C0.1

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

ASELSAN is a face of technology in Turkey for decades and an inspiration for the manufacture of electrical /electronic equipment since its establishment in 1975.
Aselsan's vision is being a national technology company that maintains its sustainable growth by creating value in the global market; preferred due to its competitiveness, trusted as a strategic partner, and caring for the environment and people.
Today ASELSAN is a world class brand in expanding systematically into the local and global markets, with over $1B in revenue and almost 5,000 employees. Aselsan has become a high technology, multi-product defense electronics company by introducing state-of-the-art equipment and systems solutions for both military and professional applications in 3 continents and 60 countries.
ASELSAN is a technology provider not only for the military but for Turkey in general. Military technologies are translated into novel products in a wide array of areas such as public safety, transportation, health, energy and automation systems, communication and high end agricultural technologies. In addition to meeting the national technological needs in line with the mission, Aselsan also enjoys the contribution of its export contracts to the progress of Turkey.
ASELSAN Research Center has been certified as an R&D center by the Ministry of Science, Industry and Technology on 26 October 2016 thus, establishing the 6th R&D center in addition to the already existing 5 R&D centers within the Business Sectors.
ASELSAN operates under five business sectors:
• Communications and Information Technologies Business Sector (HBT): Tactical Radios, Tactical Area Communication Systems, Avionic, Satellite and Naval Communication Systems, Public Safety Communication Systems
• Radar, Electronic Warfare Business Sector (REHIS): Radar Systems, Electronic Warfare Self Protection Systems, Electronic Warfare Intelligence and Attack Programs
• Defense Systems Technologies Business Sector (SST): Weapon Systems, Command Control (C4ISR) Systems, Naval Combat Systems, Air and Missile Defense
• Microelectronics, Guidance & Electro-Optics Business Sector (MGEO): Electro-Optic Systems, Guidance & Unmanned Systems, Avionic Systems, Microelectronics

• Transportation, Security, Energy & Automation Systems Business Sector (UGES): Transportation Systems, Security Systems, Traffic and Automation Systems, Energy Systems, Homeland Security Systems

The Company maintains engineering operations in Ankara, production and engineering operations in Macunköy, Akyurt and Gölbaşı. General Management is located in Ankara Macunköy. Some management offices are located in Istanbul Teknopark.

The Macunköy Facility was established over a total area of 186,000 m2 , of which 110,000 m2 is closed. ASELSAN Macunköy Facility is home to the CEO, Communications and Information Technologies Business Sector and Defense System Technologies Business Sector and Transportation, Security Energy and Automation Business Sector.

The Akyurt Facility was established on a total area of 231,000 m2 of which 54,000 m2 is closed. The Microelectronics Guidance and Electro-Optic Business Sector is located in the ASELSAN Akyurt Facility

The Gölbaşı Facility was established in the Gölbaşı district of Ankara, and houses production plants for radar and electronic warfare systems for land, air, sea, space and unmanned platforms. This Facility was established on a total area of 350,000 m2 , of which 75,000 m2 is closed. The Facility of which construction began in 2013, was inaugurated in 2015.

In ASELSAN, where decreasing carbon emission is one of the strategic goals, carbon emission is monitored since 2009. Also, ASELSAN is the first and only company that is ranked with the highest initial score among Defense Industry firms in Turkey by participating in CDP survey. ASELSAN has decreased carbon emission significantly through its efforts, and continues its operations by increasing momentum in the fields of increasing energy efficiency in production, giving priority to production technologies that decrease carbon emission, switching to use of energy that does not cause carbon emission. Having certifications for ISO 14001 Environmental Management System and OHSAS 18001 Work Health and Safety Integrated Management System; Aselsan will proceed to take part in pioneer applications through actualisation of national and international initiatives. In November 2014, Borsa Istanbul (BIST) has launched Sustainability Index that display the performance of January-March 2014 time period for BIST-30 firms in the fields of financial, environmental, social issues and corporate governance. With respect to that, as of this date, ASELSAN started publishing sustainability reports.

As a result of the evaluation of the ASELSAN Sustainability Report, published in Turkish and English for the first time before the Index assessments, ASELSAN was among the 15 firms that were approved to be included in BIST Sustainability Index.

C0.2

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Row 1	January 1 2017	December 31 2017	No	<Field Hidden>

C0.3

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

Turkey

C0.4

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

TRY

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 consolidation approach to your Scope 1 and Scope 2 greenhouse gas inventory.

Operational control

C1. Governance

C1.1

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

Yes

C1.1a

(C1.1a) Identify the position(s) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Chief Executive Officer (CEO)	The Board Chair who has been assigned as CEO as of April 27, 2018 has a direct responsibility for climate related issues on behalf of the Board and EC. The CEO has also an execution responsibility in the field of social responsibility and environment. All members of the Board are responsible from the economic performance of the Company. The board consider climate-related issues when reviewing and guiding their business strategy. Following the Strategic Plan, the Board carry out oversight power on Sustainability Committee's Program integrated with climate related issues impacting economic, social and environmental performance of the company. In order to conduct its responsibilities ASELSAN's Board of Directors formed three committees: Audit Committee Corporate Governance Committee, Early Detection and Management of Risk Committee. The 3rd one is comprised of two Board members who ensure the determination of the operational, strategic, financial and other climate related R and O's

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	Please explain
Scheduled – all meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action	The Board review and guide, climate related risk management policies as scheduled. The Corporate Management Vice President who leads the Sustainability Committee, briefs the executive committee (EC) of ASELSAN about climate related developments and

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
	Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures Monitoring and overseeing progress against goals and targets for addressing climate-related issues	practices by bringing the attention of the EC to social, legal and environmental R and O's that may have an impact on the Risk Management Policy of the Company. The CEO and the Board of Directors oversee policy by considering global climate related issues, government relations and corporate responsibility including reviewing and providing oversight of the Company's Environmental Sustainability Program. The board consider also climate-related issues when reviewing and guiding the whole business strategy, plans, risk management policies, budget plans as well as, setting organisational performance objectives, monitoring implementation and performance, and overseeing major capital expenditures, acquisitions, and divestitures. For addressing climate-related risks and opportunities, in 2017 the Board decided that Integrated Management Systems Department starts to realise measurements and the assessments of scope 3 emissions which can impact progress against risk management on major supply chain activities. The verification process was realised by a 3 rd party approval. Annex: ASELSAN 2017 Verification Statement Scope-3

C1.2

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

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored.

The direct responsibility for climate change within ASELSAN lies with Executive Committee leaded by the CEO representing also the Board Chair.

The CEO informs the board of directors who oversight the company performance on climate related issues. The Board assign strategic and program management responsibility to applicable board committees. In order to conduct its duties and responsibilities in a healthy manner, ASELSAN's Board of Directors formed following committees to ensure the communication based integrated management of risks & opportunities.

Early Detection and Management of Risk Committee is comprised of two Board members. It is chaired by an independent Board member. Committee ensures the determination of the operational, strategic, financial and other climate related risks and those risks are managed in compliance with company's corporate risk taking profile. The Committee assembles at least six times a year. It oversees the performance of the corporate risk management system.

Audit Committee is comprised of three independent Board members. Its main duties are to ensure disclosure of the financial data and to oversee the functioning and effectiveness of the accounting, independent audit, internal audit and internal control systems of ASELSAN.

Internal Audit Presidency's main duties are to ensure the follow-up of corporate risk management system aligned with ASELSAN's strategy, politics and other process. It oversees the functioning and effectiveness of the risk management system processes. Internal Audit Presidency reports directly to Audit Committee and Board of Directors. The committee assembles at least four times a year

Corporate Risk Management Coordination Committee, is responsible to assign a risk representative who has the duties to prepare risk detection and management documents and to make the coordination of related activities which are reported to Early Detection and Management of Risk Committee. ASELSAN's vision is to be the national defence industry company by maintaining its sustainable growth with creating value in the global market and to be preferred due to its competitiveness, to be trusted as a strategic

partner, and to care for the environment and people. In line with this vision, the Company prepares five-year strategic plans that are updated every year, as well as operational plans and three-year budgets. Through this method, the Company's short- and mid-term targets are determined by taking long-term targets into account with resource planning, process improvement and other development activities. One of the EC core members who is the Vice President of shared services presides the Sustainability Committee for sustainability and climate related actions. Vice Presidencies carry out the necessary activities in line with the targets, while their performances are evaluated through the Balanced Scorecard Method.
The Sustainability Committee develops and implements economic, environmental and social sustainability strategies focusing on responsible consumption and production by setting targets to reduce the impact of identified risks and making performance reviews. The seize of identified opportunities are also discussed in this committee.
The Corporate Management Vice President is the authorised person who drives and adapts climate related decisions of the company. The activities are executed by the following positions in the Sustainability Committee: Management Director of Facilities and Support Services who performs energy related legal and operational issues in the operational field. Finance Director,
Strategy Management Director, Investors Relations Manager, Enterprise Risk Management and Internal Control Manager, Supply Chain Management Manager provide all guidance on their own expertise about climate management issues by reporting to Vice President. The Integrated Management Systems (IMS) Manager works with all facilities' leaders to drive an integrated, enterprise-wide management that includes the products, services, processes, operations, contractors and employees. IMS ensures to drive the calculation of carbon footprint value of the facilities annually in compliance with ISO 14064 International Standard for Greenhouse Gases Emissions Inventories and Verification, making notifications to national/international initiatives in connection therewith. ASELSAN's objective "to minimise the impact on global climate change by monitoring and reporting of greenhouse gas emissions in a transparent approach" was included in the Environmental Management System Policy by the top management of ASELSAN, with the guidance of IMS.
The information forming base on climate related risks & opportunities are updated first by the IMS position. With the collaboration of internal control manager the risk mapping is updated for identifying the potential risks of flooding and storms, but also the consequences of these events: environmental, property damage, impact on the business, etc.

C1.3

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

Yes

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues.

Who is entitled to benefit from these incentives?

Chief Executive Officer (CEO)

Types of incentives

Monetary reward

Activity incentivized

Emissions reduction target

Comment

The CEO carry out performance assessments and decisions in line with support to Sustainability and CDP Reporting. Performance of the activities' incentivized metrics is reported to the Board of Directors and factor into executive compensation through the Balanced Scorecard Method

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Who is entitled to benefit from these incentives?

Other C-Suite Officer

Types of incentives

Monetary reward

Activity incentivized

Emissions reduction project

Comment

The Corporate Management Vice President of sustainability committee carry out the necessary activities in line with emissions, energy reduction and efficiency targets. Performance indicators include also support to Sustainability and CDP Reporting. Performance of the activities' incentivized metrics is reported to the Board of Directors and factor into executive compensation through the Balanced Scorecard Method.

Who is entitled to benefit from these incentives?

Environment/Sustainability manager

Types of incentives

Monetary reward

Activity incentivized

Emissions reduction project

Comment

Performance indicators cover CO2 emission reduction,energy and natural resources consumption reduction, support for Sustainability and CDP reporting. And these indicators find place as a target in the Balanced Score Card Method. The corporate and personal performance is evaluated through the Balanced Scorecard Method and the realisation scores has a direct impact on the salary increase.

Who is entitled to benefit from these incentives?

All employees

Types of incentives

Monetary reward

Activity incentivized

Efficiency target

Comment

In ASELSAN, there is suggestion system called “Idea Management System” in the intranet since 2013. This system is accessible for all employees. An employee who has an innovative idea on climate change, energy efficiency or improvement on any other topic can send his/her idea note to the Strategy Department through this suggestion system. The Strategy Department evaluates the idea and if it is feasible, the idea note is shared with the related department. The employee is entitled with a monetary reward if the idea is assessed to be applicable and profitable for the company. If the proposal results with an emission reduction the reward is 3 gold coin.

C2. Risks and opportunities

C2.1

(C2.1) Describe what your organization considers to be short-, medium- and long-term horizons.

	From (years)	To (years)	Comment
Short-term	0	1	Major global, national and corporate risks and opportunities which have potential impacts on our operations and life of our assets according to the profile of the climate related risks that we may face are considered in 1 year period for short-term time horizon.

	From (years)	To (years)	Comment
Medium-term	1	3	Major global, national and corporate risks and opportunities which have potential impacts on our operations and life of our assets according to the profile of the climate related risks that we may face are considered in 3 years period for medium-term time horizon.
Long-term	3	5	Major global, national and corporate risks and opportunities which have potential impacts on our operations and life of our assets according to the profile of the climate related risks that we may face are considered in 5 years period for long-term time horizon.

C2.2

(C2.2) Select the option that best describes how your organization's processes for identifying, assessing, and managing climate-related issues are integrated into your overall risk management.

Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes

C2.2a

(C2.2a) Select the options that best describe your organization's frequency and time horizon for identifying and assessing climate-related risks.

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Six-monthly or more frequently	>6 years	Climate related risks are identified and tracked by the Sustainability Committee. The risks are first analysed at the facility and activity level as project risks, operational risks, management and adaptation risks. These are assessed according to the methodology given in C2.2.d. The identified risks are then classified to be; very low, low, medium, high and critical. The results of the evaluation are reported to the EC. ASELSAN’s overall risk management objective is to reduce controllable risk

	Frequency of monitoring	How far into the future are risks considered?	Comment
			impacts and minimise the impact of the ones that cannot be controlled. We analyse risks that may arise up to ten years in the future.

C2.2b

(C2.2b) Provide further details on your organization's process(es) for identifying and assessing climate-related risks.

At both company and asset levels, climate change related risks and opportunities include, changes in fuel and energy prices, climate related laws and regulations, global competitiveness, changing customer needs, potential threats of national security and employee related issues.
The climate related risks and opportunities at the company level are assessed by the Sustainability Committee. Risks and opportunities associated with the environment or climate change are often coupled with energy-related activity and are subject to our Risk & Opportunity Evaluation Process. The Strategy Department in coordination with the Sustainability Committee is responsible of setting targets to reduce the impact of identified risks and making performance reviews to assess whether the climate related targets are met and also decides on how and when the identified opportunities can be seized. Sustainability Committee and the Early Detection and Management of Risk Committee review and finalise all climate related risk analysis and present the critical risks that are assessed to be of "High" importance to the Board of Directors according to the scoring methodology defined in C2.2d. They also present a report to Board of Directors about the financial and operational measures that need to be taken by ASELSAN to prevent the occurrence of the identified risks. The Board of Directors decides which measures shall be applied and the evaluations are then reported to the Early Detection and Management of Risk Committee to be monitored and brought into action.
Additionally when the relative significance of climate-related risks are determined by the strategic decision makers after a comparable structured review, they are itemised as implementation plan within the scope of ISO 14001:2015 for a detailed assessment and planning. Annex: Environmental R&O's.
The major climate related risks and opportunities at the asset level are the events that may have a major effect on the GHG emissions of ASELSAN. These events usually are related to energy and fossil fuel consumption. Renovations in product design that lead to less energy consumption may be assessed as an opportunity, and increased consumption of fossil fuel during production is assessed as a major climate related risk.

ASELSAN defines substantive potential impact on her business as the change to operations and cost, and considers reputation risks having negative impact on company's own business, operations, revenue, profitability and overall market value in Borsa Istanbul. Some foreign continental European institutional investors of ASELSAN are very sensitive to environment related issues and proper reporting related with environment. Taking these into account, we consider the most important aspect of climate change that influences the strategy as the opportunity to develop a green business.

In 2017, ASELSAN managed to maintain its position on the Borsa Istanbul (BIST) Sustainability Index, where companies are being evaluated on their sustainability performance against some ground rules. ASELSAN was one of the 15 companies to be included in the BIST Sustainability Index at its inception back in 2014 and has been listed on it for four consecutive years in a row.

ASELSAN has been in BIST-50 Index of Borsa Istanbul as well as Corporate Governance Index since 2012 and Sustainability Index since its inception and has also been in BIST-30 Index since April 2017. Corporate governance rating is a prerequisite for presence in Corporate Governance Index of BIST and with the latest revisions in Corporate Governance Principles; sustainability has become a new dimension for corporate governance rating of companies. Thus, climate change aspect is now embedded in the corporate governance rating. ASELSAN management values ASELSAN share's inclusion in prestigious indices of BIST such as BIST-30, Corporate Governance and Sustainability Indices. In addition to this, there are long term institutional investors in ASELSAN's investor base.

C2.2c

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	When a current regulation based climate related potential risk is detected, it is forwarded to Corporate Risk Management Coordination Committee Representative via " Risk Cards". ASELSAN management identified with a form the risks and opportunities which have impact on Integrated Management Systems' performance. (IMS). This form is called AS-F-81-Environmental Risk and Opportunities Assessment Form. The climate related detailed RandO's (e.g. MRV, PMR activities etc.) are assessed based on the context of the company. Sustainability Committee and the Early Detection and Management of Risk Committee reviews and finalises all climate related risk analysis, and presents the critical risks that are assessed to be of high importance to the Board of Directors, according to the scoring methodology defined in C2.2d. They also present a report to Board of Directors about the financial and operational measures

	Relevance & inclusion	Please explain
		that need to be taken by ASELSAN to prevent the occurrence of the identified risks. The Board of Directors decides which measures shall be applied and the evaluations are then reported to the Early Detection and Management of Risk Committee to be monitored and brought into action. Additionally when the relative significance of current regulation risks are identified and assessed by the strategic decision makers after a comparable structured review, they are itemised as implementation plan within the scope of ISO 14001:2015 for a detailed management. Annex: Environmental R and O's Risk rating is classified as low-medium and high rate. When high rated climate related risks are identified , the action planning commence with the initiation of IMS department. Risks and Opportunities document is annually updated and reviewed with the collaboration of IMS Department and Corporate Risk Management Coordination Committee Representative.
Emerging regulation	Relevant, always included	Emerging Regulatory risks indicate the potential increase in costs (carbon taxes related with energy and raw material) and the discouragement for the establishment of new production facilities. These potential threats are always assessed by the Sustainability Committee who is responsible of bringing attention to these potential impacts. When an emerging regulation based climate related potential risk is detected, it is forwarded to Corporate Risk Management Coordination Committee Representative via " Risk Cards". ASELSAN management identified with a form the R and O's which have impact on Integrated Management Systems' performance. (IMS). This form is called AS-F-81-Environmental Risks and Opportunities Assessment Form. The climate related detailed R and O's (e.g. MRV, PMR activities etc)) are assessed based on the context of the company. Sustainability Committee and the Early Detection and Management of Risk Committee reviews and finalises all climate related risk analysis, and presents the critical risks that are assessed to be of high importance to the Board of Directors according to the scoring methodology defined in C2.2d. They also present a report to Board of Directors about the financial and operational measures that need to be taken by ASELSAN to prevent the occurrence of the identified risks. The Board of Directors decides which measures shall be applied and the evaluations are then reported to the Early Detection and Management of Risk Committee to be monitored and brought into action. Additionally when the relative significance of emerging regulation risks are identified and assessed by the strategic decision makers after a comparable structured review, they are itemised also as implementation

	Relevance & inclusion	Please explain
		plan within the scope of ISO 14001:2015 for a detailed management. Annex: Environmental R and O's. Risk rating is classified as low, medium and high rate. When high rated climate related risks are identified , the action planning commence with the initiation of IMS department. Risk and Opportunities document is annually updated and reviewed with the collaboration of IMS Department and Corporate Risk Management Coordination Committee Representative.
Technology	Not relevant, included	Substitution of existing products with lower emission options will not cause technology based climate related risks for ASELSAN. There is a growing potential for low carbon technologies, like smart digital solutions, smart mobility, solar cells, insulation etc. for different sectors. Producing such technologies will enable ASELSAN to differentiate. This potential is always assessed by the Sustainability Committee who is responsible of bringing attention to these potential impacts with the collaboration of research and development, production and other related departments. At company level major global and national risks that meet ASELSAN’s risk management criteria are included in annual risk assessment reports. The Strategy Department in coordination with the Sustainability Committee is responsible of setting targets to reduce the impact of identified risks and making performance reviews. The Committee decides which risks and opportunities shall be reported to the Board of Directors according to the scoring methodology defined in C2.2.d. These reports are presented to senior executives for subsequent follow-up.
Legal	Relevant, always included	Legal risks indicate increasing pricing of GHG emissions which could result in increased product prices. These potential threats are always assessed by the Sustainability Committee who is responsible of bringing attention to these potential impacts with the collaboration of production and other related departments. At company level low carbon products become more attractive for customers. This is an opportunity for ASELSAN who has the ability to produce technologies for low carbon products. The Strategy Department in coordination with the Sustainability Committee is responsible of setting targets to reduce the impact of identified risks and making performance reviews. The Committee decides which risks and opportunities shall be reported to the Board of Directors according to the scoring methodology defined in C2.2.d. These reports are presented to senior executives for subsequent follow-up.

	Relevance & inclusion	Please explain
Market	Relevant, always included	Market risks indicate increasing production costs due to changing input prices like materials, water, energy, etc. ASELSAN elaborates digital solutions for major defence industry companies in Europe and US. As a sub-contractor ASELSAN realises the assessments about the effects of the products on climate change in order to be able to compete with the sector peers. These potential threats or opportunities are always assessed by the Sustainability Committee who is responsible of bringing attention to these potential impacts with the collaboration of production, purchasing, marketing and other related departments. At company level low carbon products become more attractive for customers. This is an opportunity for ASELSAN who has the ability to produce technologies for low carbon products. The Sustainability Committee decides which risks and opportunities shall be reported to the Board of Directors according to the scoring methodology defined in C2.2.d. These reports are presented to senior executives for subsequent follow-up.
Reputation	Relevant, always included	Reputation risks indicate potential impacts associated with negative perceptions experienced by the public around ASELSAN's carbon performance. These potential threats are always assessed by the Sustainability Committee who is responsible of bringing attention to potential impacts with the collaboration of production and other related departments. The Sustainability Committee decides which risks and opportunities shall be reported to the Board of Directors according to the scoring methodology defined in C2.2.d. These reports are presented to senior executives for subsequent follow-up.
Acute physical	Relevant, always included	Acute physical risks indicate extreme weather events which can lead to higher operational costs due to supply chain disruption. These potential threats are always assessed by the Sustainability Committee who is responsible of bringing attention to potential impacts with the collaboration of production, utility and other related departments. The Sustainability Committee decides which risks and opportunities shall be reported to the Board of Directors according to the scoring methodology defined in C2.2.d. These reports are presented to senior executives for subsequent follow-up.
Chronic physical	Relevant, always included	Chronic physical risks indicate changed precipitation and droughts patterns which can have negative impact on energy management in the facilities. These potential threats are always assessed by the Sustainability Committee who is responsible of bringing attention to potential impacts with the collaboration of production, utility and other related departments. The Sustainability Committee decides

	Relevance & inclusion	Please explain
		which risks and opportunities shall be reported to the Board of Directors according to the scoring methodology defined in C2.2.d. These reports are presented to senior executives for subsequent follow-up.
Upstream	Relevant, sometimes included	Upstream risks indicate extreme weather events which can lead to higher operational costs due to supply chain disruption. These potential threats are always assessed by the Sustainability Committee who is responsible of bringing attention to potential impacts with the collaboration of production, purchasing and other related departments. The Sustainability Committee decides which risks and opportunities shall be reported to the Board of Directors according to the scoring methodology defined in C2.2.d. These reports are presented to senior executives for subsequent follow-up.
Downstream	Relevant, sometimes included	Downstream risks indicate extreme weather events which can lead to higher operational costs due to downstream activities. These potential threats are always assessed by the Sustainability Committee who is responsible of bringing attention to potential impacts with the collaboration of production, planning and other related departments. The Sustainability Committee decides which risks and opportunities shall be reported to the Board of Directors according to the scoring methodology defined in C2.2.d. These reports are presented to senior executives for subsequent follow-up.

C2.2d

(C2.2d) Describe your process(es) for managing climate-related risks and opportunities.

The major climate related risks and opportunities at the asset level are the events that may have a major effect on the GHG emissions of ASELSAN. These events usually are related to energy and fossil fuel consumption.
Renovations in product design enabling less energy consumption may be assessed as an opportunity.
The process is described as follows:
First, the probability of occurrence of the identified risk is scored as given below:
1. Very low: 0%-10% occurrence
2. Low: 11% - 30% occurrence
3. Medium: 31% - 70% occurrence
4. High: 71% - 90% occurrence

5. Very high: 91% - 100% occurrence
Then, the impact of the identified risk event is determined:
1. Not important: Financial and reputation impact is negligible
2. Low: Reasonable financial and reputation impact
3. Medium: Likely to have moderate financial and reputation impact
4. Important: Material financial and reputation impact
5. Critical: Crucial financial and reputation threat for ASELSAN
The risk rating matrix is compiled according to the combined score (risk level) as shown below.
According to this final score the risks and opportunities are prioritised:
0-2 Very low: No immediate action
3-4 Low: No immediate action but the risk event needs to be monitored annually
5-12 Medium: Actions need to be planned
13-16 High: Poses a threat and shall be dealt with. The risk event and the measures to be applied are reported to the Board of Directors
17-25: Critical: Immediate actions need to be planned. The risk event and the measures to be applied are reported to the Board of Directors.
Sustainability Committee and the Early Detection and Management of Risk Committee reviews and finalises all climate change related risk analysis and presents the critical risks that are assessed to be of High importance to the Board of Directors. They also present a report to Board of Directors about the financial and operational measures that need to be taken by ASELSAN to prevent the occurrence of the identified risks. The Board of Directors decides which measures shall be applied and the evaluations are then reported to the Early Detection and Management of Risk Committee to be monitored and brought into action.
The opportunity is evaluated by the related department and reported to the Board of Directors. If there are new opportunities detected for long-term time horizon they are included in the annual budget planning.
Loss of productive labour force as a consequence of health problems caused by environment and climate related problems is an example of physical risk assessment realised by ASELSAN's OHS department.
Another example for transition risk is to make some additional modifications in the performance parameters of designed products as a consequence of climate related conditions. (Specific confidentiality constraints prohibiting the disclosure)

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

Transition risk

Primary climate-related risk driver

Policy and legal: Other

Type of financial impact driver

Policy and legal: Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

Company- specific description

Turkey has signed the Paris Agreement in 2016 which bares high future possibilities of additional regulations coming into force in the future. Although Turkey does not have a cap on its GHG emissions, in the Nationally Determined Contribution (INDC), Turkey has stated a 21% reduction in GHG emissions from the Business As Usual (BAU) scenario in 2030. This Contribution commitment may result in changes in the energy and fuel taxing regime. A new taxation system for non renewable power plants will result in a rise in energy prices which can eventually increase ASELSAN’s operational costs. The Turkish government may also lay taxes on fossil fuels, which will also put a pressure on our operational expenses as we use fossil fuels such as natural gas, diesel oil, etc.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Low

Potential financial impact

3075471

Explanation of financial impact

10 % rise in energy prices will result in 0.7% raise in our operational expenses (Annex: ASELSAN Annual Report- 2017 Financial Information section for OPEX details)

Management method

In order to manage this risk we prioritise minimising our fuel and energy consumption by implementing Certified ISO 50001 Energy Management System. The implementation process has started during the reporting period and we aim to assess our energy savings potential and possible optimisation points in our process. By doing so, we believe we will reduce this risk's magnitude of impact on our operations. Therefore, this risk will be likely to have less impact on our OPEX even after the foreseen time horizon.

Cost of management

90000

Comment

Cost of managing this risk is approximately 90000 TRY and consists of the certification costs for establishing ISO 50001 Energy Management System.

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Transition risk

Primary climate-related risk driver

Policy and legal: Mandates on and regulation of existing products and services

Type of financial impact driver

Policy and legal: Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

Company- specific description

In ASELSAN one of the primary goals is to increase the activities as a subcontractor for major defence industry companies in Europe and the US by providing services in such a way that enables the company to contribute to the development of global defence industry. However, as the environmental regulation especially in Europe is more advanced than Turkey, soon ASELSAN may face product labelling requirements. Carbon footprint assessment of all the products that is planned to produce as sub-contractors of European and American companies may force the company to perform a more detailed and enhanced analysis of the systems, including assessing the environmental impacts of the products throughout the

whole life cycle (i.e. a detailed LCA). ASELSAN may also need to comply with Eco-labelling standards such as EPD in order to be able to export the products and systems to the US and Europe, which may force to make changes in product design to be able to compete with the sector peers.

Time horizon

Long-term

Likelihood

More likely than not

Magnitude of impact

Low

Potential financial impact

2196765

Explanation of financial impact

It is expected that these types of requirements will not exceed 0.5% of our OPEX. (Annex: ASELSAN Annual Report- 2017 Financial Information section for OPEX details)

Management method

We closely follow the Environmental regulations in our target markets, and whenever we see that there is a need for such action, we will perform the related environmental analysis before it becomes a regulatory obligation. ASELSAN is very meticulous in such actions and in the past many standards and reporting schemes such as ISO 27001, CDP, CMMI (Capability Maturity Model Integration) have been applied even before it was asked for by our clients. LCA thinking which is a new evolving requirement of ISO 14001: 2015 that our company was certified in the reporting year, is inherently in the concern of Aselsan.

Cost of management

250000

Comment

The cost may consist of acquiring consultancy and verification services regarding "Environmental Product Declaration". This cost of management was calculated for the same product family.

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Physical risk

Primary climate-related risk driver

Please select

Type of financial impact driver

Please select

Company- specific description

Changes in temperature extremes will result in an increase in cooling demand in the summer period and heating demand in the winter period. This change may cause an increase in the operational expenses of ASELSAN.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Low

Potential financial impact

1757412

Explanation of financial impact

As the energy expenses constitute approximately 0,8% of our OPEX, this risk may increase our energy expenses. A 50% rise will result in energy expenses to constitute over 1.2% of our OPEX. Annex: ASELSAN Annual Report- 2017 Financial Information section for OPEX details

Management method

In order to manage this risk, we prioritise managing the assets in a way to prevent excessive energy consumption by enhancing building and infrastructure insulation to be able to optimise the energy consumption and reduce both cooling and heating demand to an optimum level With these precautionary projects, ASELSAN tries to be better prepared to forcasted temperature extremes. Accordingly, these improvement measures will enable ASELSAN to reduce the likelihood of this risk from likely to about as likely as not.

Cost of management

0

Comment

No monetary investments were made regarding managing this risk during the reporting period.

Identifier

Risk 4

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Transition risk

Primary climate-related risk driver

Market: Changing customer behavior

Type of financial impact driver

Other, please specify (Reduced demand for goods /services)

Company- specific description

Consumers (the companies that we are subcontracting for) in Europe and USA are inclined to purchase more climate friendly products. As we intend to increase our activities as a sub-contractor of major defence industry companies in Europe and the US, we may need to make a detailed assessment on the effects of our products on climate change in order to be able to compete with our sector peers.

Time horizon

Long-term

Likelihood

About as likely as not

Magnitude of impact

Medium-low

Potential financial impact

2196765

Explanation of financial impact

It is expected that this type of requirements will not exceed 0.5% of our OPEX. (Annex: ASELSAN Annual Report-2017 Financial Information section for OPEX details)

Management method

We are Closely following up the environmental regulations in our target markets, and whenever we see that there is a need for such action, we will perform the related environmental analysis before it becomes a regulatory obligation. In order to take a step towards the right direction, we have started the process of establishing an integrated energy management system (ISO 50001) in all our production facilities. ASELSAN is very

meticulous in such actions and in the past many standards or Reporting schemes like ISO 14001:2015, 14064,27001, CDP, CMMI (Capability Maturity Model Integration) have been applied even before it was asked for by our clients

Cost of management

90000

Comment

Currently the cost of managing this risk covers the consultancy and assurance services we acquire in order to obtain the ISO 50001 certification.

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?

Direct operations

Opportunity type

Markets

Primary climate-related opportunity driver

Access to new markets

Type of financial impact driver

Increased revenues through access to new and emerging markets (e.g., partnerships with governments, development banks)

Company- specific description

BIST has established the Sustainability Index for companies listed in BIST-30 index, in 2014. ASELSAN was one of the 15 companies listed in this index at its first launch. Since 2015, BIST-50 companies have been subjected to the assessment for Sustainability Index and ASELSAN have managed to maintain its position in the index three years in a row. Our efforts on mitigating operation base emissions played a crucial role in being listed in this index. ASELSAN is ready for future legislative framework that the company may face such as MRV system which the scope may be

enlarged in Turkey. ASELSAN is also ready for the future ETS mechanism which is under discussion in Turkey. Our on-going actions on climate related mitigation will result in getting higher scores in the Sustainability Index of BIST. This will increase the interest on the investor's side and will have a positive impact on both our existing and prospective shareholders.

Time horizon

Medium-term

Likelihood

More likely than not

Magnitude of impact

Medium-low

Potential financial impact

0

Explanation of financial impact

ASELSAN's efforts on climate change mitigation will help to positively differ from BIST-50 listed companies which are not involved in such projects. The efforts in improving the sustainability performance will positively affect the valuation and investor sentiment of ASELSAN's institutional investors, especially those located in Continental Europe. GHG related actions have a crucial dimension adding value to sustainability performance. We cannot estimate and quantify any financial implication related to this opportunity, however we consider our Company will have a better investment case for possible long term investors.

Strategy to realize opportunity

Since the previous reporting period we have included all our facilities in our GHG emissions inventory. Also in 2015 we have obtained the ISO 14064-1 Certificate for our Scope 1 and Scope 2 emissions. This was the first time our GHG Emissions were subjected to a third party verification and we have extended the verification boundary to include our Scope 3 emissions in 2016-2017 period. Moreover, as part of ASELSAN's 2014-2019 strategy, we have started the process to establish an ISO 50001 certified Energy Management System. All these implemented measures will potentially enable us to benefit from this opportunity on a medium scale within our defined time-frame.

Cost to realize opportunity

43935

Comment

The cost of management for this opportunity constitutes of the costs of consultancy services for ISO 14064-1 Reporting, training of the ISO 14064-1 Project team and ISO certification by a third party. Such costs associated with acquiring both consultancy and verification services as part of our

CDP response constitutes below 0.01% of our total OPEX. (Annex: ASELSAN Annual Report- 2017 Financial Information section for OPEX details)

Identifier

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Markets

Primary climate-related opportunity driver

Use of public-sector incentives

Type of financial impact driver

Increased revenues through access to new and emerging markets (e.g., partnerships with governments, development banks)

Company- specific description

Turkey’s 10th Development Plan includes a Program For Enhancing Energy Efficiency. ASELSAN has a chance to benefit from governmental incentives in the scope of this program.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

Medium-low

Potential financial impact

0

Explanation of financial impact

As we may be able to receive funding and get incentives from the government for our Energy Efficiency and Research and Development projects, we will be able to do more research and develop more energy efficient technologies accordingly.

Strategy to realize opportunity

We are closely following the incentive programs regarding energy efficiency.

Cost to realize opportunity

0

Comment

We don’t have any cost regarding the management of this opportunity except the daily costs of our employees, because all we need to do to manage this opportunity is to closely monitor the incentive programs and apply to the ones that are related to our scope of interest.

Identifier

Opp3

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Please select

Type of financial impact driver

Please select

Company- specific description

As climate change is one of the biggest challenges the humanity has faced, consumers are becoming more and more environmentally aware. At company level low carbon products become more attractive for customers. This is an opportunity for ASELSAN who has the ability to produce technologies for low carbon products. ASELSAN is working on projects to enhance the efficiency of the vehicles used in personal and public transportation (electric vehicles, less energy consuming subway trains, etc.) Producing new and more climate friendly products may be a good opportunity for us to gain new markets.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

Medium

Potential financial impact

448547

Explanation of financial impact

Financial implications of these projects are evaluated to be 0.01% of our revenue in the near future. However, the actions to be taken in order to manage this opportunity will consequently cause an increase in our OPEX in the first place. (Annex: ASELSAN Annual Report-2017 Financial Information section for OPEX details)

Strategy to realize opportunity

Research and Development activities for new climate friendly product groups are currently being analysed and planned for implementation such as electric vehicles to be used for public transport as well as portable hybrid electricity generation system using renewable energy sources. We are already on the process of extending our product line to include renewable energy sources' implementation. Therefore, the time frame of this opportunity is well performed as we can already project an increase in our revenue.

Cost to realize opportunity

0

Comment

The Research and Development activities we hold as part of this opportunity has third parties involved to this subject. Therefore, due to confidentiality reasons we cannot share the budget related to these projects. However, they are analysed and assessed internally in detail.

C2.5

(C2.5) Describe where and how the identified risks and opportunities have impacted your business.

	Impact	Description
Products and services	Impacted for some suppliers, facilities, or product lines	ASELSAN aims to be a responsible producer for a globally responsible consumption. Substitution of existing products with lower emission options does not cause technology based climate related risks. There is an increased demand for new low carbon technologies, materials, products and services such as smart digital solutions, smart mobility, solar cells, insulation etc. for different sectors. ASELSAN aims to be one of the main producers of renewable energy technologies in Turkey. The Electric Vehicle Systems Program Management Department started a project with TEMSA in March 2015 with the aim of producing the first domestic electric bus. As transportation related GHG emissions account for nearly 14% of Turkey’s total emissions, it is aimed to supply necessary electric vehicle systems designed for public transportation of major municipalities in Turkey and take part in Turkey’s National Contribution (INDC) plan to reduce its emissions by

	Impact	Description
		21% from 2030 BAU level by supporting the shift towards low carbon public transportation. Project development and feasibility study activities for electrical public transportation vehicles are jointly performed with local public institutions. Promotional activities for electric buses have been continuing in municipalities where such vehicles are needed the most. ASELSAN has expanded the scope of its renewable sources for related projects by focusing on developing hybrid system where both solar and wind power sources can be used interchangeably. While conducting such activities, ASELSAN aims to develop this hybrid system to be portable and can be used both on-grid and off-grid. This new system will reduce the use of diesel back-up generators and result in energy consumption reduction and therefore GHG emissions. Therefore, this project is the most important business decision made during the mid- term period and has a high impact on the core business.
Supply chain and/or value chain	Impacted for some suppliers, facilities, or product lines	ASELSAN's Energy Systems Program activities are being pursued with the goal of becoming a leading technology supplier of energy system solutions by exploiting the Company's rooted and innovative engineering traditions. In order to meet the needs of all stakeholders in the global energy systems market with efficient, reliable, economic, high quality state of- the-art products and services in the areas of electricity generation, transmission, distribution, consumption and management, ASELSAN has established programs for the research and development, design, production, integration and after sales support in the following areas: · Energy Management and Smart Grid Systems and · Renewable Energy Systems. Development of system, software and hardware components for national and international markets have been targeted in the field of smart grids, in order to provide solutions for the monitoring, optimisation and management of generation, transmission, distribution and consumption of energy. Within the scope of Energy Management and Smart Grid Systems, work has been carried out for development of system, software and hardware components for SCADA / Energy Management System / Distribution Management System, Micro Grid Systems. In this scope, monitoring, control and management systems, remote terminal units, and power quality measurement systems have been developed for transmission and distribution networks. This project has a high impact on the core business.

	Impact	Description
Adaptation and mitigation activities	Impacted for some suppliers, facilities, or product lines	For a nation wide responsible consumption, ASELSAN is focusing on innovative studies on renewable energy systems. Innovative design and development work is being pursued for systems in the renewable energy area that will supply efficient and uninterrupted electric energy while maximising benefit from Turkey's rich solar and wind energy resources. In the area of solar energy, a project has been initiated for the development of very high efficiency c-Si photo voltaic cells and modules. Furthermore, design and development of hybrid energy systems that aim to minimise the use of diesel generators in off grid applications has been completed. Taking into consideration the needs of the Turkish wind industry, full power wind energy converters have been developed and are being manufactured to be delivered to local turbine manufacturers in 2017. Lastly, Research and Development work has been started for the development of inverters for use in solar and wind power plants. This area has a high positive impact on the companies' business and strategy.
Investment in R&D	Impacted for some suppliers, facilities, or product lines	ASELSAN continued to grow its Research and Development activities in the framework of national goals, in other areas such as energy, transportation, medical systems, and next generation cellular communication. ASELSAN is a technology center providing electronic systems not only for the military but also for Turkey in general. More and more public or private institutions and companies in Turkey depend on ASELSAN for their high-tech system requirements. Military technologies are translated into novel products in a wide array of areas such as public safety, energy and automation systems, civil communication products and high-end agricultural technologies. The Group, being a leading defence industry establishment developing advanced technology system solutions on land, air, naval and aerospace platforms, has given importance to Research and Development activities and technological gains and targets since it was founded. Besides, it aims to spend approximately 6% of the annual turnover to its Research and Development activities financed with its own resources. Over three thousand employees work in the six Research and Development Centers within ASELSAN. Research programs are continuing for Bio-diagnosis and CBRN (defence systems against Chemical, Biologic, Radiologic and Nuclear Threats) systems with a view for self sufficiency in technologies involving the detection, identification, analysis and simulation systems.

	Impact	Description
Operations	Not yet impacted	Operations of the company could be impacted by energy prices. This risk is assessed by the the company by taking into account energy savings, potential and possible optimisation points in the production and other activities. Other physical risks are assessed for our facilities and services. The insurance system is in place. This area could have a low impact on the companies' business strategy and planning, in the long- term.
Other, please specify	Not impacted	There is not any other detected climate change related area which has impact on the business

C2.6

(C2.6) Describe where and how the identified risks and opportunities have factored into your financial planning process.

	Relevance	Description
Revenues	Impacted for some suppliers, facilities, or product lines	Climate change poses an opportunity for ASELSAN to develop more low-emissions goods and services. This would likely impact the projected revenue in the future that ASELSAN aims to be one of the main producers of renewable energy technologies in Turkey. A clear description of climate change related opportunity impact on the financial planning aspect of revenue will be classified in 2018.
Operating costs	Not yet impacted	Climate change may pose some risks on operating cost for ASELSAN such as fuel/energy taxes in the near future. A clear description of climate change related impact on the financial planning aspect of operating costs will be classified in 2018.
Capital expenditures / capital allocation	Not impacted	It is assessed that climate change may not pose risks on capital expenditures/capital allocation for ASELSAN in the future but potential risk evaluation on the financial planning will be realised in 2018 by taking into account changing climate related circumstances
Acquisitions and divestments	Not impacted	It is assessed that climate change may not pose risks on acquisitions and divestments for ASELSAN in the future but potential risk evaluation on the financial planning will be realised in 2018 by taking into account changing climate related circumstances.

	Relevance	Description
Access to capital	Not impacted	It is assessed that climate change may not pose risks on the access to capital for ASELSAN in the future but potential risk evaluation will be realised in 2018 by taking into account changing climate related circumstances
Assets	Not impacted	It is assessed that climate change may not pose risks on the Assets for ASELSAN in the future but potential risk evaluation will be realised in 2018 by taking into account changing climate related circumstances (mobile vehicle assessment is one of our concerns)
Liabilities	Not impacted	It is assessed that climate change may not pose risks on the liabilities for ASELSAN in the future but potential risk evaluation will be realised in 2018 by taking into account changing climate related circumstances
Other	Not impacted	There is not any other detected climate change related area which has impact on the financial planning process. But other areas are assessed internally.

C3. Business Strategy

C3.1

(C3.1) Are climate-related issues integrated into your business strategy?

Yes

C3.1a

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

No, but we anticipate doing so in the next two years

C3.1c

(C3.1c) Explain how climate-related issues are integrated into your business objectives and strategy.

ASELSAN has first reviewed its strategy and operations with respect to climate change after receiving the first invitation from CDP Turkey in 2012. Although energy efficiency was already a focal point for the operations, the effects of the energy efficiency studies on climate change was never assessed. Starting from 2012, ASELSAN Strategy Team has focused on evaluating ASELSAN's operations with regard to climate related issues. One of the first steps taken towards this direction was the calculation of our GHG Inventory. During the initial CDP period, a brief calculation was made for the three consecutive years starting from 2009 for the purpose of reporting to CDP.

As of 2012, we have started evaluating the risks and opportunities related to climate change with a specific risk assessment process aligned with the policies determined by the top management.

As the strategy of ASELSAN was determined over a period of 5 years, climate change related issues could not be included in the strategy up until 2014. However in 2014, the Strategy Management Directorate has implemented the climate change related issues into the strategy of the term 2015-2019. As part of this strategy ASELSAN has initially planned to reduce the absolute GHG emissions until the end of this term. However, within this period, an additional production facility, Gölbaşı, has become operational and the emissions reduction target was revised accordingly to reflect this change.

In 2017 the board decided to start the process to obtain ISO 50001 Energy Management Systems Certification for all our production facilities until the end of 2019.Turkey's National Contribution (INDC) plan is to reduce its emissions by 21% from 2030 BAU level by supporting the shift towards low carbon economy. As ASELSAN, we closely follow the recent updates on climate change mitigation efforts made both nationally and globally. We support the Paris Agreement and its aim to limit global warming below 2^{o}C and potentially keep it below 1.5^{o}C.

In order to reduce our GHG emissions intensity, we are exploring ways to implement the use of renewable energy sources in our production facilities. As part of the most important component of our strategy regarding climate change we have set an emissions intensity reduction target (4.7% of reduction in emissions intensity for our Scope 1 and 2 emissions from our base year GHG emissions, by the year 2022) and we have decided to invest in energy efficient technologies both in our facilities and in our products. Another important component is that our Renewable Energy Systems Program Management Department, which is responsible from R&D of renewable energy technologies, has started its studies on deploying renewable energy usage throughout our company and products. ASELSAN aims to be one of the main producers of renewableenergy technologies in Turkey. Our Electric Vehicle Systems Program Management Department started an R&D project with TEMSA in March 2015 with the aim of producing the first domestic electric buses. As transportation related GHG emissions account for nearly 14% of Turkey's total emissions, we aim to supply necessary electric vehicle systems designed for public transportation to decision makers of major municipalities of Turkey, and take part in Turkey's National Contribution (INDC) plan to reduce its emissions by 21% from 2030 BAU level by supporting the shift towards low carbon public transportation. While conducting such R&D activities, ASELSAN aims to develop this hybrid system to be portable

and can be used both on-grid and off-grid. This new system will reduce the use of diesel back-up generators and result in energy consumption reduction and therefore GHG emissions. This project that has been influenced by climate change is also the most important business decision made in 2016 and still on going while ASELSAN has expanded the scope of its renewable sources related R&D projects by focusing on developing hybrid system where both solar and wind power sources can be used interchangeably.
There are plans to remove the obstacles facing the roll-out of electric vehicles by preparing for future battery technologies, ensuring longer range and shorter charging time. We believe that the brand value and market value of ASELSAN will be positively affected with the implementation of these decisions. ASELSAN was among the 15 firms that were approved to be included in BIST Sustainability Index and has been listed on it for four years in a row. In November 2017, ASELSAN kept its place in the index as a consequence of the re-evaluation of ASELSAN Sustainability Report that was published in June, 2017. The Index's criteria on climate change strategy and management is totally aligned with CDP, which gave us an advantage against other listed companies. ASELSAN is placed in the B list, among the firms that most successfully manage climate change risks through production process and has the highest gas emission performance on the outcome of the research conducted by evaluating big firms including firms listed on Borsa İstanbul.
Our share is now favoured by environmentally friendly institutions as well, which provides us an additional advantage among our competitors. ASELSAN has been in BIST-50 Index of Borsa Istanbul as well as Corporate Governance Index since 2012 and Sustainability Index since its inception and was also included in BIST-30 Index in April 2017. These indices are prestigious indices of BIST as big, corporate industrial firms, holdings and banks dominate them. Corporate governance rating is aprerequisite for presence in Corporate Governance Index of BIST and with the latest revisions in Corporate Governance Principles; sustainability has become a new dimension for corporate governance rating of companies. Thus, climate change aspect is now embedded in our corporate governance rating.
ASELSAN management values ASELSAN share's presence in BIST-30, BIST-50 and Sustainability Indices. In addition to this, there are long term institutional investors in ASELSAN's investor base. These facts encourage us to persistently increase the value we attach to climate change and energy efficiency. Our Company posted an exemplary performance in 2017, and climbed to 57th place in the ranking of the world's largest 100 defense industry companies. Our Company's shares positively decoupled from other shares listed on the Stock Exchange İstanbul (BIST) in 2017, as was seen in the previous year.
While the BIST-100 Index generated a 48% return during the year, ASELSAN shares provided investors with a return of about 150%

C3.1g

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

ASELSAN has initially planned to reduce the absolute GHG emissions in her production facilities. In 2015 Gölbaşı facility has become operational and the emissions reduction target was revised accordingly to reflect this change. In order to reduce our GHG emissions intensity, we are exploring

ways to implement the use of renewable energy sources, and energy efficiency in our production facilities. Previous years were the assessment years of the climate related legislative framework for Turkish companies.

This framework was assessed base on emission reporting obligation risk driver, which does not pose additional operational cost hereafter for ASELSAN. Our company has put anemphasise on elements such as board oversight, climate risk assessment and management including integration into the company's business planning processes.

After such an uncertainty management and awareness raising period for the whole company, ASELSAN is ready now to use scenario analysis as a strategic planning tool to help herself understand how she might perform in different future states.

Turkey's National Contribution (INDC) plan is to reduce its emissions by 21% from 2030 BAU level by supporting the shift towards low carbon economy. We closely follow the recent updates on climate change mitigation efforts made both nationally and globally. We support the Paris Agreement and its aim to limit global warming below 2°C and potentially keep it below 1.5°C.

Aselsan is planning to implement climate-related scenario analysis as a strategic planning tool to explore potential futures and organization's business strategies resilience. For this purpose, as of January 2018 Aselsan' s Sustainability Committee started to study on some scenario analysis to inform the business strategy starting from 2019.

To evaluate potential outcomes based on assumptions, and to understand how adjusting one or more of these variables impact the organisation's business, a top-down approach has been chosen. For a suitable strategic thinking and strategy formulation, transitional (IEA 450, 2DS, IEA Sustainable Development Scenario) and physical scenarios will be assessed. After the review of publicly available climate related scenarios we will develop our own organisational and business specific scenarios in 2020. As we are advancing inmonitoring our GHG emissions and assessing our emissions trend in a more advanced way, we are planning on taking the low-carbon development scenario into account while planning our future strategies.

The key considerations of assumptions will be: Discount rate, carbon price, assumptions about CO2 price via tax or trading scheme, energy demand and mix, price of key commodities/ products & LCA thinking, efficiency, technology, national carbon emission target, subsidies for fossil fuels, temperature increase relative to CO2 increase. Analytical choices such as scenarios, timing, scope of application will be discussed.

Business Impacts/Effects will be studied for different areas such as earnings, costs, revenues, assets, investments, timing etc. Aselsan's management is aware that scenario analysis not only identifies potential risks but can also offer insight into opportunities including energy efficiency, changes in energy sources and/or technologies, new products and services, new markets or assets, and increased resilience.

ASELSAN aims to be one of the main producers of renewable energy technologies in Turkey.

The most important aspect of climate change that influences our strategy is the opportunity to develop a green business. Although we are not yet influenced by the regulatory changes in Turkey, it is also another aspect of climate change, as we like to be prepared to the changes in regulation.

Another important component is that our Renewable Energy Systems Program Management Department, which is responsible of R&D of renewable energy technologies, has started its studies on deploying renewable energy usage throughout our company and products.

C4. Targets and performance

C4.1

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

Intensity target

C4.2

(C4.2) Provide details of other key climate-related targets not already reported in question C4.1/a/b.

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 projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	3	804
To be implemented*	3	1025
Implementation commenced*	3	540
Implemented*	10	866.48
Not to be implemented	0	0

C4.3b

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

Activity type
Energy efficiency: Building services

Description of activity
HVAC

Estimated annual CO2e savings (metric tonnes CO2e)
222.37

Scope
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in CC0.4)
150000

Investment required (unit currency – as specified in CC0.4)
30000

Payback period
<1 year

Estimated lifetime of the initiative
11-15 years

Comment
Air cooled chiller system revision was realised. During winter the cooling demand is lower, high capacity chiller system was installed with air cooling system This activity enabled electricity consumption reduction in the Gölbaşı facility. We have achieved a saving of 500000 kWh/year

---

Activity type
Energy efficiency: Processes

Description of activity
Please select

Estimated annual CO2e savings (metric tonnes CO2e)
87.23
Scope
Scope 1
Voluntary/Mandatory
Voluntary
Annual monetary savings (unit currency – as specified in CC0.4)
45000
Investment required (unit currency – as specified in CC0.4)
55000
Payback period
1-3 years
Estimated lifetime of the initiative
11-15 years
Comment
For the purpose to utilise the heat of rejected waste steam a recycle exchange system was installed in the Gölbaşı facility. We have achieved a saving of 45000 m3 NG//year

---

Activity type
Energy efficiency: Processes
Description of activity
Please select
Estimated annual CO2e savings (metric tonnes CO2e)
38.77
Scope
Scope 1
Voluntary/Mandatory
Voluntary
Annual monetary savings (unit currency – as specified in CC0.4)
20000

Investment required (unit currency – as specified in CC0.4)
22000
Payback period
1-3 years
Estimated lifetime of the initiative
6-10 years
Comment
For the purpose to be efficient in natural gas consumption the steam traps have been modified and steam leak-off have been prevented in the Gölbaşı facility.

Activity type
Energy efficiency: Processes
Description of activity
Please select
Estimated annual CO2e savings (metric tonnes CO2e)
20.01
Scope
Scope 2 (location-based)
Voluntary/Mandatory
Voluntary
Annual monetary savings (unit currency – as specified in CC0.4)
13500
Investment required (unit currency – as specified in CC0.4)
0
Payback period
Please select
Estimated lifetime of the initiative
21-30 years

Comment
For the purpose to be efficient in energy and chemical consumption, the capacity utilisation of biological treatment plant has been revised and single system operation have been set up in the Gölbaşı facility There is no any investment requirement for this activity. We have achieved a saving of 45000 kWh/year

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Activity type
Energy efficiency: Processes
Description of activity
Please select
Estimated annual CO2e savings (metric tonnes CO2e)
9.78
Scope
Scope 2 (location-based)
Voluntary/Mandatory
Voluntary
Annual monetary savings (unit currency – as specified in CC0.4)
6500
Investment required (unit currency – as specified in CC0.4)
0
Payback period
Please select
Estimated lifetime of the initiative
21-30 years
Comment
For the purpose to be efficient in energy consumption, ambient air temperature has been increased gradually from 18 °C to 22 °C in the Server Rooms of the Gölbaşı facility There is no any investment requirement for this activity We have achieved a saving of 22000 kWh/year

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Activity type
Energy efficiency: Building services

Description of activity
Lighting
Estimated annual CO2e savings (metric tonnes CO2e)
38.86
Scope
Scope 2 (location-based)
Voluntary/Mandatory
Voluntary
Annual monetary savings (unit currency – as specified in CC0.4)
25000
Investment required (unit currency – as specified in CC0.4)
55000
Payback period
1-3 years
Estimated lifetime of the initiative
6-10 years
Comment
For the purpose to be efficient in energy consumption, 2000 unit of 18 W fluorescent lamps have been replaced with led tube bulbs in the Macunköy facility where we have achieved a saving of 87368 kWh/year

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Activity type
Energy efficiency: Processes
Description of activity
Please select
Estimated annual CO2e savings (metric tonnes CO2e)
284.4
Scope
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary
Annual monetary savings (unit currency – as specified in CC0.4)
221708
Investment required (unit currency – as specified in CC0.4)
260820
Payback period
1-3 years
Estimated lifetime of the initiative
21-30 years
Comment
For the purpose to be efficient in energy consumption, compressed air machine was replaced with an efficient one in the Akyurt facility. Where we have achieved a saving of 639480 kWh/year

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Activity type
Energy efficiency: Building services
Description of activity
HVAC
Estimated annual CO2e savings (metric tonnes CO2e)
130.67
Scope
Scope 2 (location-based)
Voluntary/Mandatory
Voluntary
Annual monetary savings (unit currency – as specified in CC0.4)
101864
Investment required (unit currency – as specified in CC0.4)
0
Payback period
Please select

Estimated lifetime of the initiative
21-30 years
Comment
For the purpose to be efficient in energy consumption AH1 and AH2 air conditioning group fans were replaced with new ones for the clean room of Akyurt Facility where we have achieved a saving of 293810,85 kWh/year. Investment requirement amount is 0, the activity was realised with internal sources as a part of an another investment tender.

Activity type
Energy efficiency: Processes
Description of activity
Please select

Estimated annual CO2e savings (metric tonnes CO2e)
24.28
Scope
Scope 2 (location-based)
Voluntary/Mandatory
Voluntary
Annual monetary savings (unit currency – as specified in CC0.4)
35186
Investment required (unit currency – as specified in CC0.4)
0
Payback period
Please select
Estimated lifetime of the initiative
21-30 years
Comment
For the purpose to be efficient in energy consumption, a dry type transformer have been installed and 2 old ones are discarded. Automated generator control system have been renewed for the clean room of Akyurt facility where we have achieved a saving of 28524,75 kWh/year, and 4399 LT diesel /year Investment requirement amount is 0, the activity was realised with internal sources as a part of an another investment tender.

Activity type
Energy efficiency: Building services
Description of activity
Lighting
Estimated annual CO2e savings (metric tonnes CO2e)
10.13
Scope
Scope 2 (location-based)
Voluntary/Mandatory
Voluntary
Annual monetary savings (unit currency – as specified in CC0.4)
7896
Investment required (unit currency – as specified in CC0.4)
0
Payback period
Please select
Estimated lifetime of the initiative
11-15 years

Comment
For the purpose to be efficient in energy consumption, fluorescent lamps have been replaced with led tube bulbs in the Akyurt facility, where we have achieved a saving of 22776 kWh/year Investment requirement amount is 0 , it was realised with internal sources as a part of an another investment tender.

C4.3c

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

Method	Comment
Financial optimization calculations	In ASELSAN, we constantly try to develop projects that increase energy efficiency. When we have a project idea, the related directorate makes a detailed feasibility analysis that shows how much investment is required for a certain project and how much savings (both in terms of energy and financial savings) can be achieved with that particular project. If the payback period of the project is below 5 years and if the project lifetime is over 10 years, a report is prepared and the project is submitted for budget approval. Then this project is included in the budget plans for the upcoming year. Corporate Management Committee meeting held on the 16 th of May in 2017. In this meeting it was decided to determine new targets for electricity consumption, and waste management. GHG emissions target revision will also be materialised for the strategic planning period, 2008- 2022.
Dedicated budget for low-carbon product R&D	Aselsan aims to be a responsible producer for a globally responsible consumption. Substitution of existing products with lower emission options is aligned with the Research and Development activities There is an increased demand for new low carbon technologies, materials, products and services such as smart digital solutions, smart mobility, solar cells, insulation etc.for different sectors. ASELSAN aims to be one of the main producers of renewable energy technologies in Turkey in the mid- term. The Electric Vehicle Systems Program Management Department started an Research and Development project with TEMSA in March 2015 with the aim of producing the first domestic electric buses. As transportation related GHG emissions account for nearly 14% of Turkey’s total emissions, it is aimed to supply necessary electric vehicle systems designed for public transportation to decision makers of major municipalities of Turkey Aselsan being a leading defense industry establishment developing advanced technology system solutions on land, air, naval and aerospace platforms, has given importance to Research and Development activities and technological gains and targets since it was founded. Besides, it aims to spend approximately 6% of the annual turnover to its Research and Development activities financed with its own resources. Over three thousand employees work in the six R and D centers within ASELSAN. ASELSAN's total R and D expenses was 1675 TL million in 2017.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation

Group of products

Description of product/Group of products

Renewable Energy Systems Innovative design and development work is being pursued for systems in the renewable energy area. The systems developed will aid in securing the energy supply for efficient and uninterrupted electric energy generated from Turkey's rich solar and wind energy resources. The critical components are developed with maximum national resources to be competitive in the local market. • In the area of wind energy, design, development and manufacturing of full scale power converters and grid connection algorithms have been completed. The system design has particularly taken into consideration the needs of the Turkish wind industry. The first 300 kW full scale power converter system ordered by the Turkish wind turbine manufacturer Northel EMK was installed at the BUSKİ wind power plant in the province of Bursa. Work has begun on design for a larger full scale power converter. • In the area of solar energy, the development of very high efficiency IBC c-Si photovoltaic cells and modules is currently in progress. The production process development of IBC PV cell has been completed at the METU-GÜNAM solar FV research center, and the installation of the R and D production line is continuing. • Hybrid energy micro grid systems that aim to provide reliable, economic and clean energy from wind and solar have been developed for the military and civilian applications. The mobile hybrid energy system (GURU Mobil) integrated on a trailer was exhibited in IDEF 2017. The unit has been designed to minimise the use of diesel fuel in tactical applications. The transportable, cabinet integrated hybrid energy system that can provide energy (GURU Kompakt) for longer duration with limited diesel generator backup has also been developed and a prototype was manufactured. Serial production of this unit will begin in 2018

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify (2006 IPCC Guidelines for ghg inventories)

% revenue from low carbon product(s) in the reporting year

Comment

These climate resilient goods and services will allow third party to avoid emissions. After serial production the % revenue of these products will be identified as sales figures.

Level of aggregation

Group of products

Description of product/Group of products

Energy Management and Smart Grid Systems In order to transmit electricity efficiently, effectively and in a flexible manner from generation sites to consumption points throughout Turkey, system solutions consisting of critical hardware, algorithms and software are being developed for an Intelligent Transmission Grid Management System at the nationwide level. Accordingly, to reduce foreign technology dependency and to secure energy distribution and transmission capabilities with local technologies; the following activities have been carried out: • Advanced Energy Measurement and Management Units and Power Quality Measurement Devices have been developed as smart grid power and control equipment. The "DEPAR Multi-Feeder Power Quality Analyser" is being developed under contract with Boğaziçi Elektrik Dağıtım A.Ş. (BEDAŞ). The prototype unit was introduced at the International İstanbul Smart Grids and Cities Congress and Fair (ICSG 2017). The first trials in the field were successfully completed in November 2017. The system will initially be deployed at limited number of transformer centers in Istanbul The development of a nationwide SCADA and Energy Management System, including but not limited to critical information security algorithms and software for power transmission and distribution has continued successfully. Design and development of ARTU - Advanced Remote Terminal Unit has been completed to a great extent. The algorithm and software development work has continued and preparation for the first trials on live systems have started. Preliminary work is being done for the ARTU qualification tests and certification process to be conducted in 2018. It is expected that ARTU will be utilized widely not only in power transmission and distribution systems but also in monitoring of renewable energy power plants.

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify (2006 IPCC Guidelines for ghg inventories)

% revenue from low carbon product(s) in the reporting year

Comment

These climate resilient goods and services will allow third party to avoid emissions. After serial production the % revenue of these products will be identified as sales figures.

Level of aggregation

Group of products

Description of product/Group of products

Multilane Free Flow Electronic Toll Collection System (MLFF-ETC) was one of the most intensive fields in 2017 The MLFF-ETC, which does not affect traffic on the highway during its operation, enables the collection of tolls from highways around large cities such as Istanbul and also enables applications aimed at preventing traffic congestion resulting with high ghg emissions in urban roads, by introducing electronic road charging methods. Activities to install Toll Collection Systems on the newly opened road sections of the privately operated Yavuz Sultan Selim Bridge and the Northern Peripheral Road, Gebze-İzmir Highway, and Eurasia Tunnel have been continued in 2017.

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify (2006 IPCC Guidelines for ghg inventories)

% revenue from low carbon product(s) in the reporting year

Comment

ASELSAN Toll Collection Systems are also used in Turkey’s showcase Public Private Partnership (PPP) highway projects.

Level of aggregation

Group of products

Description of product/Group of products

ASELSAN has begun her activities to develop the energy management system which improves efficiency for rail vehicles and reduces costs. In the energy management system super capacitor and new generation batteries are used together, the regenerative energy spent by rail vehicles in the form of heat energy during braking can be efficiently stored and used efficiently when desired. With its modular structure, which can be used in both the vehicle and the station, the Energy Management System (EMS) allows rail vehicles, particularly trams, to be operated without a catenary

system, allowing energy savings of up to 30% on public railway lines. With this system, it will become possible to reduce the electricity consumption of rail vehicles and allow rail vehicles to be operated without a catenary system

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify (2006 IPCC Guidelines for ghg inventories)

% revenue from low carbon product(s) in the reporting year

Comment

Development, production and testing activities are carried out with the aim of providing Battery Management System, Traction System (Motor Inverter and Electric Motor), Vehicle Control and Management System, along with vehicle safety software and hardware (Advanced Driving Assistance Systems) - which are the basic critical components for electric vehicles - to vehicle manufacturers and organizations (OEMs and shipyards) in a cost effective manner.

Level of aggregation

Group of products

Description of product/Group of products

The first prototypes of the electric traction system, which can be used in buses and utility vehicles, were produced and testing and integration activities have been carried out on prototype vehicles. In this context, the traction system of the Avenue EV vehicle, which is co-developed with TEMSA, was also provided by ASELSAN. Development activities for a range extender with an internal combustion engine, is forming the foundation for ASELSAN electric vehicle traction system product family and can also be used for military vehicles, are carried out together with domestic companies and universities, which are specialized in internal combustion engine and control.

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify (2006 IPCC Guidelines for ghg inventories)

% revenue from low carbon product(s) in the reporting year

Comment

The design activities for electric public transportation vehicles, which are required by public institutions in Turkey, have been carried out at the level of joint feasibility studies with the authorities requiring them. Promotional activities have been carried out at municipalities, especially for

electric buses that are needed by municipalities for public transportation. After serial production the % revenue of these products will be identified as sales figures.

C5. Emissions methodology

C5.1

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

Scope 1

Base year start

January 1 2016

Base year end

December 31 2016

Base year emissions (metric tons CO2e)

11999.36

Comment

In 2015, the Gölbaşı Facility has started its operations and the system boundary has been revised accordingly.

Scope 2 (location-based)

Base year start

January 1 2016

Base year end

December 31 2016

Base year emissions (metric tons CO2e)

38650.54

Comment

Only location based result has been used, there is no market based figure.

Scope 2 (market-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

There is no market- based figure.

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.

IPCC Guidelines for National Greenhouse Gas Inventories, 2006

ISO 14064-1

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

C6. Emissions data

C6.1

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

Row 1

Gross global Scope 1 emissions (metric tons CO2e)

12420.08

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 have no operations where we are able to access electricity supplier emission factors or residual emissions factors and are unable to report a Scope 2, market-based figure

Comment

In ASELSAN , only the electricity purchased from National grid is consumed .

C6.3

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

Row 1

Scope 2, location-based

35983.29

Comment

This figure represents the purchased electricity from National Grid. We don't have any source of market based scope 2 emissions

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

Yes

C6.4a

(C6.4a) Provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure.

Source

Temporary Project Offices in various locations in Turkey.

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source (if applicable)

No emissions from this source

Explain why the source is excluded

We have a small number of temporary offices in various locations in Turkey. However, these offices only operate during particular project period and may not operate throughout the reporting period which makes it hard to monitor or control. Since these offices constitute a negligible operational volume, they are classified as de-minimis GHG emission sources, and are excluded from the boundary.

C6.5

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

Purchased goods and services

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

GHG Corporate Value Chain (Scope 3) Accounting and Reporting Standard will be in use. Base on emission calculation methodology, we can focus on Product-Level Method or Supplier-Specific Method.

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

Explanation

For this source of scope 3 emissions, we are planning to engage with our local main suppliers by training on procurement, quality and environmental management issues. For the time being, activity data gathering is difficult for our suppliers. Green procurement process will be in the concern of our company. We will focus more on these issues in 2020 based on a combination of the energy intensity of the commodities supplied and the business relationship of our main suppliers among others.

Capital goods

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

GHG Corporate Value Chain (Scope 3) Accounting and Reporting Standard will be in use. Base on emission calculation methodology,we can focus on Product-Level Method or Supplier-Specific Method

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

Explanation

Green procurement process is in the concern of our company. Due to the complexity of gathering information, the company does not have the information and inventory to account for the emissions associated with this source. Aselsan does not predict the full inclusion over a five years period.

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

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

GHG Corporate Value Chain (Scope 3) Accounting and Reporting Standard will be in use base on emissions calculation methodology, we can focus on Supplier-Specific Method

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

Explanation

In the next two years we are planing to obtain data by: Reference to the scope 1 ghg inventory, including sources and types of fuels consumed and collect data from the fuel procurement department. If necessary, collect data from fuel suppliers; and/or reference to life cycle databases and/or GHG Protocol website

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

24.65

Emissions calculation methodology

DEFRA: Freighting goods - 2017

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

Explanation

This data is provided from our main chemical material suppliers who transport chemicals inside our Macunköy Facility by using motorway . The great majority of this transportation's GHG gases comprise CO2 from exhaust emissions (fuel usage) We are planning to have a clear climate change related procurement policy to measure and reduce CO2 emissions generated from upstream transportation of chemicals The verification of this category is fulfilled by the 3 rd party audit for 2017 activities

Waste generated in operations

Evaluation status

Relevant, calculated

Metric tonnes CO2e

247.77

Emissions calculation methodology

The assessment and the data gathering process is in place. Waste generated in operations is calculated based on Defra 2017 methodology on waste disposal. Waste water generated from operations is calculated based on Defra 2017 methodology on water treatment.

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

Explanation

This data is the sum of hazardous, scrap wastes and waste water. The first group have an emission of 18.34 tons CO2-e. This data is provided by Aselsan and reported to the Ministry in the reporting year. Waste water having an emission of 229.43 tons CO2-e is discharged into the municipal sewer system. The verification of this category is fulfilled by the 3 rd party audit for 2017 activities

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

10741.83

Emissions calculation methodology

The assessment and the data gathering process is in place. Air travel based emission is calculated based on Defra 2017 methodology for business travel-air.

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

Explanation

The data is provided by Aselsan’s travel supplier. The verification of this category is fulfilled by the 3 rd party audit for 2017 activities

Employee commuting

Evaluation status

Relevant, calculated

Metric tonnes CO2e

656.79

Emissions calculation methodology

The assessment and the data gathering process is in place. Employee commuting based data is calculated based on Defra 2017 methodology for business travel- land

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

Explanation

This data covers the emissions from transportation of employees to and from work. The verification of this category is fulfilled by the 3 rd party audit for 2017 activities

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

We did not use upstream leased assets in 2017

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

Explanation

We did not use upstream leased assets in 2017

Downstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

Base on emissions calculation methodology, we can focus on Supplier-Specific Method

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

Explanation

We are planning to focus on improving our data collection system with lowest possible uncertainty in 5 years.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

Our products are not processed or re-processed any further after they have been sold.

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

Explanation

Our products are not processed or re-processed any further after they have been sold. Consequently the scope 3 category “Processing of sold Products” is not relevant for Aselsan

Use of sold products

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

This emission source is out of the boundary due to data gathering problem on the usage phase of sold products

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

Explanation

This emission source is out of the boundary due to data gathering problem on the usage phase of sold products

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

This emission source is out of the boundary due to the lack of data on the end of life treatment of sold products

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

Explanation

This emission source is out of the boundary due to the lack of data on the end of life treatment of sold products

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

This emission source has been excluded from the boundary

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

Explanation

There are not any leased downstream assets in Aselsan This emission source has been excluded from the boundary

Franchises

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

Aselsan has no franchises

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

Explanation

Aselsan has no franchises This emission source has been excluded from the boundary

Investments

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

In case of any new investment we can focus on Supplier-Specific Method

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

Explanation

No investment related emissions occured within the reporting year. In case of any new investment we can focus on Supplier-Specific Method

Other (upstream)

Evaluation status

Relevant, calculated

Metric tonnes CO2e

4140

Emissions calculation methodology

The assessment and the data gathering process is in place. Food and beverage consumption data is calculated based on methodology for DEFRA: Material Use - 2017

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

Explanation

We have assessed the data quality of our food and beverage consumption. The verification of this category is fulfilled by the 3 rd party audit for 2017 activities

Other (downstream)

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

There are no additional other downstream emission sources for the reporting year

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

Explanation

There are no additional other downstream emission sources for the reporting year

C6.7

(C6.7) Are carbon dioxide emissions from biologically sequestered 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

0.000011

Metric numerator (Gross global combined Scope 1 and 2 emissions)

48403

Metric denominator

unit total revenue

Metric denominator: Unit total

4485471229

Scope 2 figure used

Location-based

% change from previous year

21

Direction of change

Decreased

Reason for change

The main reason of the intensity figure reduction is the revenue growth compared to previous year (2016). Secondly, change in the electricity emission factor used in the calculations (question C7.9a) . The last one is the other emission reduction activities implemented during 2017 (question C7.9a).

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization have greenhouse gas emissions other than carbon dioxide?

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	11122.99	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	7.06	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	24.13	IPCC Fifth Assessment Report (AR5 – 100 year)
HFCs	1265.91	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
Turkey	12420.08

C7.3

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

By facility

By activity

C7.3b

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

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Macunköy	4113.64	39.96763	32.76631
Akyurt	3376.5	40.08628	33.02409
Gölbaşı	4712.09	39.71837	32.81612
Teknokent	164.49	39.89353	32.77346
Şişli	27.72	41.05613	28.98536
Teknopark	25.64	40.8513	29.28764

C7.3c

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

Activity	Scope 1 emissions (metric tons CO2e)
Natural Gas Consumption for heating, boilers and kitchen	9450.46
Diesel consumption for generators and fire pumps	393.98
LPG consumption at kitchen	1.81
CNG consumption in the production process	0.1
Gasoline consumption for company cars	70.11
Diesel oil consumption for company cars	1232.82
Diesel oil consumption for forklifts	4.3
Fugitive emissions from air conditioning system	992.02
Fugitive emissions from fire extinguishers	274.49

C7.5

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

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
Turkey	35983.29		80910.05	

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 emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
Macunköy	14332.71	
Akyurt	10775.87	
Gölbaşı	10519.1	
Teknokent	304.53	
Şişli	0.64	
Teknopark	50.43	

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?

Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	0	No change	0	
Other emissions reduction activities	866.48	Decreased	1.71	Other emission activities implemented during 2017 have been resulted with a reduction of 866.48 tons of CO2-e. The total scope 1 and scope 2 emissions in the previous year was 50649.90 tons of CO2-e. We arrived at 1.71 % through (-866.48/50649.90)*100 = -1.71%
Divestment	0	No change		
Acquisitions	0	No change		

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Mergers	0	No change		
Change in output	0	No change		
Change in methodology	5488.5	Decreased	10.84	Previous year electricity emission factor used in the calculations referred to TEİAŞ 2015 Data and CDM TOOL 07 Methodological Tool. This year inline with third party verifier request, we started to use, IEA 2015 Report emission factor in our inventory calculations. Calculation: (-4-1380,06 / 50649.90)*100 = -2.72%
Change in boundary	0	No change		
Change in physical operating conditions	0	No change		
Unidentified	0	No change		
Other	4108.45	Increased	8.11	Due to increase of the usage of the emission sources such as natural gas, electricity and etc. Natural gas consumption is 7% and electricity consumption is 7.6% more compared to previous year.

C7.9b

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

Location-based

C8. Energy

C8.1

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

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

C8.2

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

	Indicate whether your organization undertakes this energy-related activity
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 MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	0	53094.69	53094.69
Consumption of purchased or acquired electricity	<Field Hidden>	0	80910.05	80910.05
Total energy consumption	<Field Hidden>	0	134004.74	134004.74

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 steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

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

Fuels (excluding feedstocks)

Natural Gas

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization
46770.66
Fuels (excluding feedstocks)
Diesel
Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
6040.79

Fuels (excluding feedstocks)
Liquefied Petroleum Gas (LPG)
Heating value
LHV (lower heating value)
Total fuel MWh consumed by the organization
7.98
Fuels (excluding feedstocks)
Motor Gasoline
Heating value
LHV (lower heating value)
Total fuel MWh consumed by the organization
274.76

Fuels (excluding feedstocks)
Compressed Natural Gas (CNG)
Heating value
LHV (lower heating value)
Total fuel MWh consumed by the organization
0.5

C8.2f

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

C9. Additional metrics

C9.1

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

Description

Waste

Metric value

826.44

Metric numerator

Tonnes of waste

Please explain

Some improvements have been made in tracking method of the waste performance in 2017 Direction of change will be evaluated in the next reporting period.

Description

Other, please specify (Waste water discharged into sewer system)

Metric value

32404.77

Metric numerator

Cubic meter of waste water

Please explain

Some improvements have been made in the tracking method of the waste water performance in 2017 Direction of change will be evaluated in the next reporting period.

Description
Energy use
Metric value
53094.69
Metric numerator
MWh ; from non- renewable sources
Please explain
The energy related metrics are tracked for the evaluation of energy and emission performance. Intensity base tracking and direction of change will be done in the next reporting year.

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 and/or Scope 2 emissions and attach the relevant statements.
Scope
Scope 1

Verification or assurance cycle in place
Annual process
Status in the current reporting year
Complete
Type of verification or assurance
Reasonable assurance
Attach the statement
2017 ASELSAN Carbon Footprint Verification Opinion Statement Scope 1 and 2.pdf
Page/ section reference
2017 ASELSAN Carbon Footprint Verification Opinion Statement Scope 1 and 2 (Page 1)
Relevant standard
ISO14064-3
Proportion of reported emissions verified (%)
100

Scope
Scope 2 location-based
Verification or assurance cycle in place
Annual process
Status in the current reporting year
Complete
Type of verification or assurance
Reasonable assurance
Attach the statement
2017 ASELSAN Carbon Footprint Verification Opinion Statement Scope 1 and 2.pdf
Page/ section reference
2017 ASELSAN Carbon Footprint Verification Opinion Statement Scope 1 and 2 Page 1
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 3 emissions and attach the relevant statements.
Scope
Scope 3- all relevant categories
Verification or assurance cycle in place
Annual process
Status in the current reporting year
Complete
Attach the statement
2017 ASELSAN Carbon Footprint Verification Opinion Statement Scope 3.pdf
Page/section reference
2017 ASELSAN Carbon Footprint Verification Opinion Statement Scope 3 (Page 1)
Relevant standard
ISO14064-3

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, but we anticipate being regulated in the next three years

C11.1d

(C11.1d) What is your strategy for complying with the systems in which you participate or anticipate participating?

Utilisation of carbon pricing options offer the most cost effective way of mitigating climate change and can be helpful for countries in upholding their mitigation commitments
or potentially exceeding them. The two main policy options that are being used as carbon pricing mechanisms are carbon taxation and emissions trading systems (ETS).
While Turkey does not yet have carbon pricing systems in place, it has started to explore opportunities to implement a National Emissions Trading Scheme.
Within the scope of the Partnership for Market Readiness Project (PMR) Turkey, "Modelling of Financial, Economic and Sector Impacts of Carbon Pricing in Turkey"
component, which was implemented as of March 2017 has been completed. In this context, results of modelling studies were evaluated with public and private sector
representatives on March 15, 2018.
The functioning of "CGE-computable genetic equilibrium" and IMM-Industrial Market Modelling models were analysed through exercising different carbon pricing policies on
the model. The outputs of modelling studies will be developed with valuable opinions acquired at the meetings and will take place in the "Synthesis Report" which is the final output of the PMR Project.
The set up of a pilot ETS in Turkey – comes within political reach.
Based on its own operational and technological capabilities, the energy sector has some concerns about ETS, carbon tax and other market based instruments and activities.

In Turkey, emission data is reported to the Ministry annually by high energy intensive sectors according to the MRV regulation. Aselsan is not in the scope of this regulation yet. However, since we have established our ISO 14064-1 system and have been calculating our emissions and processing verification by accredited third parties, we are ready to report our emissions. We anticipate that Ministry will include in three years, probably at the second quarter of 2020 the sectors which are in the scope of MRV Regulation first. We are ready to comply with the schemes when the market is once established in Turkey. National ETS or taxation system can influence our company in 2022.

As part of our involvement in this new upcoming sytem, we plan to upgrade our energy efficiency with ISO 50001 standard which will be operational in 2019. After 2019 renewable energy systems will be established starting from Macunköy Facility.

For the purpose to drive opportunities in this new system, Aselsan has already begun to position as a leader in technology base projects in order to meet the needs of all stakeholders in the global energy systems market with efficient, reliable, economic, high quality state of- the-art products and services in the areas of electricity generation, transmission, distribution, consumption and management.

ASELSAN has established programs for the R&D, design, production, integration and after sales support in the following areas:

· Energy Management and Smart Grid Systems and

· Renewable Energy Systems.

Development of system, software and hardware components for national and international markets have been targeted in the field of smart grids, in order to provide solutions for the monitoring, optimisation and management of generation, transmission, distribution and consumption of energy systems for energy sector.

C11.2

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

No

C11.3

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

No, but we anticipate doing so in the next two years

C12. Engagement

C12.1

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

Yes, our suppliers

Yes, other partners in the value chain

C12.1a

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

Type of engagement

Compliance & onboarding

Details of engagement

Included climate change in supplier selection / management mechanism

% of suppliers by number

16

% total procurement spend (direct and indirect)

6.4

% Scope 3 emissions as reported in C6.5

5

Rationale for the coverage of your engagement

Our first achievement was awareness raising on GHG emissions tracking of our main suppliers. Moreover, while revising our next term strategy, the topics of GHG emissions measurement and climate change strategies are considered to be added into environmental management questionnaire and subcontractors are scored according to their replies. For our 2017 inventory, as a pre-assessment, we have requested data from our main subcontractors and 16 of them submitted their electricity and fossil fuel consumption data that corresponds to their production for ASELSAN.

Impact of engagement, including measures of success

We have seen that our suppliers' energy consumption is a Scope 3 GHG emissions source that needs to be investigated further. Therefore, not only do we plan to communicate with an increasing number of suppliers to collect data for the next reporting period, but also we aim to identify a key

supplier group and seize opportunities to provide training for them for the purpose to better manage their energy performance and consequently reduce their GHG emissions, including target setting.

Comment

To ameliorate climate change related issues, ASELSAN is planning focusing on the lead players of her value chain: People, Customers and Suppliers. Employees training on climate issues, Customers needs understanding and Suppliers capacity building development will be ASELSAN's method of engagement in 3 years. A contractual document intended to align all suppliers' policies and internal processes with all the principles that ASELSAN commits to respect will be issued. Potential suppliers' environmental maturity assessment will also be realised for continuous improvement.

C12.1c

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

Implemented with the mission of increasing ASELSAN personnel's knowledge of the Company's field of activity, contributing to the applied academic development of the other stakeholders (universities, R&D center, institutions, subcontractors, etc.) that operate in our country, the ASELSAN Academy has become a new and innovative model of tremendous importance for Turkey which commands very high expectations. In 2017 besides defence technologies, ASELSAN continued to grow its R&D activities in the framework of national goals, in areas such as energy, transportation, medical systems, and next generation cellular communication.

ASELSAN aims to become a leading solution provider in these fields and continues innovative R&D projects in GaN Based Power Switching Elements, the fault detection solutions for traction systems, Contactless Power Transfer Technologies as a future solution for charging electric vehicles (EVs), under the university-industry collaboration programs. In these studies, the goal is to develop efficient, compact and lightweight systems that aim to distinguish themselves.

ASELSAN's Energy Systems Program activities are being pursued with the goal of becoming a leading technology supplier of energy system solutions, by exploiting the Company's rooted and innovative engineering traditions. In order to meet the needs of all stakeholders in the global energy systems market with efficient, reliable, economic, high quality state-of-the-art products and services,

ASELSAN has established a program to prioritize its engagement through R&D, design, production, integration and after sales support in the following areas:

• Energy Management and Smart Grid Systems and
• Renewable Energy Systems

In order to transmit electricity efficiently, effectively and in a flexible manner from generation sites to consumption points throughout Turkey, system solutions consisting of critical hardware, algorithms and software are being developed for an Intelligent Transmission Grid Management

System at the nationwide level. Advanced Energy Measurement and Management Units and Power Quality Measurement Devices have been developed as smart grid power and control equipment. The “DEPAR Multi-Feeder Power Quality Analyser” is being developed under contract with Boğaziçi Elektrik Dağıtım A.Ş. (BEDAŞ).
The prototype unit was introduced at the International Istanbul Smart Grids and Cities Congress and Fair (ICSG 2017). The first trials in the field were successfully completed inNovember 2017. The system will initially be deployed at a limited number of transformer centers in Istanbul.
Innovative design and development work is being pursued for systems in the renewable energy area. The systems developed will aid in securing the energy supply for efficient and uninterrupted electric energy generated from Turkey’s rich solar and wind energy resources. The critical components are developed with maximum national resources to be competitive in the local market.
• In the area of wind energy, design, development and manufacturing of full scale power converters and grid connection algorithms have been completed. The system design has particularly taken into consideration the needs of the Turkish wind industry. The first 300 kW full scale power converter system ordered by the Turkish wind turbine
manufacturer Northel EMK was installed at the BUSKİ wind power plant in the province of Bursa. Work has begun on design for a larger full scale power converter.
• In the area of solar energy, the development of very high efficiency IBC c-Si photovoltaic cells and modules is currently in progress. The production process development of IBC PV cell has been completed at the METU-GÜNAM solar FV research center, and the installation of the R&D production line is continuing.
• Hybrid energy microgrid systems that aim to provide reliable, economic and clean energy from wind and solar have been developed for the military and civilian applications.
The mobile hybrid energy system (GURU Mobil) integrated on a trailer was exhibited in IDEF 2017. The unit has been designed to minimize the use of diesel fuel in tactical
applications. The transportable, cabinet integrated hybrid energy system that can provide energy (GURU Kompakt) for longer duration with limited diesel generator backup has also been developed and a prototype was manufactured. Serial production of this unit will begin in 2018.

C12.3

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

Direct engagement with policy makers
Trade associations

C12.3a

(C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Mandatory carbon reporting	Support	We follow the implementation of the regulation on monitoring and reporting of GHG emissions that was published on 2012 and revised in 2014 very closely. Although ASELSAN is not yet included in the scope of this regulation, we still participate in meetings and our Sustainability Committee is ready to send our comments about the Communiqués that are related to this regulation.	For the moment we support the legislation and the communiqués related to this legislation with no exceptions.
Energy efficiency	Support	We have sent our comments for the energy efficiency law no 5627 by the Ministry of Energy and Natural Resources during its preparation stage. We fully support this law.	We fully support the energy efficiency law and the related by-laws

C12.3b

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

No

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

According to our new corporate communication strategy, all communication activities have to be approved by our CEO/ Chairman of the Board being the highest level of
executive in ASELSAN, Our CEO is fully aware of our general corporate strategies and our overall climate change strategy.
Moreover, our Sustainability Committee together with our Strategic Planning and Corporate Performance Directorate are responsible of setting and tracking actions to ensure our direct and indirect activities are consistent with our overall climate change strategy.

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

Status

Complete

Attach the document

ASELSAN_Annual Report 2017.PDF

Content elements

Governance

Publication

In voluntary sustainability report

Status

Complete

Attach the document

ASELSAN_Sustainability_Report_2017.pdf

Content elements

Emissions figures

C14. 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.

ASELSAN_Sustainability_Report_2017 file is annex of C0, C1 and C12.
ASELSAN_Annual Report 2017 file is the annex of C0, C1, C2 and C12.

Environmental R and O's file is the annex of C2.
2017 ASELSAN Carbon Footprint Verification Opinion Statement Scope 1 and 2 is the annex of C10.
2017 ASELSAN Carbon Footprint Verification Opinion Statement Scope 3 is the annex of C10.

2017 ASELSAN Carbon Footprint Verification Opinion Statement Scope 3.pdf
ASELSAN_Sustainability_Report_2017.pdf
Environmental R and O's.xlsx
ASELSAN_Annual Report 2017.PDF
2017 ASELSAN Carbon Footprint Verification Opinion Statement Scope 1 and 2.pdf

C14.1

(C14.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Corporate Management Vice President	Board/Executive board