# PEGASUS HAVA TAŞIMACILIĞI A.Ş. - Climate Change 2018



C0. Introduction	CO. Introduction					
C0.1						

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

Pegasus is a leading low-cost airline in Turkey, which provides reasonably-priced transportation opportunities on point-to-point basis in short and medium range routes, and aims to set up a wide flight network with high flight frequency for guests.

Pegasus, which was founded as a joint venture company on 1990 by Aer Lingus Group, Silkar Yatırım ve Insaat Organizasyonu A.S. and Net Holding A.S., entered into commercial operation with two airplanes.

After being acquired on 2005 by Esas Holding A.S. owned by Sevket Sabanci and his family, Pegasus started scheduled domestic flights in November of the same year and became the 4th among the scheduled airlines operating in Turkey.

According to the final structure of partnership after the Initial Public Offering; 34.5 % of shares are floating in Borsa Istanbul and 65.5% belongs to Esas Holding A.S, whereas the rest is owned by Sevket Sabanci and his family.

Holding the belief that everybody has the right to travel by air, Pegasus brought "low cost model" to life soon after starting scheduled flights. Based on this vision, Pegasus still continues to introduce reasonably priced airline transportation services with a young fleet and high punctual departure rates.

With its fleet composed of 76 airplanes in total, where 48 of them are new generation 737-800 NG and the overall age average is 5.7 by December, 2017;

Pegasus extended its flight network, which was initially composed of 6 domestic locations at the beginning of scheduled flights, up to 108 locations and currently has 70 abroad and 38 domestic flight locations in 41 countries.

In order to provide a pleasant travel experience to the guests; Pegasus continues to offer substantial new services and products. In the last few years, the company also put additional income into providing services to support the low cost carrier model. By also expanding its family parallel to its growth in the sector; Pegasus turned into a huge family of 5.070 members in 10 years from a team of 700 staff. (as of December 2017)

While providing economic, safe and punctual travel opportunities to its guests, by means of investments in areas of flight safety and technology, Pegasus established itself as the latest flight training center of Turkey. This has led to Pegaus also becoming one of the leading airlines, to adopt fleet-wide Wireless Groundlink End to End Network Solutions, a system providing double direction data transfer that is significant with regards to the traceability of systems.

Pegasus was named "The Fastest Growing Airline" of Europe's major scheduled airlines in terms of seat capacity for 2011, 2012 and 2013 by the Official Airline Guide (OAG) report.

Pegasus received the Best Operational Excellence Award for Europe, Middle East and Africa – A320 based on its successful performance across criterion of operational safety, fleet utilisation rate and average delay times. The Airbus Operational Excellence Awards ceremony is held every three years to reward successful A320 Family operators. During recent years, where the Turkish civil aviation sector entered into a serious growth trend, Pegasus has proven to be satisfying a significant demand in the aviation sector with the number of its guests increasing much more than the average growth in the sector.

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(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	<not applicable=""></not>
	<not Applicable&gt;</not 	<not Applicable&gt;</not 	<not applicable=""></not>	<not applicable=""></not>
	<not Applicable&gt;</not 	<not Applicable&gt;</not 	<not applicable=""></not>	<not applicable=""></not>
	<not Applicable&gt;</not 	<not Applicable&gt;</not 	<not applicable=""></not>	<not applicable=""></not>

# C0.3

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

Turkey

# C<sub>0.4</sub>

(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

# C-TO0.7/C-TS0.7

(C-TO0.7/C-TS0.7) For which transport modes will you be providing data? Aviation

# C1. Governance

# C1.1

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

Yes

(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
Director on board	The highest level of direct responsibility for climate change lies with the Head of Integrated Management System and Business Excellence (IMS-BE) Department who is also a member of the Operations Executives Board and reports directly to the President and CEO of Pegasus Airlines.

# 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 – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring and overseeing progress against goals and targets for addressing climate-related issues	Head of IMS-BE department who is also a member of the Executive Board briefs the Board on climate related issues. Especially risks and opportunities related to upcoming regulations are discussed in the Board. The strategies, action plans and budget requirements to realize these action plans are all discussed and approved in the Executive Board. During the reporting year the board was briefed about CORSIA which is an upcoming international regulation on GHG emissions from the aviation industry. The Board discussed the company strategy regarding this regulation, and decided that the roadmap of CORSIA shall be more clear in order to be able to prepare the action plans, so this regulation is monitored closely by the responsible departments.

# C1.2

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

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate- related issues
Chief Financial Officer (CFO)	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly
Chief Operating Officer (COO)	Managing climate-related risks and opportunities	More frequently than quarterly
Risk committee	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly
Safety, Health, Environment and Quality committee	Assessing climate-related risks and opportunities	More frequently than quarterly
Environmental, Health, and Safety manager	Assessing climate-related risks and opportunities	More frequently than quarterly
Other, please specify (Performance and Navigation Manager)	Other, please specify (Drawing short cut flight routes)	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.

CFO is a member of the Executive Board and reports to CEO. He is responsible for budgeting and as climate change related risks and opportunities may have financial reflections on the company CFO is responsible for both assessing and managing these risks. He is responsible for managing the liabilities that we may face related to climate change. If there are any climate change related issues, like decisions on the emission trading systems, they are discussed during the monthly budget meetings.

COO is a member of the Executive Board and reports to CEO. COO has an indirect responsibility related to climate change. One of his main duties is to shorten the flight routes, and this is also related to reducing the fuel consumption and GHG emissions. The reduction amounts and possible measures are discussed in weekly and monthly operation meetings.

The Chairman of the Risk Committee is our CEO. This committee assesses all types of risks according to our risk assessment matrix. SHE Committee informs this committee of climate related risks. The risk committee analyses these risks according to management of change analysis and decide whether they will include the risk in the general risk assessments.

Safety Health and Environment (SHE) Committee has meetings every two months. In this committee all of the environmental issues are assessed. The results of the assessments are reported to Chief Technical Officer who is the head of the SHE Committee and also reported to Head of IMS-BE Department who reports directly to the CEO. SHE committee works like the risk committee but focuses mainly on Safety, Health and Environmental Issues.

Assessment and follow up of all environmental risks and their management plans on a daily basis is the responsibility of the EHS Manager. EHS Manager reports to Head of IMS-BE Department who reports directly to the CEO.

Performance and Navigation Manager and Operation Control Center Manager reports to COO. They are responsible for reducing fuel consumption and enhancing fuel efficiency. They try to reduce GHG emissions by drawing short cut flight routes, these routes are then approved by EUROCONTROL.

### 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?

Corporate executive team

### Types of incentives

Monetary reward

### **Activity incentivized**

Emissions reduction target

#### Comment

Our IMS-BE department executives are responsible for monitoring GHG emission reductions, and this is a part of their KPI's. These targets include monitoring the reduction of GHG emissions per passenger and per available seat km. During annual performance assessments the IMS-BE executives are also assessed according to their achievement status of these targets, and they are awarded accordingly. The executives that reach their targets receive bonuses. Due to confidentiality, we cannot communicate the exact value of the targets.

### Who is entitled to benefit from these incentives?

Chief Operating Officer (COO)

#### Types of incentives

Monetary reward

# **Activity incentivized**

Energy reduction target

#### Comment

Our COO has a target to reduce fuel consumption as a part of his KPI's. During annual performance assessments the COO is also assessed according to his achievement status of this targets, and he is awarded accordingly. Due to confidentiality, we cannot communicate the exact value of the targets.

# C2. Risks and opportunities

# C2.1

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

		To (years)	Comment
Short- term	0	1	The time horizon specified in this section is aligned with our other business practice time horizons. To give an example, short term may mean hours for us if we think about an urgent strategic decision that has to be made related to our flights. Or we try comply to new regulations within a year which is assessed to be short term for our business practices.
Medium- term	1	3	Medium term usually means between 1 to 3 years in our business practices, so this time horizon is also aligned with the timeline of our other strategic decisions.
Long- term	3	10	Long term decisions usually mean up to 10 years in our business practices, so this time horizon is aligned with our other business practice time horizons. An example of such decision is buying new generation AIRBUS A320 and A321 NEO aircrafts and renewing our fleet to consist mainly of these aircrafts. This decision was taken on 2012 and the implementation started in 2016 and will end in 2024.

(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.

A specific climate change risk identification, assessment, and management process

### C2.2a

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

		How far into the future are risks considered?	Comment
Row 1	Annually	>6 years	The risks are assessed and discussed in annual meetings under the chairmanship of Head of Integrated Management Systems and Business Excellence (IMS-BE) Department.

#### C2.2b

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

How climate related risks are identified and assessed at a company and asset level:

We have a specific process of risk identification for climate related risks. Both at the company and asset level risks and opportunities are assessed by SHE (Safety, Health and Environment) Department during annual risk assement meetings. SHE Department reports directly to the Head of Integrated Management Systems and Business Excellence (IMS-BE) Department. The Head of IMS-BE Department is also a member of the Executive Board. Although the climate related risk assessment is performed seperately by the SHE Department, this assessment is done in accordance with PG-EM-PR-003 "Corporate Risk Management Procedure"

The process to determine the relative significance of climate-related risks:

The risks that are assessed as important are first discussed with our CEO, then discussed in the Operations Executive Board if deemed necessary by the CEO. The significant risks are reported to the Risk Committee. The most important risks are reported to our Board of Directors when necessary.

The assessments of SHE Department are reported to the Head of IMS-BE Department and the risks that are identified as substantive (Red and Orange categories) by both the SHE Department and IMS-BE Department Head are presented to the CEO and the Executive Board. Significant risks are also reported to the Risk Committee who are responsible for determining and managing non-climate related risks. Risk Committee assessess the significance of climate-related risks in relation to other risks.

The management proposals given by the SHE Department are discussed in the Executive Board and further actions are taken according to the decisions of the Executive Board.

SHE Department is responsible for application of the management plan, which includes setting targets to reduce these risks and making performance reviews to assess whether the climate change related targets are met.

For Yellow and Green Risks the management plans are developed and applied by the SHE department with the approval of the Head of IMS-BE Department.

# **Definitions of Risk Terminologies Used**

SHE department is responsible for assessing the potential size and scope of the identified risks and opportunities. The risk assessment is done using the Fine-Kinney methodology according to the risk assessment procedure detailed below:

0.2 – Not expected
0.5 – Not expected but possible
1 – Low possibility
3 – Probable
5 – Highly probable
10 – Almost certain
Then, the frequency of occurrence of the identified risk event is scored as given below:
0.5 – Very rare (once a year)
1 – Rare (several times a year)
2 – Not rare (once a month)
6 – Frequent (once a day)
10 – Immediate (Constant)
Then the severity of the identified risk event is determined.
1 – No environmental damage
3 – Environmental damage limited to company premises
7 – Environmental damage not limited to company premises
15 - Posing an environmental barrier, complaints from close environment
40 - Serious environmental damage
100 – Environmental disaster
To obtain an overall assessment of the risk, probability, frequency and severity scores are multiplied and the total risk score is determined. The action for the determined risk, is taken according to the color codes identified below:  • Risk Score (R) > 400 – Red – Not Acceptable – - Not acceptable with current conditions, requires immediate action.  • 200 < R < 400 – Orange – High Risk – Important risk. Mitigation measures shall be applied very quickly.  • 20 < R < 200 – Yellow – Critical Risk – The risk level shall be reduced. Mitigation measures shall be applied mid-term.

First, the probability of occurrence of the identified risk is scored as given below:

How we define substantive financial or strategic impact:

• R < 20 – Green – Acceptable Risk – Shall be controlled regularly.

The impact of the risk is assessed both environmentally and financially. For example an irreversible damage to the environment or high but reversible damage is a substantive impact for us, whereas financially impacts over 2.000.000 Euros are deemed substantive for our company.

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### (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	The climate change related regulation has a direct effect on our operations, so it is always included in our risk assessments. Turkish MRV regulation is under our radar and included in our risk assessments but as we already have an active greenhouse gas management system, we see this current regulation and the potential inclusion of the aviation industry in Turkish Monitoring, Reporting and Verification Regulation as an opportunity against our competitors.
Emerging regulation	Relevant, always included	As stated above climate change related regulation is of primary importance to us as our business is carbon intensive. Cap and Trade Schemes and CORSIA regulation is included in our risk assessments. Details of this risk can be seen in the risk table under question C2.3a (Risk2)
Technology	Relevant, sometimes included	Technological improvements may help us reduce our effect on climate change while also reducing our costs, so it is included in our risk assessments under potential opportunities section. One example of this type of opportunity is our fleet age, as our aircrafts are younger we are able to operate in more harsh environmental conditions which gives us a clear advantage over our competitors.
Legal	Relevant, always included	Non-compliance with the climate related regulation may result in climate related litigation claims. Although we include this issue in our risk assessment, it is assessed under emerging regulation category. Please see Risk2 under the risk table in Question C2.3a.
Market	Relevant, always included	As one of our main operational expense is jet kerosene we need to monitor the changes in the market extremely closely. One example of risk that is assessed under this category is carbon taxes on fossil fuels. Please see Question C2.3a-Risk1.
Reputation	Relevant, always included	As we are in the service industry, changing customer behaviour is one of our primary concerns. Customers opting for less carbon intensive transport options is one of the risks defined for this category. Details of this risk can be seen in the below risk table under Question C2.3a Risk3.
Acute physical	Relevant, always included	Being in the transportation industry, we always need to work according to the weather conditions, and aviation is one of the most effected industries from acute physical weather events, that is why it is always included in our risk assessments. Tropical cyclones are one of the risks that are considered under acute physical category. Details of this risk can be seen in the below risk table under Question C2.3a Risk4.
Chronic physical	Relevant, always included	As stated above physical climate conditions are of primary importance to us. One risk we assess under this category is snow and ice, details of which can see in the below risk table under Question C2.3a-Risk5.
Upstream	Relevant, always included	Upstream risks are assessed under the market risk category because the most important point in our supply chain is fossil fuels. Carbon taxes are an example of this type of risk, because any revision of taxes in fossil fuels will directly effect our operational expenses. Details of this risk can be seen in the below risk table under Question C2.3a-Risk1.
Downstream	Relevant, always included	Downstream risks are assessed under reputational risks category as our product is the services we offer our passangers. So any change in customer behaviour is our risk point in our downstream value chain. Please see Risk3 (Shifts in consumer preferences) in Question C2.3a below.

# C2.2d

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

# 1. Decision process on how to manage the risks and opportunities;

As described under C2.2b we have a specific risk assessment procedure for climate related risks and opportunities.

SHE (Safety, Health & Environment) department is responsible for assessing the potential size and scope of the identified risks and opportunities, according to the risk assessment procedure detailed under C2.2b. The decision on how to manage these risks is made according to the combined effect score of the identified risk.

The assessments of SHE Department are reported to the Head of IMS-BE Department and the risks that are identified as substantive by both the SHE Department and IMS-BE Department Head are presented to the CEO and the Executive Board. Significant risks are also reported to the Risk Committee who are responsible for determining and managing non-climate related risks. Risk Committee assessess the significance of climate-related risks in relation to other risks.

The management proposals given by the SHE Department are discussed in the Executive Board and further actions are taken

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according to the decisions of the Executive Board.

SHE Department is responsible for application of the management plan, which includes setting targets to reduce these risks and making performance reviews to assess whether the climate change related targets are met.

#### 2. Process for prioritizing r&o;

Risks and opportunities that may have a substantial environmental or financial impact are prioritized and managed accordingly. For example an irreversible damage to the environment or high but reversible damage is a subtantive impact for us, whereas financially impacts over 2.000.000 € are deemed substantive for our company. These types of risks are prioritized according to our procedures.

### 3. An example of how the process has been applied:

An example for this process is included below for Risk2 (Tansitional Risk-CORSIA) and Risk4 (Physical Risk-Tropical Cyclones)

During our climate-related risk assessment meeting in 2017 CORSIA was determined to be an almost certain regulation (probability score:10), the frequency of CORSIA is scored as not frequent (2) thinking that we would need to monitor our emissions monthly so that we can achieve the given targets, the severity of this risk is scored as 15. The total score of this risk is calculated as 300. (Orange risk). This risk was assessed to be a mid-term risk. This risk was also found significant by the Head of IMS-BE Department and was reported to the CEO and the Executive Board. Our CEO asked for further information on this regulation and possible courses of action so that we can discuss management options. As this is a mid-term risk which will have implications on our company after 2020, still we are developing a management plan. This risk is also reported to risk committee.

Another example is-Tropical cyclones. Although we are not located in a zone where there are frequent cyclones, for the first time in 2014, cyclones were observed in Istanbul. This is an effect of climate change. These types of extreme weather events may become more frequent in the not so distant future which will result in disruption of our operations and potentially cause damage on our aircraft fleet and facilities. This risk was identified during the risk assessment meetings of SHE department. However this risk was categorized as a yellow risk (Probability 3, Frequency 0,5, Severity 40, Combined Score=60), and was not found as imminent as the previous one. The management plan of this risk is determined by the SHE Department and approved by the Head of IMS-BE department. This risk is determined as a long-term risk.

# 4. By whom climate-related risks and opportunities are monitored, and to whom the results are reported:

The Chairman of the Risk Committee is our CEO. This committee assesses all types of risks according to our risk assessment matrix. SHE Committee informs this committee of climate related risks. The risk committee analyses these risks according to management of change analysis and decide whether they will include the risk in the general risk assessments.

SHE Committee meets every two months. In this committee all of the environmental issues are assessed. The results of the assessments are reported to Chief Technical Officer who is the head of the SHE Committee and also reported to Head of IMS-BE Department who reports directly to the CEO. SHE committee works like the risk committee but focuses mainly on Safety, Health and Environmental Issues.

# 5. How far into the future risks are considered:

Regulatory and market risks are considered both short and medium term. Whereas physical risks are considered long term.

### 6. Geographical areas considered:

Geographical areas considered in our risk and opportunities management currently includes Turkey and all other countries that we fly to. We currently fly to 108 locations 70 of which are international covering 41 countries. We fly to 38 locations in Turkey.

# 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) 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

Market: Increased cost of raw materials

#### Type of financial impact driver

Market: Abrupt and unexpected shifts in energy costs

#### Company- specific description

Some of the European countries that we provide service to have already started implementing carbon taxes for fossil fuels. In the light of the new international agreements this application may be more common than it is today. Turkey already has very high taxes on fossil fuels and an extra added tax will have a direct effect on our OPEX, a s one of the main components of our operational costs is Jet fuel consumption related.

#### **Time horizon**

Medium-term

#### Likelihood

Very likely

#### Magnitude of impact

Medium-low

# Potential financial impact

3.4

#### **Explanation of financial impact**

10% rise in fuel prices will result in 3.4% raise in our operational expenses.

#### Management method

Our priority for economically and environmentally sustaining our services is to operate as efficiently as possible. In order to achieve this, we continuously work and invest on fuel efficiency projects.

# **Cost of management**

0

### Comment

The cost of management of this risk is currently not calculated in detail, but as we work on route optimization and other efficiency projects which include only behavioural changes, we assume the cost is close to zero.

# 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

Air traffic has been a part of the Emissions Trading Scheme Cap and trade schemes (ETS) since 2012. The European Parliament

made a decision on exempting all flights between countries in the European Economic Area (EEA) and third countries from the EU ETS, until 2020. The amended regime will apply to flights in until 2020. After 2020 CORSIA will take effect, and all international air traffic around the globe will be included in this ETS until 2027 (except LDC and SIS) Our intra-EU flights have already been included in EU-ETS. In the scope of this inclusion we have started monitoring and reporting our GHG emissions. We also have allowances allocated for our intra-EU flights. In order to comply with CORSIA we will monitor and report all our international flights. This will result in a raise in our operational expenses.

#### **Time horizon**

Medium-term

#### Likelihood

Virtually certain

#### Magnitude of impact

Medium

#### Potential financial impact

1715500

#### **Explanation of financial impact**

When the civil aviation sector included in EU ETS in 2012 we were given over 300000 tonnes allowance and our emissions in the corresponding year was well above this allowances figure. If the regulation was not derogated, we would have to purchase over 80000 tonnes which would have caused a marginal financial implication (over 400.000 €/annum) for us. As all flights will be included in CORSIA, the financial implications may be higher depending on the base year selected. Regarding the financial implications of CORSIA, we have made an assumption according to the price estimations of Directorate General of Civil Aviation. And we estimate a minimum financial risk of 1.715.500 TRY/annum.

#### Management method

Our priority for economically and environmentally sustaining our services is to operate as efficiently as possible. In order to achieve this, we continuously work and invest on fuel efficiency projects and challenge ourselves to reduce our GHG emissions. By doing so, we apply our strategy to minimize the impact ETS has/will have on our operational costs. We are also investigating other management options like renewable energy investments and carbon offsetting possibilities for this risk. We are currently renewing our fleet with more efficient aircrafts.

#### Cost of management

0

#### Comment

Currently we are investigating the management options, so we do not have any extra costs. The investment in new technology fuel efficient aircrafts can be included in the cost of management however this investment amount is confidential.

#### Identifier

Risk 3

#### Where in the value chain does the risk driver occur?

Customer

#### Risk type

Transition risk

# Primary climate-related risk driver

Reputation: Shifts in consumer preferences

# Type of financial impact driver

Reputation: Reduced revenue from decreased demand for goods/services

# **Company- specific description**

Air travel is seen as one of the biggest contributors to climate change, especially when people are calculating their own personal carbon footprints, they will immediately see the effect of air travel. Although majority of people in Turkey are not aware of climate change related issues, this can be a huge risk for us in the not so distant future, as people may choose to travel by train or bus to short distances under similar financial conditions.

#### **Time horizon**

Long-term

#### Likelihood

About as likely as not

#### **Magnitude of impact**

# Potential financial impact

7

#### **Explanation of financial impact**

A 10% reduction in the number of our total guests will result up to 7% decrease of our revenue; therefore will affect our financial stability.

#### Management method

To manage this risk, we need to make sure that we are one of the most environmentally friendly airline companies in Turkey. In order to communicate our climate change related activities, we have been calculating our GHG emissions since 2011, and reporting to CDP since 2015. We also have many active measures to reduce our GHG emissions.

#### Cost of management

0

#### Comment

We have a dedicated budget for climate change related activities like CDP reporting. We also apply energy efficiency measures to reduce fuel consumption. The costs and details of these measures are confidential, therefore the monetary figures of these investments cannot be communicated.

#### Identifier

Risk 4

#### Where in the value chain does the risk driver occur?

Direct operations

#### Risk type

Physical risk

#### Primary climate-related risk driver

Acute: Increased severity of extreme weather events such as cyclones and floods

### Type of financial impact driver

Reduced revenue from decreased production capacity (e.g., transport difficulties, supply chain interruptions)

#### Company- specific description

Although we are not located in a zone where there are frequent cyclones, for the first time in 2014, cyclones were observed in Istanbul. This is an effect of climate change. These types of extreme weather events may become more frequent in the not so distant future which will result in disruption of our operations and potentially cause damage on our aircraft fleet and facilities.

#### **Time horizon**

Long-term

#### Likelihood

More likely than not

#### Magnitude of impact

Low

# Potential financial impact

1

# **Explanation of financial impact**

The cost of delays are calculated to be below 1% of our operational expenses.

# Management method

In order to be well prepared for such extreme physical conditions, we make sure our (and our suppliers') personnel is provided with sufficient training to better manage and minimize the impact of the identified risk. Our pilots work and get trained on bad weather conditions on the simulators

### **Cost of management**

0

#### Comment

As these trainings are also a part of mandatory trainings set by the Directorate General of Civil Aviation, there is no extra cost of management which is solely related to climate change.

#### Identifier

Risk 5

### Where in the value chain does the risk driver occur?

Direct operations

### Risk type

Physical risk

#### Primary climate-related risk driver

Chronic: Changes in precipitation patterns and extreme variability in weather patterns

#### Type of financial impact driver

Increased operating costs (e.g., inadequate water supply for hydroelectric plants or to cool nuclear and fossil fuel plants)

#### Company- specific description

One of the effects of climate change is having harsher and longer winters in the areas that we operate. This may result in an increase in our operational costs as we have to de-ice the planes more frequently. Not only these weather events increase our need for de-icing, but also they will cause delays in our operations both of which increases our operational costs.

#### **Time horizon**

Medium-term

#### Likelihood

Likely

### Magnitude of impact

I ow

#### Potential financial impact

1

#### **Explanation of financial impact**

The current cost of de-icing is below 1% of our operational expenses.

# **Management method**

In 2017 we have invested in a de-icing area in Sabiha Gökçen airport and we have taken full control over the de-icing activities of our aircrafts.

# Cost of management

900000

#### Comment

The given management cost is the cost of our de-icing area investment.

### Identifier

Risk 6

# Where in the value chain does the risk driver occur?

Direct operations

# Risk type

Physical risk

# Primary climate-related risk driver

Chronic: Rising mean temperatures

#### Type of financial impact driver

Increased operating costs (e.g., inadequate water supply for hydroelectric plants or to cool nuclear and fossil fuel plants)

# Company- specific description

Temperature extremes cause delay in our operations and negatively affect working conditions of our ground services employees directly reducing working hours therefore increase our operational costs. Additionally, in extremely hot temperatures aircraft engine performances decrease causing longer take- off runway time. In order to shorten this additional take-off runway period, the engine power is increased which results in additional fuel consumption, which in turn increases our GHG emissions.

### **Time horizon**

Medium-term

# Likelihood

About as likely as not

### Magnitude of impact

Low

#### Potential financial impact

5

#### **Explanation of financial impact**

Although the cost of delays are calculated to be below 1% of our current operational expenses, there are many other variables related to this risk, i.e more fuel consumption and increased GHG emissions, which may result up to 5% increase in our OPEX.

#### Management method

We are able to manage this risk by having a younger fleet. Pegasus Airlines had signed up to purchase 100 A320 & A321 NEO Family aircraft with Airbus in 2012, 75 of which subjected to a firm order and 25 optional. According to this contract, our fleet will consist over 10% of A320 NEO aircrafts by the second half of 2016 and by 2022 we will have replaced 100 aircrafts. This dedicated effort in minimizing the average age of our fleet also helps us minimize the risk of damage that will be caused by change in temperature extremes, as new aircrafts are more resilient to temperature extremes.

#### Cost of management

3.6

#### Comment

In the reporting year our Leasing Expenses of our Airbus NEO Aircrafts were 3.6% of our total expenses. This renewal of our fleet helps us reduce the effects of this risk, while also reducing our fuel consumption and our fuel expenses.

# 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

Energy source

#### Primary climate-related opportunity driver

Participation in carbon market

### Type of financial impact driver

Reduced operational costs (e.g., through use of lowest cost abatement)

# Company- specific description

Turkish Ministry of Environment and Urbanization has published a regulation on Monitoring, Reporting and Verification of GHG emissions in the industry. Although this law is only for stationary installations, in the not so distant future we foresee that aviation industry can also be included in this reporting scheme. As we are already familiar with EU-ETS and we already calculate and report our GHG emissions, we are prepared in case such inclusion occurs for the domestic flights.

# Time horizon

Long-term

# Likelihood

Very unlikely

#### Magnitude of impact

Low

#### Potential financial impact

250000

#### **Explanation of financial impact**

As we already report our Scope 1 and 2 emissions according to ISO 14064-1 and as we are familiar with verification of GHG emissions, we will be ready to comply with this obligation. Therefore, it will not bare an additional cost for us. Which gives us an advantage against our competitors, as they may need to invest on consultancy, skilled personnel and they may also be subject to fines of non-compliance which may cost around 250.000 TRY/annum.

### Strategy to realize opportunity

We have been reporting our GHG emissions since 2011 we already have processes in place to collect activity data and report GHG emissions. This will provide an opportunity for us against our competitors. Moreover, our team has been working since 2008 to lower our fuel consumption and better our GHG Emissions Management, therefore as the first airlines company to report its GHG emissions in Turkey, we will have a significant advantage if a mandatory GHG emissions reporting will be required in the future.

#### Cost to realize opportunity

0

#### Comment

As we are already working on these issues with our skilled personnel, there will be no extra cost of management of this opportunity.

#### Identifier

Opp2

### Where in the value chain does the opportunity occur?

Direct operations

### **Opportunity type**

Resilience

#### Primary climate-related opportunity driver

Other

#### Type of financial impact driver

Increased reliability of supply chain and ability to operate under various conditions

# Company- specific description

Our aircraft fleet age average in 2017 was 5.7 years which is younger in comparison with our competitors, we also give de-icing services to our own aircrafts. Therefore, under these weather conditions, our operations will likely be affected less than other airline companies. This bares a competitive advantage for us. In the winter months of 2016, while most of the flights were cancelled we were able to operate.

# Time horizon

Short-term

#### Likelihood

More likely than not

### Magnitude of impact

Medium-low

### Potential financial impact

1000000

### **Explanation of financial impact**

As Pegasus we handle extreme weather conditions very efficiently and minimize the possible delays and operational defects as much as physically possible. As the optimized operations management is a part of our risk management process, this opportunity results in enhanced operational conditions for us and provides us an advantage over our competitors. Although the direct financial impact of this opportunity is not yet calculated in detail, we estimate it to be around 1,000,00 TRY/annum.

### Strategy to realize opportunity

With our well-trained staff and all necessary equipment, we are well prepared for the extreme winter conditions. Our integrated risk management process foresees the necessary investments to be made in order to cope with/be least affected from environmental risks. We have also invested in a de-icing area in 2017, which helps us both manage some risks and capitalize this opportunity.

#### Cost to realize opportunity

#### Comment

As environmental risk management is integrated in the company's overall risk management and strategy process, it has not resulted in any additional costs. However, in order to maintain this opportunity, we make investments in terms of training our personnel and sufficiently equipping our ground services. The given figure is the investment of the de-icing area. This investment both helps us reduce climate related risks and capitalize on this opportunity.

#### Identifier

Opp3

#### Where in the value chain does the opportunity occur?

Customer

# **Opportunity type**

Products and services

#### Primary climate-related opportunity driver

Shift in consumer preferences

#### Type of financial impact driver

Better competitive position to reflect shifting consumer preferences, resulting in increased revenues

#### Company- specific description

As an important actor shaping the global GHG emissions, aviation sector has a responsibility to continuously reduce its emissions. Some companies do more in order to achieve this goal and this drives the attention of the costumer. Responsible company is a more attractive choice for the passengers, employees and business partners. Pegasus, being the first airlines company in Turkey to monitor and report its GHG emissions and to set targets for reduction will become the choice of environmentally aware guests.

#### **Time horizon**

Long-term

#### Likelihood

Likely

#### Magnitude of impact

Medium-low

### Potential financial impact

7

# **Explanation of financial impact**

A 10% increase in demand will result in up to 7% raise in our revenue, therefore economic sustainability of our company will benefit from this while working towards environmental sustainability.

### Strategy to realize opportunity

Pegasus is continuously working to better its services to meet the guests' needs to become their first choice. Additionally, raising awareness about climate change in our value chain, especially our guests is one of our goals to enable them to make better choices for air travelling. To manage this opportunity we are continuously communicating our climate-change related efforts to our customers via our investor relations website and/or in-flight magazine.

# Cost to realize opportunity

0

### Comment

The management of this opportunity doesn't have an extra cost as these activities are already included in our environmental management system. The communication to our clients are usually done via our investor relations website or our in-flight magazines, so this does not cost extra.

# C2.5

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

	Impact	Description
Products and services	Not yet impacted	Our services are expected to be impacted from climate related reputational issues. As described under sections 2.3a and 2.4a, the magnitude of impact is assessed to be medium-low, as 10% increase or decrease in demand will result in up to 7% raise or decrease in our revenue. The timeline for this impact is identified as long term (in more than 6 years).
Supply chain and/or value chain	Impacted for some suppliers, facilities, or product lines	For the markets where carbon taxes are in place, we have already started seeing the impacts on oil prices. However in Turkey as there is no such regulation in place our fuel suppliers are not impacted. 10% rise in fuel prices will result in 3.4% raise in our operational expenses, so the magnitude of this impact is assessed to be medium-low.
Adaptation and mitigation activities	Not yet impacted	Turkey has not imposed any adaptation or mitigation activity on aviation industry yet, but as stated in the above sections an international mitigation activity under CORSIA will be applicable after 2020. The magnitude however is assessed to be low-medium as it will also effect other aviation companies.
Investment in R&D	We have not identified any risks or opportunities	We haven't identified any risks or opportunities related to investments in R&D activities. However we closely monitor the developments in our field of work and we are always eager to try out new technologies. As an example, Pegasus was the first airline in the world to try Airbus's new engine, which is much more efficient than current aircraft engines.
Operations	Impacted	Our operations are being impacted especially from extreme weather conditions. In the winter months of 2017 our de-icing expenses were below 1% of our OPEX. Although the magnitude of the impact is low at the moment, it may be higher in the upcoming years, with changing weather patterns, so it is watched closely and assessed as a Medium-Low impact risk.
Other, please specify	Please select	

# C2.6

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

	Relevance	Description
Revenues	Not yet impacted	Our revenues are not yet impacted by climate related risks and opportunities but we expect such impact in long-term (3-10 years) as described especially in reputational risks and opportunities under sections 2.3a and 2.4a.
Operating costs	Impacted	Our OPEX is impacted from extreme weather conditions. However the impact is low for the time being, the costs of deicing and delays constitute below 1% of our OPEX.
Capital expenditures / capital allocation	Impacted	As we want to manage our GHG emissions and lower our fuel consumption we have invested in fuel efficent aircrafts and have included 6 Airbus A320 NEO aircrafts in our fleet in 2017. The impact is around 3.6% or our annual expenditures /year.
Acquisitions and divestments	We have not identified any risks or opportunities	As we are a service provider company, we don't usually divest from or acquire any company. Therefore acquisition or divestments are not included in our risk assessments.
Access to capital	We have not identified any risks or opportunities	Access to capital is not yet included in our climate change related risk assessments.
Assets	Impacted	Our main assets are our planes, and they are impacted by extreme weather events such as hail storms. However currently the magnitude of these impacts are low (below 1% of our OPEX)
Liabilities	Not impacted	Our liabilities are not impacted by climate change related risks and opportunities. Because the identified risks and opportunities currently have very little effect on our revenues. These effects are manageable, therefore they don't reflect any risk on our liabilities.
Other	Please select	

# C3. Business Strategy

# C3.1

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

Yes

(C3.1a) Does your organization use climate-related scenario analysis to inform your business strategy? No, and we do not anticipate doing so in the next two years

C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b)

(C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-TO3.1b/C-TO3.1b/C-TS3.1b) Indicate whether your organization has developed a low-carbon transition plan to support the long-term business strategy. No, we do not have a low-carbon transition plan

### C3.1c

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

i. Company-specific explanation of how business objectives and strategy have been influenced by climate-related issues;

As a first step to integrate climate change in our strategy we started calculating our GHG emissions in 2011 and we have also started a GHG management system. We compile our GHG Inventory according to ISO 14064-1. We also use this data as an input for our climate change related business strategies, we closely monitor international developments related to climate change (i.e. Developing regulations like CORSIA) and we structure our strategy according to these developments.

Changing climate conditions causes an increase in taxi and waiting durations and delays. To manage these problems, we change our flight tariffs twice a year in order not to be effected by the changing weather patterns.

We also have alternative flight routes, emergency action plans according to extreme weather events like thunderstorms, hail, etc. During flight trainings our pilots are trained in simulators in all types of extreme weather event scenarios.

ii. Explanation of whether our business strategy is linked to an emissions reductions target or energy reduction target;

Our strategy is not yet directly related to an emissions reduction target, however within the scope of cost reduction streategies especially on fuel consumption, it also reflects to our emissions as emission reductions. Beginning from 2021 we will have a compulsory emission reduction target within the scope of CORSIA, which we will also include in our business strategy.

iii. What have been the most substantial business decisions made during the reporting year that have been influenced by the climate change driven aspects of the strategy;

We have an on-going project of renewing our aircrafts and in 2017 we have included 6 Airbus A320-200 Neo Aircrafts in our Fleet in 2017. These planes replaced 10 Boeing B737-800 aircarfts which are less energy efficient. This decision was influenced by many factors one of which is the regulatory aspects of climate change. As we may face carbon taxes or caps on our GHG emissions in the upcoming years we wanted to have a competitive advantage against other aircraft operators.

iv. What aspects of climate change have influenced the strategy;

The most important aspect of climate change that has influenced our strategy is the regulatory obligations that have increased due to

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climate change. Furthermore, research shows that guests and investors are increasingly concerned about environment and climate change, which pushes us to increase our efforts in reducing our GHG emissions while providing them with an utmost quality of service without compromising safety and security.

Another important aspect is the need for adaptation. As climate change effects the migration routes of the birds, we need to revise route and landing plans according to the seasonal changes in the migration routes. We have also prepared emergency action plans against collision with bird flocks.

### v. How the short-term strategy has been influenced by climate change;

Climate change has influenced our short-term business strategy as we have a very high risk to be effected by climate change related regulations and physical climate parameters. Our short term (<1 years) strategy that has been influenced by the climate change is to enhance the fuel efficiency of our aircraft fleet which is our main GHG emission source.

We have also invested in a de-icing area in Sabiha Gökçen Airport in order to manage the icing on the plane in winter months. This gives us an advantage against our competitors as we can give de-icing services to our own planes.

#### vi. How the long-term strategy has been influenced by climate change;

One of our most important long term (>5 years) strategy that has been influenced by climate change and our GHG emission reduction targets, is to reduce the average age of our fleet by replacing them with fuel efficient new airplanes (A320 & A321 NEO) as part of our 'Pegasus Airlines prefers Airbus' project which will realize fuel efficiency exceeding 15% with respect to the current narrow body aircraft types in the market. All those airplanes are also light weight equipped. By doing this, we are targeting to reduce our CO2 emissions per flight hour. We are the first airline in the world to try this state-of-the-art engine of Airbus.

Pegasus Airlines had signed an agreement f with Airbus in 2012, for the purchase of up to 100 A320 & A321 NEO Family aircrafts, 75 of which subjected to a firm order and 25 optional. In 2017 we have replaced 10 B737-800 aircrafts with 6 A320-200 NEO Aircrafts. By the end of 2017 22% of our fleet consists of A320 NEO aircrafts.

#### vii. How this is gaining a strategic advantage over our competitors;

This strategic decision will give us advantage over our competitors as it will enable us to lower our operational costs.

Moreover, we have obtained the "LEED Gold Certificate" for our Company Headquarters based in Aeropark facility in Istanbul.

### viii. How the Paris Agreement has influenced the business strategy.:

Turkey has an INDC of up to 21 % reduction in GHG emissions from the Business as Usual (BAU) level by 2030. However, the roadmap for achieving this reduction is not clear enough, and aviation industry is not yet included in the general plan except for the green airport projects. Therefore, Paris Agreement has not influenced our business strategy yet, but we are watching the national developments very closely.

# C3.1g

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

We are waiting for Turkey to ratify the Paris Agreement and to finalize NDC's so that we can include these in our business strategy. But we are considering using climate related scenario analysis especially for CORSIA.

# C4. Targets and performance

# C4.1

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

### C4.1b

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

### Target reference number

Int 1

#### Scope

Scope 1

#### % emissions in Scope

100

### % reduction from baseline year

3

#### Metric

Grams CO2e per revenue passenger kilometer\*

### Base year

2016

#### Start year

2016

# Normalized baseline year emissions covered by target (metric tons CO2e)

84.09

# Target year

2020

# Is this a science-based target?

No, and we do not anticipate setting one in the next 2 years

#### % achieved (emissions)

100

# **Target status**

Retired

# Please explain

In 2016 we have started reviewing the documents of Science Based Targets Initiative, and we set this intensity target using the metric that is suggested by the tool for setting science based targets for the aviation industry. However by the end of 2017 we have already exceeded the reduction target, therefore this target is retired. We are planning on working on SBTI guidance documents to set a more ambitious target. As we are one of the fastest growing airlines, this target indicates an increase in our absolute emissions. Last year while setting this target we have anticipated a 10% rise in our Scope 3 emissions, however although we have exceeded this target our GHG emissions have only increased 1.3%We do not calculate our Scope 3 emissions, so we haven't calculated the effect of this target on our scope 3 GHG emissions.

% change anticipated in absolute Scope 1+2 emissions 1.3	
% change anticipated in absolute Scope 3 emissions 0	
Target reference number Int 2	
Scope Scope 1+2 (location-based)	
% emissions in Scope 100	
% reduction from baseline year 10	
Metric Other, please specify (Grams CO2e per Available Seat Km)	
Base year 2016	
Start year 2017	
Normalized baseline year emissions covered by target (metric tons CO2e) 69.91	
Target year 2020	
Is this a science-based target?  No, and we do not anticipate setting one in the next 2 years	
% achieved (emissions) 47.2	
Target status New	
Please explain In 2017 we have set a new target to decrease our gross global Scope 1 and Scope 2 CO2 emissions per available seat km In 2017 we have set as 2016. We currently reduced our GHG emissions/ASK by 4.72 %. As we are one of the fastest growing airlines, this target indicates an increase in our absolute emissions, however we cannot anticipate the exact % value of this increase, therefore the given value is just a rough estimation. We do not calculate our Scope 3 emissions, so we haven't call the effect of this target on our scope 3 GHG emissions.	ng
% change anticipated in absolute Scope 1+2 emissions	
% change anticipated in absolute Scope 3 emissions	
24.2	
C4.2) Provide details of other key climate-related targets not already reported in question C4.1/a/b.	
24.3	

(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	0	
To be implemented*	0	0
Implementation commenced*	0	0
Implemented*	3	57162.49
Not to be implemented	0	

# C4.3b

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

#### **Activity type**

Energy efficiency: Processes

#### **Description of activity**

Process optimization

# Estimated annual CO2e savings (metric tonnes CO2e)

47872.28

# Scope

Scope 1

# Voluntary/Mandatory

Voluntary

### Annual monetary savings (unit currency - as specified in CC0.4)

26346010

### Investment required (unit currency - as specified in CC0.4)

0

# Payback period

<1 year

# Estimated lifetime of the initiative

11-15 years

# Comment

Our captains are trained on how to optimize the flight routes during the flights. This initiative taken by the captains helped us reduce fuel consumption considerably during the reporting year. As trainings are a natural part of our operations this initiative didn't need any investment. The estimated lifetime of the initiative can't be calculated because this initiative is a behavioral change. So the given time frame is hypothetical.

# **Activity type**

Energy efficiency: Processes

### **Description of activity**

Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

4243.59

#### Scope

Scope 1

#### Voluntary/Mandatory

Voluntary

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

3712050

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

226300

### Payback period

<1 year

#### Estimated lifetime of the initiative

6-10 years

#### Comment

We have implemented a system which instantly notifies our pilots about the air traffic and weather patterns. The pilots can check the momentary inputs from this system, and if the conditions are ok they can shorten the flight route.

# **Activity type**

Energy efficiency: Processes

### **Description of activity**

Process optimization

# Estimated annual CO2e savings (metric tonnes CO2e)

5046.63

# Scope

Scope 1

# Voluntary/Mandatory

Voluntary

# Annual monetary savings (unit currency - as specified in CC0.4)

2777000

# Investment required (unit currency - as specified in CC0.4)

0

# Payback period

<1 year

# Estimated lifetime of the initiative

11-15 years

#### Comment

As the taxi time in SAW airport is quite long, to reduce fuel consumption we have requested our pilots to perform taxi using only one engine. As this is only a behavioral change no investment is required. The estimated lifetime of the initiative can't be calculated because this initiative is a behavioral change. So the given time frame is hypothetical.

# C4.3c

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

Method	Comment
Dedicated budget for	We have planned the amount of the investments to be made for the fuel efficiency projects until 2017 and dedicated a budget for them.
energy efficiency	However, as this information is confidential, we cannot communicate the exact amount of the budget.

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

No

# C5. Emissions methodology

# C5.1

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

#### Scope 1

Base year start

January 1 2013

Base year end

December 31 2013

Base year emissions (metric tons CO2e)

1337708.71

Comment

Scope 2 (location-based)

Base year start

January 1 2013

Base year end

December 31 2013

Base year emissions (metric tons CO2e)

1430.22

Comment

We only calculate Scope 2 location based.

Scope 2 (market-based)

Base year start

January 1 2013

Base year end

December 31 2013

Base year emissions (metric tons CO2e)

0

Comment

We don't calculate market based Scope 2 emissions.

# 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.

ISO 14064-1

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

### 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)

2112366.22

### End-year of reporting period

<Not Applicable>

#### Comment

We haven't purchased any emission reduction certificates in the reporting year, therefore our gross global Scope 1 emissions are equal to our net global Scope 1 emissions.

### C6.2

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

#### Row 1

### Scope 2, location-based

We are reporting a Scope 2, location-based figure

# Scope 2, market-based

We 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

We have emissions from our electricity use in the EU and other airports, however we don't have any supplier specific data to be able to report market based Scope2 emissions.

### C6.3

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

# Row 1

# Scope 2, location-based

2718.99

# Scope 2, market-based (if applicable)

<Not Applicable>

# **End-year of reporting period**

<Not Applicable>

#### Comment

Our main electricity consumption is in Turkey, we also consume electricity in the airports where we land outside of Turkey, however we don't have any market specific data. We haven't purchased any emission reduction or renewable energy certificates in the reporting year, therefore our gross global Scope 2 emissions are equal to our net global Scope 2 emissions.

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

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

Small airport offices in various locations

### Relevance of Scope 1 emissions from this source

Emissions are relevant but not yet calculated

# Relevance of location-based Scope 2 emissions from this source

Emissions are relevant but not yet calculated

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

Emissions are not relevant

#### Explain why the source is excluded

A small number of staff operates in airports other than Istanbul Sabiha Gokcen, Izmir Adnan Menderes and Antalya Airports. However, the operation volumes in these offices are relatively low, therefore they are not included in our GHG inventory boundary yet. If the operational volumes increase in the future, we will include them in the boundary. We estimate the total emissions from these small offices will constitute below 1% of our total GHG emissions, therefore they are negligible.

### C6.5

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

Purchased goods and services

# **Evaluation status**

Relevant, not yet calculated

Metric tonnes CO2e

**Emissions calculation methodology** 

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

### **Explanation**

As over 99% of our Combined (Scope 1 and Scope 2) emissions caused by our jet kerosene fuel consumption, we prioritized our efforts to manage this emission source as it will have the biggest potential to reduce our overall GHG emissions. However, in the future we will include our relevant Scope 3 emission sources in our Inventory.

### **Capital goods**

#### **Evaluation status**

Relevant, not yet calculated

#### **Metric tonnes CO2e**

#### **Emissions calculation methodology**

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

### **Explanation**

As over 99% of our Combined (Scope 1 and Scope 2) emissions caused by our jet kerosene fuel consumption, we prioritized our efforts to manage this emission source as it will have the biggest potential to reduce our overall GHG emissions. However, in the future we will include our relevant Scope 3 emission sources in our Inventory.

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

#### **Evaluation status**

Relevant, not yet calculated

#### **Metric tonnes CO2e**

### **Emissions calculation methodology**

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

#### **Explanation**

As over 99% of our Combined (Scope 1 and Scope 2) emissions caused by our jet kerosene fuel consumption, we prioritized our efforts to manage this emission source as it will have the biggest potential to reduce our overall GHG emissions. However, in the future we will include our relevant Scope 3 emission sources in our Inventory.

#### Upstream transportation and distribution

#### **Evaluation status**

Relevant, not yet calculated

#### **Metric tonnes CO2e**

#### **Emissions calculation methodology**

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

### **Explanation**

As over 99% of our Combined (Scope 1 and Scope 2) emissions caused by our jet kerosene fuel consumption, we prioritized our efforts to manage this emission source as it will have the biggest potential to reduce our overall GHG emissions. However, in the future we will include our relevant Scope 3 emission sources in our Inventory.

# Waste generated in operations

# **Evaluation status**

Relevant, not yet calculated

#### **Metric tonnes CO2e**

# **Emissions calculation methodology**

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

# **Explanation**

As over 99% of our Combined (Scope 1 and Scope 2) emissions caused by our jet kerosene fuel consumption, we prioritized our efforts to manage this emission source as it will have the biggest potential to reduce our overall GHG emissions. However, in the future we will include our relevant Scope 3 emission sources in our Inventory.

#### **Business travel**

# **Evaluation status**

Relevant, not yet calculated

#### **Metric tonnes CO2e**

#### **Emissions calculation methodology**

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

### **Explanation**

As over 99% of our Combined (Scope 1 and Scope 2) emissions caused by our jet kerosene fuel consumption, we prioritized our efforts to manage this emission source as it will have the biggest potential to reduce our overall GHG emissions. However, in the future we will include our relevant Scope 3 emission sources in our Inventory.

#### **Employee commuting**

### **Evaluation status**

Relevant, not yet calculated

#### **Metric tonnes CO2e**

### **Emissions calculation methodology**

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

#### **Explanation**

As over 99% of our Combined (Scope 1 and Scope 2) emissions caused by our jet kerosene fuel consumption, we prioritized our efforts to manage this emission source as it will have the biggest potential to reduce our overall GHG emissions. However, in the future we will include our relevant Scope 3 emission sources in our Inventory.

#### **Upstream leased assets**

#### **Evaluation status**

Relevant, not yet calculated

#### **Metric tonnes CO2e**

#### **Emissions calculation methodology**

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

### **Explanation**

As over 99% of our Combined (Scope 1 and Scope 2) emissions caused by our jet kerosene fuel consumption, we prioritized our efforts to manage this emission source as it will have the biggest potential to reduce our overall GHG emissions. However, in the future we will include our relevant Scope 3 emission sources in our Inventory.

# Downstream transportation and distribution

# **Evaluation status**

Not relevant, explanation provided

# **Metric tonnes CO2e**

# **Emissions calculation methodology**

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

# **Explanation**

As we provide a service not a product, this emission source is not relevant for our organization.

#### Processing of sold products

#### **Evaluation status**

Not relevant, explanation provided

#### **Metric tonnes CO2e**

#### **Emissions calculation methodology**

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

### **Explanation**

As we provide a service not a product, this emission source is not relevant for our organization.

### Use of sold products

#### **Evaluation status**

Not relevant, explanation provided

#### **Metric tonnes CO2e**

#### **Emissions calculation methodology**

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

#### **Explanation**

As we provide a service not a product, this emission source is not relevant for our organization.

### End of life treatment of sold products

#### **Evaluation status**

Not relevant, explanation provided

#### **Metric tonnes CO2e**

#### **Emissions calculation methodology**

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

# **Explanation**

As we provide a service not a product, this emission source is not relevant for our organization.

#### **Downstream leased assets**

#### **Evaluation status**

Relevant, not yet calculated

### **Metric tonnes CO2e**

### **Emissions calculation methodology**

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

### **Explanation**

As over 99% of our Combined (Scope 1 and Scope 2) emissions caused by our jet kerosene fuel consumption, we prioritized our efforts to manage this emission source as it will have the biggest potential to reduce our overall GHG emissions. However, in the future we will include our relevant Scope 3 emission sources in our Inventory.

# **Franchises**

# **Evaluation status**

Not relevant, explanation provided

#### Metric tonnes CO2e

# **Emissions calculation methodology**

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

# **Explanation**

Pegasus does not have any franchises.

#### Investments

#### **Evaluation status**

Not evaluated

#### **Metric tonnes CO2e**

#### **Emissions calculation methodology**

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

### **Explanation**

As over 99% of our Combined (Scope 1 and Scope 2) emissions caused by our jet kerosene fuel consumption, we prioritized our efforts to manage this emission source as it will have the biggest potential to reduce our overall GHG emissions. However, in the future we will include our relevant Scope 3 emission sources in our Inventory.

#### Other (upstream)

#### **Evaluation status**

Not evaluated

#### **Metric tonnes CO2e**

#### **Emissions calculation methodology**

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

#### **Explanation**

As over 99% of our Combined (Scope 1 and Scope 2) emissions caused by our jet kerosene fuel consumption, we prioritized our efforts to manage this emission source as it will have the biggest potential to reduce our overall GHG emissions. However, in the future we will include our relevant Scope 3 emission sources in our Inventory.

#### Other (downstream)

#### **Evaluation status**

Not evaluated

### **Metric tonnes CO2e**

#### **Emissions calculation methodology**

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

### **Explanation**

As over 99% of our Combined (Scope 1 and Scope 2) emissions caused by our jet kerosene fuel consumption, we prioritized our efforts to manage this emission source as it will have the biggest potential to reduce our overall GHG emissions. However, in the future we will include our relevant Scope 3 emission sources in our Inventory.

# C6.7

(C6.7) Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

# 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**

0.0004

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

2115085.2

# Metric denominator

unit total revenue

#### Metric denominator: Unit total

5348573000

#### Scope 2 figure used

Location-based

#### % change from previous year

29.8

#### **Direction of change**

Decreased

#### Reason for change

Our revenue has increased by 44% from previous year, however our absolute GHG emissions have only risen 1,3%, this corresponds to a significant decrease on our GHG emissions /revenue.

#### Intensity figure

396.31

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

2115085.2

### Metric denominator

full time equivalent (FTE) employee

### Metric denominator: Unit total

5337

# Scope 2 figure used

Location-based

### % change from previous year

0.2

# **Direction of change**

Decreased

# Reason for change

While the number of our FTE increased by 1.5%, our gross global emissions have increased by 1.3% due to the increase in the number of flights operated. This results in a slight reduction of our GHG emissions/FTE

# **Intensity figure**

0.0114

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

2115085.2

# Metric denominator

kilometer

# Metric denominator: Unit total

185953660

# Scope 2 figure used

Location-based

# % change from previous year

4.5

# **Direction of change**

Decreased

# Reason for change

Although our emissions have increased by 1.3%, the distance we have flown has increased 6,04%, which results in a 4.48% decrease in our GHG emissions per km. As we only calculate our Scope 1+2 (location based) GHG emissions, this intensity figure includes all of our vehicles

(C-TS6.15) What are your primary intensity (activity-based) metrics that are appropriate to your emissions from transport activities in Scope 1, 2, and 3?

#### **Aviation**

Scopes used for calculation of intensities

Report Scope 1 + 2

Intensity figure

0.000073

Metric numerator: emissions in metric tons CO2e

2109012.08

Metric denominator: unit

p.km

Metric denominator: unit total

28910378138

% change from previous year

13.14

Please explain any exclusions in your coverage of transport emissions in selected category, and reasons for change in emissions intensity.

The passenger km for 2017 has risen by over 16.60%, our GHG emissions resulting from our flights have increased by 1.28% due to the increase in the number of flights operated, which resulted in a decrease of our emissions intensity per passenger km. While calculating GHG emissions resulting from our aviation activities, jet kerosene consumption, fire extinguishers and diesel oil consumption in our own GPU units are included as scope 1. Diesel oil consumption of the GPU units that are not operated by us and 400 Hz electricity consumption are included as Scope2.

#### ALL

Scopes used for calculation of intensities

Report Scope 1 + 2

Intensity figure

13.13

Metric numerator: emissions in metric tons CO2e

2115085.2

Metric denominator: unit

p.km

Metric denominator: unit total

28910378138

% change from previous year

13.13

Please explain any exclusions in your coverage of transport emissions in selected category, and reasons for change in emissions intensity.

The passenger km for 2017 has risen by over 16.60%, our gross global emissions have increased by 1.3% due to the increase in the number of flights operated, which resulted in a decrease of our emissions intensity per passenger km. In this calculation all of our Scope 1 and Scope 2 emission sources are included. This includes the buses and HDV's we use for ground services in Sabiha Gökçen Airport. The GHG emissions of these vehicles comprise less than 0.25% of our total GHG emissions.

### C7. Emissions breakdowns

# C7.1

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

# 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	2093580	IPCC Fourth Assessment Report (AR4 - 100 year)		
CH4	373.14	IPCC Fourth Assessment Report (AR4 - 100 year)		
N2O	17656.32	IPCC Fourth Assessment Report (AR4 - 100 year)		
HFCs	756.75	IPCC Fourth Assessment Report (AR4 - 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	2112366.22	

# 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
Istanbul Aeropark Company Headquarters (Including Scope 1 GHG emissions from Aircrafts)	2108832.96	40.929857	29.306877
Sabiha Gokcen Airport	3475.75	40.906473	29.315316
Izmir Adnan Menderes Airport	29.79	38.293822	27.151943
Antalya Airport	27.71	36.904361	30.801871

# C7.3c

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

Activity	Scope 1 emissions (metric tons CO2e)		
Jet kerosene consumption	2107010.12		
Diesel oil consumption (GPU)	913.94		
Gasoline consumption (generators)	2.31		
Fugitive emissions from refrigerators and air conditioners	6.31		
Fugitive emissions from fire extinguishers	750.45		
Diesel oil consumption (mobile sources)	3664.67		
Gasoline consumption (mobile sources)	18.42		

# C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions , metric tons CO2e	Comment
Cement production activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Chemicals production activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Coal production activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Electric utility generation activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Metals and mining production activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Oil and gas production activities (upstream)	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Oil and gas production activities (downstream)	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Steel production activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Transport OEM activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Transport services activities	2108666.26	<not applicable=""></not>	99.82 % of our gross global Scope 1 emissions come from our flights. These emissions include the Jet kerosene consumption, fugitive emissions from fire extinguisher on the aircrafts, and diesel oil consumed in the GPU units that are under our control.

# C7.5

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# (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)	l ** '	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
Turkey	2624.15	0	7816.7	0
CEE (Central and Eastern Europe) This value includes all of our international flights. Although the region is selected as CEE, we have emissions in other regions, but we are not able to differentiate those scope 2 emissions, that is why all Scope 2 emissions caused by the 400 Hz Electricity or GPU consumption of our aircrafts are reported under this region.	94.84	0	390.39	0

# C7.6

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

By facility

By activity

# 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)
Istanbul Aeropark Company Headquarters (Including 400Hz and GPU from flights operated)	1317.94	0
Sabiha Gokcen Airport	1232.89	0
Izmir Adnan Menderes Airport	66.37	0
Antalya Airport	101.78	0

# C7.6c

# (C7.6c) Break down your total gross global Scope 2 emissions by business activity.

Activity	Scope 2, location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
Electricity consumption	2078.88	0
Central heating with natural gas	294.28	0
400 Hz Consumption (Domestic)	81.34	0
400 Hz Consumption (International)	2.2	0
Ground Power Unit (GPU) Usage (Domestic)	169.65	0
Ground Power Unit (GPU) Usage (International)	92.64	0

# C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

	Scope 2, location- based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Cement production activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Chemicals production activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Coal production activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Metals and mining production activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Oil and gas production activities (upstream)	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Oil and gas production activities (downstream)	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Steel production activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Transport OEM activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Transport services activities	345.83	0	This figure includes the GHG emissions of 400Hz electricity consumption of our aircrafts and electricity consumption from the electricity generated by the GPU units that are not operated by Pegasus.

### C7.9

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

Increased

C7.9a

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(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)		Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption		<not Applicable&gt;</not 		
Other emissions reduction activities	57162.49	Decreased	2.74	Total emission reduction figure is calculated using the kg of avoided jet kerosene by the energy efficiency measures (details can be found in section 4.3b) Total emission reductions= 57,162.49 tCO2e 2016 Total Emissions: 2,088,106.47 tCO2 Emissions value %=(57,162.49/2,088,106.47)*100 =2.74%
Divestment		<not Applicable&gt;</not 		
Acquisitions		<not Applicable&gt;</not 		
Mergers		<not Applicable&gt;</not 		
Change in output	84495.7	Increased	4.05	Total change in output figure is calculated as follows: First we calculated the business as usual (BAU) fuel consumption without the emission reduction projects detailed in section 4.3b, by adding the avoided fuel consumption to actual fuel consumption value. Our total SC1+SC2 GHG emissions then become: 2,172,602.17 tCO2e. The difference between this value and 2016 emissions (84,495.70) is the BAU increase in our GHG emissions without any efficiency measures. 2016 Total Emissions: 2,088,106.47 tCO2 Emissions value %=(84,495.70/2,088,106.47)*100= 4.05%
Change in methodology		<not Applicable&gt;</not 		
Change in boundary		<not Applicable&gt;</not 		
Change in physical operating conditions		<not Applicable&gt;</not 		
Unidentified		<not Applicable&gt;</not 		
Other		<not Applicable&gt;</not 		

# 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 50% but less than or equal to 55%

### 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	Yes
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	Yes
Generation of electricity, heat, steam, or cooling	Yes

# C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	0	8380210.14	8380210.14
Consumption of purchased or acquired electricity	<not applicable=""></not>	0	5744.07	5744.07
Consumption of purchased or acquired heat	<not applicable=""></not>	0	1453.09	1453.09
Consumption of purchased or acquired steam	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>	<not Applicable&gt;</not 
Consumption of purchased or acquired cooling	<not applicable=""></not>	0	342.32	342.32
Consumption of self-generated non-fuel renewable energy	<not applicable=""></not>	0	<not applicable=""></not>	0
Total energy consumption	<not applicable=""></not>	0	8387749.62	8387749.62

### C8.2b

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

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of 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)

Jet Kerosene

# **Heating value**

LHV (lower heating value)

### **Total fuel MWh consumed by the organization**

8362346.56

### MWh fuel consumed for the self-generation of electricity

0

# MWh fuel consumed for self-generation of heat 0

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

### Fuels (excluding feedstocks)

Diesel

### **Heating value**

LHV (lower heating value)

### Total fuel MWh consumed by the organization

17780.09

### MWh fuel consumed for the self-generation of electricity

3519.02

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

0

# MWh fuel consumed for self-generation of steam

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

### Fuels (excluding feedstocks)

Motor Gasoline

### **Heating value**

LHV (lower heating value)

### Total fuel MWh consumed by the organization

83.49

### MWh fuel consumed for the self-generation of electricity

0

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

0

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

# C8.2d

### (C8.2d) List the average emission factors of the fuels reported in C8.2c.

#### Diesel

#### **Emission factor**

0.07956

#### Unit

metric tons CO2e per GJ

#### **Emission factor source**

2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2 Energy, Chapter 2 Stationary Combustion (Table 2.4) 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2 Energy, Chapter 3 Mobile combustion, on-road (Table 3.2.1 & 3.2.2) 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2 Energy, Chapter 3 Mobile combustion, off-road (Table 3.3.1)

#### Comment

Combined EF for the fuels used in company cars, GPU units (stationary combustion) and off-road vehicles like buses and HDV's.

#### Jet Kerosene

#### **Emission factor**

0.07175

#### Unit

metric tons CO2e per GJ

#### **Emission factor source**

2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2 Energy, Chapter 2 Stationary Combustion (Table 2.4)

#### Comment

Jet kerosene used in our aircrafts.

#### **Motor Gasoline**

### **Emission factor**

0.0709

#### Unit

metric tons CO2e per GJ

#### **Emission factor source**

2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2 Energy, Chapter 2 Stationary Combustion (Table 2.4) 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2 Energy, Chapter 3 Mobile combustion, on-road (Table 3.2.1 & 3.2.2)

### Comment

Combined EF for the fuels used in company cars and generators.

### C8.2e

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

		Generation that is consumed by the organization (MWh)		Generation from renewable sources that is consumed by the organization (MWh)
Electricity	3519.08	3519.08	0	0
Heat	0	0	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

(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.

#### Basis for applying a low-carbon emission factor

No purchases or generation of low-carbon electricity, heat, steam or cooling accounted with a low-carbon emission factor

### Low-carbon technology type

<Not Applicable>

### MWh consumed associated with low-carbon electricity, heat, steam or cooling

<Not Applicable>

### Emission factor (in units of metric tons CO2e per MWh)

<Not Applicable>

#### Comment

In the reporting year none of the electricity, heat and cooling amounts were accounted at a low-carbon emission factor.

#### C-TS8.4

(C-TS8.4) Provide any efficiency metrics that are appropriate for your organization's transport products and/or services.

### Activity

Aviation

### **Metric figure**

0.0215

#### **Metric numerator**

Other, please specify (kg of Jet Kerosene)

### Metric denominator

Available seat.km

### Metric numerator: Unit total

682710199.8

# Metric denominator: Unit total

31755486852

### % change from last year

4.77

### Please explain

Although our kerosene consumption has increased 1.25% in 2017, our ASK values have also increased by 6.3% and overall our consumption/ASK value has decreased when compared to the previous year.

### C9. Additional metrics

### C9.1

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

### **Description**

Energy use

#### Metric value

3.96

### **Metric numerator**

Jet kerosene consumption in tons

### Metric denominator (intensity metric only)

Number of cycles flown

### % change from previous year

4.03

#### **Direction of change**

Decreased

#### Please explain

Jet kerosene consumption/cycle is one of the metrics we monitor, because jet kerosene consumption is our main contributor to climate change. Although our kerosene consumption increased in 2017, the number of cycles are also increased so our fuel consumption per cycle decreased by 4.03%.

### C-TO9.3/C-TS9.3

# (C-TO9.3/C-TS9.3) Provide tracking metrics for the implementation of low-carbon transport technology over the reporting year.

#### **Activity**

Aviation

#### Metric

Fleet adoption

#### **Technology**

Other, please specify (Fuel efficient aircrafts)

### Metric figure

22

### Metric unit

Other, please specify (% of fleet)

### **Explanation**

Pegasus Airlines had signed for up to purchase 100 A320 & A321 NEO Family aircrafts with Airbus in 2012, 75 of which subjected to a firm order and 25 optional. In 2017 we have replaced 10 B737-800 aircrafts with 6 A320-200 NEO Aircrafts. By the end of 2017 22% of our fleet consists of A320 NEO aircrafts.

### C-TO9.6/C-TS9.6

(C-TO9.6/C-TS9.6) What is your investment in research and development (R&D), equipment, products and services and which part of it would you consider a direct investment in the low-carbon transition?

**Activity** 

Aviation

Investment start date

July 10 2012

Investment end date

December 15 2024

Investment area

Equipment

**Technology** area

Other, please specify (Energy efficient aircrafts)

**Investment maturity** 

Large scale commercial deployment

**Investment figure** 

45625000000

Low-carbon investment percentage

81-100%

### Please explain

We have signed an agreement with Airbus in 2012, for the purchase of up to 100 A320 & A321 NEO Family aircrafts, 75 of which subjected to a firm order and 25 optional. In 2017 we have replaced 10 B737-800 aircrafts with 6 A320-200 NEO Aircrafts. By the end of 2017 22% of our fleet consists of A320 NEO aircrafts. The given investment figure is the total investment amount for 12 years.

### 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)	No third-party verification or assurance
Scope 3	No emissions data provided

### 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  Verification Opinion Statement_Pegasus_AEm 2017.pdf  2017 AE_Verification Report _ Pegasus.pdf
Pagel section reference  According to EU regulations we are subject to EU-ETS for all of our intra EU flights. In 2017 we have performed a total of 101 intra EU flights and the emissions resulting from these flights are verified by ETS Verification GmbH. However these emissions comprise below 1% of our total scope 1 emissions.
Relevant standard European Union Emissions Trading System (EU ETS)
Proportion of reported emissions verified (%) 1
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, we are waiting for more mature verification standards and/or processes
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)? Yes
C11.1a
(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.  EU ETS

C11.1b

(C11.1b) Complete the following table for each of the emissions trading systems in which you participate.
EU ETS
% of Scope 1 emissions covered by the ETS 0.04
Period start date January 1 2017
Period end date December 31 2017
Allowances allocated 3543
Allowances purchased 0
Verified emissions in metric tons CO2e 833
Details of ownership Facilities we own and operate
Comment In EU-ETS we are only responsible for the emissions of our intra-EU flights
C11.1d
(C11.1d) What is your strategy for complying with the systems in which you participate or anticipate participating?
We have been monitoring our GHG emissions related to our intra-EU flights since the aviation industry's inclusion in EU-ETS. As the intra-EU flights make up a very small portion of our business, we are usually below our emission cap. However, we are currently monitoring the CORSIA scheme very closely, and working on a strategy on how we can manage this new regulation. This strategy is still under development, so we can not disclose the details until it is clear.
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### (C11.3a) Provide details of how your organization uses an internal price on carbon.

### Objective for implementing an internal carbon price

Other, please specify (EU-ETS compliance)

#### **GHG Scope**

Scope 1

### **Application**

Due to our inclusion in the EU ETS Aviation Scheme, we consider the price of carbon as approximately 5 €/t. Since the beginning of the 2012- 2015 EU ETS term, our emissions have only exceeded our allowance once, in 2012, during which we made a purchase of nearly 750 tonnes.

#### Actual price(s) used (Currency /metric ton)

5

#### Variance of price(s) used

The given price is a uniform price. The currency is in €.

#### Type of internal carbon price

Offsets

### **Impact & implication**

The internal price on carbon has not impacted our company yet as we are responsible for only intra-EU flights. However we are expecting to have higher impacts after CORSIA is implemented.

### C12. Engagement

### C12.1

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

No, we do not engage

### C12.1d

(C12.1d) Why do you not engage with any elements of your value chain on climate-related issues, and what are your plans to do so in the future?

We do not engage with any elements of our value chain because we do not calculate our scope 3 emissions. Our main impact on climate change lies on our jet kerosene consumption (99,6% of our total Scope 1+Scope 2 emissions comes from Jet kerosene consumption). Therefore our main effect on our Scope 3 emissions also comes from extraction, refining and transportation of the fuel we use. Rather than engaging with our value chain, we believe it is much more important to work and invest on projects where we can reduce our fuel consumption, which will have a more valuable impact on reducing our GHG emissions.

### 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

Other

# C12.3a

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

Focus of legislation		Details of engagement	Proposed legislative solution
Cap and trade	, ,	During the inclusion on the aviation sector in EU-ETS, we have submitted our opinions and suggestions to International Civil Aviation Organisation (ICAO) and International Air Transport Association (IATA) via Turkish Civil Aviation General Directorate.	According to the first version of the aviation sectors inclusion to EU-ETS, all the companies who are flying to or from EU were going to be allocated allowances for their flights. The companies would also be requested to reduce their emissions considerably according to a base year determined by the EU. However, because of their objection to the regulation, many countries applied to ICAO and ICAO started the negotiations with EC and until 2020 this regulation was derogated to include only Intra-EU flights. We have given our opinion to ICAO regarding the inclusion of only intra-EU flights.
Cap and trade	Support	Following COP21, Turkish Civil Aviation General Directorate has started communications regarding post Paris Agreement Action Plan on behalf of ICAO. Pegasus has made a projection of financial implications of CORSIA and we have submitted our opinion to Turkish Civil Aviation General Directorate.	Under the Carbon Offsetting Scheme for International Aviation (CORSIA), aircraft operators will be required to purchase offsets, or "emission units", for the growth in CO2 emissions covered by the scheme. CORSIA aims to address any annual increase in total CO2 emissions from international civil aviation above 2020 levels. We support such a global scheme, and we believe such measures shall also be implemented globally in most GHG intense industries.
Mandatory carbon reporting	Support	with participation from the Foreign Ministry and the Ministry of Environment and Urbanization. Additionally, brainstorming with as well as guiding the participants in	Our aim for engaging in both National and International Meetings and negotiations has been to be well prepared for the foreseen results of the new International agreement on Climate Change and establish an appropriate system to gain consistent data from the civil aviation companies in order to comply with the requirements. Moreover, during those engagements we have contributed in the discussions of opportunities for the development of a similar regulation/scheme as the EU-ETS.

### C12.3e

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

Our Chief Operating Officer is the Vice President of TÖSHİD (Turkish Private Sector Aviation Enterprises Association) and our Senior Vice President, Ground Handling is a Member of the Board of Supervisors in TÖSHİD.

TÖSHİD actively follows up regulations regarding the civil aviation industry, and as a part of this task, it was the first association to take action against Turkish civil aviation operators to be included in the EU-ETS when the regulation first came into force in 2008.

### 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?

Head of our Integrated Management System and Business Excellence Department who is also a Member of our Operations Executives Board, and our CEO are the ones that are responsible for connecting with policy makers and other organizations regarding climate change policy. They are all well aware of our climate change strategy as they are the ones who are making these strategies.

## C12.4

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(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 voluntary communications

We publish our CDP report on our investor relations website.

#### **Status**

Complete

#### Attach the document

carbon-disclosure-project-report-2017.pdf

#### **Content elements**

Governance

Strategy

Risks & opportunities

**Emissions figures** 

**Emission targets** 

Other metrics

### 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.

### 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	Head of IMS and Business Excellence and Member of Operations Executives Board	Director on board

### Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	Public or Non-Public Submission	I am submitting to
I am submitting my response	Public	Investors

### Please confirm below

I have read and accept the applicable Terms