ALLEN & OVERY

Hydrogen

Latest EU policy updates

1. Introduction

On 18 May 2022, the European Commission has presented the REPowerEU Plan envisaging the transformation of Europe's energy system in light of the energy market disruption caused by Russia's invasion of Ukraine.

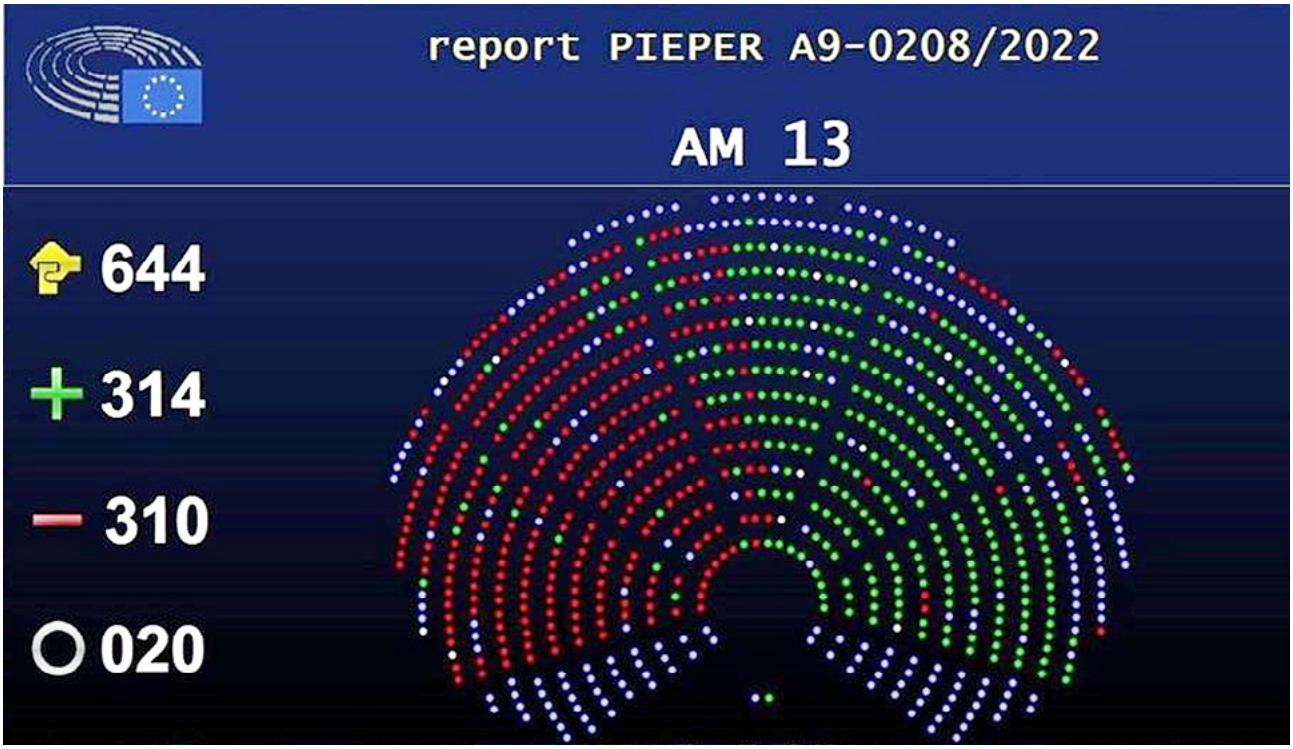
In this context, the European Parliament as well as the European Commission are working towards accelerating the build-out of hydrogen based fuel production by providing updated rules in the context of the Renewable Energy Directive 2018/2001/EU (**RED II**).

Furthermore, the establishment of a **hydrogen bank** has been proposed, while the first and second wave of Important Projects of Common European Interest (**IPCEI**) were approved by the European Commission unlocking more than EUR10bn of Member States subsidies.

While these developments signal significant progress, the finalising of a clear and comprehensive legal framework will likely require additional time.

2. The RED II Amendment

On 14 September 2022, the members of the European Parliament passed various amendments to the Fit for 55 proposal for a directive amending RED II, in particular proposing substantial changes to Article 27(3) of RED II (**Amendment**) that, if adopted as is, would change the legal framework around the production of renewable liquid and gaseous fuels of non-biological origin (**RFNBOs**)[1]. Such amendments are not peaceful and were extensively discussed, leading to some proposals being narrowly approved, such as Amendment 13 – that specifically addressed Article 27(3) –, which was passed by 314 votes in favour to 310 against.



2.1 Background

Article 27(3) currently in force under RED II sets out three main options for determining the share of energy used in the production of renewable liquid and gaseous transport fuels of non-biological origin (**RTFNBOs**) that may be considered as renewable – the Average Share Option[2]; the Direct Line Option[3]; and the Grid Delivery Option[4]. The criteria for each option were to be further detailed in a delegated act by the European Commission.

On 23 May 2022, the European Commission published the draft RED II Article 27(3) delegated act (**Draft Delegated Act**) under the current RED II establishing the rules for the production of RTFNBOs. The criteria included in the Draft Delegated Act focussed on three main principles: additionality (the principle that the production of renewable hydrogen should incentivise the deployment of new renewable electricity generation capacity and not deplete or divert existing renewable capacity that is being used for other purposes); geographical correlation (the principle that the renewable electricity installation and the RTFNBOs installation shall be in the same or proximate physical space, using the concept of bidding zone) and temporal correlation (the principle that the consumption of renewable energy and the generation of RTFNBOs must take place at or near the same time).

Please refer to our previous article **here** examining the proposals in the Draft Delegated Act.

[1] According to the RED II Amendment, RFNBOs are liquid and gaseous fuels the energy content of which is derived from renewable sources (other than biomass) which, with current technology, generally translates to hydrogen-based fuels.
[2] The share of renewable energy used in the production of RTFNBOs can be determined by the average share of electricity from renewable sources in the country of production, as measured two years before the year of production.
[3] Electricity obtained from a renewable generation installation directly connected to, or within the same installation as, the fuel production facility will be treated as renewable (and thus the fuel potentially an RTNFBO) provided that the installation generating renewable electricity: (i) comes into operation after, or at the same time as, the installation producing the RTFNBOs; and (ii) is not connected to the grid or is connected to the grid but evidence can be provided that the electricity concerned has been supplied without taking electricity from the grid.
[4] Electricity is taken from the grid but is treated as renewable provided that such electricity is produced exclusively from renewable sources and the renewable properties and other appropriate criteria have been demonstrated, ensuring that the renewable properties of that electricity are claimed only once and only in one end-use sector.

2.2 Criteria for RFNBOs under the Amendment

The Amendment's main novelties are as follows:

– **Additionality:** The additionality principle is fully deleted, thereby excluding the need for renewable energy used in the production of RFNBOs to be sourced from new renewable installations or added capacity, i.e., it may come from already existing and operating facilities. Although this has been very well accepted by market players from a commercial perspective, it causes concerns for many of the previous proponents of the additionality principle by allowing current renewables production to be diverted into the green hydrogen production. Some environmental organizations are already expressing their concerns regarding this change and more reactions are expected in the near future.

– **Temporal correlation:** The temporal correlation for the Grid Delivery Option is set at a quarterly basis, replacing the hourly requirements proposed in the Draft Delegated Act. However, the Amendment's text also states that such criteria may, as of 1 January 2030, be set on a monthly, quarterly or yearly basis by the European Commission and shall apply to all existing plants, including the ones commissioned before 2030. The wording used in the Amendment therefore seems to imply that the grandfathering arrangements that have otherwise been seen as a positive feature of the Draft Delegated Act will not be available under the revised RED II framework.

– **Geographical correlation:** The "bidding zone" concept that features in the Draft Delegated Act is replaced by a requirement that the renewable energy installation is located in the same country as the electrolyser, in a neighbouring country or in an offshore bidding zone adjacent to the country where the electrolyser is located. This change would potentially address a frequently raised area of uncertainty in the Draft Delegated Act concerning the interpretation of the concept of "bidding zone" in countries with more than one bidding zone.

– **Delegated Act:** The reference to a European Commission delegated act is deleted suggesting that the Amendment to RED II would be foreseen to be sufficiently detailed and no delegated act being necessary. If this is the intention the question arises if this is actually the case and which parts of the Draft Delegated Act might still be needed going forward.

– **Quotas:** The Amendment increases the mandatory quota for RFNBOs use in the transport sector to at least 2.6% in 2028 and 5.7% in 2030 (doubling the previous amount of 2.6% by 2030). On the quota for hydrogen used by industry to be a RFNBO, the 50% quota for 2030 is maintained, while an additional quota of 70% by 2035 is added. Such increases were already expected since they align with the REPowerEU Plan.

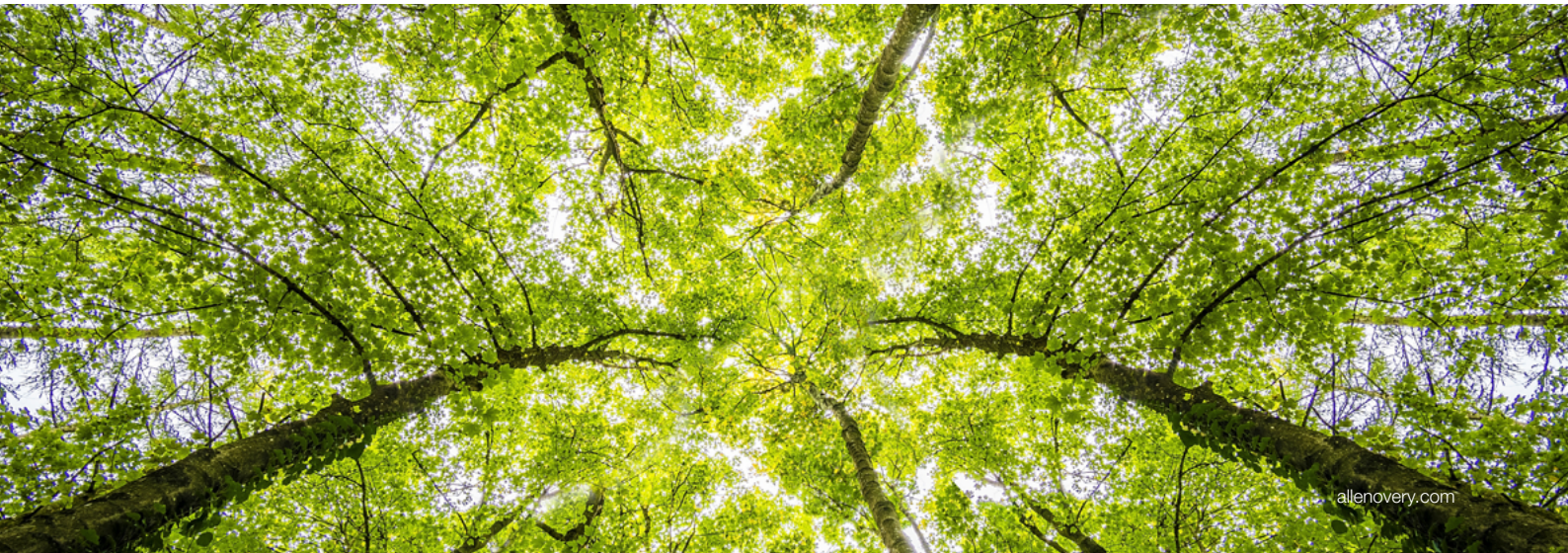
Interestingly enough, a proposed amendment to Article 27(3) (Amendment 14), clarifying that the requirements in Article 27(3), or, where not applicable, equivalent requirements would also apply to RFNBOs imported into the European Union has been rejected. However, a new proposed and approved Recital (34a) mentions that the same rules apply to RFNBOs imported in the European Union, leaving stakeholders once more with unclear rules on how criteria will apply to RFNBOs exported into the European Union.

2.3 Next Steps before the European Parliament

Seeing as the European Commission's initial proposal of 14 July 2021 for a directive to amend RED II in the context of the Fit for 55 package (**the Fit for 55 RED Proposal**) was submitted under the ordinary legislative procedure, the EU Parliament's amendments to that proposal will now be sent to the Council for a first reading and review. If the Council approves the EU Parliament's position, the revised Fit for 55 RED Proposal (reflecting the Amendment) will be adopted in the first reading. If the Council would itself amend the EU Parliament's position, the further revised Fit for 55 RED Proposal will enter the second reading stage, which will involve the EU Parliament reviewing the Council's amendments.

If the EU Parliament and the Council cannot agree on a text during the second reading, the revised Fit for 55 RED Proposal will progress to the third reading, which involves the setting up of a Conciliation Committee to facilitate the EU Parliament and the Council to reach an agreement. If no agreement is reached, the relevant disputed amendments will not be adopted.

Bearing this in mind, it is not clear if or when the Amendment will be approved as is, especially considering that opposition is expected after a very close voting.



2.4 Potential changes to the Draft Delegated Act

Around the same time the RED II Amendment was passed, a leaked version of the Draft Delegated Act found its way into the public domain, hinting that some amendments were being considered to the Draft Delegated Act published by the European Commission earlier this year. The most relevant changes/clarifications indicated in that leaked version include the following:

– **Application of rules outside the EU:** It is made clear that the rules set out in the Draft Delegated Act are to apply to all RTFNBOs regardless of them being produced inside or outside the EU.

– **The time period in which additional renewable generation capacity may be added to an existing installation under the Direct Line Option** should now be the same as for new projects, i.e. 36 months from the date the initial installation came into operation.

– **Clarification on the calculation of the average proportion of renewable electricity for the Average Share Option:** The Draft Delegated Act established a 90% renewable energy threshold within a bidding zone in order for RTFNBOs producers taking energy from the grid to be counted as fully renewable under the Average Share Option. However, it did not set out how such share was to be calculated. The leaked Delegated Act suggests there will be a clarification that the 90% renewable share shall be calculated as follows:

$$\left(\frac{\text{renewable gross final consumption}}{\text{all energy sources gross production}}\right) + \text{imports} - \text{exports}.$$

– **Clarification on the concept of bidding zones for the geographical correlation criteria in the Grid Delivery Option:** In order to comply with the geographical correlation criteria in the Grid Delivery Option, the Draft Delegated Act stated that the renewable energy unit should be located in the same bidding zone as the electrolyser or in an interconnected bidding zone. However, the concept of "bidding zones" was not clear within countries that had multiple bidding zones pursuant to EU legislation. For such reason, it is now clarified that all bidding zones located in the Member State may be considered as one bidding zone.

– **Limitations on grandfathering arrangements:** There are amendments to the grandfathering provisions which suggests that rather than a blanket grandfathering of installations that come into operation prior to 1 January 2027, the additionality criteria shall bwe applicable to added capacity in relation to those installations after 1 January 2027.

– **Extension of the grace period for the temporal correlation criteria:** While the previous version of the regulation included an exemption pursuant to which the temporal correlation requirement was only to be met on a monthly basis until 31 December 2026, the new Draft Delegated Act extends this derogation of the temporal correlation criteria to 31 December 2029. From 1 January 2027, this derogation will not apply for projects involving state aid that is not capital aid.

Notwithstanding the above, the leaked version of the Draft Delegated Act seems to be insufficient to address some of the market players' concerns, such as, among others, (i) the origin of investment aid or operating aid (i.e., is the restriction limited to aid from EU Member States), (ii) the battery related issues on direct connections, (iii) the application of the criteria in time (since the expectation was that the grandfathering provision would be maintained and even extended), and (iv) the operationalisation of the curtailing exception.

2.5 On-going uncertainties

The narrow majority for the adoption of the Amendment and the misalignment with the European Commission's position and process for the Draft Delegated Act are indicators of further rising uncertainties on how to balance the ambitious hydrogen production objectives with the need to ensure its sustainability, in a context where energy (including renewable electricity) is and is likely to remain in short supply.

Answering these difficult questions is a prerequisite to setting a clear legal framework, itself a key condition for hydrogen projects to go ahead swiftly in the coming months and years.

One thing that is for sure is that investors, already grappling with the difficulty of making investment decisions whilst presented with an uncertain future legal framework, will find this latest turn of events even more unhelpful.

3. CBAM: Potential extension to Hydrogen and indirect gas emissions

Modifying this key aspect of RED II was not the only initiative by the European Parliament in the hydrogen field. In June 2022, hydrogen was included in the scope of the proposed 'Carbon Border Adjustment Mechanism' (**CBAM**). With such mechanism (see our posts **here** and **here**), EU importers will need to buy carbon certificates corresponding to the carbon price that would have been paid, had the goods been produced under the EU's carbon pricing rules.

The European Parliament also voted to include so-called 'indirect emissions' in the calculation of the products' footprint, which for hydrogen could include emissions from the electricity needed for the production process. Such changes to the CBAM do not seem consistent with current Articles 25 and 28 of RED II, since the former only takes into account direct emissions of the productions processes linked to the installation while the latter focuses on life-cycle emissions for RFNBOs. This leads to uncertainty between the hydrogen producers, which must now wait for the CBAM delegated acts to know how the footprint shall be calculated, including for indirect emissions from electricity.

Importantly, the carbon footprint calculation methodology are currently not directly linked as the CBAM proposal currently refers to specific delegated acts for such calculation.

Discussions on CBAM are scheduled in October 2022 and will be a focus point for non-EU projects looking to export hydrogen to the continent.

4. The creation of a "European Hydrogen Bank"

In her State of the Union speech of 14 September, the European Commission's President announced the setting up of a European Hydrogen Bank. This facility is scheduled to invest as much as EUR 3 bn to *"help guarantee the purchase of hydrogen, notably by using resources from"* from the Innovation Fund, which is the fund under the EU's Emissions Trading Scheme funded from the auction of emissions allowances.

Ursula Von der Leyen mentioned that the objective is to *"create a market maker for hydrogen, in order to bridge the investment gap and connect future supply and demand."* This would entail providing some form of public guarantee for the purchase of renewable hydrogen. However, little detail has been released by the European Commission so far on the functioning of such guarantee mechanism.

However, this could help provide some form of public guarantee in a nascent market, where business models and bankability remains to be demonstrated for large-scale projects.

5. IPCEI: first two waves approved

IPCEI is an EU mechanism through which the European Commission pre-clears certain projects in terms of compliance with EU State aid rules where it is demonstrated, among other things, that a supported project benefits multiple member states. Decisions were long awaited by project developers and were announced in two waves, respectively July and September 2022.

The second wave announced on September 21st (see **here**) is dubbed "Hy2Use". It follows the first IPCEI ("Hy2Tech") which the European Commission approved on 15 July 2022 (**here**). Both IPCEIs address the hydrogen value chain but cover distinct aspects: Hy2Use focuses on hydrogen-related infrastructure and hydrogen applications in the industrial sector, whereas Hy2Tech focused on electrolysers production capabilities and end-users in the mobility sector.

While projects were selected at the national level and were required to provide information for the European Commission's screening, the IPCEI approvals do not by themselves trigger the granting of the subsidies to projects. This remains dependent, for each project, on the Member States setting up the required supporting schemes.

6. Final remarks

With an energy crisis falling upon Europe, EU's bet on hydrogen as the next renewable energy source has been reinforced in the last months. The measures identified herein – the Amendment, CBAM, the Hydrogen Bank and IPCEI approvals – are clear evidence of EU's continuous commitment to promoting and developing a hydrogen economy within Europe, both from domestic production and imports.

Although such efforts are highly appreciated and crucial for the development of renewable hydrogen's framework in Europe, they are also bringing up conflict and uncertainty within the market. The multiplication of different legislative initiatives and the lack of clear and straight solutions are delaying pending projects, undermining overall ambitions.

The upcoming months will be decisive for the final approval and clarification of these measures, with all eyes on EU's legislative bodies in anticipation of their next moves.

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