



Meeting Minutes

Visit of the DTI engine testing centre and discussion of the fuel testing programme.

Date: 29-11-2017

Time: 13:00-14:30

Location: DTI Engine Testing Centre in Aarhus, Denmark

Participants

Jaap van Hal (ECN)

Ana Lopez Contreras (WR-FBR)

Jelle van Leeuwen (WR-FBR)

Paulien Harmsen (WR-FBR)

Truus de Vrije (WR-FBR)

Randi Neerup (DTI)

Sten Frandsen (DTI)

Agenda

Tour of the facilities

Outline of the MacroFuels project

Outline of the described test

Discussion on how to proceed

Minutes of meeting

1. Task 1

DTI has three types of engines, two of which are suitable for the fuel test. One is a single cylinder gasoline engine, the other a diesel engine. They were shown by Sten.

JvH presented the MacroFuels project, the description of WP5, Task 5.1. Sten described typical testing conditions. A basis test can be performed with about 2L. of biofuel, if a synthetic blend can be produced.



JvH displayed the molecules envisioned in WP4. The following testing programme was sketched based on the discussion.

DTI will have a relevant sample of ethanol analysed for composition of trace impurities. DTI will inform us about the minimal quantity, DTI will supply the ethanol. DTI will then produce a synthetic blend of the ethanol to get a stable engine performance and switch to the seaweed based ethanol. A report will be written about the results of this experiment.

The same procedure will be repeated for ABE or IBE (Acetone, Butanol Ethanol, or Iso-propanol-Butanol-Ethanol). The ABE mixture will be provided by WR-FBR.

AVT and ECN will pick a molecule in WP4 to synthesize. AVT will provide the minimal quantity of this sample to analyse and proceed with a similar test, except that in this case the fuel will be tested as cetane booster.

Action items:

DTI to supply WP3 and 4 with the minimal amount of fuel to analyse

ECN to organise a teleconference with WR-FBR and DTI (WP3) in January with the chemical specialist and Sten of DTI.

ECN to organise a teleconference with AVT and DTI for the thermochemical molecules.

JvH to update the planning accordingly.

Noted by Jaap van Hal (ECN)