



Aviation Decarbonisation: Sustainable Aviation Fuel

Reading Test

EXAMPLE

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Student

Time: *Approximately 1hour*

Two types of lesson

Lesson#1: [Easy] ***** [B2/C1]

1. Predict the content of the text by reading the title. Write down the key terms & ideas.
2. Read the text. Check the unknown words with a dictionary.
3. Answer the comprehension questions.
4. Check your answers with the provided key (pass mark is 70%).

Lesson #2: [Hard] ***** [C1]

1. Read the text without looking up any words.
2. Answer the comprehension questions.
3. Check your answers with the provided key (pass mark is 70%).

Teacher

Two types of lesson

Lesson#1: [easy] ***** [B2/C1]

1. Distribute **text 1 (without reference words underlined)** a week before the test. Students read, check vocabulary & meanings.
2. Test day. Distribute **text 2 (with reference words underlined)** & the **questions** (no dictionary or notes).
3. Set 1 hour to read the text & answer the questions.
4. Take in & correct or go through answers in class (pass mark is 70%).
5. Extra activity. Students write the *summary (add 30 minutes to the test).

Lesson #2: [hard] ***** [C1]

1. Test day. Distribute **text 2 (with reference words underlined)** & the **questions**.
2. Set 1 hour to read the text & answer the questions.
3. Take in & correct or go through answers in class (pass mark is 70%).
4. Extra activity. Students write the *summary (add 30 minutes to the test).

*Summary writing: www.academic-englishuk.com/summary

Aviation Decarbonisation: Sustainable Aviation Fuel (Text 1)

By C. Wilson (2022) EXAMPLE

Aviation today plays a key role in the size and state of [redacted] important in keeping people connected across the world. However, as we continue to travel more and [redacted] as seen in the \$3.5tn of the world's GDP it represents, global carbon emissions as a result of air [redacted] could [redacted] (Vigeveno, 2021). According to Moyes (2021), as a return flight from London to San Francisco has [redacted] CO₂e, coupled with the fact that the number of passengers travelling by plane is predicted to reach 8 [redacted] in aviation [redacted] as the overall aim of net zero by 2050 (Department for Transport, 2021) must be achieved if we are to [redacted] aviation.

One of the most effective [redacted] sustainable aviation fuel (SAF). According to the Department for Transport (2021), advocates for SAF believe it to be the [redacted] represent [redacted] yet are accountable for over 60% of UK aviation emissions. Furthermore, Moyes (2021) reports that [redacted], customers are beginning to not only recognise the benefits of SAF in terms of emission reductions, [redacted] paying extra for flights which use it. As roughly 200 corporations represent 16% of global air [redacted] as the Low-Carbon Fuel Standard, whereby tradable credits are awarded to the fuel suppliers, [redacted], (2021), [redacted] encouraged to commit to funding SAF, the less costly flights will be long-term. To achieve this, [redacted] increase the production and supply of SAF through more financial incentives and funding. This [redacted]. This [redacted] and creates economic prosperity, thanks to the annual £700m to £1.6bn in Gross Value Added ([redacted] 2021).

SAF, also known as bio-jet, is a low carbon alternative produced from a variety of sustainable [redacted] include [redacted] municipal household and business waste such as packaging, paper and textiles, forestry residue, which includes [redacted] containing lipid oils, and halophytes such as algae (Moyes, 2021; CPP, 2021). As SAF is similar [redacted] fuel, [redacted] without any major modifications, making it a safe 'drop in' option for all types of aircraft, which [redacted] to its [redacted] an aircraft's hourly fuel burn, but also leads to a 70% fall in carbon dioxide emissions and a significant decrease in both particulate [redacted] Transport, 2021; CPP, 2021).

Nevertheless, as SAF currently constitutes less than 0.1% of the [redacted] every year, its [redacted] reach eight times higher (Vigeveno, 2021). This is largely due to the low availability of sustainable feedstocks, as well as [redacted], which [redacted]

limited demand and to that of traditional jet fuel (Moyes, 2021). There is also growing concern regarding how SAF have accused them of greenwashing, that is to say, misleading the public into thinking the to make SAF, such as sugarcane and palm oil, cause damaging consequences such as deforestation, (, 2021).

Therefore, although SAF is not completely free of carbon emissions, it causes considerably fewer that increasing production of SAF a viable option. Vigeveno (2021) argues for the introduction of 'blending mandates' which determine that a specific amount jet fuel, whereas Moyes (2021) claims that more research, development and marketing of innovative sustainable governments to encourage investment from stakeholders in technologies which process feedstocks more efficiently would go some way to n the increase in emissions.

Reference list

(CPP), (2021). [online].

Available at: <https://compareprivateplanes.com/articles/sustainable-aviation-fuel-saf-> [Viewed 28.06.2022].

Department for Transport, (2021). [pdf]. Available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1002716/jet-zero-consultation-a-consultation-on-our-strategy-for-net-zero-aviation.pdf [Viewed 28.06.2022].

(2021). *Sustainable aviation fuel –* ?

Available at: <https://www.bp.com/en/global/air-bp/news-and-views/views/what-is-sustainable-aviation-fuel-saf.html> [Viewed 28.06.2022].

Shell Global, (2021). [online]. Available at:

https://www.shell.com/energy-and-innovation/the-energy-future/decarbonising-aviation.html?utm_source=&utm_medium=social_organic&utm_content [Viewed 28.06.2022].

Vigeveno, H., (2021). *Aviation's flight path to a net-zero future* [online]. Available at:

<https://www.weforum.org/agenda/2021/09/aviation-flight-path-to-net-zero-future/> [Viewed 28.06.2022].

Aviation Decarbonisation: Sustainable Aviation Fuel (Text 2)

By C. Wilson (2022)

1. Aviation today plays a key role in the size and state of [redacted] important in keeping people connected across the world. However, as we continue to travel more and [redacted] as seen in the \$3.5tn of the world's GDP it represents, global carbon emissions as a result of [redacted] could [redacted] (Vigeveno, 2021). According to Moyes (2021), as a return flight from London to San Francisco has [redacted] CO2e, coupled with the fact that the number of passengers travelling by plane is predicted to reach 8 [redacted] in aviation [redacted] as the overall aim of net zero by 2050 (Department for Transport, 2021) must be achieved if we are to [redacted] aviation.

2. One of the most effective [redacted] sustainable aviation fuel (SAF). According to the Department for Transport (2021), advocates for SAF believe it to be the [redacted] represent [redacted] are accountable for over 60% of UK aviation emissions. Furthermore, Moyes (2021) reports that [redacted], customers are beginning to not only recognise the benefits of SAF in terms of emission reductions, [redacted] paying extra for flights which use it. As roughly 200 corporations represent 16% of global air [redacted] as the Low-Carbon Fuel Standard, whereby tradable credits are awarded to the fuel suppliers, [redacted], (2021), [redacted] encouraged to commit to funding SAF, the less costly flights will be long-term. To achieve **this**, [redacted] increase the production and supply of SAF through more financial incentives and funding. This [redacted] and creates economic prosperity, thanks to the annual £700m to £1.6bn in Gross Value Added ([redacted], 2021).

3. SAF, also known as bio-jet, is a low carbon alternative produced from a variety of sustainable [redacted] include [redacted] municipal household and business waste such as packaging, paper and textiles, forestry [redacted] containing lipid oils, and halophytes such as algae (Moyes, 2021; CPP, 2021). As SAF is similar [redacted] fuel, [redacted] without any major modifications, making **it** a safe 'drop in' option for all types of aircraft, which [redacted] to its [redacted] an aircraft's hourly fuel burn, but also leads to a 70% fall in carbon dioxide emissions and a significant decrease in both particulate [redacted] Transport, (2021; CPP, 2021).

4. Nevertheless, as SAF currently constitutes less than 0.1% of the [redacted] used every year, its [redacted] reach eight times higher (Vigeveno, 2021). **This** is largely due to the low availability of sustainable feedstocks, as well as [redacted], which [redacted] small quantities due to limited demand and [redacted]

to that of traditional jet fuel (Moyes, 2021). There is also [redacted] how [redacted] SAF have accused them of greenwashing, that is to say, misleading the public into thinking [redacted] the [redacted] to make SAF, such as sugarcane and palm oil, cause damaging consequences such as deforestation, [redacted] ([redacted], 2021).

5. Therefore, although SAF is not completely free of carbon emissions, [redacted] fewer [redacted] that increasing production of SAF a viable option. Vigeveno (2021) argues for the introduction of 'blending mandates' which [redacted] amount [redacted] jet fuel, whereas Moyes (2021) claims that more research, development and marketing of innovative sustainable [redacted] governments to encourage investment from stakeholders in technologies which process feedstocks more efficiently [redacted] to [redacted] the increase in emissions.

Reference list

[redacted] (CPP), (2021). [redacted] [online]. Available at: <https://compareprivateplanes.com/articles/sustainable-aviation-fuel-saf> [Viewed 28.06.2022].

Department for Transport, (2021). [redacted] [pdf]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1002716/jet-zero-consultation-a-consultation-on-our-strategy-for-net-zero-aviation.pdf [Viewed 28.06.2022].

[redacted] (2021). *Sustainable aviation fuel – [redacted]?* Available at: <https://www.bp.com/en/global/air-bp/news-and-views/views/what-is-sustainable-aviation-fuel-saf.html> [Viewed 28.06.2022].

Shell Global, (2021). [redacted] [online]. Available at: https://www.shell.com/energy-and-innovation/the-energy-future/decarbonising-aviation.html?utm_source=&utm_medium=social_organic&utm_content [Viewed 28.06.2022].

Vigeveno, H., (2021). *Aviation's flight path to a net-zero future* [online]. Available at: <https://www.weforum.org/agenda/2021/09/aviation-flight-path-to-net-zero-future/> [Viewed 28.06.2022].

Comprehension Questions

1. Headings: Choose a subheading for each paragraph. One title is not needed.

1	<i>C (example)</i>	A	The [redacted] sustainable aviation fuel (SAF)
2		B	The ethics of sustainable aviation fuel (SAF)
3		C	[redacted]
4		D	The way ahead for sustainable aviation fuel (SAF)
5		E	The [redacted] sustainable aviation fuel (SAF)
		F	The source of sustainable aviation fuel (SAF)

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2. True / False / Not Given: One question per paragraph.

		T / F / NG
Paragraph 1		
0.	<i>In the next three decades, global carbon emissions could increase by 3%. (could increase by another 20% in the next 30 years).</i>	<i>F (example)</i>
Paragraph 1		
i.	8 billion people will [redacted] century.	
Paragraph 2		
ii.	Some consumers [redacted] use SAF.	
Paragraph 3		
iii.	Some [redacted] own SAF and [redacted] fuel.	
Paragraph 4		
iv.	The price of SAF has an [redacted] jet fuel.	
Paragraph 5		
v.	SAF is a good [redacted] as it is carbon free.	

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3. Reference Words: What do these words connect to? (underlined> in the text).

Paragraph	Word	Connection
1	<i>It</i>	<i>Aviation (example).</i>
1	It	
2	[redacted]	
2	This	
3	[redacted]	
3	It	
4	This	
4	[redacted]	
5	Which	

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4. Open Answer Questions: One question per paragraph.

Paragraph 1	
i.	What TWO targets must be achieved to reduce the environmental impact from aviation?
	1. <i>78% reduction in emissions by 2035 (example).</i> 2.
Paragraph 2	
ii.	What TWO things can be done to _____ of SAF?
	1. 2.
Paragraph 3	
iii.	What are TWO of the _____ fuel?
	1. 2.
Paragraph 4	
iv.	Why might SAF _____ environmentally friendly?
Paragraph 5	
v.	What would Vigeveno (2021) like to _____ ?

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5. Citations: Match the author/organisation with the point they make about SAF.

	Reference		Point
i.	<i>Moyes (2021) (example)</i>	a.	Companies _____ up to certain schemes.
ii.	Vigeveno (2021)	b.	An SAF _____ job opportunities.
iii.	Dept. for transport (2021)	c.	Supporters of SAF could be misleading the public.
iv.	CPP (2021)	d.	Separate storage tanks will be needed at airports.

i.	<i>d (example)</i>	ii.		iii.		iv	
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6. Key language: Search for the word in the paragraph that means:

Paragraph	Explanation	Word
1	<i>The act of sending out gas.</i>	<i>Emissions (example)</i>
1	Increasing in quantity by one addition after another.	
2	To _____ cause.	
2	A thing that encourages a person to do something.	
3	Based _____ or believed.	
3	A change to something.	
4	Behaviour that makes the general population think that it is doing _____ it really is.	
4	A situation in which something is in short supply.	
5	This _____ intended.	
5	Using new methods or ideas.	

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Overall Total: ___ / 36

