (key to our Supply Chain SBT, 65% by spend) as well as RE100 goals.
(4) Engaging with major coalitions whose working groups are both PANW customers and suppliers, such as the Future of Internet Power (FOIP, part of the Clean Energy Buyers Alliance (CEBA)), GreenBiz Executive network (GBEN), others, to work with stakeholders across our value chain on reducing Scope 3 emissions.

List the actions which contributed most to achieving this target
<Not Applicable>

C4.2c

(C4.2c) Provide details of your net-zero target(s).

Target reference number
NZ1

Target coverage
Company-wide

Absolute/intensity emission target(s) linked to this net-zero target
Abs1

Target year for achieving net zero
2030

Is this a science-based target?
Yes, and this target has been approved by the Science Based Targets initiative

Please explain target coverage and identify any exclusions
This is a company-wide "net-zero" target across Scopes 1 and 2 by 2030, set in FY 2021. And linked to it, our 100% renewable energy goal also set in FY 2021. In late-FY 2021 we committed and set Science-Based Targets, which are now validated by the SBTi, and this net zero goal is also linked to our SBTs.

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?
Yes

Planned milestones and/or near-term investments for neutralization at target year
For this target set in early FY 2022, we have committed to achieve it by eliminating >90% of our Scope 1+2 emissions, and only then mitigating what is left. We have also committed to reach this goal without the purchase of offsets, unbundled Renewable Energy Certificates, or any mitigating effort until we are sure we have eliminated everything possible prior to FY 2030. Since this long-term Net Zero goal is linked directly top our Scope 1+2 validated 1.5C-aligned SBT, and to focus on energy efficiency in our buildings and products, decarbonization of our operations, and purchase of only true 100% renewable energy. In late FY 2021 budget was set and dedicated for FY 2022, the reporting year here, to consulting services to accurately assess our footprint, set SBTs, achieve verification from the SBTi, and to begin making progress on our goals in 2023. Recognizing that we may have no choice but to mitigate remaining emissions in 2030, in the years leading up to 2030, we will secure budget for potential mitigation investment.

Planned actions to mitigate emissions beyond your value chain (optional)
For this initial goal, which was replaced with SBTs in late FY21, there were no planned actions beyond the value chain. However, our SBTs -- now validated by the SBTi -- include two Scope 3 value chain targets:
(1) Scope 3 Supply Chain, Suppliers representing 65% of purchased goods and services by spend to set Science-Based Targets by 2027, (absolute target) and,
(2) Scope 3.11 Product Use (“Use of Sold Products”), Reduce tonnes CO2e per $USD gross profit by 35.3% (compounded 7%/year) from a 2021 baseline by 2027-end (intensity target).
Combined, our SBTs cover ~85% of our Scope 3 emissions and over 90% of our total GHG footprint. In the years leading up to 2030, PANW will evaluate which mitigation investments carry with them true emissions elimination, versus any offsetting, and seek to invest in those that match our cybersecurity business, company culture, and sustainability ethos at that time.

Target reference number
NZ2

Target coverage
Company-wide

Absolute/intensity emission target(s) linked to this net-zero target
Abs1
Int1

Target year for achieving net zero
2040

Is this a science-based target?
Yes, and this target has been approved by the Science Based Targets initiative

Please explain target coverage and identify any exclusions
Targets cover 100% of PANW's GHG emissions with zero exclusions. Our definition of net zero is to reach 90% renewable energy and 90% emissions reduction from an FY21 base by 2030-end.
In FY 2021, PANW signed on to The Climate Pledge which has a requisite long-term, net zero target across all scopes by 2040. PANW's goal to achieve net zero GHG emissions by 2040 is company-wide and covers emissions across our operations and value chain. Not part of The Climate Pledge (TCP) but in line with our validated SBTs, is to reach net zero across our Scope 1 and 2 emissions by the end of FY30, and as explained in NZ1, we have committed to achieve it by eliminating >90% of our Scope 1+2+3 emissions, and only then mitigating what is left. We have committed to reach this goal without the purchase of offsets, unbundled RECs, or any mitigating effort until we are sure we have eliminated everything possible prior to FY 2040.

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?
Yes

Planned milestones and/or near-term investments for neutralization at target year
We intend to reach this by the same strategy in place to meet our Scope 1+2 validated SBT, as above:
(1) Driving energy efficiency excellence,
(2) In parallel, decarbonize/electrify the operations we can (we do not own any of our sites, all are leased as of FY 2021-end) or move to sites that are fully decarbonized, and
(3) Deploy 100% true renewable energy to every site either by partnering with our utilities to provide RE to everyone on their grids (through vPPAs, Direct Access, Green Tariffs, CCEs, etc.), purchasing it on our own, or partnering with our landlords to invest in true 100% renewable energy and storage, and then poviding letters foattestation to PANW as proof (our "invest and attest" strategy).

For PANW's Scope 3 emissions, we will:
(1). Drive 65% of our suppliers to set SBTs by FY27-end, and
(2) To inspire our cloud suppliers and all customers to run our products on renewable energy to reduce our "Use of Sold Products" tonnes CO2e / $USD gross profit by 40% from a 2021 baseline by 2027-end (intensity target),
(3) To produce energy efficient hardware products (aligned to Moore's Law).
In late FY 2021 budget was set and dedicated for FY 2022, the reporting year here, to consulting services to accurately assess our footprint, set SBTs, achieve verification from the SBTi, and to begin making progress on our goals in 2023. Recognizing that we may have no choice but to mitigate remaining emissions in 2030, in the years leading up to 2030, we will secure budget for consultation in helping to define and recommendations on which potential mitigation investment(s) are the best fit for PANW.

Planned actions to mitigate emissions beyond your value chain (optional)
By 2040, what ever is left of our Scope 3 emissions, which are an order of magnitude greater than emissions from PANW's direct operations in our FY21 baseline, we will neutralize with what we expect will be options that are far more impactful and genuine than today's purchase of offsets or unbundled RECs. For our Scope 1 and 2 net zero goal, we intend to do the same but work more on 100% renewable energy and on elimination of emissions versus than neutralizing them. In the years leading up to 2030, PANW will evaluate which mitigation investments carry with them true emissions elimination, versus any offsetting, and seek to invest in those that match our cybersecurity business, company culture, and sustainability ethos at that time. Throughout this period, we will heavily rely on partnerships, influence, policy advocacy, and innovation.

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	6	193050
To be implemented*	4	96525
Implementation commenced*	1	110
Implemented*	3	3168
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

Energy efficiency in buildings	Building Energy Management Systems (BEMS)

Estimated annual CO2e savings (metric tonnes CO2e)
110

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
10000

Investment required (unit currency – as specified in C0.4)
25000

Payback period
1-3 years

Estimated lifetime of the initiative
6-10 years

Comment
Implementation of BEMS system at our Santa Clara CA HQ for pilot evaluation in FY21, expansion to entire single building in FY 2022, with likely expansion to 2 of 3 buildings in FY 2023, and (likely) across entire campus in FY 2024.

Initiative category & Initiative type

Energy efficiency in production processes	Other, please specify (Consolication and virtualization of R&D labs and server rooms from office buildings to cloud.)

Estimated annual CO2e savings (metric tonnes CO2e)
2188

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (location-based)
Scope 2 (market-based)
Scope 3 category 1: Purchased goods & services

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
35000

Investment required (unit currency – as specified in C0.4)
5000

Payback period
1-3 years

Estimated lifetime of the initiative
3-5 years

Comment
PANW estimates that virtualizing R&D labs and "server rooms" from major office buildings to cloud will save us ~25% per year in utility bills and subsequent Scope 2 emissions. We also estimate that this will impact our Scope 3.1 PG&S (cloud) emissions, at first increasing them by single-digit % (because of spend) but then lowering them by cloud suppliers increases in deploying YoY renewable energy in their data centers. The annualized savings above are only estimates from initial transition projects that were commenced but not completed -- more accurate spend and savings data will be available in coming years. This initiative was under evaluation in FY 2021 with partial implementation in FY 2022.

Initiative category & Initiative type

Low-carbon energy generation	Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)
870

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
50000

Investment required (unit currency – as specified in C0.4)
500000

Payback period
11-15 years

Estimated lifetime of the initiative
3-5 years

Comment
In FY 2022 we began investigating potential for onsite solar PV, likely as PV canopies for parking areas., as well as potential battery storage, and EV charging stations for employees at our US HQ. . Because of this investigation only just starting in FY 2022, it is/was still under investigation into FY 2023.

C4.3c

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

Method	Comment
Employee engagement	PANW's employee green team, Go Green, is made up of nearly 2000 employees. Site, or "Places" (major offices in global regions), employee engagement helps drive further progress amongst all our environmental commitments through education, local action, and policy advocacy. This was among the first methods used to address climate and overall sustainability initiatives including reforestation, local gardening and low carbon food systems, home and office waste mitigation, water conservation, and home electrification, and residential (employee home) solar and battery storage discounts and deployment. With the permanent deployment of Sustainable "FLEXWork" policies (employees can work from anywhere, anytime), Go Green teams focus on what they can do electrify their homes, decrease energy consumption, and deploy renewable energy at home and in the communities where they work and live. The focus is local so their impact reaches beyond the employee base to help uplift their communities.
Dedicated budget for other emissions reduction activities	PANW initiated its long-term goal of net-zero greenhouse gas emissions in early FY21, commence through GHG inventory assessment (Watershed), 3rd party verification (Apex), and then to then set 1.5C-aligned SBTs by the end of FY21, submit them for verification to the SBTi in FY 2022 -- all of which required dedicated budget. This same budget be reviewed on an annual basis to ensure our targets are set to the most up-to-date standards and at the highest level ambition, as communicated and committed to our C-level leadership, and that we are dedicating budget, time, and resources to make progress on our goals. Since PANW has set a 100% renewable energy goal by 2030, aligned to our verified Scope 1+2 absolute target, we secured budget for renewable electricity purchases in late FY 2022 to be made in 2023. We have committed to focus on energy efficiency in our buildings and products, decarbonization of our operations, and purchase of only true renewable energy. -- without the purchase of offsets or unbundled RECs. In FY2022 budget was set and dedicated to hire the same consulting services to accurately assess our footprint, 3rd party verification, and to begin making progress on our goals in 2023.
Dedicated budget for energy efficiency	PANW secures budget each year for comprehensive energy efficiency programs. The funds gained from this budget are used for an array of projects across operations, including all sustainability and energy efficiency projects. This budget is overseen by the Senior Director of CR, and with approval from the Chief People Officer (CPO, who also is the head of all operations/workplaces).

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?
Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

Level of aggregation
Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon

Other, please specify (Taxonomy incorporated into our hardware products developed by our 3rd party supplier.)

Type of product(s) or service(s)

Other	Other, please specify (Cybersecurity firewalls (hardware))

Description of product(s) or service(s)
PANW's cybersecurity firewalls (hardware, much like IT servers in form factor and energy consumption) such as our Prisma firewalls, reduce both the amount of materials and energy consumption by over 50% because of our partnership with our supplier, who has also set SBTs, who works with similar hardware customers to eliminate overcapacity, increase throughput, and provide substantial energy, material, and cost savings. Part of this is due to the efficient code and speed of processing performed by our best-in-class cybersecurity software that runs on the hardware firewalls. Thus, energy consumption and subsequent emissions are avoided, as well as waste at their end-of-life.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)
Yes

Methodology used to calculate avoided emissions
Evaluating the carbon-reducing impacts of ICT

Life cycle stage(s) covered for the low-carbon product(s) or services(s)
Cradle-to-gate

Functional unit used
Tonnes CO2e per unit over 5-year lifespan

Reference product/service or baseline scenario used
Scenario used as a baseline: Typical server, storage, and/or networking equipment that runs supplier software only or native (in house code) software, which can require at least 35% computing power compared to PANW's firewall running it's proprietary, dedicated cybersecurity software.

Life cycle stage(s) covered for the reference product/service or baseline scenario
Cradle-to-gate

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario
0.3088

Explain your calculation of avoided emissions, including any assumptions
Total emissions for this category are estimated (product use from energy consumption and waste emissions from shipped weights) from data on shipped products. Avoided emissions are calculated as a % provided by our supplier who has benchmarked these products against standard offerings from other suppliers.

This calculation for FY21 considers the following attributes:
1. Commercial products (compared with hardware with similar or larger power supplies) with and without EPEAT Gold Certified count at 100%, EPEAT Silver Certified counts at 50%;
2. Commercial products with and without US Environmental Protection Agency ENERGY STAR® Most Efficient certification or CEE Advanced Tier 2 products for reporting year;
3. Products and services that contribute to the circular economy (including extending product life and diverting materials from landfill);
4. PANW cybersecurity software that can save up to 35% on average in preventing over-provisioning of IT equipment. Please note that, while much of our technology can be considered low-carbon products or services because it enables our customers to have maximum compute with minimum resources, we chose the equipment that best exemplified the above-mentioned traits, which accounted for roughly 50% of our FY20 revenue.

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year
40

Level of aggregation
Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon
The IEA Energy Technology Perspectives Clean Energy Technology Guide

Type of product(s) or service(s)

Other	Other, please specify (Cybersecurity software and hardware products run in clouds that are run on 100% renewable electricity)

Description of product(s) or service(s)
AS above, Cybersecurity software and hardware products run in clouds that are run on 100% renewable electricity. Our major cloud suppliers now all have 100% renewable energy goals in place. IN FY 2023 we have committed to gain a better understanding of exactly how this will impact our Scope 3.1 Use of Sold Products emissions, which has direct impact on oour verified SBT on this, Scope 3 Product Use (“Use of Sold Products”) to reduce tonnes CO2e per $USD gross profit by 40% from a 2021 baseline by 2027-end.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)
Yes

Methodology used to calculate avoided emissions
Evaluating the carbon-reducing impacts of ICT

Life cycle stage(s) covered for the low-carbon product(s) or services(s)
Cradle-to-gate + end-of-life stage

Functional unit used
tonnes CO2e per unit over a 5-year lifespan

Reference product/service or baseline scenario used
All software products run on PANW hardware in cloud suppliers data centers

Life cycle stage(s) covered for the reference product/service or baseline scenario
Cradle-to-gate + end-of-life stage

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario
0.09281166

Explain your calculation of avoided emissions, including any assumptions
In this example we look at the annual emissions of a PANW software product, running on a PANW hardware product, purchased by a cloud supplier that has attested to running this equipment in a data center running on 100% renewable energy. We calculate this number taking the power supply (kWh/year) and multiplying it by the specific emissions factor for that power supply (Average emissions factor using Egrid 202 average for Us in lb/MWh and converting it to tonnes). While we are working on calculating a precise emissions factor, and complete subsequent emissions profile, we know that the customer's emissions are lower than this, and moving toward zero emissions. For a single product, it is a small number. But considering that PANW sells many products over a fiscal year, this work could solve for our Scope 3.11 SBT.

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year
40

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?
No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?
No

Name of organization(s) acquired, divested from, or merged with
<Not Applicable>

Details of structural change(s), including completion dates
<Not Applicable>

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	No	<Not Applicable>

C5.2

(C5.2) Provide your base year and base year emissions.

Scope 1

Base year start
August 1 2020

Base year end
July 31 2021

Base year emissions (metric tons CO2e)
874

Comment
PANW's Scope 1 emissions include use of Natural Gas and include CO2, CH4, N2O, and HFCs (HFC refrigerants are <1% to our total scope 1 and 2 emissions). PFCs, SF6 and NF3 are not applicable to Palo Alto Network's activities. 3rd party verified.

Scope 2 (location-based)

Base year start
August 1 2020

Base year end
July 31 2021

Base year emissions (metric tons CO2e)
8564

Comment
PANW's Location-based Scope 2 emissions. 3rd party verified.

Scope 2 (market-based)

Base year start
August 1 2020

Base year end
July 31 2021

Base year emissions (metric tons CO2e)
8735

Comment
PANW's Market-based Scope 2 emissions. 3rd party verified.

Scope 3 category 1: Purchased goods and services

Base year start
August 1 2020

Base year end
July 31 2021

Base year emissions (metric tons CO2e)
157937

Comment
PANW's Scope 3 category 1: Purchased goods and services. 3rd party verified.

Scope 3 category 2: Capital goods

Base year start
August 1 2020

Base year end
July 31 2021

Base year emissions (metric tons CO2e)
14744

Comment
PANW's Scope 3 category 2: Capital goods. 3rd party verified.

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start
August 1 2020

Base year end
July 31 2021

Base year emissions (metric tons CO2e)
701

Comment
PANW's Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2).

Scope 3 category 4: Upstream transportation and distribution

Base year start
August 1 2020

Base year end
July 31 2021

Base year emissions (metric tons CO2e)
20923

Comment
PANW's Scope 3 category 4: Upstream transportation and distribution emissions.

Scope 3 category 5: Waste generated in operations

Base year start
August 1 2020

Base year end
July 31 2021

Base year emissions (metric tons CO2e)
123

Comment
PANW's Scope 3 category 5: Waste generated in operations.

Scope 3 category 6: Business travel

Base year start
August 1 2020

Base year end
July 31 2021

Base year emissions (metric tons CO2e)
4813

Comment
PANW's Scope 3 category 6: Business travel including air (excluding radiative forcing), ground (rail and car ("well to wheel").

Scope 3 category 7: Employee commuting

Base year start
August 1 2020

Base year end
July 31 2021

Base year emissions (metric tons CO2e)
4205

Comment
PANW's Scope 3 category 7: Employee commuting including rail and car ("well to wheel").

Scope 3 category 8: Upstream leased assets

Base year start
August 1 2020

Base year end
July 31 2021

Base year emissions (metric tons CO2e)
94

Comment
PANW's Scope 3 category 8: Upstream leased assets emissions.

Scope 3 category 9: Downstream transportation and distribution

Base year start
August 1 2020

Base year end
July 31 2021

Base year emissions (metric tons CO2e)
0

Comment
PANW does not generate Scope 3 category 9: Downstream transportation and distribution emissions.

Scope 3 category 10: Processing of sold products

Base year start
August 1 2020

Base year end
July 31 2021

Base year emissions (metric tons CO2e)
0

Comment
PANW does not generate any Scope 3 category 10: Processing of sold products emissions. PANW sells finished goods through our 3rd party with no intermediate goods.

Scope 3 category 11: Use of sold products

Base year start
August 1 2020

Base year end
July 31 2021

Base year emissions (metric tons CO2e)
765515

Comment
PANW's Scope 3 category 11: Use of sold products. Estimated from each hardware product sold, energy consumption assumed to be used 24/7/365, and calculated emissions.

Scope 3 category 12: End of life treatment of sold products

Base year start
August 1 2020

Base year end
July 31 2021

Base year emissions (metric tons CO2e)
832

Comment
PANW's estimated Scope 3 category 12: End of life treatment of sold products.

Scope 3 category 13: Downstream leased assets

Base year start
August 1 2020

Base year end
July 31 2021

Base year emissions (metric tons CO2e)
0

Comment
PANW does not use any Scope 3 category 13: Downstream leased assets because it does not have any downstream leased assets.

Scope 3 category 14: Franchises

Base year start
August 1 2020

Base year end
July 31 2021

Base year emissions (metric tons CO2e)
0

Comment
PANW does not have any Scope 3 category 14: Franchises emissions because the company does not have any franchises that not wholly-owned and already calculated in Scope 1, 2 and 3 emissions.

Scope 3 category 15: Investments

Base year start
August 1 2020

Base year end
July 31 2021

Base year emissions (metric tons CO2e)
36768

Comment
PANW estimated Scope 3 category 150: Investments

Scope 3: Other (upstream)

Base year start
August 1 2020

Base year end
July 31 2021

Base year emissions (metric tons CO2e)
0

Comment
PANW does not have any Scope 3: Other (upstream) emissions.

Scope 3: Other (downstream)

Base year start
August 1 2020

Base year end
July 31 2021

Base year emissions (metric tons CO2e)
0

Comment
PANW does not have any Scope 3: Other (downstream) emissions.

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.
IPCC Guidelines for National Greenhouse Gas Inventories, 2006
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
The Greenhouse Gas Protocol: Scope 2 Guidance
US EPA Center for Corporate Climate Leadership: Indirect Emissions From Purchased Electricity
US EPA Mandatory Greenhouse Gas Reporting Rule

C6. Emissions data

C6.1

(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)
1240

Start date
August 1 2021

End date
July 31 2022

Comment
Palo Alto Networks (PANW) Fiscal Year (FY) 2022, our current reporting year, Scope 1 emissions (3rd party verified).

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)
874

Start date
August 1 2020

End date
July 31 2021

Comment
Palo Alto Networks (PANW) Fiscal Year (FY) 2021, which is also our baseline year for our Science-Based Targets (SBTs), Scope 1 emissions (3rd party verified).

Past year 2

Gross global Scope 1 emissions (metric tons CO2e)
618

Start date
August 1 2019

End date
July 31 2020

Comment
Palo Alto Networks (PANW) Fiscal Year (FY) 2020 Scope 1 emissions.

C6.2

(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 are reporting a Scope 2, market-based figure

Comment
This is PANW's third year to report both Scope 2 location-based and market-based emissions on a Fiscal Year (August 1 - July 31) cycle to align with TCFD and our financial reporting.

C6.3

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

Reporting year

Scope 2, location-based
11073

Scope 2, market-based (if applicable)
13385

Start date
August 1 2021

End date
July 31 2022

Comment
Palo Alto Networks (PANW) Fiscal Year (FY) 2022, our current reporting year, Scope 2 emissions (3rd party verified).

Past year 1

Scope 2, location-based
8564

Scope 2, market-based (if applicable)
8735

Start date
August 1 2020

End date
July 31 2021

Comment
Palo Alto Networks (PANW) Fiscal Year (FY) 2021, our baseline yer, Scope 2 emissions (3rd party verified).

Past year 2

Scope 2, location-based
5073

Scope 2, market-based (if applicable)
5268

Start date
August 1 2019

End date
July 31 2020

Comment
This is Palo Alto Networks (PANW) Fiscal Year (FY) 2020 Scope 2 emissions.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?
No

C6.5

(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

Emissions in reporting year (metric tons CO2e)
185254

Emissions calculation methodology
Supplier-specific method
Average data method
Spend-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
15.5

Please explain
PANW's PG&S emissions estimates are performed by Watershed Climate. For most purchased goods and services estimates, we calculate emissions using the EPA Environmentally Extended Economic Input Output (EEIO) emissions factors applied to annual supplier and procurement spend data. Spend is aggregated by each accounting category to get total spend. Each accounting category is mapped to the most accurate EEIO category.

Spend with select vendors are mapped to those vendors' unique revenue intensity estimates when complete and reported to the Carbon Disclosure Project (CDP).

Total spend is multiplied by the EPA EF for that category or for that vendor to calculate CO2e emissions.

To prevent double counting, supplier spend data that is accounted for under alternative scopes are removed from this analysis (e.g. electricity from facilities). For cloud computing emissions, we use either cloud usage data or spend data to estimate electricity consumed and calculate electricity emissions by applying regional EFs. We also use spend data to estimate the indirect emissions associated with the cloud vendor.

For some physical goods where we have SKU data, BOMs are used to separate the SKU mass into individual commodities, which are multiplied by the total SKUs purchased to obtain the total mass per commodity per SKU. Mass is aggregated by each commodity to get total mass per commodity, and each commodity is mapped to the most accurate Emissions Factor(s). We multiply total mass by the Emissions Factor(s) for that commodity to calculate CO2e emissions.

Capital goods

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
16175

Emissions calculation methodology
Supplier-specific method
Spend-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
15.5

Please explain
PANW's capital goods estimates are done by Watershed Climate. We calculate emissions using the EPA Environmentally Extended Economic Input Output (EEIO) emissions factors applied to annual supplier & procurement spend data. Spend is aggregated by each accounting category to get total spend. Each accounting category is mapped to the most accurate EEIO category.

Spend with select vendors is mapped to those vendors' unique revenue intensity estimates when they have submitted complete reports to complete and reported to the Carbon Disclosure Project (CDP). Total spend is multiplied by the Emissions Factor for that category or for that vendor to calculate CO2e emissions. To prevent double counting, supplier spend data that is accounted for under alternative scopes are removed from this analysis.

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

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
5578

Emissions calculation methodology
Spend-based method
Fuel-based method
Site-specific method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
The FY22 FERA value was calculated by Watershed Climate. We estimate fuel and energy related activities emissions for three categories:
* Upstream emissions from the extraction processing and distribution of fuels consumed by PANW and the electricity generator.
* Transmission and Distribution - We estimate electricity lost to transmission and distribution. We apply regional grid loss rates from eGRID and Ecoinvent to estimate electricity lost in transmission and distribution, and apply the correct electricity emissions factor to estimate emissions.
* Upstream Natural Gas Leakage - We use fugitive emissions data from chapter 4.2 of the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas inventories.
A tier 1 approach was taken to evaluate fugitive emissions from exploration, production, processing, and transmission & storage of natural gas. Tier 1 was chosen as specific supply chain data was unavailable, and fugitive natural gas emissions are typically not significant for Watershed customers.

Upstream transportation and distribution

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
34216

Emissions calculation methodology
Supplier-specific method
Spend-based method
Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
PANW's Upstream transportation and distribution estimates are done by Watershed Climate. We estimate emissions through two methods:
* In cases where we only have spend, logistics expenses are aggregated by category to get total spend.Each logistics category is mapped to the most accurate EPA USEEIO category. We multiply total spend by the EF for that category. We exclude logistics categories that are accounted for separately.
* Where we have available data on delivery distance and mass, we map the delivered goods to metric tons and multiply by distance traveled to get tonnes-km. We then choose the appropriate EF based on transportation method from EPA and DEFRA and multiply by tonnes-KM to get emissions.

Waste generated in operations

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
1140

Emissions calculation methodology
Supplier-specific method
Waste-type-specific method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
15

Please explain
PANW's Waste generated in operations emissions are completed by Watershed Climate. During the pandemic, with less than 15% of our employee population working on site, we focus on what is provided by our waste removal suppliers and on estimates from work-from-home. We estimate waste emissions by evaluating the number of employees working from each office location - this is assumed to match the number of employees that are actively commuting each day (see Scope 3.7). We use the CalRecycle benchmarks as an estimate for waste produced per employee per day. We multiply waste produced for each month by emissions factors for landfill and recycling. No waste estimate is included for work from home employees. We use emissions factors from DEFRA for landfill, composting, and recycling.

Business travel

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
19729

Emissions calculation methodology
Average data method
Spend-based method
Fuel-based method
Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
PANW collects all information directly from suppliers and delivers it directly to Watershed to perform emissions calculations.
(1) Flights - We calculate the distance travelled by looking at flight routes and calculating the distance between airports. We calculate total emissions using Emissions Factors from DEFRA, grouped by category of flight (e.g. long haul, medium haul, short haul). When origin, destination, and mileage data is not available, we use spend on flights applied to the relevant EEIO emissions factor.
(2) Hotels - We calculate the number of nights stayed at a hotel using the check-in and check-out dates, and apply an emissions factor based on estimated electricity and natural consumption for an upscale hotel. When this data is not available, we use spend on hotels applied to the relevant EEIO emissions factor.
(3) For all other types of business travel (e.g. Uber, Trains), we calculate emissions using the EPA Environmentally Extended Economic Input Output (EEIO) emissions factors applied to annual spend data. Spend is aggregated by each travel category to get total spend. Each accounting category is mapped to the most accurate EEIO category.

Employee commuting

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
8660

Emissions calculation methodology
Average data method
Distance-based method
Site-specific method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
20

Please explain
PANW's employee commuting emissions are estimated by Watershed Climate. We estimate emissions in two categories.
(1) Commute. We estimate the number of employees commuting in each location by aggregating employees by location. We exclude any remote employees, and exclude any months where employees were working from home due to COVID-19. We use data published by governments to estimate average commute mix and distance for each location, and apply that to the total number of commuting employees in each location to determine miles traveled by car, public transit, walking and biking (Example sources: US Census Bureau for US states, Euro State for select EU cities). We multiply miles by the emissions factor for that commute-method category. Additionally, we are using data from our onsite or offsite employee parking areas, both in quarterly mid-week peak counts of vehicles and from EV changing stations data throughout the year.
(2) Remote work. We estimate that the square footage occupied by a home office is 150 square feet. We use the Department of Energy's Building Performance Database to find benchmarks for electricity consumption per square foot of residential space and natural gas per square foot of residential space. We then multiply energy usage by the corresponding region's electricity and natural gas emissions factors. Since the DoE's data set does not assume homes are being used non-stop during working hours, we adjust these estimates up to correct for this.

Upstream leased assets

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
289

Emissions calculation methodology
Supplier-specific method
Spend-based method
Site-specific method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
PANW includes leased assets (leased sites) in our scope 1 and scope 2 emissions reporting boundary for those sites where we have local controls (pay the utility bills). The emissions calculated here are from assets where we have no local control, we estimate them for Scope 3 (they have been 3rd-party verified), and are NOT included in Scope 1+2 (per the GHG protocol guidance).
PANW's Upstream leased assets estimates are done by Watershed Climate. We estimate emissions from upstream leased assets in two ways:
(1) For leased assets where we have spend data, we calculate emissions using the EPA Environmentally Extended Economic Input Output (EEIO) emissions factors applied to annual spend data. We exclude categories that are accounted for separately (i.e. buildings).
(2) For some leased assets such as shared co-working spaces, we have square foot (sq. ft.) estimates and then generate activity based emissions factors (EFs) for electricity and natural gas (NG) and calculate emissions based on assumed activity.

Downstream transportation and distribution

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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
PANW does not have any 3.9 Downstream transportation and distribution emissions. Spend on postage is captured in 3.4 Upstream transportation and distribution because all of the spend is captured upstream.

Processing of sold products

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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
All of PANW's hardware products are finished goods, not intermediate goods, and are completely owned with our 3rd party supplier, including end-of-life and takeback programs.

Use of sold products

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
1053045

Emissions calculation methodology
Supplier-specific method
Average product method
Methodology for direct use phase emissions, please specify (Methodology for direct use phase emissions, please specify (For each product, we take specific energy consumption per year and multiply this by the Average emissions factor (Egrid 2020 average for US) (lb/MWh).)

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
For each product, we take total products sold by SKU, specific energy consumption per product per year and multiply this by the Average emissions factor (Egrid 2020 average for US) (lb/MWh). The reports used to generate these emissions calculations are provided by our 3rd party supplier.

End of life treatment of sold products

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
969

Emissions calculation methodology
Supplier-specific method
Average product method
Asset-specific method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
All of PANW's hardware products are 3rd party supplier owned with end-of-life and takeback programs owned by the supplier. All emissions from this category are calculated by Watershed Climate for each hardware product from their individual weight (lb.).

We calculate emissions by collecting data on SKU sold and SKU masses. SKU masses are multiplied by the number of units sold per SKU to determine the total waste produced of each SKU. Each SKU is mapped to the most accurate waste type per the waste disposal tab of the UK government greenhouse gas reporting conversion factors database.

We multiply the total mass of waste by the Emissions Factor for that waste type to calculate CO2e emissions. The reports used to generate these emissions calculations are provided by our 3rd party supplier.

Downstream leased assets

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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
PANW does not have any Downstream leased assets and subsequently does not have any emissions from Downstream leased assets.

Franchises

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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
PANW does not have any Franchises and subsequently does not have any emissions from this category.

Investments

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
134355

Emissions calculation methodology
Supplier-specific method
Average data method
Spend-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
PANW invests in stocks, managed funds, and an array of investments in a diversified portfolio where the company has neither financial control nor significant influence over the emitting entity, typically with less than 5% ownership. Emissions are calculated using Supply Chain GHG Emission Factors, specific to each sector, for US Commodities and Industries v1.1.1 - Catalog (data.gov), Selected the 'Supply Chain Emission Factors with Margins' to capture the purchase price, Converted the emission factors to CO2e using AR5 GWP values.

Other (upstream)

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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
PANW does not have any Other (upstream) emissions.

Other (downstream)

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons 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
PANW does not have any Other (downstream) emissions.

C6.5a

(C6.5a) Disclose or restate your Scope 3 emissions data for previous years.

Past year 1

Start date
August 1 2021

End date
July 31 2022

Scope 3: Purchased goods and services (metric tons CO2e)
157937

Scope 3: Capital goods (metric tons CO2e)
14744

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)
701

Scope 3: Upstream transportation and distribution (metric tons CO2e)
20923

Scope 3: Waste generated in operations (metric tons CO2e)
123

Scope 3: Business travel (metric tons CO2e)
4813

Scope 3: Employee commuting (metric tons CO2e)
4205

Scope 3: Upstream leased assets (metric tons CO2e)
94

Scope 3: Downstream transportation and distribution (metric tons CO2e)
0

Scope 3: Processing of sold products (metric tons CO2e)
0

Scope 3: Use of sold products (metric tons CO2e)
765515

Scope 3: End of life treatment of sold products (metric tons CO2e)
832

Scope 3: Downstream leased assets (metric tons CO2e)
0

Scope 3: Franchises (metric tons CO2e)
0

Scope 3: Investments (metric tons CO2e)
36768

Scope 3: Other (upstream) (metric tons CO2e)
0

Scope 3: Other (downstream) (metric tons CO2e)
0

Comment
The emissions reported here are for FY 2021. Emissions reported in our 2022 CDP Climate submission were in the boundary of Fiscal Year 2021, 3rd party verified across all Scope 1 and Scope 2 categories, and 3.1 PG&S, 3.2 Capital Goods, These are our baseline emissions for our Science-Based Targets.

Past year 2

Start date
August 1 2020

End date
July 31 2021

Scope 3: Purchased goods and services (metric tons CO2e)
153415

Scope 3: Capital goods (metric tons CO2e)
31230

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)
583

Scope 3: Upstream transportation and distribution (metric tons CO2e)
6214

Scope 3: Waste generated in operations (metric tons CO2e)
880

Scope 3: Business travel (metric tons CO2e)
33850

Scope 3: Employee commuting (metric tons CO2e)
10158

Scope 3: Upstream leased assets (metric tons CO2e)
27

Scope 3: Downstream transportation and distribution (metric tons CO2e)
0

Scope 3: Processing of sold products (metric tons CO2e)
0

Scope 3: Use of sold products (metric tons CO2e)
747309

Scope 3: End of life treatment of sold products (metric tons CO2e)
806

Scope 3: Downstream leased assets (metric tons CO2e)
0

Scope 3: Franchises (metric tons CO2e)
0

Scope 3: Investments (metric tons CO2e)
56991

Scope 3: Other (upstream) (metric tons CO2e)
0

Scope 3: Other (downstream) (metric tons CO2e)
0

Comment
NOTE: Emissions reported in our 2021 CDP Climate submission were in the boundary of Calendar Year 2020 . The emissions reported here are for FY 2020. With ESG & Nominating Committee, C-level, and Internal Accounting approval we have transitioned our sustainability and ESG reporting to cover Fiscal Year boundaries from 2022 (last year's CDP Climate) going forward.

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?
No

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
0.0000026581

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
14625

Metric denominator
unit total revenue

Metric denominator: Unit total
5502000000

Scope 2 figure used
Market-based

% change from previous year
17.74

Direction of change
Increased

Reason(s) for change
Change in renewable energy consumption
Change in revenue

Please explain
The main contributors to PANW's Scope 2 emissions increases in FY22 over FY21 were:
(1) Return to offices by global employees FY-over-FY impacted the amount of energy consumed in FY 2022. At the end of FY 2021 (which ended July 31, 2021) to the end of FY 2022 (July 31, 2023), PANW enjoyed a substantial return to work (from pandemic WFH) from between 15% to over 40%, respectively. But this had a significant impact on our total energy consumption (grid electricity consumption + natural gas use in onsite cafes and heating), and Scope 1+2 emissions particularly at our Santa Clara CA HQ.
(2). On top of that, FY 2021 experienced continued elevation of the local emissions factor (EF) in Santa Clara, CA, where our HQ is located -- which is greater than 60+% of our global footprint. The reason for the EF increase was due to continued extreme drought in the region, even more profound in FY 2022 after 5 years of extreme drought, which shifted this grid from high hydropower to natural gas electricity generation. Despite energy efficiency projects (as listed in C4) from HVAC adjustments (HQ, Tel Aviv, Bangalore), expansion of BMES
implementation in our HQ, our scope 1 and 2 emissions grew due to the EF in Santa Clara CA (Silicon Valley Power). Additionally, this intensity figure increased substantially due to this, despite YoY revenue growth of 29.27%.
It is important to note here that, due to a partnership with PANW and SVP, we signed an agreement for our utility to provide 24/7 clean electricity (24/7/365 load matched) beginning January 1, 2023. This was a project that began in 2021, signed in 2022, and will mean that >60% of our footprint will be running on 100% true renewable electricity.

Intensity figure
1.164318128

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
13385

Metric denominator
full time equivalent (FTE) employee

Metric denominator: Unit total
12561

Scope 2 figure used
Location-based

% change from previous year
27.75

Direction of change
Increased

Reason(s) for change
Other, please specify (Same as above but also slowed increase in FTE (FY 2021 + 31%, FY 2022 +20%) despite record revenue growth (27%))

Please explain
In this case we use location-based Scope 1+2 emissions simply to show how market conditions, a climate impacted grid, deep energy efficiency projects, a slow down in hiring, and explosive growth in our business was not enough to improve the carbon intensity of global grids. Again, as above continued extreme drought in the California region shifted this grid from high hydropower to natural gas electricity generation and this deeply impacted our Scope 2 emissions.

C7. Emissions breakdowns

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	762.068	IPCC Sixth Assessment Report (AR6 - 100 year)
CH4	0.402	IPCC Sixth Assessment Report (AR6 - 100 year)
N2O	0.381	IPCC Sixth Assessment Report (AR6 - 100 year)
HFCs	476.867	IPCC Sixth Assessment Report (AR6 - 100 year)

C7.2

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

Country/area/region	Scope 1 emissions (metric tons CO2e)
United States of America	1043
Netherlands	68
Israel	48
Singapore	30
India	20
Australia	18
Japan	5.6
France	2.8
China	1.9
United Kingdom of Great Britain and Northern Ireland	1.1
United Arab Emirates	1.1

C7.3

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

By activity

C7.3c

(C7.3c) Break down your total gross global Scope 1 emissions by business activity.

Activity	Scope 1 emissions (metric tons CO2e)
Emissions from stationary combustion: Natural gas (NG) - workplaces and warehouses (CO2, CH4, N2O)	762.851
Emissions from mobile combustion	0
Emissions from fugitive emissions	476.867

C7.5

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

Country/area/region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
United States of America	8093	10299
Israel	861	861
Singapore	196	196
Netherlands	427	522
India	676	676
Australia	231	231
Japan	492	492
China	26	26
United Kingdom of Great Britain and Northern Ireland	18	28
United Arab Emirates	18	18
France	5.5	6

C7.6

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

By facility

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)
Santa Clara, CA, US HQ (3100 Tannery Way, all; + Santa Clara 1 + Santa Clara 3 + Scott Blvd. + 10 Almaden)	6514	8598
Plano, TX, US - Building 2	1169	1286
Tel Aviv, Israel (TLV)	861	861
Singapore - Guoco Tower	196	196
Bangalore, IN (Bagmane Tech Park)	676	676
Amsterdam, NL (NLD-AMS-01 - Oval Tower)	218	266
Amsterdam, NL (NLD-AMS-03 - Oval Tower)	181	221
Melbourne, AU-MEL-02, 2 Southbank Blvd., Melbourne	11	11
Tokyo, Japan (Hibiya Park Front)	492	492
Reston, VA, US	82	86
Plano, TX, US (Building 3 - Warehouse)	4.1	4.5
Expanse-Atlanta, GA, US (ATL)	82	88
Crypsis-McLean, VA, US	50	53
SF, CA, US (Expanse)	85	80
NYC	44	41
10 Almaden Boulevard	41	39
Shanghai, CN-SH, CN (Dawning Center)	26	26
Hong Kong, CN-HK, CN (Sun Hung Kai Centre)	26	26
Abbotsford, AUS-VIC, ABB-01 Victoria Crescent, Abbotsford, Victoria	31	31
Amsterdam, NL (NLD-AMS-02 - WareHouse)	1.6	2
Cupertino CA, US (20400 Stevens Creek Blvd, Suite 370)	30	28
Melbourne, AU (AUS-ABB-01 - 71 Victoria Crescent, Abbotsford)	31	31
Washington, DC, US (Expanse)	33	35
London, GB (GBR-LON-01)	18	28
Dubai, UAE (ARE-DUB-DIC 15)	18	18
FRA-PAR-01	5.5	6
NLD-AMS-05+06, The Valley, Amsterdam	26.9	32.7

C7.7

(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

Not relevant as we do not have any subsidiaries

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 in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	4650	Increased	53.21	Calendar year 2022 was the 5th year of severe to extreme drought in California. For PANW, and our headquarters in Santa Clara, California, which accounts for over 60% of our global real estate footprint, is on a grid that has been principally run on hydroelectric power (Silicon Valley Power or SVP). The extreme drought, and nearly empty reservoirs where the electricity is generated, is to blame for our utility moving from majority hydroelectric power (from 60% in 2018 to less than 10% in 2022) to majority natural gas (from 0% to 40%). For 3 years in a row the emissions factors grew proportionally -- as did PANW's Scope 1+2 emissions, as well as Scope 3.3 FERA due to this, upstream emissions from electricity generation and transmission and delivery. Also, return to offices by global employees FY-over-FY impacted the amount of energy consumed in FY 2022. At the end of FY 2021 (which ended July 31, 2021) to the end of FY 2022 (July 31, 2023), PANW enjoyed a substantial return to work (from pandemic WFH) from between 15% to over 40%, respectively. But this had a significant impact on our total energy consumption (grid electricity consumption + natural gas use in onsite cafes and heating), and Scope 1+2 emissions particularly at our Santa Clara CA HQ. PANW's YoY revenue growth was 29.27% higher over FY 2021, as well. It is important to note here that, due to a partnership with PANW and SVP, we signed an agreement for our utility to provide 24/7 clean electricity (24/7/365 load matched) beginning January 1, 2023. This was a project that began in 2021, signed in 2022, and will mean that >60% of our footprint will be running on 100% true renewable electricity.
Other emissions reduction activities	0	No change	0	For FY21, the business grew by 27% from FY20 but our electricity consumption remained relatively unchanged, likely due to employees not returning to offices for work but instead WFH. PANW did deploy BEMS pilots at our HQ, global energy efficiency projects (ex. LED swapouts), and virtualization of some server room labs to cloud. We expect to see subsequent energy and emissions reductions in coming years.
Divestment	0	No change	0	PANW performed no divestment in FY22.
Acquisitions	0	No change	0	PANW performed no acquisitions in FY22.
Mergers	0	No change	0	PANW performed no mergers in FY22.
Change in output	0	No change	0	For FY22, the business revenue grew by 30%, and FTE grew by 20% from FY21 but our offices footprint (sq. ft.) stayed the same. See "Change in physical operating conditions ", below. All our "output" is either clouded (data centers) or 3rd party (hardware) and this is reported in our Scope 3 emissions.
Change in methodology	0	No change	0	PANW did not have a change in methodology in FY22. However, PANW with Watershed as the lead did refine our measurement and calculations for Scope 1 refrigerants and Scope 3.3 FERA reporting. This did not change our emissions -- just improved (more complete and accurate) how they are reported.
Change in boundary	0	No change	0	PANW did not have a change in boundary in FY22.
Change in physical operating conditions	0	No change	0	PANW did not experience any change in physical operating conditions in FY22. The impact of drought on our local CA grid (Silicon Valley Power) is explained above in "Change in renewable energy consumption".
Unidentified	0	No change	0	PANW experienced no unidentified emissions changes in FY22.
Other	0	No change	0	PANW had no other emissions changes in FY22.

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?

Market-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	No

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)	HHV (higher heating value)	0	2502.13	2502.13
Consumption of purchased or acquired electricity	<Not Applicable>	22317	39716.58	62033.58
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>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total energy consumption	<Not Applicable>	22317	42218.71	64535.71

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	No
Consumption of fuel for the generation of heat	Yes
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.

Sustainable biomass

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

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>

Comment
PANW did not consume any Sustainable biomass in FY22.

Other biomass

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

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>

Comment
PANW did not consume any other biomass in FY22.

Other renewable fuels (e.g. renewable hydrogen)

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

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>

Comment
PANW did not consume any renewable fuels in FY22

Coal

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

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>

Comment
PANW did not consume any coal in FY22.

Oil

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

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>

Comment
PANW did not consume any oil in FY22.

Gas

Heating value
LHV

Total fuel MWh consumed by the organization
2502.13

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

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>

Comment
This value represents natural gas purchases used for heating and cafe cooking in FY22.

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

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>

Comment
PANW did not consume any non-renewable fuels in FY22

Total fuel

Heating value
LHV

Total fuel MWh consumed by the organization
2502.13

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

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>

Comment
This value represents natural gas purchases used for heating and cafe cooking in FY22.

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero or near-zero emission factor in the market-based Scope 2 figure reported in C6.3.

Country/area of low-carbon energy consumption
United States of America

Sourcing method
Unbundled procurement of energy attribute certificates (EACs)

Energy carrier
Electricity

Low-carbon technology type
Wind

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
22317

Tracking instrument used
US-REC

Country/area of origin (generation) of the low-carbon energy or energy attribute
United States of America

Are you able to report the commissioning or re-powering year of the energy generation facility?
Yes

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2012

Comment
Santa Clara California Green Power Purchase Agreement. This purchase of Green-e RECs (Texas Wind) for PANW's entire HQ campus in Santa Clara CA. Please note that the practice of purchasing unbundled RECS and/or offsets was eliminated and a goal to procure 100% renewable energy (via vPPAs, Green Tariffs, Direct Access, etc.) has since become our priority to reach net zero (90% emissions reduction) across our Scope 1 and 2 emissions by FY30-end. This was the last of unbundled RECs purchased by the company and in future disclosures only true 100% renewable energy will be reported. However, we report this here because the purchases were made and it covered part of FY 2022.

It is important to note here that, due to a partnership with PANW and SVP, we signed an agreement for our utility to provide 24/7 clean electricity (24/7/365 load matched) beginning January 1, 2023. This was a project that began in 2021, signed in 2022, and will mean that >60% of our footprint will be running on 100% true renewable electricity. The outcomes will be reported in the 2024 CDP Climate disclosure.

C8.2g

(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.

Country/area
United States of America

Consumption of purchased electricity (MWh)
33726

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
33726

Country/area
Israel

Consumption of purchased electricity (MWh)
1794

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
1794

Country/area
Netherlands

Consumption of purchased electricity (MWh)
1155

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
1155

Country/area
Japan

Consumption of purchased electricity (MWh)
1007

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
1007

Country/area
India

Consumption of purchased electricity (MWh)
931

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
931

Country/area
Singapore

Consumption of purchased electricity (MWh)
508

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
508

Country/area
Australia

Consumption of purchased electricity (MWh)

300

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
300

Country/area
France

Consumption of purchased electricity (MWh)
102

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
102

Country/area
United Kingdom of Great Britain and Northern Ireland

Consumption of purchased electricity (MWh)
90

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
90

Country/area
Hong Kong SAR, China

Consumption of purchased electricity (MWh)
37

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
37

Country/area
United Arab Emirates

Consumption of purchased electricity (MWh)
36

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
36

Country/area
China

Consumption of purchased electricity (MWh)
33

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
33

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	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
FY 2022 Apex 3rd Party Verification Letter.pdf

Page/ section reference
Page 1 of 3.

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach
Scope 2 location-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
FY 2022 Apex 3rd Party Verification Letter.pdf

Page/ section reference
Page 1 of 3.

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

Scope 2 approach
Scope 2 market-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
FY 2022 Apex 3rd Party Verification Letter.pdf

Page/ section reference
Page 1 of 3.

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category
Scope 3: Purchased goods and services
Scope 3: Capital goods
Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)
Scope 3: Upstream transportation and distribution
Scope 3: Waste generated in operations
Scope 3: Business travel
Scope 3: Employee commuting
Scope 3: Upstream leased assets
Scope 3: Use of sold products
Scope 3: End-of-life treatment of sold products

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
FY 2022 Apex 3rd Party Verification Letter.pdf

Page/section reference
Page 1 of 2.

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
90

C10.2

(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

C11.1

(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

(C11.2) Has your organization canceled any project-based carbon credits within the reporting year?
No

C11.3

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

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Type of internal carbon price
Internal fee

How the price is determined
Alignment with the price of a carbon tax
Cost of required measures to achieve emissions reduction targets
Price with material impact on business decisions

Objective(s) for implementing this internal carbon price
Change internal behavior
Drive energy efficiency
Drive low-carbon investment
Identify and seize low-carbon opportunities
Stakeholder expectations
Reduce supply chain emissions

Scope(s) covered
Scope 1
Scope 2
Scope 3 (upstream)
Scope 3 (downstream)

Pricing approach used – spatial variance
Differentiated

Pricing approach used – temporal variance
Evolutionary

Indicate how you expect the price to change over time
It will depend on a number of factors, such as:
(1) The cost of true renewable energy (and accompanying bundled attributes),
(2) Cost of decarbonization (ex. replacing furnaces with heat pumps, gas stoves with induction, etc.)
(3). Cost of battery storage,
(4) Cost of EV charging stations and service agreements, and other new technologies as they arise. Depending on what we plan on investigating and potentially initiating, budget will have to be secured for any of these in a way that is economically feasible and reasonable given other priorities across the company.

Actual price(s) used – minimum (currency as specified in C0.4 per metric ton CO2e)
10

Actual price(s) used – maximum (currency as specified in C0.4 per metric ton CO2e)
40

Business decision-making processes this internal carbon price is applied to
Operations
Procurement
Risk management
Opportunity management
Value chain engagement

Mandatory enforcement of this internal carbon price within these business decision-making processes
Yes, for all decision-making processes

Explain how this internal carbon price has contributed to the implementation of your organization's climate commitments and/or climate transition plan
Our internal carbon price has greatly contributed to the implementation of our climate commitments and climate transition plan. In FY22 the price on carbon was used to pay for:
(1) Hiring our "Sustainability Strategist" (head of sustainability),
(2) Calculating and 3rd party verifying our carbon footprint,
(3) Setting and verifying our SBTs,
(4) Investigating RE options,
(5) Other projects (value chain emissions, batteries, etc.)
All BUs pay into PANW's corporate GHG reduction goals using this carbon price, administered in the budget cycle for FY2022 through our CR team at $10 per tonne.
Impact & implication
Focus areas: Scope 3.11 Use of Sold Products emissions reduction strategies (budget for consultancies), engagement with our supply chain (budget for initiatives) energy efficiency, decarbonization, and procuring true, partnerships with utilities to provide more available and affordable renewable energy for everyone in the communities where we work and live -- far beyond the walls of PANW. And there is a cost associated with this evaluation, adjustment of the "price", and then securing budget from each business unit. Following is a specific "STAR" description of the process:
Situation: PANW drives to be a sustainability leader, the most sustainable cybersecurity company, and to take advantage of the potential $2.1B incremental market for customers that require their suppliers to have set SBTs and RE goals.
Task: to secure budget to set 1.5C-aligned SBTs, true (90% elimination) net zero goals. a RE100 goal, and evaluate the renewables market for PANW. In FY22, this was part of the US People and Places budget (where HQ, the Sustainability Strategist, CR, and Places leads reside).
Action: call for RFPs from the top advisories for each, evaluate which organizations can help us set the best goals and then help PANW work over the short- to medium-terms to meet and/or exceed the goals, and to do it in a way that aligns with our company's mission to keep everyone safe online (and to do it sustainably) by doing it genuinely (no offsets or unbundled RECs). The budget for this was secured in late FY21 and implemented in FY22 from this internal "price".
Result: PANW's SBTs were submitted for all three scopes (1, 2, 3.1 and 3.11) and RE100, we have formed a successful parter with our HQ's utility to be realized in FY24 where funds from the internal carbon "tax" (allocated overhead) will cover this cost in the US, as an regional and operational example.

C12. Engagement

C12.1

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

Yes, our suppliers
Yes, our customers/clients
Yes, other partners in the value chain

C12.1a

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

Type of engagement
Innovation & collaboration (changing markets)

Details of engagement
Run a campaign to encourage innovation to reduce climate impacts on products and services
Collaborate with suppliers on innovative business models to source renewable energy

% of suppliers by number
8

% total procurement spend (direct and indirect)
90

% of supplier-related Scope 3 emissions as reported in C6.5
76

Rationale for the coverage of your engagement
In 2021 we set 1.5C-aligned Science-Based Targets (SBTs) including a Scope 3 Supply Chain SBT: Suppliers representing 65% of purchased goods and services by spend to set Science-Based Targets by FY 2027-end. To reach this ambitious goal, engaging with our major hardware (3rd party) and software (cloud) suppliers -- which represents at least 8% of suppliers/ 90% of product procurement spend / 76% of supplier related Score 3 emissions -- allows PANW to align our goals with what our customers expect and want -- evident in many RFPs that ask for this -- and also to have a much deeper impact by not "going it alone". PANW was able to set our SBTs and develop a Net Zero (defined as 90% emissions elimination) by 2030 (Scope 1 & 2) and 2040 (Scope 1,2, and 3) as the key elements of PANW's Climate Commitments. We make collaborating with suppliers (and customers, see below) who are moving toward making this a requisite part of their supplier strategies. This number reflects the top 200 suppliers by spend, plus other partners in the value chain that we collaborate with on climate impact products, initiatives, programs, and sustainability strategies. This is the second year we have been able to report, and 3rd party verify, our complete (>90%) Scope 1, 2, and 3 emissions and we need to engage more fully with our suppliers to refine our emissions inventory and assure our disclosure is accurate. FY22 represented the first actions taken toward this objective.

Impact of engagement, including measures of success
Up-front: our SBTs were new in FY 2022, but we made significant progress on our SBTi (2), Supplier by spend target:
FY 2021 = 18%, FY 2022 = 30% of PANW suppliers by spend set SBTs. YoY = 12% progress.
Additionally, PANW measures the success of the initiatives through:
1. Reporting: our ability to transparently and more accurately disclose our global environmental profile is a key metric, particularly as it relates to our Scope 3.11 SBT. Effective engagement is demonstrated in year-over-year (YoY) measurement with success in 3rd party verification of our data as a result of engagement with this supplier. As examples, we engaged Watershed Climate to complete our entire footprint, provide supplier goal metrics (SBTs, RE100), and gather specific, quantitative information about our suppliers so we can collaborate more effectively with them. Our engagement with this supplier is weekly and with Apex for 3rd party verification (FY21 & FY22).
2. Collaboration: PANW believes collaboration is the only way forward in addressing climate change. Partnering with suppliers will always deliver improved data accuracy by receiving it directly from suppliers. Ex. our close relationship with our hardware 3rd party manufacturer (Flex) allows us to work on product energy efficiency, circular packaging, manufacturing with renewable energy, and both parties working to meet and exceed each others' SBTs. Our Scope 3 SBT (Scope 3 Supply Chain: Suppliers representing 65% of purchased goods and services by spend to set Science-Based Targets by 2027) will require success be measured in YoY % increase in our suppliers setting (and achieving) SBTs.
3. Goal setting and YoY progress: collaboration with partners like Flex and Google Cloud allows us to gather key data to measure our products' impact, and (Scope 3 Product Use (“Use of Sold Products”), Reduce tonnes CO2 / $USD GP by 40% from a 2021 baseline by 2027-end). This is a new SBT, the YoY metric increased by 8.41%, but this collaboration will result in the ultimate measure of success: lowering 3.11 emissions, lowering this metric YoY & in meeting our SBTs. Methods of engagement with our suppliers include regular meetings (quarterly, as appropriate) and active, ongoing collaboration in continuous improvement activities (again, energy efficiency, renewable energy deployment, setting and meeting SBTs, etc.).

Comment
Our SBTs have now been validated, and in FY 2023 and beyond we intend to collaborate more deeply with our suppliers to help PANW achieve progress toward, and help them set, impactful short-, medium-, and long-term goals to address Scope 3.1 and 3.2 supply chain (PG&S and CGs) and 3.11 Use of Sold Products emissions. We focused on validating our Science-Based Targets in FY 2022, which we did, but want to now make annual progress against them going forward.

C12.1b

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

Type of engagement & Details of engagement

Collaboration & innovation	Run a campaign to encourage innovation to reduce climate change impacts

% of customers by number

8

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

77.76

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

It is important to note that key major customers are also major suppliers. Because of this, the value chain engagement numbers are consistent. In FY 2021 we set Science-Based Targets, FY 2022 verification, with a very ambitious Scope 3 "Use of Sold Products" SBT: Reduce tonnes CO2e per $USD gross profit by 40% (compounded 7%/year) from a 2021 baseline by 2027-end. FY21 was the very first time we were able to measure our Product Use emissions and our conservative estimates (assumptions that every product with a 5-year life span runs 24 hours a day, 365 days a years) gave us the insight, and responsibility, to set a "Use of Sold Products" SBT. To reach this ambitious goal, we must engage with our customers to:
1. Gain a more accurate understanding of how our products are used (ex. % in use, where they run on renewable energy, etc.),
2. Encourage collaboration and partnerships with customers to set renewable energy goals across their portfolio, and
3. Unleash the ability to produce accurate customer emissions from use of our products (both spend based and increasing measurement that includes all elements of the relationship) and have them engage with us to reduce them -- even if their purchases increase year over year. This SBT and strategy allows PANW to align our goals with what our customers expect and want -- as seen in their RFPs -- and, as with our suppliers, to have a deeper impact by not "going it alone". The 8% of customers engaged with in FY22 represent those customers who 1. Account for the greatest emissions from product use (here, 72% of Scope 3.11 Use of Sold Products), and 2. Have reached out to us for data to be able to report progress against their SBTs. This is aligned with how we reach out to our suppliers (process provided in C12.1a). PANW was able to set our SBTs and develop a Net Zero (90% elimination) by 2030 (Scope 1 & 2) and 2040 (Scope 1, 2, & 3) as key elements of PANW's Climate Commitments. We must make collaborating with customers (and suppliers) who are moving toward making this a requisite part of their supplier strategies. One key measure of success will be PANW's ability to report progress against this Scope 3 SBT using granular information and data from our customers on how they are using our products and if they are running them on RE. And, if not, understand how we can we help them set and meet a 100% (RE100) goal.

Impact of engagement, including measures of success

The impact of engagement is, and will be going forward in helping to drive and report progress against our SBTs, a 7%/year compounded annually decrease in our Scope 3.11 Use of Sold Products. This is an intensity target and our baseline for FY21 was 765,515 MT CO2e / Gross Profit ($ millions (M)) 2,981 = baseline intensity metric 256.798
MT/$M US. Mathematically, this adds up to a 7% per year decrease in this baseline intensity metric through FY 2027. However, we know from experience that progress is not linear but reflects actions taken within the year, or even previous years. For this reason, we calculate that it follows a progression of data improvement. Meaning, we have made estimates for progress, or non-progress, based on what we estimate as progress in Google Cloud and other cloud suppliers data sharing, deploying renewables, energy efficiency, as well as hardware efficiency (Moore's Law, at a minimum):
FY 2022: +8.41%
FY 2023: -4.84%
FY 2024: -19.99%
FY 2025: -31.33%
FY 2026: -39.80%
FY 2027: -46.55%
These are non-linear reductions from a baseline FY 2021 metric of 256.7808 (tonnes CO2e (Use of Sold Products) / $USD Gross Profits ($US Millions)). As a new, validated SBT in FY 2022, it was indeed 278.3771 (tonnes/$US M), an 8.41% increase.

PANW measures the impact of engagement success through
(1) Increasing environmental disclosure transparency
(2) Continuous improvement of data accuracy and updating frequency, including data gathering from across our value chain, and
(3) Improve sharing practices on sustainability metrics and KPIs with our internal and external stakeholders, suppliers and customers (entire value chain). Impact of engagement is based on specific measures of success: For example for FY 2023, we 3rd party verified >90% of our GHG inventory (letters attached in C10) and are disclosing more granular and comprehensive GHG emissions data in our CDP submission, as well as SBTi validated SBTs -- all of it posted on our public website so anyone can view any of it. We were proud to be able to provide our CDP Supply Chain customers with their emissions again this year because of this.

C12.1d

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

PANW began the process of engaging with partners throughout the value chain -- beyond suppliers and customers -- such as policy influencers (ex. ITI, SVLG, WEF, etc.). and our utility providers in the regions we operate (ex. Santa Clara CA Clean Power) to assess their renewable energy strategies and their effect on our market-based emissions. In FY21 the Santa Clara Clean Power gave PANW the ability to purchase Green-e RECs through the utility, Silicon Valley Power, which represents over 60% of our entire workplace footprint. But both parties realize we can do better. To that point, throughout FY 2022 we collaborated with them to procure true renewable electricity PPAs and sleeve them through the utility to provide renewable electricity to large customers ("Large Customer Renewable Energy" program or "LCRE"), starting January 1, 2023. This will, over time, make renewable electricity available to everyone in the city, not just us. We intend to have closer PANW and local utilities partnerships to be able to run on grids powered with renewable energy and lower grid factors to zero. Additionally, we have partnered with our landlords at leased sites where renewable power has become a viable option, and we are now powering leased sites in New York, London, and Amsterdam with renewable electricity. PANW's global workplace footprint is over 70% LEED certified. The ability to power more and more of it with renewable electricity is a specific indicator of success and is based on supporting our partners' objectives of powering their businesses with renewable energy.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?

Yes, climate-related requirements are included in our supplier contracts

C12.2a

(C12.2a) Provide details of the climate-related requirements that suppliers have to meet as part of your organization's purchasing process and the compliance mechanisms in place.

Climate-related requirement
Setting a science-based emissions reduction target

Description of this climate related requirement
This follows PANW's SBTi validated SBT: Scope 3 Supply Chain: Suppliers representing 65% of purchased goods and services by spend to set Science-Based Targets by FY 2027-end.

% suppliers by procurement spend that have to comply with this climate-related requirement
100

% suppliers by procurement spend in compliance with this climate-related requirement
30

Mechanisms for monitoring compliance with this climate-related requirement
Supplier self-assessment
Off-site third-party verification
Supplier scorecard or rating

Response to supplier non-compliance with this climate-related requirement
Retain and engage

Climate-related requirement
Other, please specify (EEIC Code compliance for both hardware and software products.)

Description of this climate related requirement
Our major (3rd party) suppliers of physical/material product, as well as our major cloud suppliers for this, and all others are asked to consider implementing goals for each. This covers all environmental code compliance.

% suppliers by procurement spend that have to comply with this climate-related requirement
20

% suppliers by procurement spend in compliance with this climate-related requirement
20

Mechanisms for monitoring compliance with this climate-related requirement
Supplier self-assessment
Grievance mechanism/Whistleblowing hotline
Supplier scorecard or rating

Response to supplier non-compliance with this climate-related requirement
Retain and engage

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate
Yes, we engage directly with policy makers
Yes, our membership of/engagement with trade associations could influence policy, law, or regulation that may impact the climate
Yes, we fund organizations or individuals whose activities could influence policy, law, or regulation that may impact the climate

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?
Yes

Attach commitment or position statement(s)
FINAL panw-fy22-esg-report.pdf
FINAL panw-fy22-esg-report.pdf

Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan
The attached FY22 ESG Report, formerly named the Supplement to the SEC 10-K report, which describes our commitment to setting and achieving our SBTi validated 1.5C Science-Based Targets. This includes: Scope 1 and 2: Reduce emissions by 75% from 2021 to 2027 Scope 3 Supply Chain: Suppliers representing 65% of purchased goods and services by spend to set Science-Based Targets by 2027 Scope 3 Product Use ("Use of Sold Products"): Reduce tonnes CO2e per $USD gross profit by 40% (compounded 7%/year) from a 2021 baseline by 2027-end.
We use our SBTs and 100% renewable energy goal to engage directly with policy makers, in our engagement with trade associations (ex. ISS, WEF Climate, The Climate Pledge, GreenBiz Executive Network, etc. but we do not have relationships with the Chamber of Commerce or Business Roundtable), and with leading NGOs (Ceres, ITI, Silicon Valley Leadership Group (SVLG), etc.). In every case, our engagement includes policy to advance cybersecurity; climate, clean energy, and sustainability; and the intersection of all of these. As examples, in 2022 we engaged in meetings with state and federal policy makers, signed inclusion into The Climate Pledge, and signed support of WEF Climate's Alliance for CEO Letter. All of this is from PANW's FY 2022 ESG Report, which is posted on PANW's public website and downloadable as a PDF. The file attached here is reduced in size to meet the 30MB limit, here. See page 20 and on for specifics.

Primary reason for not engaging in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate
<Not Applicable>

Explain why your organization does not engage in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate
<Not Applicable>

C12.3a

(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

Specify the policy, law, or regulation on which your organization is engaging with policy makers
WEF Alliance of CEO Climate Leaders Message for COP27

Category of policy, law, or regulation that may impact the climate
Climate change mitigation

Focus area of policy, law, or regulation that may impact the climate
Climate-related reporting
Climate-related targets
International agreement related to climate change mitigation
Transparency requirements

Policy, law, or regulation geographic coverage
Global

Country/area/region the policy, law, or regulation applies to
<Not Applicable>

Your organization's position on the policy, law, or regulation
Support with no exceptions

Description of engagement with policy makers
As above, we use our SBTs and 100% renewable energy goal to engage directly with policy makers, in our engagement with trade associations (ex. ISS, WEF Climate, The Climate Pledge, GreenBiz Executive Network, etc. but we do not have relationships with the Chamber of Commerce or Business Roundtable), and with leading NGOs (Ceres, ITI, Silicon Valley Leadership Group (SVLG), etc.). In every case, our engagement includes policy to advance cybersecurity; climate, clean energy, and sustainability; and the intersection of all of these. As examples, in 2022 we engaged in meetings with state and federal policy makers, signed on to Ceres "Transparency in Reporting" letter (US, transparency in reporting) and signed support of WEF Climate's Alliance for CEO Letter (global climate mitigation through 1.5C-aligned target setting).

PANW employs an external-facing Government Affairs team in Washington D.C. that specifically looks at all policies related to cybersecurity, resiliency, and sustainability. The Climate Policy Team, an internal team composed of the Sustainability Strategist, Sr. Dr. of CR, Government Affairs, and Comms meets bi-weekly to vet current policy and decide which the company will act on, or not. While the team reviews many policy proposals, the ones mentioned here are ones that the company has signed-on support.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation
<Not Applicable>

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?
It is. As a global company that relies on suppliers (both cloud and 3rd party manufacturing) to set Science-Based Targets and run their operations on renewable energy, preferably before 2040, the year our Net Zero goal (90% emissions elimination, mitigating what is left, across all Scopes 1, 2, and 3) is due to be met. We also partner with many customers to help them set 100% renewable energy goals (and SBTs) so they will be running our products through clouds that run on 100% RE and/or through their own data centers that run on 100% RE. Signing support for this with 70+ CEOs of major enterprises is an important, perhaps most important, element to reach our goals.

Specify the policy, law, or regulation on which your organization is engaging with policy makers

Ceres' sign-on for Transparency in GHG Reporting with support for SEC disclosure

Category of policy, law, or regulation that may impact the climate
Climate change mitigation

Focus area of policy, law, or regulation that may impact the climate
Climate-related reporting
Climate-related targets
Climate transition plans
Emissions – CO2
Emissions – methane
Emissions – other GHGs
Renewable energy generation
Transparency requirements
Verification and audits

Policy, law, or regulation geographic coverage
National

Country/area/region the policy, law, or regulation applies to
United States of America

Your organization's position on the policy, law, or regulation
Support with no exceptions

Description of engagement with policy makers
As above, we use our SBTs and 100% renewable energy goal to engage directly with policy makers, in our engagement with trade associations (ex. ISS, WEF Climate, The Climate Pledge, GreenBiz Executive Network, etc. but we do not have relationships with the Chamber of Commerce or Business Roundtable), and with leading NGOs (Ceres, ITI, Silicon Valley Leadership Group (SVLG), etc.). In every case, our engagement includes policy to advance cybersecurity; climate, clean energy, and sustainability; and the intersection of all of these. As examples, in 2022 we engaged in meetings with state and federal policy makers, signed on to Ceres "Transparency in Reporting" letter (US, transparency in reporting) and signed support of WEF Climate's Alliance for CEO Letter (global climate mitigation through 1.5C-aligned target setting).

PANW employs an external-facing Government Affairs team in Washington D.C. that specifically looks at all policies related to cybersecurity, resiliency, and sustainability. The Climate Policy Team, an internal team composed of the Sustainability Strategist, Sr. Dr. of CR, Government Affairs, and Comms meets bi-weekly to vet current policy and decide which the company will act on, or not. While the team reviews many policy proposals, the ones mentioned here are ones that the company has signed-on support.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation
<Not Applicable>

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?
It is. As above, as a global company that relies on suppliers (both cloud and 3rd party manufacturing) to set Science-Based Targets and run their operations on renewable energy, preferably before 2040, the year our Net Zero goal (90% emissions elimination, mitigating what is left, across all Scopes 1, 2, and 3) is due to be met. We also partner with many customers to help them set 100% renewable energy goals (and SBTs) so they will be running our products through clouds that run on 100% RE and/or through their own data centers that run on 100% RE. Signing support for this with 70+ CEOs of major enterprises is an important, perhaps most important, element to reach our goals. For this specific policy sign-on, we need to have all companies conduct thorough GHG analysis/footprinting, get their final data 3rd party verified, and report it to outlets such as CDP, the SEC, the UK-SECR, the EU CSRD, and others. This will assure transparency in reporting but also consistency in how GHG data is being reported so we are addressing the climate challenge and not something the data does not support.

C12.3b

(C12.3b) Provide details of the trade associations your organization is a member of, or engages with, which are likely to take a position on any policy, law or regulation that may impact the climate.

Trade association
Other, please specify (The Information Technology Industry Council (ITI))

Is your organization's position on climate change policy consistent with theirs?
Consistent

Has your organization attempted to influence their position in the reporting year?
No, we did not attempt to influence their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position
ITI and our member companies have established three strategic commitments in our efforts to address global climate change: First, the tech sector aims to further reduce the carbon footprint of our operations by advancing corporate goals and policies that focus on conserving energy, reducing emissions of fossil fuels, and generating or using renewable energy whenever possible. Second, ITI member companies commit to reducing the carbon footprint of our tech products over the course of their lifecycle. Third, ITI and our member companies will help enable transformational innovation. In this regard, the Internet of Things (IoT) will transform our lives and economy in ways as significant as the Internet itself did over the past two decades. IoT advances offer nearly limitless possibilities for incorporating smart technologies into our lives in ways that could not have been imagined even a few years ago. With smart cities, smart transportation, and other innovations, we are able to raise the quality of life in society, while decreasing our footprint on the Earth and its climate. In addition to these strategic commitments, ITI will continue to support government policies that emphasize an innovation agenda for mitigating and adapting to our changing climate.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)
85000

Describe the aim of your organization's funding
PANW provides funds for membership to participate in ITI's working groups including cybersecurity, resilience, sustainability, and climate.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

C12.3c

(C12.3c) Provide details of the funding you provided to other organizations or individuals in the reporting year whose activities could influence policy, law, or regulation that may impact the climate.

Type of organization or individual
Non-Governmental Organization (NGO) or charitable organization

State the organization or individual to which you provided funding
Ceres

Funding figure your organization provided to this organization or individual in the reporting year (currency as selected in C0.4)
0

Describe the aim of this funding and how it could influence policy, law or regulation that may impact the climate
In FY22, PANW did not provide funding for membership in their working groups for member companies, BICEP. PANW first engaged with Ceres in late FY21 and then deeply in FY22 and have concluded that this organization's charter, corporate working groups, awareness of climate and clean energy policy, and assistance in tracking and recommending policy advocacy aligns very well with PANW's objectives and ethos. We will provide funding for membership in coming years.

Have you evaluated whether this funding is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Type of organization or individual
Non-Governmental Organization (NGO) or charitable organization

State the organization or individual to which you provided funding
World Economic Forum (WEF) and the WEF CEO Climate Leaders

Funding figure your organization provided to this organization or individual in the reporting year (currency as selected in C0.4)
25000

Describe the aim of this funding and how it could influence policy, law or regulation that may impact the climate
Public and private sector collaboration is essential to create a marketplace that will enable dramatic reductions in emissions and build resilience. The Forum's Climate Initiatives provide a global platform to help raise ambition and accelerate climate action through multi-stakeholder partnerships. The Climate Initiatives' focus areas The Forum's Climate Initiatives are focused on three key areas of work to mitigate and adapt to climate change:
(1) Participating in and PANW's CEO joining WEF CEO Climate leaders (From 2020 - ongoing).
(2) Raising political ambition for key governments and business to have plans in place to reduce emissions and build climate resilience in alignment with scientific recommendations by COP26 in 2021 and for COP27 in 2022,
(3) Signing company and CEO support for WEFs CEO Climate Leaders support for climate mitigation, 1.5C aligned goal setting, transparency in reporting, and other key policy elements in the run up to COP27.
(4) Accelerating transformational change across key value chains to ensure businesses play their role in tackling climate change.
(5) Creating effective governance and market mechanisms that incentivize investments to build a low carbon economy. Global action on climate change must be taken to deliver enhanced national action plans and concrete solutions to reduce emissions and build resilience.

Have you evaluated whether this funding is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Type of organization or individual
Non-Governmental Organization (NGO) or charitable organization

State the organization or individual to which you provided funding
Silicon Valley Leadership Group

Funding figure your organization provided to this organization or individual in the reporting year (currency as selected in C0.4)
10000

Describe the aim of this funding and how it could influence policy, law or regulation that may impact the climate
SVLG “advocates for policies and programs that reflect reliable, high-quality, environmentally-responsible, and competitively-priced energy and power in an open and transparent market-based system.” SVLG seeks “to promote the financing and deployment of clean energy and emerging technologies to help the state meet its greenhouse gas reduction goals and assist our member companies in meeting their sustainability and bottom line goals. The Leadership Group defines “Clean Energy” to include the promotion of renewable energy, storage, demand response, energy efficiency, and no- and low-carbon technology such as fuel cells.”

Have you evaluated whether this funding is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Type of organization or individual
Non-Governmental Organization (NGO) or charitable organization

State the organization or individual to which you provided funding
We Mean Business

Funding figure your organization provided to this organization or individual in the reporting year (currency as selected in C0.4)
0

Describe the aim of this funding and how it could influence policy, law or regulation that may impact the climate
The We Mean Business Coalition is a global nonprofit coalition works with the world's most influential businesses to take action on climate change. PANW first became a member in 2021, committed to set near-term 1.5C-aligned Science-Based Targets, long term Net Zero goals (2030 for Scope 1+2, 2040 for Scope 3), and a 100% renewable energy goal (2030) -- all consistent with the We Mean Business Coalition. We were not asked for funds to become members.

Have you evaluated whether this funding is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

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
In mainstream reports, incorporating the TCFD recommendations

Status
Complete

Attach the document
FINAL panw-fy22-esg-report.pdf

Page/Section reference
Throughout the document with specific sustainability data beginning on page 50.

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment
This is PANW's second, complete ESG Report (a.k.a. Supplement to the SEC 10-K) and it contains data and explanations across PANW's ESG initiatives for FY22. Please note that the data has been updated and 3rd party verified here and our specific 1.5C aligned SBTs are now SBTi verified. Both verifications had not concluded at the time the report was published in October 2022.

Publication
In voluntary sustainability report

Status
Complete

Attach the document
Screenshot 2023-06-06 at 2.50.13 PM.png

Page/Section reference
See page 1. Attached is a screenshot from PANW's public website that points to all our CDP Climate Disclosures (CY 2020, FY 2021, FY 2022), our FY 2021 and FY 2022 3rd party verifications, our FY 2021 and FY 2022 ESG Reports, and our CDP Climate A-List and Supplier Leadership badges so anyone can access them.

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment
PANW discloses our environmental impacts, risks, and opportunities to CDP as part of our commitment to transparency. We post our CDP submission (CY19, CY20, FY21, and FY22 (after July 26, 2023)) on PANW's CR webpage, which includes all ESG information regarding employee engagement, social impact, and environment including our ESG Supplement to the SEC 10-K, our verified 1.5C-aligned Science-Based Targets, our RE100 goal, Net Zero Targets, 3rd party verification letters, our Environmental Statement, CDP Climate 2020, 2021 and upcoming 2022 Reports.

C12.5

(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Row 1	RE100 Science Based Targets Network (SBTN) The Climate Pledge We Mean Business	PANW is a signatory/member of the We Mean Business Coalition (WMB) . We engage with companies on climate and clean energy policy advocacy to drive our net zero for all Scope 1+2 emissions, by eliminating more than 90% of our emissions compared to a FY 2021 baseline, by 2030. PANW has set 1.5C aligned Science-Based Targets in FY 2021, submitted them for verification on August 6, 2022 (1st week of FY 2022), verification began on February 6, 2023. PANW is a signatory/member of The Climate Pledge, signing on June 2021 (FY 2021). This aligns with our Net Zero by 2040 long-term goal. PANW is aligned with RE100 with our 100% renewable energy by 2030 goal. We are in the process of becoming paid members in FY 2024.

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity	Scope of board-level oversight
Row 1	Yes, executive management-level responsibility	All initiatives related to biodiversity-related issues must attain C-level approval through our Chief People Officer, reporting through our Chief Accounting Officer, and with policy through our General Counsel. All three C-level leads have oversight and reporting to the Board, as appropriate depending on the initiative.	<Not Applicable>

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	No, but we plan to do so within the next 2 years	<Not Applicable>	<Not Applicable>

C15.3

(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?

Impacts on biodiversity

Indicate whether your organization undertakes this type of assessment
No, but we plan to within the next two years

Value chain stage(s) covered
<Not Applicable>

Portfolio activity
<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity
<Not Applicable>

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)
<Not Applicable>

Dependencies on biodiversity

Indicate whether your organization undertakes this type of assessment
No, but we plan to within the next two years

Value chain stage(s) covered
<Not Applicable>

Portfolio activity
<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity
<Not Applicable>

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)
<Not Applicable>

C15.4

(C15.4) Does your organization have activities located in or near to biodiversity- sensitive areas in the reporting year?
Yes

C15.4a

(C15.4a) Provide details of your organization's activities in the reporting year located in or near to biodiversity -sensitive areas.

Classification of biodiversity -sensitive area
Other biodiversity sensitive area, please specify (Innercity (NYC) community gardens)

Country/area
United States of America

Name of the biodiversity-sensitive area
The Bronx, New York City, NY, USA.

Proximity
Adjacent

Briefly describe your organization's activities in the reporting year located in or near to the selected area
PANW sponsored development of a key Inner-city (NYC) community garden that was completed by the non-profit, GreenBronxMachine, to provide green space and vegetable and fruit garden for inner-city children to work, learn, and grow their own food. The garden provided this green space to a part of the community that is typically concrete, shadeless, and plantless.

Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity
No

Mitigation measures implemented within the selected area
<Not Applicable>

Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented
PANW's activities in NYC do not negatively affect biodiversity in the area. We assessed that our office in Manhattan, and our employees who work there, wanted to engage in a project/initiative that would help address overlapping crises: (1) Biodiversity loss in the area, (2) Poverty, lack of healthy food, and children directly impacted by all of these elements. This was a small (~1/2 acre) area that had a very positive biodiversity outcome. PANW did not view this, nor do we report it, as a "mitigation" measure for us -- it is a pure poverty, biodiversity, education, engagement, and green space impact action.

C15.5

(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	Yes, we are taking actions to progress our biodiversity-related commitments	Other, please specify (Solutions at the nexus of climate resilience and security)

C15.6

(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	No, we do not use indicators, but plan to within the next two years	State and benefit indicators

C15.7

(C15.7) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Impacts on biodiversity	Final-PANW-FY22-ESGReport FINAL panw-fy22-esg-report.pdf

C16. Signoff

C-FI

(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.

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Chief People and Places Officer | Executive Vice President of Human Resources and Operations | Liane Hornsey	Other C-Suite Officer

SC. Supply chain module

SC0.0

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

Palo Alto Networks values our partnership with our business ecosystem and specifically the opportunity to collaborate with customers on the important topic of Climate Change. We recognize that we are on a journey to "respect our planet, uplift our communities and advance our industry" and some stakeholders are further along that journey, others just beginning. We have a history of environmental stewardship practices and are pleased with some of the progress we have made in FY 2022 but we also know that we have more work to do. We look forward to doing that work together.

As mentioned on our public website, and throughout this CDP Climate disclosure, in 2021 we committed and set 1.5C-aligned Science-Based Targets (SBTs) that cover over 90% of our Scope 1+2+3 footprint -- all verified by the SBTi. As part of that, we set a Scope 3 Supply Chain SBT: Suppliers representing 65% of purchased goods and services by spend to set Science-Based Targets by FY 2027-end. And, as with CDP Supply Chain, we set a Scope 3.11 Use of Sold Products SBT to reduce our tonnes CO2e per $USD Gross Revenue 40% by FY 2027-end, to make sure our customers emissions will be eliminated over time. To reach this ambitious goal, engaging with our suppliers and customers -- across our value chain -- allows PANW to align our goals with what our customers expect and want and to have a much deeper impact by not "going it alone". PANW was able to set our SBTs and develop a net zero by 2030 (Scope 1 & 2) and 2040 (Scope 1, 2, and 3) as the key elements of PANW's Climate Commitments. We must make collaborating with suppliers and customers who are moving toward making this a requisite part of their supplier strategies.

For PANW, the tope 65% is under the top 200 suppliers by spend, plus other partners in the value chain that we collaborate with on climate impact products, initiatives, programs, and sustainability strategies. With full Scope 1, 2, and 3 emissions being 3rd party verified, and posted on our public website for anyone to see, we intend to engage more fully with our suppliers, to refine our emissions inventory, and assure our disclosure is accurate.

For our 3.11 emissions reporting and in making future progress toward eliminating these emissions and meeting our SBT, FY2021 was the very first time we were able to measure our Product Use emissions and our conservative estimates (assumptions that every product with a 5-year life span runs 24 hours a day, 365 days a years) gave us the insight, and now we have a line of sight in making progress on it by partnering with both suppliers and customers to set and report RE100 goals. Specifically, we must engage with our customers to:

(1) Gain a more accurate understanding of how our products are uses (ex. % in use, where are they run on renewable energy, etc.),

(2) Encourage collaboration and partnerships with customers to set renewable energy goals across their portfolio, and

(3) Unleash the ability to produce accurate customer emissions from use of our products (versus spend based) and have them engage with us to reduce them -- even if their purchases increase year over year.

This SBT and strategy allows PANW to align our goals with what our customers expect and want -- and, as with our suppliers, also to have a much deeper impact by not "going it alone". PANW was able to set our SBTs and develop a net zero by 2030 (Scope 1 & 2) and 2040 (Scope 1, 2, and 3) as the key elements of PANW's Climate Commitments. We must make collaborating with customers and suppliers who are moving toward making this a requisite part of their supplier strategies.

SC0.1

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

	Annual Revenue
Row 1	5502000000

SC1.1

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

Requesting member

The following pages (72 through 100) have been removed to preserve the privacy of Palo Alto Networks' customers emissions data derived from revenue allocation methodology, aligned with the Green House Gas (GHG) Protocol.

All Scope 1, 2, and 3 emissions have been 3rd party verified.
All of Palo Alto Netowrks' Science-Based Targets have been verified by the Science-Based Targets Initiative (SBTi).

Verified
Yes

Allocation method
Allocation based on the market value of products purchased

Market value or quantity of goods/services supplied to the requesting member

Unit for market value or quantity of goods/services supplied
Currency

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Customer spend in $US (numerator) divided by PANW Revenue in $US, quantity multiplied by total Scope 3 emissions to calculate the customer's share of PANW's total Scope 3 emissions.

SC1.2

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

This will be posted on our public website following submission of this 2023 CDP Climate (FY 2022 data), after July 26, 2023, or immediately after submission. All 3rd-party verification letters showing verification of over 90% ot PANW's GHG emissions are already available on our public website.

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
Customer base is too large and diverse to accurately track emissions to the customer level	In the near term, our focus is on improving our capacity to measure, and reduce, our direct environmental impact, directing resources to where they can have maximum return on investment and scale. Seeking to continuously improve customer relations, we could consider this capability as part of a longer term strategy. That said, we would have to work through the data and reporting challenges of our diverse product portfolio and operational footprint. It has to be noted that PANW receives many requests, mostly via RFPs, for emissions per certain products -- for hardware and software products. For hardware, while we can easily provide this (power supply, annual KWh usage assuming 24/7/360 on, and multiplying that by specific emissions factors (EFs)), but doing so would give the customer inaccurate information. This number in tonnes does not have any specificity for the grid it is being used on, it's portion of the data center energy used to cool it, services on it, etc. All this said, we support the GHG Protocol guidance, supported here in CDP, of using annual spend to calculate and allocate customer emissions. This is mentioned here so CDP can educate clients on the best way to account for emissions and how to ask the right questions. Last, we have customers in our CDP Supply Chain requests that have zero $USD spend with us in the current fiscal year. This means they have no share of emissions. While they may still use our products currently that were purchased in the past, for us following the GHG protocol in accounting for all product, lifetime 3.11 emissions in the year it was sold works for our inventory and for theirs in their Scope 2 emissions. The process of requesting emissions should be more granular for clients using CDP Supply Chain so they target >65% spend, consistent with SBTi guidance for supply chain targets.
Managing the different emission factors of diverse and numerous geographies makes calculating total footprint difficult	In the near term, our focus is on improving our capacity to measure, and reduce, our direct environmental impact, directing resources to where they can have maximum return on investment and scale. Seeking to continuously improve customer relations, we could consider this capability as part of a longer term strategy. That said, we would have to work through the data and reporting challenges of our diverse product portfolio and operational footprint.
Diversity of product lines makes accurately accounting for each product/product line cost ineffective	Better accounting of user based models how a "typical customer" uses a clouded software product, how long, on what device, using what servers, in what geographies, etc. would help us overcome challenges in the future. Additionally, with cybersecurity hardware firewalls, we need to understand the specific customer use scenarios -- likely each customer performing some processes differently: Do all the hardware products run 24/7/365? If not, how does the customer breakdown their use? Are any hardware products sitting on a shelf not running (as back-up spares)? And, perhaps, most importantly: which of PANW's products are running on renewable energy? Where (which grid? How much? All of these questions from each customer would have an impact on 3.11 Use of Sold Products emissions, which accounts for the largest pare of PANW's footprint.

SC1.4

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

Yes

SC1.4a

(SC1.4a) Describe how you plan to develop your capabilities.

We developed an economic allocation of emissions to our customers based on the market value of each output/product. However, we are working towards determining how we could verify our Scope 3 cloud and collocated data centers, via collaboration from our digital suppliers, as well as working with them on the importance of verified renewable energy, which would better reflect our total of Scope 3 emissions that provide and house our data and product. This would also be the case for our hardware cybersecurity firewalls. Again, : Do all the hardware products run 24/7/365? If not, how does the customer breakdown their use? Are any hardware products sitting on a shelf not running (as back-up spares)? And, perhaps, most importantly: which of PANW's products are running on renewable energy? Where (which grid? How much? All of these questions from each customer would have an impact on 3.11 Use of Sold Products emissions, which accounts for the largest pare of PANW's footprint.

Restated from SC1.3 again here, it has to be noted that PANW receives many requests, mostly via RFPs, for emissions per certain products -- for hardware and software products. For hardware, while we can easily provide this (power supply, annual KWh usage assuming 24/7/360 on, and multiplying that by specific emissions factors (EFs)), but doing so would give the customer inaccurate information. This number in tonnes does not have any specificity for the grid it is being used on, it's portion of the data center energy used to cool it, services on it, etc.

All this said, we support the GHG Protocol guidance, supported here in CDP, of using annual spend to calculate and allocate customer emissions. This is mentioned here so CDP can educate clients on the best way to account for emissions and how to ask the right questions.

Last, we have customers in our CDP Supply Chain requests that have zero $USD spend with us in the current fiscal year. This means they have no share of emissions. While they may still use our products currently that were purchased in the past, for us following the GHG protocol in accounting for all product, lifetime 3.11 emissions in the year it was sold works for our inventory and for theirs in their Scope 2 emissions. The process of requesting emissions should be more granular for clients using CDP Supply Chain so they target >65% spend, consistent with SBTi guidance for supply chain targets.

SC2.1

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

Requesting member
Flex Ltd.

Group type of project
Relationship sustainability assessment

Type of project
Aligning goals to feed into customers targets and ambitions

Emissions targeted
Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized
3-5 years

Estimated lifetime CO2e savings
947743

Estimated payback
3-5 years

Details of proposal
We have assessed that our "Use of Sold Products", which are produced entirely by Flex Ltd., carried emissions of 1,053,045 tonnes CO2e in FY22. This prompted us to set -- and pass SBTi verification -- ambitious Scope 3 "Use of Sold Products" SBT: Reduce tonnes CO2e per $USD gross profit by 40% from a 2021 baseline by 2027-end. FY21 was the very first time we were able to measure our Product Use emissions and our conservative estimates (assumptions that every product with a 5-year life span runs 24 hours a day, 365 days a years) gave us the insight, and responsibility, to set a "Use of Sold Products" SBT. Reportable progress should be realized beginning in FY 2024.
To reach this ambitious goal, we must engage with our major supplier, Flex, and with customers to:
(1) Gain a more accurate understanding of how our products are used (ex. % in use, where are they run on renewable energy, etc.),
(2) Encourage collaboration and partnerships with customers to set renewable energy goals across their portfolio, and with their data center suppliers, from upstream through downstream and customer use, and
(3) Unleash the ability to produce accurate customer emissions (ex. have them submeter to confirm kWh usage, multiply it by an emissions factor that is specific to their location and RE usage, etc.) from their use of our products (versus spend based) and have them engage with us to reduce them -- even if their purchases increase year over year. This SBT and strategy allows PANW to align our goals with what our customers expect and want -- and, as with our suppliers, also to have a much deeper impact by not "going it alone". PANW was able to set our SBTs and develop a net zero by 2030 (Scope 1 & 2) and 2040 (Scope 1, 2, and 3) as the key elements of PANW's "Climate Commitments" (SBTs, NZ, and RE100 goals). We must make collaborating with customers (and suppliers, above) who are moving toward making this a requisite part of their supplier strategies

SC2.2

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

No

SC4.1

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

No, I am not providing data

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms