

NEWSLETTER GME – New issue now online

Rome 15 April 2019 – The new issue of the newsletter of Gestore dei Mercati Energetici (Gme) is online and can be downloaded from the website www.mercatoelettrico.org.

The newsletter opens with an intervention by Claudia Checchi from the REF-E and Matteo Reguzzoni from MBS Consulting, on the hydrogen as a possible tool to support the decarbonisation process. *"Although hydrogen is the most widespread element on earth, it is not available in nature in its pure state, and must therefore be obtained through transformation processes: 96% of hydrogen is now produced through hydrocarbon transformation processes - Checchi and Reguzzoni point out -. However, the production of hydrogen - apparently polluting - can, according to many, become a valid tool to reach the global warming containment objectives set forth by the **Paris** agreement at the end of 2015, according to which it would be necessary to cut down more than 80% of CO2 emissions by 2050".* The analysts from REF-E and MBS Consulting believe that the decisive development of energy production from renewable sources *"represents an opportunity for the development of hydrogen"* and a first step toward decarbonisation *"can come from the combination of processes transformation of hydrocarbons with CO2 capture and storage systems. In this case, we speak of 'blue hydrogen'. Blue hydrogen - they admit however - is not classifiable as carbon free, both for the impact of the hydrocarbons extraction processes at source, and for the effectiveness of the CCS processes which, albeit high, does not allow retaining 100% of the CO2".* The production of "green hydrogen", by contrast, is *"entirely carbon free. This entails producing hydrogen through electrolysis processes powered by electricity produced from renewable sources"*, explain the two experts, pointing out that *"the production of green hydrogen by electrolysis will play an important role in the energy transition, both by supporting direct decarbonisation of transport and processes today based on the use of hydrocarbons, both facilitating the integration of non-dispatchable renewables into the electricity system"*. The speed of development of the 'green hydrogen' economy, however, will depend on *"the curve of achievement of the economies of scale necessary for the reduction of Capex, and might also experience significant differences"*. According to Checchi and Reguzzoni, *"the competitiveness of*



hydrogen as an alternative fuel is not homogeneous among the possible uses" and "between countries", hence "the level of penetration of FERNP and therefore the risk of curtailment will be key drivers to allow electrolysis plants to reach optimal load factors". In addition, the two analysts from REF-E and MBS Consulting point out that "the regulatory framework will obviously play a key role in this scenario, as regulatory choices aimed at favoring the development of renewables and, at the same time , supporting the sector coupling, could benefit investments in the transitionl phase and therefore accelerate the achievement of economies of scale. Finally, it is worth considering that this transition requires the development of innovative technologies, both for the efficient production of 'green hydrogen' and for its integration into the target processes. Checchi and Reguzzoni conclude by stating that "the 'hydrogen economy' could therefore represent the opportunity to develop new industrial and technological chains at Italian and European level, with benefits in terms of employment, development of distinctive know-how at university and industrial level, value creation for both large companies and supply chains".

The new issue also includes the usual technical commentaries on the markets and the national and European electricity and environment exchanges, the section devoted to the analysis of the trends of the Italian gas market and the section with an analysis on European trends, which delves into trends in key European commodities markets.

The GME's new publication also reports, as customary, the summary data of the electricity market for March 2019.

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