



**WORKING PAPER**

**COMMITTEE ON AVIATION ENVIRONMENTAL PROTECTION (CAEP)**

**ELEVENTH MEETING**

**Montréal, 4 to 15 February 2019**

**Agenda Item 9: Sustainable Aviation Fuels**

**VIEWS OF THE UNITED STATES ON THE WORK OF THE ALTERNATIVE FUELS TASK FORCE (AFTF)**

(Presented by the United States of America)

**SUMMARY**

This paper provides the views of the United States on specific elements of the AFTF work programme and the future work of the AFTF. While the United States is generally supportive of the AFTF work programme, there are specific items where we would like to provide guidance.

Action by the CAEP is in paragraph 5.

**1. INTRODUCTION**

1.1 Since its creation at the first steering group meeting of the CAEP/10 cycle in November 2013, the Alternative Fuels Task Force (AFTF) has provided important information related to fuels that could be produced from a variety of feedstocks. It has also provided significant input toward the inclusion of Sustainable Aviation Fuels (SAF) in the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), including important recommendations to CAEP on the life cycle emission reductions of these fuels. These have been incorporated into the “CORSIA Package” (i.e., Annex 16, Volume IV, ETM Volume IV, and the CORSIA Implementation Elements). The AFTF should be commended for this work, and we appreciate its effort in this area. As States continue to implement CORSIA, we envision additional work on this front.

1.2 The United States continues to support the inclusion of Sustainable Aviation Fuels (SAF) and Lower Carbon Aviation Fuels (LCAF) within the CORSIA, as SAF are a critical component of the basket of measures, and all items within the basket of measures that lower aviation carbon emissions should be encouraged. We maintain that an aircraft operator’s offsetting requirements under CORSIA should be reduced through the use of fuels that meet sustainability requirements.

1.3 This paper provides the views of the United States on specific elements of CORSIA that relate to SAF and the overall work of the AFTF. Sections 2 and 3 of this paper highlight our views on the work and recommendations of the AFTF. Section 4 of the paper provides our views on future work tasks related to alternative jet fuel (AJF). Actions for CAEP are in Section 5.

## 2. LIFE CYCLE EMISSIONS

2.1 On the core lifecycle analysis (LCA) recommendations from AFTF, we support the additional default values that are being recommended in [CAEP/11-WP/44](#). These values will be critical for operators seeking to capture the benefits from use of SAF in CORSIA. In addition to the default values, we see the appropriate classification of feedstocks as an important decision for future fuel development. To that end, we support a feedstock classification based on a positive list developed from existing regulatory schemes.

2.1.1 We would also like to note that with the help of Brazil, Canada, and the EU Joint Research Centre (JRC), the United States Government has been developing a version of the Greenhouse gases, Regulated Emissions, and Energy use in Transportation (GREET) Model that contains information used to support the development of default core LCA values. We are in the process of evaluating how we could best share this broadly to support the development of actual LCA values for use by operators.

2.2 The United States supports the inclusion of induced land use change (ILUC) in the CORSIA framework. A large body of scientific research shows that ILUC is significant and should be accounted for in the LCA of AJF. Despite significant progress in identifying the sources of uncertainty in ILUC modelling, uncertainty still exists for ILUC estimates. While noting the challenges associated with assigning precise ILUC values, given our overall support for the inclusion of SAF in CORSIA, and for the inclusion of ILUC in LCA, the United States supports the default ILUC values recommended by AFTF in [CAEP/11-WP/47](#). The United States also supports noting the method and model differences, where they exist, used to arrive at ILUC results for each default value in the CORSIA SARP documentation. Given the modelling tools that are used for this framework, we also specifically support the use of regional values for ILUC calculation, and more broadly, we support the process for developing ILUC values going forward. Based on the best analyses available from CAEP and elsewhere, we do not foresee large volumes of AJF in the near-to-midterm. As such, we support the inclusion of negative ILUC values into LCA calculations and we also support having lifecycle emissions values ( $LS_f$ ) that are negative if the sum of the Core LCA and ILUC values yields a negative number.

2.3 It is good to see that AFTF has provided some recommendations related to practices that mitigate ILUC. While we agree that a methodology is needed, we believe that additional effort is needed to refine the recommended approach to ILUC mitigating practices. With that in mind, the method proposed in [CAEP/11-WP/49](#) could be used as a pilot to test this process going forward and lessons learned could be incorporated in a timely manner.

2.4 The issue of landfill emission credits (LEC) and recycling emission credits (REC) has received significant attention from AFTF. The methodology proposed for LEC/REC by AFTF in [CAEP/11-WP/46](#) is a reasonable way of moving forward provided that there are appropriate risk mitigation measures in place.

2.4.1 While AFTF has identified two options for this, our preference would be that reductions from credits could be allowed, but the resulting  $LS_f$  value should be no lower than zero. As shown in [CAEP/11-WP/46](#), using an  $LS_f$  value of zero as a floor for reductions from emissions credits mitigates the risk of double claiming emissions reductions in a straightforward manner that is sensible given the

projected volumes in the near-to-mid-term. In other words, emissions credits could be used to achieve an  $LS_f$  value of zero, but they could not be used to get a negative value.

2.4.2 Given that the credit methodology proposed by AFTF is not consistent with the CORSIA LCA methodology, we see a potential risk of unintended consequences if the group continues to create specific rules for emissions credits in the future. In addition to increasing potential risks of double claiming of emissions reductions, these additional exceptions to the approved methodology would take a consequential approach in their calculation, which is in conflict with the CAEP-approved methodology that uses an attributional approach. As such, these credits complicate CAEP's work in a manner that may not be helpful. Because of these issues, we would recommend that no further credits be considered for any fuels to be used in CORSIA.

2.4.3 Finally, recognizing that CAEP has directed AFTF to develop a methodology for LEC and REC, we believe it is important that the proposed language for this methodology in the Implementation Elements be as specific as possible. To that end, we suggest some clarification to the revised Paragraph 12 of "CORSIA Methodology for Calculating Actual Life Cycle Emissions Values" located in Appendix A of [CAEP/11-WP/46](#). The language presented should be more specific regarding "other schemes." We would suggest instead, that the text read "... *if the activity or project generates offsets, emission reduction credits, or emission credits for some other **GHG** scheme, either partially or fully.*" (emphasis on the addition). This change would be consistent with language that is already defined within Annex 16, Volume IV. We believe this revised wording would capture AFTF's intent while also clarifying the scope based on a previously defined term.

2.5 While the United States supports the work the AFTF has done to develop an LCA methodology for purposes of crediting SAF under CORSIA, the LCA methodology outlined by the AFTF does not reflect current conclusions or prejudge the methodology or results of any future analysis by any department or agency of the United States regarding the GHG impacts associated with alternative transportation fuels. Any such future analyses, including any regulatory impact analyses conducted to support United States federal regulatory actions, may differ from the methodology used under CORSIA.

### 3. **SUSTAINABILITY, POLICY GUIDANCE, AND THE FAB**

3.1 AFTF's efforts have also included the development of sustainability criteria for use in CORSIA. As Council will consider the additional sustainability criteria proposed by CAEP, we support the AFTF's report on those additional sustainability criteria and believe it will be useful for Council's decision-making.

3.2 We also support AFTF's examination of policies supporting the development and deployment of AJF. Because each State has unique circumstances and capabilities related to AJF, this task is well-designed to examine the broad option space related to AJF development and deployment in a way that a global policy would not be.

3.3 Finally, we note that consideration of a Fuels Advisory Body (FAB) will be important to ensure that fuels in CORSIA are truly sustainable. While we appreciate AFTF's input on considerations for the development of the FAB, we believe that no additional work is needed from AFTF on this particular item.

#### 4. **FUTURE WORK**

4.1 Going into CAEP/12, we see the need for additional work related to fuels. Given the focus of ICAO and the interest of industry, we suggest that AFTF work continue in the future in a Fuels Technical Group (FTG) intended to cover the future work that has been proposed by AFTF. While we recognize overlap of the FTG with our proposed Working Group 4 (WG4) (see [CAEP/11-WP/60](#) and [CAEP/11-WP/62](#)), we believe that there are sufficient fuels issues that are separate and distinct from CORSIA issues to warrant a separate FTG. The work of the FTG related to CORSIA will need to be coordinated with WG4, potentially through a liaison, as was done during CAEP/11.

#### 5. **ACTION BY THE CAEP**

5.1 The CAEP is invited to:

- a) note the views of the United States on life cycle emissions contained in Section 2 and the formation of a “Fuels Technical Group” in Section 4;
- b) Agree that emissions credits can be used to achieve an  $LS_f$  value of zero, but they cannot be used to get a negative value for  $LS_f$ ;
- c) Agree that no further emissions credits should be considered for fuels beyond those created from municipal solid waste (MSW); and
- d) Agree to revise the text in Paragraph 12 of the “CORSIA Methodology for Calculating Actual Life Cycle Emissions Values,” as provided in [CAEP/11-WP/46](#), using the wording from Section 2.4.3.

— END —