Promising production technologies and value chains
Panel-II Introductory Presentation, CORE-JetFuel (EU)

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Questions & Discussion: 1. ASTM D5054 Certification and alternative fuel chemical structure

• How make certification shorter and how to decrease the cost, for example by using the feedback of the 5 previous certification?

• What about the maximum AFJ allowed in the final blend (50% for FT-SPK, HEFA SPA and FT-SPK/A, 10% for SIP, 30% for ATJ-SPK from isobutanol)

  • How to define the limit?
  • Why so many different limits?
  • What about AJF without a continuous distillation curve (SIP, ATJ-SPK)?
  • Why 30% on ATJ-SPK?

    • Related to some specific properties such as relationship between density and permittivity (dielectric constant) is a key property used in capacitance gauging systems?

    • Why up to 100% (AFJ with a similar chemical structure & distillation curve than Jet A/A1)?
Questions & Discussion: 1. ASTMD5054 Certification and alternative fuel chemical structure

- Current certified AFJ are mainly based on iso-P: what about fuels mimicking the existing fossil jet fuels with n-P, iso-P, N and a limited amount of aromatics but without sulfur (such as the ARA/CLG BIC process or Virent/Shell CPK)?

- What about the blending rules and possible advantages/disadvantages, when blending alternative fuels with petroleum based fuel depending on the chemical structure of both component fuels, as well as different distillation curves?
  - Do we need more research in the field (i.e., cold flow properties, stability..)?

- Research needs to focus on understanding of an appropriate test method and the effect of blending with different fossil fuel batches. A better understanding and data collection may help overcome these concerns and help relax blending limits in future (from an airframe perspective).
  - What’ you opinion?
Questions & Discussion: 2. Conversion + refining pathways to alternative jet fuels

• When looking at the high number of proposed pathways, could we make recommendations for some pathways based on technical/scientific, environmental, economic issues, as well as biomass availability and sustainability?

• How to “classify” these routes regarding risk and rewards?
  • What tools?
  • What parameters can we use related to economics, GHG saving, industrial risk, flexibility of the process related to feedstock type and availability, etc...?
  • How to manage and to take into account uncertainty in order to make comparison, taking into account a reasonable level of uncertainty?

• Can we very roughly predict what should be the best routes (industrial development, blending with petroleum based fuels, economics, GHG emission gain)?
  • How can we do?