

BIOFUELS CONSULTATION

To

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This is a welcome opportunity to engage in the formulation of policy relating to the extending the Biofuels Obligation Scheme, in accordance with the National Climate Action Plan as published in June 2019 and also in accordance with the Recast Renewable Energy Directive adopted in December 2018. In essence, according to the Climate Action Plan's range of policy options, blending to reach 10% by volume in petrol and 12% by volume in diesel by 2030 is in itself, woefully inadequate and grossly under ambitious. The potential inclusion of an advanced biofuel obligation which could increase the supply of biomethane to the transport sector has merit but careful steps need to be introduced to prevent the dominance of any one or closely related parties at the expense or exclusion of more advanced advanced fuels such as DME or electro derived hydrogen fuel vectors, more specifically large hydrogen electrolyzers being deployed at some of the windiest locations in Europe which could produce fully renewable fuel without any incursion on food producing lands. Further opportunity exists to take wastes including wood and plastics to produce an advanced advanced fuel such as DME which is already blended into the LPG markets in China. Clarity on end of waste regulations would assist in this regard. Now is the time to be setting 2030 commitments of at least 30 by 30. Targets are set by policy makes, but are hit or missed by industry, industry needs the certainty to be able to bank the proposal. Policy must close the loops on certainty.

Under section 3.7 **Multipliers for Certain Biofuels,**

It mentions that a multiplier of 4 times and 1.5 times the energy content can apply to renewable electricity supplied to road and rail transport respectively. But, under Question 8, last paragraph ' it is not intended to provide any energy credit for the supply of renewable electricity to road or rail transport'

Please clarify as per below;

Question (a)

Will electricity proven by way of a GOO cert and turned into hydrogen qualify for advanced biofuel support.

Question (b)

Will the avoided energy content of Oxygen produced as a result of a renewable driven electrolyser, where the oxygen is used to gasify wood waste to produce syngas, to produce DME or substitute Natural Gas qualify as being renewable sourced.

Question (c)

Please clarify the position on captured Co₂ which is hydrogenated using wind derived hydrogen and processed back into either SNG or DME.

Answers below to the questionnaire

Question 1.

- (a) No, technology advances will underpin higher percentage blending levels, therefore ambition is short.
- (b) No, a 30 by 30 commitment should be set where a justified reason should be present by Dept report every two years showing why the next increment should be stalled.

Question 2.

- (a) E70-80-90 are at the forefront in other jurisdictions so why not here. Consumers will follow the money.
- (b) None, in 1999 the author was a participant in a blending trial at 12% there were no technical barriers to increasing this. Substantial Nox and PM reductions were observed. Bunkering a blend bearing a lower closed cup flash point had issues but not really a big issue with depot bunkered fleets.
- (c) For petrol substitute bioethanol is easiest
For diesel, as in (b) above, ethanol worked but HVO is easier.
But DME will substitute in for 100% in Diesel engines. Author recently drove a Ford Mondeo with full Ford OEM commitment on 100% DME.
Has been done, can be done, will it be done.
- (d) No not yet. Policy and certainty.
- (e) Put a value on avoided PM 2.5's note DME does not produce any PM.
- (f) Perhaps recast cost with savings. Pitch carbon price properly, add in something for PM and Nox avoidance, add in a security of supply element, add in an import substitution and then a few shillings for a job or two.

Question 3.

(a) Yes

Question 4.

(a) No, advance the timing by one year.

(b) It may be better to remove the carry over completely, this would make a start to improving liquidity in the credits market.

Question 5.

(a) No, this is all about making sure that the AD gas sector gets a run away at the advanced biofuel sector at the suppression of the hydrogen sector. Simply saying that hydrogen is not ready is ludicrous, the author drove a 100% hydrogen car two months ago, it had to go to UK to bunker.

(b) Start with Compressed hydrogen 100% can be done now.
DME at 100%, can be done now. Large OEM's ready to go.
Aviation Kero is getting close
Call this category 'Electro originated' DME , Methanol, Hydrogen and Hydrogen Peroxide all work in fuel cells, it's not all about combustion engines.

Question 6.

(a) Yes.

Question 7.

(a) Partly yes but be very careful not to spook the banks, they like simple things with certainty and so do we, the risk taker. The use of the word may, really means will, better to spell it out now.

Question 8.

(a) Fundamentally Yes but just be clear that hydrogen produced by renewable electricity really qualifies and is not later challenged by one of the objectors alleging that electrochemical conversion of renewable electricity back into electricity via a fuel cell is in fact use of electricity for road or rail transport.

(b) Yes energy credits are fair and uniformly measurable which serves to minimise fraud opportunities.

Question 9.

(a) Yes

(b) No, fraud is fraud and correct tracking of energy credit issuance with the appropriate multiplier should suffice.

Question 10.

(a) Yes. With immediate elimination of palm oil.

Question 11.

(a) Yes

Question 12.

(a) 1.7 % is 1.7%, it's never physically going to be 3.4% the quantity is completely irrelevant when measured against the scale of the job at hand.

(b) No, why should EC commissioner time be drawn into such trivia, just do it. It follows the Irish herd levels, where the herd goes, the produced animal fats follow.

Question 13.

(a) No, possibly at best allow three years at 15% but go to zero after that, just one more opportunity to limit fraud, gaming and market manipulation.

Question 14.

(a) As a floor price, yes. However if there is no liquidity then it's all moot. Measure must ensure no repeat of the ETS gifted credits fiasco. To make a market, there must be demand. Increasing the obligation is good for the environment and if as suggested in Q2 (f) then its financially sensible to keep the market short, with the compliance fee floor prices set and scaled.

Question 15.

(a) Yes partially. Clearly the 100% supply within Ireland options such as hydrogen, DME etc, may continue unaffected in supply terms, perhaps a range limited cfd trade linked to 14 above might be fair.

Question 16.

(a) Yes

(b) Upping the injectable quantity of hydrogen into the gas transmission mains. A percentage dilution measured against actual flow past the injection point would help.

Introduce DME, it's already done in China helps with smut reduction. Better for cooking gas.

(c) Could be very complicated.

Linked to RHI scheme, note it takes one 10 MW wind turbine only 30 hours to eat the first category of the RHI, something more ambitious would be needed. Perhaps use of traded Goo's to link genuine renewable to consumed electric heating might work but difficult to keep fraud out of it. Unpopular but eliminating electron carried wind and allowing transported wind in the form of gas, ice or liquids the case may be, could work.

Question 21.

Clarity and bankability

Certainty and timeliness

Keep the market in near balance, always a little short.

Small projects below 10 MW rolling registration with the market administrator, presumably NORA and notification of intent to enter the market say two years in advance of delivery for projects above 10MW.


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