SECTOR-SPECIFIC KEY MESSAGES ON RED II PROPOSAL

INTRODUCTION

Besides the general KEY MESSAGES ON RED II PROPOSAL, the Forum has prepared additional messages, specific to the main focus of the considered ART Fuels production and transport consumption industries.

The SECTOR-SPECIFIC KEY MESSAGES are not listed in order of importance but according to the internal ART Fuels Forum numbering of sectors.

THERMOCHEMICAL TECHNOLOGIES – PYROLYSIS

LARGE SCALE DEPLOYMENT: For large scale production of pyrolysis oil and its applications in the transport sector, the whole ecosystem (technology, sustainability, finance, economics, legislation, logistics, organisation, etc.) should be properly addressed.

CO-PROCESSING: Co-processing of pyrolysis oil in existing and new refineries (including co-hydrotreating) is possible. Interesting and competitive solutions are within reach and R&D and investment programs should be facilitated to investigate, further develop, demonstrate and roll-out integrated pyrolysis oil processing and upgrading.

THERMOCHEMICAL TECHNOLOGIES – PYROLYSIS

STAND-ALONE PYROLYSIS OIL BASED REFINERIES: Besides the parallel development of co-refining limited amounts of pyrolysis oil in existing or new refineries, a program for stand-alone pyrolysis oil based refineries needs to be developed to overcome the initial investment barrier for oil majors. The not-profitable CAPEX being assessed at some hundreds of million EURO.

BIOCHEMICAL TECHNOLOGIES

ETHERS-RELATED MEASURES: RED II should encompass the deployment potential of the recently developed "100% bio-ethers" chain. RED II should be the proper occasion to revise the portion of the Annex III and Annex V of RED I relevant to Fuel-Ethers.

LIPID-BASED BIOFUELS

ADVANCED BIOFUEL DEFINITION: The definition of Advanced Biofuels elaborated by SGAB and endorsed by AFF, as reported at General Section point 2, is welcome, in particular given the relevance of waste and residue material for the lipid-based biofuel sector.

CAP ON ANNEX IX-PART B TO BE REMOVED: The cap on Annex IX part B should be removed as it is a counter-productive proposal that can only restrict the use of development of the waste-based production facilities and act as an inhibitor to investment in new waste streams. The ILUC directive has promoted the use of Annex IX part B biofuels, which has led into industry investments. These biofuels should be included into advanced biofuel definition (as the SGAB advanced biofuel definition does).

Member States targets: The Directive should clarify that Member States can set higher targets in the transport sector by allowing the use of sustainable biofuels made from raw materials not listed in Annex IX in order to meet their own national 2030 biofuel mandates.

7% SHARE: To safeguard the investors willingness to continue investing to the biofuels sector the existing investments should be safeguarded by maintaining the 7% maximum contribution of biofuels from food crops, as a share of renewables in transport to 2030.

BIOMETHANE

PRIORITY ACCESS: Priority access is already foreseen for the penetration of renewable electricity in the grid, this same right should also be granted to biomethane in the natural gas grids.

GUARANTEES OF ORIGIN - The introduction of Guarantees of Origin for renewable gases as proposed in RED II is very welcome but in order to increase transparency for consumers, additional information should be provided (Art. 19.7); proposed amendments are:

New (g) –GHG emission savings may be specified optionally;

New (h) - other benefits related to the production of energy may be specified optionally

RENEWABLE TRANSPORT FUEL OF NON-BIOLOGICAL ORIGIN: P2G will play an increasing role in renewable electricity storage and gas utilization. Art. 2g should be better defined:

"*renewable liquid and gaseous transport fuels of non-biological origin*" means liquid or gaseous fuels other than biomass.

"*Fossil P2X*" means liquid or gaseous fossil fuels produced from non-biological waste (e.g. stack gas) produced with non-renewable electricity.

POWER-TO-X

DEFINITION: Neither the term 'Power-to-X' nor 'electro-fuels' are used in RED II. Also, known as electrofuels, PtX fuels are categorized either as Renewable Fuels of Non-Biological Origin, or as Waste-based Fossil Fuels, depending whether the energy source used is renewable or not.

- *We recommend that the option of producing waste-based fuels (i.e. from waste) is maintained in RED II, to demonstrate the potential of energy efficiency and GHG reduction.*

VALUE: The value proposition for PtX products is currently distorted due to inconsistencies in the RED II proposal. According to Article 7 the renewable electricity used to produce PtX fuels counts toward the national share of renewable electricity, even though the Guarantees of Origin (GoO) are cancelled. This would reduce the potential for PtX fuels to compete with other alternative renewable fuels.

SCALE: Article 25 limits the use of renewable electricity to national or EU grid average, causing unnecessary limitations.

- *PtX should be allowed to claim the use of 100% renewable electricity (from the grid) provided an equivalent amount of GoO's are cancelled.*
- *In case Annex IX will be maintained, something against the advice of the industry, it is recommended to include PtX RFNBO (Renewable Fuel of Non-Biological Origin) pathways as advanced renewable fuel solution under Annex IX – Table A, provided above-mentioned concerns over Art. 7 have also been addressed appropriately.*

OPERATIONAL IMPLICATIONS: Current RED II proposal limits the possibilities to optimize the potential of renewable PtX pathways. Article 25 par. 3 sub (a) limits the possibility to produce 100% renewable PtX electrofuels.

FUTURE CONCEPTS

TIMING - 3-STEP APPROACH: Timing is critical. In order to reach the necessary very ambitious goals, a 3-step-approach could be implemented that has proven very successful in the renewable electricity sector in DE.

- 1st step: "R&D funding"
- 2nd step: "Boost experience curve" – a long-term, reliable funding program that aims at selecting within around 20 years the "best in class" concerning costs by creating a protected roll-out market for TRL 9+ technologies.
- 3rd step: In the third step, a revised carbon pricing mechanism will be necessary that is valid for all carbon emitters (not only transport). First generation biofuels are already commercially competitive (with adequate carbon pricing) and need not to undergo steps 1 and 2.

SUPPORT TIED TO LEGISLATION: In order to make a meaningful contribution, new technologies need support today through access to EU funding which is often tied to legislation like the REDII.

TRANSITION TO LOW CARBON ECONOMY: We believe that this is an opportunity to transition to a low carbon economy by allowing multiple sustainable technologies/feedstocks to contribute.

AVIATION

TAILOR-MADE SOLUTIONS NEEDED: AFF welcomes a tailor-made solution for aviation and wants to emphasize that there can be different ways to structure such support mechanisms and that the multiplier might not be the most effective option. However, if the Commission opts for an aviation specific multiplier a 1.2 factor will not be sufficient as sustainable aviation fuels are intrinsically more expensive than sustainable fuels for other transport industries. On the other hand, if the Commission is open to discuss other mechanisms, then there is a strong preference to work on an auctioning system (already proven successful for introduction of other renewables, e.g. wind at sea).

MEASURES NEED ALIGNMENT: Aviation is a global industry. Any measures taken in a European context will have an (economic) impact on European carriers in this global competitive playing field. Ensuring alignment at international level is level is key (e.g. ICAO).

SUPPORT TOWARDS UPSCALING: First upscaling of the sustainable aviation fuel industry will be relying heavily on non Annex-IX feedstock, simply because conversion technologies that can use Annex-IX feedstock are not ready for commercial scale up (i.e. not ASTM certified and low TRL levels). The way RED-II is currently laid out will mean a serious setback in the development and upscaling of EU production capacity/uptake of sustainable aviation fuel.

Indecisiveness will put the EU even further behind on sustainable aviation fuel developments. The EU thinks they are a frontrunner on this topic, but are being overtaken left and right by other countries. Serious policy/market efforts are emerging in US, China, Canada, Norway, UK, Brazil Australia, Japan etc.

HEAVY DUTY

QUALITY ASPECTS OF FUELS: Ensure that quality aspects of fuels are covered and are in sync with other related directives, such as FQD, and CEN standards.

FOCUS ON KEY ELEMENTS OF THE CHAIN: Focus the efforts on the most important parts of the value chain such as production of ART-fuels (production cost is a large part of total cost). Adequate supply of ART-Fuels is needed as well as vehicles that can use these fuels.

MARITIME

LEAVE TO International Maritime Organization (IMO) THE METHODOLOGIES TO IMPLEMENT MEASURES: The priority of RED II should be to focus on the development of alternative, fossil-free fuels: it should be left to the IMO to assess and develop methodologies for the implementation measures to match the CO_2 ambition of the Paris Agreement.

PASSENGER CARS

WELL-TO-WHEEL APPROACH: A "Well-to-Wheel" approach should be considered when comparing low carbon transportation fuels and calculating GHG reduction that must be met under RED II. We need a technology neutral approach when calculating GHG reductions.

__DISCLAIMER__ - The "Key Messages of the ART Fuels Forum" have been drafted by the Management team of the Alternative & Renewable Transport Fuels Forum (ART Fuels Forum). The stakeholders who contributed to this work shared the aim of establishing a constructive and transparent exchange of views on the policy, technical, economic and environmental issues associated with the development and deployment of Alternative and Renewable Transport fuels. The objective was to evaluate the boundaries under which advanced biofuels can contribute to mitigating carbon emissions from transport. Each stakeholder contributed knowledge and vision of these issues. The information and conclusions in these Messages represent these contributions, but should not be treated as binding on the companies and organizations involved. The positions and recommendations listed above are those of the Members of the ART Fuels Forum and do not necessarily reflect the official position either of the Commission or of the Organizations represented by the ART Fuels Forum Members; nor they are recommended by the Commission or of the Organizations represented by the ART Fuels Forum Members.

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