

Dear Mrs Executive Vice President,

I am writing to you with regards to an interview that you gave to the Danish Finans News Service on April 25 which is about to cause significant damage to the European Hydrogen sector. I wonder if you want to clarify some of your statements as we are in a fierce competition on Hydrogen technologies on a global scale and it sounds extremely counterproductive if the European Commissioner for Competition undermines a clean tech that has been entrusted to her political responsibility.

In your interview you make several technical misrepresentations. Additionally, you make several statements which directly contradict the current EU policy. The latter is particularly irritating, since your wording sounds like you personally had the power to interdict these policies. In a way, you discredit the European Hydrogen Bank, adopted and communicated by the College.

Let me illustrate the case by quoting and commenting a few of your statements in the interview: 1) "Hydrogen is expensive to transport."

Well, the opposite is actually true: over a distance of thousand kilometers 1 GWh of renewable energy in form of green hydrogen is cheaper to transport than 1 GWh of electricity. The cost difference is between 8 and 16 times depending on the local circumstances. That is massive and the reason why hydrogen delivered through pipelines will be the most convenient way to let the European industry benefit from very low solar electricity prices in north Africa. A learn book on the most important pipeline corridors transmitting green hydrogen towards Europe was currently published by the European Clean Hydrogen Alliance under the supervision of the Directorate General on Industrial Policy and Internal Market.

2) "Ammonia is not easy to transport, it is unlikely that green ammonia will be shipped from US to Europe. (...) If you want to be on the EU market the risk of moving production to the US is not very high."

Again, the opposite is definitely true: bulk tankers transport ammonia today at low cost. Until pure hydrogen pipelines are up and running, ammonia and methanol are the cheapest way to transport green hydrogen. These so-called derivatives are currently the most convenient hydrogen carriers. Green ammonia has been transported on a commercial ship from the Arab Gulf to the port of Hamburg some weeks ago. This technology will be the most obvious way to carry green hydrogen also from the US (and other, non-pipeline-connected places in the world) to Europe.

3) "You lose a lot of calories by converting solar and wind into hydrogen and then into ammonia." This is true, but it happens in many industrial processes. Even the efficiency of converting the sunlight via PV panels into electricity is less than 25%. Also, the current way of producing grey ammonia is very energy intensive. And is producing a lot of carbon emissions. The real question is: If the sunlight in Saudia Arabia or in the Atacama Desert (or in the Sahara) is not converted to green hydrogen the "efficiency" is zero. So why not rather use it, even with a low (but bigger than zero!) efficiency to save carbon emissions. It's finally a question of system efficiency comparing existing infrastructure with the direct use of renewable energy. It's also a convenient way to use



for otherwise curtailed energy. Again, the current efficiency of curtailed renewable electricity is zero.

4) "I will not allow member states to match US support for production of green hydrogen and liquid sustainable fuels."

Your personal statement directly contradicts many of the state aid measures adopted recently by yourself and your services. The different instruments that you use, and in one case have introduced newly yourself (IPCEI, GBER, CEEAG, TCTF), have of course as their main goal supporting the European Green Deal. However, European measures could even be more targeted and better coordinated to contribute even more so to our ultimate goal, which is climate protection. Your general statement intimidates possible investors discrediting support for hydrogen. What's the purpose of this bold statement that does not even mirror your decisions currently taken in favour of some hydrogen projects of that kind?

5) "Hydrogen is not part of the scheme", you state by referring to the recently announced Temporary Crisis and Transition Framework (TCTF) scheme. Let me first applaud you for have adopted this important instrument. However, hydrogen production is included in that scheme with regards to the production of electrolysers. The only raison d'être of electrolysers is the production of green hydrogen. They will not be used for anything else. At the same time not much other than electrolysers are needed to produce green hydrogen from green electricity. Since electrolysers are explicitly included in the scheme that contradicts your statement that hydrogen production is not included?

By making these - mostly wrong but at the least grossly misleading - statements in a very assertive manner, you create the impression that your opinion is official Commission policy. In some cases, your statements are diametrically averse to published Commission plans and actions.

There are obviously good reasons why the NZIA Act in combination with the CRM Act treat different clean tech including hydrogen technologies as strategic. The Commission presented a well-balanced approach. Of course, you are entitled to have your personal opinion. You allude however, to speak in your capacity as the Executive Vice President of the European Commission. But your diction resembles that of an aggressive NGO.

Furthermore, you state that using taxpayers' money for green hydrogen production is wasting it, completely ignoring that battery electric (charging) infrastructure requires significantly higher amounts of taxpayers' money for distributing a lot of electricity that will be for a long time causing additional carbon emissions.

We will be happy to deliver any information needed to clarify the above-mentioned interpretation, leading to possible misunderstandings with a damaging effect for a clean tech that features prominently in the Fit-for-55 Strategy echoed in the ongoing legislation, and that represents an excellent and cost-effective tool to assist the rapid transition to a zero-emission society.

Best regards,

Jorgo Chatzimarkakis

CEO