



Hybrid Event: Enabling the EU hydrogen economy – How to make it happen?



Thursday 13 October 2022, 11:30 – 12:30 CEST European Parliament, Brussels, Room: JAN 6Q1 / online

Hybrid event hosted by MEP Maria Spyra

Co-Chair of the European Parliament Intergroup on “Climate Change, Biodiversity and Sustainable Development”

Speakers:

- **MEP Maria Spyra**
- **Kitti Nyitrai**, Head of Unit C2 on ‘Decarbonization and sustainability of energy sources’, DF ENER, European Commission
- **Magnus Ankarstrand**, President, Yara Clean Ammonia
- **Geert Decock**, Electricity and Energy Manager, Transport & Environment
- **Cor Leguijt**, Energy & Fuels Manager and Clean Gases Team Leader, CE Delft
- **Yelda Guven**, Senior Director, Policy, ExxonMobil
- **MEP Christophe Grudler**

Welcome Remarks

MEP Maria Spyraiki

"I believe that hydrogen is the key to decarbonise the European energy sector"

MEP Ms. Spyraiki emphasised the key role of hydrogen in the decarbonisation of the European energy sector. She affirmed that the targets for scaling up **hydrogen production and application have increased in scope and acceleration** as the EU looks to break away from fossil fuels, especially in the context of the ongoing Russian invasion of Ukraine. Additionally, it was added that more than 25 countries have already published **hydrogen roadmaps**. Moving on, Ms. Spyraiki stated that in order for hydrogen to reach its full decarbonisation potential, it should be produced with renewable energy. Ms. Spyraiki then reported about positive developments with regards to hydrogen use in the **transport sector** as well as the **compatibility between ammonia and hydrogen**. To conclude, MEP Ms. Spyraiki pointed out the need for **clear and stable rules** to provide certainty, sustainability, and predictability for potential investors.

Panel discussion

Kitti Nyitrai, Head of Unit C2 on 'Decarbonization and sustainability of energy sources', DG ENER, European Commission

"Hydrogen is a solution, but it is not a goal in itself"

Ms. Nyitrai stated that hydrogen is an **important tool for the decarbonisation of sectors** – she added that it is not a goal in itself, but rather a solution. Ms. Nyitrai referred to the hydrogen strategy of 2020 by highlighting the 3 essential steps for the strategy to materialise. Firstly, it is important to **scale up demand and supply** in a coordinated manner. Secondly, Ms. Nyitrai agreed with MEP Ms. Spyraiki on the need for a **stable regulatory framework** to inform investors about future endeavours. Lastly, she called for the development of **flexible infrastructure**. With the Renewable Energy **Directive specific targets for Renewable Fuels of Non-Biological Origin** (RNFBOs) were proposed for sectors in which hydrogen could be the

key solution. Furthermore, Ms. Nyitrai mentioned that the Commission is working on **non-legislative action** in the form of infrastructural and financial frameworks.

Answering a second question on the role of electricity, **Ms. Kitti Nyitrai** added that **electricity will be responsible for more than half of the energy mix** by 2050. Moreover, the electricity sector is the quickest to decarbonise, which drives the electrification of other sectors. Ms. Nyitrai called for the **decarbonisation of the current electricity mix**, she added that it is necessary to **produce more renewable energy** to meet the demand.

Magnus Ankarstrand, President of Yara Clean Ammonia

“We need to develop the Hydrogen market and value chain and we also need a clear and transparent CO₂ price signal”

Mr. Ankarstrand shared that ammonia is a clean fuel which contains 50% more energy than hydrogen. Moreover, he stated that the **infrastructure and knowledge on shipping and handling of ammonia is already there**. When asked how to boost the demand for clean hydrogen, Mr. Ankarstrand stated that the answer is simple: it is crucial to **scale up**. He stressed the importance of a market for hydrogen, which can only be created if it makes sense for the customer to use hydrogen instead of fossil fuels – he added that Europe has done well in this regard with the European Trading System (ETS). Mr. Ankarstrand stated that unlike ammonia, hydrogen calls for **investments** since the infrastructure is not in place, therefore he believes that **on the supply side** clear and transparent **tax incentives** are in order. With a combination of proper incentives on both the demand and the supply side, the President of Yara Clean Ammonia is convinced that the market will scale up, as it makes sense to investors.

Geert Decock, Electricity and Energy Manager, Transport & Environment

“We should have started yesterday”

Mr. Decock offered a brief overview of other energy options, such as advanced biofuels, made from waste and residue, which he did not deem to be a viable option as there are various competing uses for waste, and due to the inability to fulfil the demand. As for **liquid efuels**, Mr. Decock stated that **ammonia** will be the **cheapest e-fuel in the next decade for the shipping sector**. Given that there is already a push in the industry to replace grey ammonia

with its green alternative, Mr. Decock suggests this could be used as a steppingstone. Like Mr. Ankarstrand, he also believes that the **shipping and handling knowledge for ammonia is already present**. In terms of challenges, Mr. Decock adds that not enough action is being taken on a global level, regarding a few prominent sectors, such as aviation and shipping transport. He stated that the **EU should play a leading role** in this matter, as the transport sector is Europe's biggest climate problem. He affirms that the targets set by the Commission are ambitious, and that in order to achieve them, more renewables should be rolled out at a faster pace. To conclude, Mr. Decock expressed his support for points raised by other panellists, such as the need for a clear regulatory framework and hydrogen production with additional renewables.

Dr. Cor Leguijt, Energy & Fuels Manager and Clean Gases Team Leader, CE Delft

"Time is not our friend, you have to have clarity on the rules, as soon as possible"

Dr. Cor Leguijt explained that The Netherlands is Europe's second largest industrial hydrogen user, right behind Germany and that a target of **50% is quite high**. Research shows that it is feasible to reach that target if it does not include decarbonised hydrogen. Dr. Leguijt emphasised that **time is not our friend** and like the other panellists, reaffirmed the need for **clarity on the rules** and **infrastructure** such as storage facilities. He states that the target of 50% is good, but that extra time may be necessary to fully achieve it. Another hurdle, according to Mr. Leguijt, is the need for **enough renewable electricity**, which again takes time.

Yelda Guven, Senior Director, Policy, ExxonMobil

"Capital is an international commodity which goes where you can find the best business climate."

Mrs. Guven explained that ExxonMobil focusses on carbon capture storage and hydrogen, as well as low emissions. Additionally, she illustrated a new ExxonMobil project in Louisiana with regards to a Carbon Offtake agreement to help the decarbonisation of CF Industries. Mrs. Guven stated that in the private sector **capital is regarded as an international commodity**, adding that capital goes wherever the **best business climate** can be found. She completed that statement with the example of the **U.S. Inflation Reduction Act**, saying that it created

incentives for CCS and hydrogen. Mrs. Guven explained that it is expensive to move hydrogen around the world – she agreed that ammonia may offer more cost effective, but that more time should be spent on making it cheaper. Like MEP Spyraiki, Mrs. Guven advocated for **policy support in the form of blending.** Lastly, a summary on other hydrogen investments was given. To conclude, Mrs. Guven called for **collective action** and **colour blindness** to hydrogen, as she deems all types of hydrogen necessary to scale up the market. She further mentioned that it is vital to be **technology neutral.**

Video intervention by MEP Christophe Grudler

MEP Grudler started his video intervention by referring to the official launch of **the Clean Hydrogen Strategy** by the European Commission, as part of the **EU Green Deal** – which states that the EU economy should **be carbon neutral by 2050** through electrification and decreasing use of fossil fuels. He stated that this is why fossil free hydrogen will play a crucial role in a fully integrated energy system. MEP Grudler declared that the current developments are the outcome of years of hard work. He further mentioned that President of the European Commission, Ursula von der Leyen has shown herself to be ambitious, e.g., through the launch of the European Hydrogen Bank. Mr. Grudler then stated that he is satisfied with the parliament’s position on the **deployment of the renewable hydrogen market.** However, he put forward two concerns. Firstly, the direct **inclusion of new criteria for RNFBOs in RED III.** Secondly, the MEP advocated for renewable hydrogen to be produced in a sustainable manner at a domestic level, alongside low carbon electrolytic hydrogen. He concluded that import should not be option A, nor option B for Europe.

Q&A Session

On behalf of the **Renewable Hydrogen Coalition**, Mr. **François Paquet** commented on **blending** - he stated that purity is key, as the market is not demanding impure hydrogen. After stating that gas is the main cost in hydrogen production, Mr. Paquet directed the following questions at **Mr. Ankarstrand from Yara:** *“How do you see the cost of natural gas today impacting your business investment tomorrow? And finally, if you want CCS and blue hydrogen to be cost competitive, you need to go big scale. How is it impacting your investment decisions, knowing that going big scale is much riskier, versus the modular approach of electrolysis? Mr.*

Ankarstrand disagreed with the statements by stating that science plays a key role. He declared that energy markets are fundamentally supply driven and that the access to energy, as well as the price matter. Moreover, he reported that right now green hydrogen is not cost competitive with its blue variant because when gas prices go up, electricity prices follow the same pattern. Mr. Ankarstrand concluded that the carbon footprint reduction matters, rather than the hydrogen colours. Representing IOGP, **Ms. Maria Karagiannidou-Rosiek** commented that the **Hydrogen for Europe study**, examines two scenarios. Firstly, renewables per scenario and secondly, a technology diversified approach. A key outcome was that even in the current higher cost scenario, it is important to see that in the long term there is enough gas in the market to supply Europe, which should make the price go down. Ms. Maria Karagiannidou-Rosiek then mentioned that the study indicated that the investment needed for the renewables scenario would be 650 billion higher, than the technology diversified scenario. On behalf of **Enagás**, **Mr. Abel Enríquez** made a comment on **blending**. He stated his full support for statements made by Ms. Guven on enabling the scale up of the hydrogen production. Furthermore, Mr. Enríquez directed a question to Ms. Nyitrai on the lack of an infrastructure target within the **hydrogen market**: *“Is the gas-hydrogen-decarbonisation package a good opportunity to put a hydrogen infrastructure target to replicate the corridors that were identified in the REPowerEU plan?”* Ms. Nyitrai responded that in order for there to be targets, one has to know exactly what they are doing and that that level has not been achieved yet.

Closing remarks

MEP Maria Spyraiki

Addressing RED III, MEP Spyraiki shared that the target is more ambitious than ever – which means that the Commission and the Member States are ready to proceed with the proper legislation. About the hydrogen market, MEP Spyraiki stated that it is being tested in terms of feasibility, as mentioned by Dr. Leguijt. Furthermore, she stated that time is valuable, and that she fully supports the President of Yara when it comes to CCS, saying that CCS is necessary to decarbonise the EU economy by 2050. Furthermore, she reaffirmed MEP Christophe Grudler’s call for a focus on domestic hydrogen production. Moreover, she called for cooperation with the shipping, transport, and aviation sectors in order to use the existing facilities, such as ammonia.