



Shell UK's response to DfT Sustainable Aviation Fuels Mandate Consultation September 2021

Shell UK Limited (Shell UK) welcomes the opportunity to respond to the Sustainable Aviation Fuels Mandate consultation.

Shell UK fully supports the UK's overall net zero goal and recognises the requirement to reduce oil and gas consumption to meet it. Decarbonisation within the aviation sector represents a significant challenge, because there are fewer lower carbon options available, the highly competitive and international nature of the industry, and projected growth in activity with passenger numbers expected to increase over the next decades.

As such reaching net zero in aviation will need unprecedented co-operation and will rest on progress made on an enabling policy framework which includes a sectoral approach as a guiding principle to achieve progress.

As we have outlined in our response to the DfT's Jet Zero consultation, we believe in an overall approach for policy to support the sector reaching net-zero but believe that at present particular focus is needed on the development and deployment of Sustainable Aviation Fuels (SAF). To this end, we very much welcome this consultation specifically looking at how best to achieve this ramp up and reduce the greenhouse gas emissions of aviation fuels in the UK.

Please find below our specific position on some of the issues and questions raised by the consultation:

A greenhouse gas emissions scheme to reduce the carbon intensity of jet fuel

- We are fully supportive in the UK of the Government's SAF mandate proposals, as we believe that ambitious and consistent mandates are key to create demand. The level of the mandate should be ambitious but consistent with the pace of building out supply capabilities and infrastructure. Shell supports the goal to have this at 10% of global jet fuel production by 2030 and at least 50% by 2050 across the world.
- We are supportive of the SAF mandate sitting outside of the RTFO, however one thing that would need consideration is the relationship between the SAF mandate and the developmental fuels target. Going forward we would suggest that joint reviews are conducted to ensure alignment between the two, as well as an assessment on how the developmental fuels targets are developing (i.e. are they in line with how the technology is progressing). On a more general point, we believe that whilst the mandate should sit outside of the RTFO, it cannot be completely separate from it and needs to stay aligned. We would propose a continued need to take a holistic view of transport decarbonisation and note that specifically every SAF production plant would produce other fuel products.
- We agree that the obligation should be on fuel suppliers, with them being accountable for reporting. However there also needs to be a responsibility for the airline operators to confirm in their contractual process with their fuel suppliers that they have taken SAF.



- With regards to the assessment point, we would recommend having this at the point of injection into the UK supply chain, as opposed to having it at the point of blending. With the current RTFO set up, for SAF blended outside the UK, this is where the credit would be generated. Therefore, this can act as a potential blocker to non-UK SAF production/blended product being incentivised by the legislation.

Fuel eligibility and sustainability criteria

- We back the UK's position on sustainability criteria, when it comes to having the mandate covering fuels made from sustainable wastes or residues, RFNBOs, nuclear energy or in particular recycled carbon fuels (RCFs). We would call for the continued use of SAF made from RCFs that are compliant with clear and globally agreed sustainability and CO₂ emission criteria.
- In reference to the proposals for the fossil comparator for GHG target being at 89 gCO₂e/MJ, the same level set by ICAO, we would like to highlight that this target differs from the EU levels set at 94 gCO₂e/MJ. Under the current proposals, with that deviation, it could act as a barrier for importing product. We believe that there is a role for the UK to play in encouraging alignment between international bodies, like ICAO, and the EU
- Learning from our experiences across other countries, we could recommend GHG methodology from Sweden and Germany which we think would be suitable and are happy to have a follow up with the DfT to share our views in detail.
- We would also like to challenge and seek more clarity regarding the current Department for Transport's position on the use of "low carbon intensity hydrogen only" for SAF production. How exactly this is defined and the treatment of SAF which uses other types of hydrogen is not clear, and we would welcome both more information and discussion, recommending alignment with how we have seen the Department for Business, Energy and Industrial Strategy's treat the use of H₂ in production.

Overarching trajectory

- Overall, we would be supportive of the mandate starting in 2025 (however we would add that in order to make this practically work we would need the certainty by the end of 2022 at the latest) with regular reviews leading to mandate levels being ramped up systematically over time, as the production scales up and commercialise. The current proposals with linear growth up to 2035 and then exponential after 2035 are in line with our position.
- We believe that the mandate should provide clear pathways to production of SAF from advanced feedstocks and synfuels, e.g. through either a multiplier or a sub target, however we would like to highlight the difficulties and risks of having both in place, i.e. how this can lead to double counting:



- In Germany we have found they have opened themselves up to the risk of double counting within the GHG target system proposed from 2022.
- This double counting on the GHG itself can be perceived as artificially inflating the GHG savings achieved, and we have seen this resulting in double counting on the energy supply from certain fuel pathways.
- We would like clarity regarding if any potential multipliers or double counting would be on the energy or the CO2
- Regarding the proposed HEFA Cap, we would urge caution to ensure that ambition is balanced with realistic practicalities and that this should be monitored in conjunction with the progress of other SAF production pathways. Also we would encourage that if HEFA shows improvement in its pathway in sustainable feedstock and/or technology development, then this should be taken into consideration. In the meantime, we would support not capping HEFFA whilst other sources of SAF can develop and ramp up.
- In terms of how to accelerate the roll-out of power-to-liquids, we believe that the Government should provide or encourage long-term financing and offer fiscal incentives to encourage rapid scale up of this or any other novel, capital intensive SAF technologies.

Interactions with other domestic and international policy

- When looking at how the proposed mandate interacts with our regulations (UK ETS/CORSIA) we believe that they can work together and be complementary. Our position is that under these proposals, fuel suppliers should be able to use the SAF produced to meet their mandate obligations, and then the aircraft operators can use the SAF procured for UK ETS domestic obligation or CORSIA for international voluntary requirements (at present).
- In order to address the issue of tankering, we suggest looking at adding to the proposals a requirement for aircraft operators to have a reporting obligation to track their fuel pick up and potential tankering activities. This is currently what we have seen in the EU proposals.
- We believe that SAF produced using other Government funding should be eligible for the mandate, as if the funding is being used to support a nascent technology, there needs to be a clear pathway to how that technology can stand on its own, post receiving what we believe should be time limited government support.

Delivering SAF to the market

- We do believe that a more comprehensive policy framework is needed to build a successful SAF sector, as while blending mandates are a necessary policy measure, on their own they are insufficient to incentivise the necessary investments in supply at the scale needed to meet NZE by 2050
- Other policy proposals should include continuing to provide fiscal and financial policy instruments to allow for loan guarantees, accelerated depreciation or other



investment tax credits, and grants to be awarded to SAF plants, to encourage the ramping up of production

- Alongside the above, other bankable policies for the SAF products such as a durable purchase agreement, e.g., a contract for difference (CfD) or a performance-oriented production tax credit of sufficient duration to cover the project's lifetime and give the reassurance and certainty to investors needed to back the building of plants.
- A blenders' tax credit should also be considered as a mechanism that could help to mitigate some of the risks policy measures highlighted in this response, such as early-stage mandates, can have on an industry suffering financial challenges.
- Overall, the comprehensive policy framework for SAF outlined should be accompanied by a robust and rising carbon price to incentivise greater energy efficiency in aircraft and operations and to help partially bridge the long-term cost differential between SAF and conventional aviation fuel.
- Policy should also consider the impact of early-stage mandates on the airline industry and acknowledge the financial challenges the sector is facing. Support for sustained demand will be critical to encourage SAF producers to invest in increasing capacity. To this end and to provide incentives for airlines to use SAF or alternative fuels, airports, airspace service providers and regulators should be encouraged to provide operational incentives to airlines to use new technologies or alternative fuels through, for example, differentiated tariffs on landing or user fees at airports.
- Finally, in terms of an expanded policy framework to help the UK SAF sector develop, we would suggest when considering taxing aviation fuel that it should be based on CO₂ with a full exemption for SAF. Linking the rate of excise duty to the carbon/emissions intensity of the fuel would provide an additional incentive for low/no carbon aviation fuels.
- When it comes to buy-outs or alternatives such as penalties in the case of not being able to meet the mandate levels, we would recommend consistency with other jurisdictions. The EU proposals include penalties as opposed to a buy-out mechanism, and if the UK don't adopt the same approach, we believe it runs the risk of being a buy-out market versus the EU.

Scheme practicalities, reporting and verification

- With the introduction of a mandate, we would advise changing the assessment time for SAF. Currently the point of blending and certification could be within or outside of the UK. As SAF is a global market, this could result in situations where non-UK registered companies become obligated under the UK aviation obligation. Potentially these companies will not be aware of the obligation and would not have been part of the consultation process. Furthermore, these companies would not be able to prove delivery into the UK without UK fuel suppliers, thus limiting their ability to independently comply with the obligation. We recommend identifying a clear assessment time within UK borders. Given the high dependence of UK airports on pipeline supply, we recommend considering different assessment times depending on the form of fuel supply to the airports. These could be:
 - For pipeline deliveries: Injection into the UK pipeline network with demonstrable purchase contract for SAF extraction (similar to the Gas Grid)



- For Truck Deliveries: At the rack of the storage facility (similar to excise duty point for road transport deliveries)
- With regards to proof of delivery as a fuel supplier, we would seek further clarity on how this will need to be presented. With key UK airports being supplied by pipeline, this presents issues with providing a guarantee that physical SAF molecules have been delivered. From our perspective we would suggest either identifying a suitable administrator to oversee the pipeline UK aviation pipeline network (similar to the system in place for the gas grid) or following the EU proposal where proof is based on purchase contracts.
 - Another example of how this could be addressed is through the generation of bio tickets at what would be the excise point. Understanding that currently there is no excise duty on aviation fuels, if suppliers were asked to put the product into an excise warehouse, at the point of the product exiting the warehouse, a bio ticket could be generated and that can be used as proof of delivery.
 - If this process is to be followed, then in terms of reporting calendar, we suggest mapping the timeline for reporting to that of those used for excise returns.
- We would like to raise a concern regarding volume delivery reporting and how any losses either structural or accidental during the refuelling process (e.g. spills) would, under these proposals, be accounted for in the reported volumes. We would like to raise the points that:
 - These losses may not be in the fuel suppliers' operational control, and they may not have data on them
 - This makes compliance harder to plan for – if say the fuel supplier delivers on the 31st December but the full volume is spilled at the airport outside of the fuel supplier's operational control the supplier will be penalised and have to make up compliance.
 - We would therefore recommend that these losses should not be taken into account for the volume.

If you have any queries regarding this submission, please contact:

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