KONINKLIJKE
vemw
Kenniscentrum en belangenbehartiger
van zakelijke energie- en watergebruikers

European Commission

BRUSSELS

Woerden : 17th June, 2022
Our ref. : E22b03
Extension. : +31 (0)348 48 43 53
e-mail : tgs@vemw.nl
Subject : Reaction of VEMW to the consultation on the delegated acts on the rules for the production of RENBO's and the rules and assessment methodology for recycled carbon fuels.

Summary

These are the main points of concern of VEMW for the Delegated acts (DAs) on the production of transport RFNBOs and the Delegated Act establishing a threshold for greenhouse gas emissions saving of recycled carbon fuels. We welcome the fact the DAs have finally been published and look forward to their final adoption.

Observations and suggestion on the Delegated Act setting the methodology out detailed rules for the production of renewable liquids and gaseous transport fuels of non-biological origin

- The delegated act is not written technology neutral: alternatives for electrolysis should be allowed to produce RFNBOs;
- A combination of an electrolyser powered through a direct line in combination with a PPA withdrawing electricity from the grid should be allowed;
- Points with regards to additionality:
    - Article 4.2 is leading to much administrative complications and to market power for developers of new offshore wind parks and should be used only temporarily in Member States. Applying article 4.1 instead of article 4.2 will greatly reduce administrative elements and offers each renewable assets the same opportunity to deliver renewable electricity to electrolysers. However, it is unclear why the threshold for applying article 4.1 is at 90% renewable electricity. We propose to bring the threshold to 70%. The Dutch electrolyser developments can benefit from this.
    - The additionality of a temporal link between realisation of electricity production and the electrolyser hampers the functioning of the electricity market;
    - The enforcement of a link between location of production of electricity and the electrolyser through bidding zones is an administrative barrier that can prevent the realization of electrolysers or renewable electricity production;
    - The temporal link between production of electricity and production of hydrogen on hourly basis should be extended to a monthly link;
- Subsidization of renewables should be allowed, at least for the current installed capacity, creating an even playing field between renewable electricity producers;
- The delegated act should allow the import of RFNBOs from countries outside of the EU with a different market organisation, such as countries without bidding zones;

Houttuinlaan 12
3447 GM WOERDEN
KvK Utrecht nr. 30147022

Telefoon 0348 48 43 50
E-mail kb@vemw.nl
Internet www.vemw.nl

IBAN: NL20ABNA0551408340
BICcode: ABNANL2A
BTW nr. NL 0011.19.904.B01

- To assure sufficient hydrogen production, the exposure to the temporal and geographical correlation between the electricity production unit and the fuel production should be extended at least until 31 December 2030. We recommend to include Article 4 (2) (iii) into the derogation mentioned in Article 7;

Observations and suggestion on the Delegated Act establishing a minimum threshold for greenhouse gas emissions saving of recycled carbon fuels and specifying a methodology for assessing greenhouse gas emissions saving from RFNBO's and recycled carbon fuels

- Whereas 7 states: "Capturing of emissions from non-sustainable sources should therefore only be considered as avoiding emissions until 2035." This limitation is a serious impediment for CC(U)S;
- Whereas 8 states: "recycled carbon fuels with the same physical characteristics is stemming from the same process, they should be considered having the same emission intensity." This could pose an investment barrier on gasifiers producing with a lower carbon footprint. Recycled carbon mixtures of different sources should be counted by mass balancing, instead of the proposal.

Introduction

VEMW, the association for large energy and water consumers in the Netherlands, is happy that the *Delegated Act setting the methodology out detailed rules for the production of renewable liquids and gaseous transport fuels of non-biological origin* and the *Delegated Act establishing a minimum threshold for greenhouse gas emissions saving of recycled carbon fuels and specifying a methodology for assessing greenhouse gas emissions saving from RFNBO's and recycled carbon fuels* finally have been published. VEMW would like to respond to the consultation of both the in delegated acts. Since the Delegated Acts (DAs) are correlated, VEMW has decided to write a singular response.

General considerations

Industries are playing a pivotal role in the energy transition and will be the launching customers to kickstart the low carbon and green hydrogen economy to achieve the Green Deal goals and to become less dependent of Russian energy imports. A supportive regulatory framework is crucial to incentivize investments, not only for the hydrogen production and infrastructure, but also for investments in existing and new industrial appliances and processes. Large investments are needed in the short term to achieve the ambitious targets of the REDII and REPowerEU. Taking into account the investments cycles in industry, it is critical that regulation provides clarity and supportive conditions, which is not always the case.

As the representative of large energy consumers, VEMW aims to realize a market for renewable energy carriers that is affordable, has a secure supply, and is sustainable. The Delegated Acts (DA) must facilitate the development of a market according to the principles. Production and import must be facilitated to aid the global market to achieve affordable prices for the energy carriers to keep the European industry competitive. The production of renewable fuels will be limited the coming decade and we cannot afford any limitations that hamper the production and import of renewable fuels. The response of VEMW will be based on these principles.

General question:

The scope of the published DAs are transport fuels. The legislation for renewable fuels in industry, transport and other sectors should be similar for simplicity and to facilitate the market. VEMW would therefore pose the following questions: Are other sectors also subject to the rules in these DAs? Will the rules for the other sectors be similar to these DAs? Will these rules also be applicable for the goals proposed for industry in Fit For 55?

Responses to the DAs:

Delegated Act setting the methodology out detailed rules for the production of renewable liquids and gaseous transport fuels of non-biological origin

- The delegated act is not written technology neutral. Alternatives for electrolysis should be allowed to produce RFNBOs.

Legislation for the production of RFNBOs should be written technology neutral and only allows for electrolysis. One of the objectives of the REDII is technological development and innovation. The proposed rules for the production of RFNBOs do not allow for innovation past electrolysis. This can hamper the development of a circular economy where renewable hydrogen can be a side product. To facilitate the goal of the EU towards a circular society we propose the DA is made technology-neutral.

- Article 3 (c): *Rules for counting electricity sourced from directly connected installations as fully renewable.*

Article 3 (c) disallows electrolysers to withdraw electricity via an direct connection in combination with electricity from the grid, even when this electricity complies with article 4. This can be a barrier for the effective realisation of renewable electricity and can hamper the business case for electrolysers by decreasing the amount of full load hours. Legislation should facilitate, not hamper, the production of RFNBOs.

<u>Points with regards to additionality:</u>

- Article 4.1

Applying article 4.1 instead of article 4.2 will greatly reduce administrative elements and offers each renewable asset the same opportunity to deliver renewable electricity to electrolysers. However, it is unclear why the threshold for applying article 4.1 is 90% renewable electricity. We propose to bring the threshold to 70% and gradually lift it to 90% (by 2035). The electrolyser developments in many Member States can benefit from this. Hydrogen Europe performed an analysis and this points at 14 Member States projected to reach at least 70% renewable electricity production and can thus produce renewable hydrogen. The Dutch electricity generation system is among these Member States as it is rapidly changing the production mix mainly as a result of growth in offshore wind and solar PV. The national energy and climate outlooks for the Netherlands (PBL, 2021) show that by 2030 the electricity mix will be at least 75% (check) renewable. In order to achieve the goals set for renewable hydrogen production the market should be facilitated.

- Article 4 2 (a) introduces a link in realisation time of the realisation of the renewable electricity production and the realisation of the installation for producing RFNBOs.

VEMW appreciates that the link between the realisation time of the renewable electricity generation and the installation for producing RFNBOs is lengthened to 36 months. Matching of realisation dates even on a 3 year period can have unwanted consequences, such as enforced delay of realisation of RES production due to delay in realisation of the electrolyser. The Dutch nitrogen problem can delay projects for years and the roll-out of renewables should not be hindered or delayed due to uncertainties in the realisation of RFNBO production, such as electrolysers.

Furthermore, this article can create an unlevel playing field between renewable energy production sites and hamper the working of the electricity market, since older RES generation might not be allowed to produce electricity for RFNBO production. This might enforce RES generation to be deconstructed and rebuilt before the end of its lifetime.\

- Article 4 2 (b) enforces that an installation producing renewable electricity has not received support.

This article creates an unlevel playing field between renewable electricity generation and interferes in the electricity market. The article might enforce RES generation that has received all its support to be deconstructed and rebuilt since that might result in higher profits even though the generation facility has not reached its end of life. This can result in inefficient use of funding and resources.

- Article 4 2 (c) The temporal link between production of electricity and production of RFNBOs on hourly basis should be extended to a monthly link.

The temporal link between production and consumption of RFNBOs on an hourly basis decreases the amount of full load hours an electrolyser can run and thus constrains the roll out of electrolysis capacity due to a worsened business case. A decreased amount of full load hours also influences the price of the RFNBO produced and thus decreases the competitivity of industry in Europe. It should be noted that CBAM will only protect few sectors up to the CO2 cost (ETS). However, this protection will not extend to the relatively high cost of hydrogen consumption targets as set out to RED. Unnecessarily, stringent demands for RFNBOs are likely to increase the risk of carbon leakage.

Furthermore, we welcome the provided extension to allow sourcing from stored electrons. However, this should not have to be limited to storage co-located with the electrolyser. These storage facilities should also be allowed to aid in grid congestion/ flexibility markets.

- Article 4 2 (d) The enforcement of a link between location of production of electricity and the electrolyser through bidding zones.

The coming decade the roll-out of renewable electricity production and RFNBO production is crucial and should not be hampered by administrative barriers such as the location of bidding zones. The European electricity market is designed based on bidding zones but aims to be an integrated market with a level playing field and similar electricity prices. The market for the production and usage of RFNBOs, such as renewable hydrogen, are based on the same principles but with this article administrative barriers are implemented. Therefore, VEMW proposes to not include a locational link between the electricity production and the electrolyser.

The overall framework benefits Member States with a low carbon intensity in their electricity grid (e.g. France), regardless of the fact whether their CI is the result of renewable or other types of low carbon electricity generation (nuclear). The framework appears to place Member States with an intermediate share of renewable electricity at a disadvantage (e.g. Netherlands), since these Member State's early start with renewables makes it challenging to bring more (additional) renewables online. We think these are unintended consequences of the particularities of the currently proposed framework and therefore **suggest:**

a. an approach whereby electrolysers in Member States with an intermediate RES share could top-up their PPA with grid electricity and count that as renewable **on the basis of the actual RES share** during that specific time period (regardless of the grid CI).
b. a **forward-looking application** of part C of the annex to the GHG Savings DA to the different grid use cases (as described in paragraph 6 and 7 in the Annex to the aforementioned DA). Whenever electrolyser top up from the grid, they create emissions at that point in time, not in the past. A backward looking approach would therefore pose unnecessary restriction on electrolyser load potential.
c. application of grid sourcing on basis of the second part of paragraph 6 and of paragraph 7 of the Annex to the GHG savings DA as a top up possibility besides using fully renewable (additional) power. If the optionality to assume the marginal plant's carbon intensity can only be used on a yearly basis, we regard it as too restrictive.

- Article 4.4 .

According to art 4.4, it needs to be made clear which amount of hours in which downward redispatching has taken place are regarded as fully renewable, regardless of the fact whether the electrolyser can be proven to have reduced the need to redispatch. That can't be proven by definition**.** Functioning electrolysers will already lead to less redispatching, which should allow for more flexibility in the phrasing.

- Import

Hydrogen import is indispensable to meet de demand of low and green hydrogen. Based on the current DA only green hydrogen imports produced by electrolysis compliant to the same mandatory additionality requirements of the REDII are able to contribute to the RNFBO mandate (article 6). However at this moment it is impossible to provide evidence that hydrogen imports are compliant with European rules because the official accredited certificates or voluntary certification schemes are not existing yet. Furthermore article 6 presumes that countries outside of Europe have an equal market design compared to the European electricity markets with bidding zones which is not the case. We urge the European Commission to speed up supporting voluntary certification schemes for hydrogen to enable import of hydrogen.

- Article 7 Transitional phase

To assure sufficient hydrogen production, to reach the goals proposed in the Fit For 55 package, the exposure to the temporal and geographical correlation between the electricity production unit and the fuel production should be extended **at least until 31 December 2030**. We recommend to include Article 4 (2) (iii) into the derogation mentioned in Article 7;

- Effects on the electricity market

The DA aims that energy consumers increase the roll-out speed of renewable energy production by enforcing additionality and by taking over large part of the risks from the renewable energy producers through PPA's. VEMW comprehends the goals of the Commission but also sees risks for the functioning of the electricity market. Large amounts of electricity production is taken out of the market through PPAs for long periods of time and traded over the counter instead of a public market place such as EEX, which decreases the liquidity of the electricity market and influences the pricing. VEMW can currently not provide an alternative for the PPA but hopes that the delegated act will not go at the expense of the functioning of the electricity market.

Furthermore, the additionality principle in combination with the RFNBO target in the proposal for the RED can create an uneven playing field with direct electrification and. The realisation date of the renewable energy production can have influence on the pricing and thus create inefficiencies within the market.

Delegated Act establishing a minimum threshold for greenhouse gas emissions saving of recycled carbon fuels and specifying a methodology for assessing greenhouse gas emissions saving from RFNBO's and recycled carbon fuels

- Whereas 7 states: "*Capturing of emissions from non-sustainable sources should therefore only be considered as avoiding emissions until 2035*." This limitation is a serious impediment for CC(U)S.

Decarbonization does not mean that we create a carbon-free society. Carbon will be needed as an important feedstock for our products in the future. Next to renewable hydrogen, low carbon solutions e.g. carbon capture usage and storage (CCUS) should be acknowledged as a crucial part of the solution, not only to kick start the low carbon hydrogen production, but also as possible storage for our future carbon needs. The restriction stated in the Delegated Act on specifying a methodology for assessing greenhouse gas emissions savings states that: "*capturing of emissions from non-sustainable sources should only be considered as avoiding emissions until 2035*". This limitation is a serious impediment for CC(U)S and in the long run

limit the amount of carbon sources available and VEMW proposes that this statement is taken out of the DA.

Furthermore, the DA proposes to treat CO2 captured from industrial sources (paragraph 11(a)), in particular the proposed time limit (2036) to accepting CO2 that "has been captured from an activity listed under Annex I of Directive 2003/87/EC." After this timeline, this means only such options as direct air capture (DAC) or CO2 stemming "from the production or the combustion of biofuels, bioliquids or biomass fuels" can be accounted for would be allowed (accepted). This restriction on the use of industrial point-sources of CO2 would limit options for manufacturing of RFNBO like synthetic Sustainable Aviation Fuel (SAF) in the short/medium term. Capturing CO2 from concentrated point sources requires less energy than capturing CO2 through Direct Air Capture (DAC). It may be beneficial for those CO2 point sources that would otherwise be emitted into the atmosphere such as from difficult-to-decarbonise industries (e.g., cement or steel) in locations where CCS is not feasible.

- Whereas 8 states: "*recycled carbon fuels with the same physical characteristics is stemming from the same process, they should be considered having the same emission intensity*." This could pose an investment barrier on gasifiers and electrolyzer producing with a lower carbon footprint.
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The proposed Delegated Act on specifying a methodology for assessing greenhouse gas emissions savings states that: "*mixtures of renewable liquid and gaseous transport fuels of non-biological origin, recycled carbon fuels and other fuels with the same physical characteristics are stemming from the same process should be considered as having the same greenhouse gas emission intensity*".

This could be a serious investment barrier for processes, e.g. gasifiers, producing a mix of fuels within a common fuel output and with the same physical characteristics but a different carbon footprint of its output. The carbon footprint can depend on the feedstock that is processed e.g a mixture of fossil, RFNBO, or recycled carbon fuels. In those cases, mass balancing of the produced fuels, taking the whole LCA into account, is needed to define the contribution of the GHG reduction, which is a prerequisite to meet the GHG targets and for the green labeling of the end products.

A suggestion:

d. **To recognize the multi-feedstock nature of future fuel production units and differentiate the GHG emissions from the different fractions, using energy allocation as the main criteria** to allocate process emissions as well as to determine the RFNBO and RCF fraction of the final fuel corresponding to each individual feedstock jointly processed.
    - **Avoiding a single carbon intensity value for different mix of feedstocks or** fuels is deemed essential to incentivize both RFNBO and RCF production
    - **Allocating GHG emissions associated with each input to the corresponding fraction / type of fuel** to have clear recognition in the context of future RED II(I) compliance.

Kind regards,

Signed by

dr. H. Grünfeld
General Manager