

GME NEWSLETTER – Issue no. 187 now online

Rome, 16 December 2024 – The new issue of the newsletter of *Gestore dei Mercati Energetici* (GME) is now available at www.mercatoelettrico.org. The newsletter opens with an article by Lisa Orlandi from *Ricerche Industriali Energetiche* (RIE) concerning the certainties and uncertainties of the International Energy Agency (IEA) about energy scenarios. Orlandi stresses that *energy scenarios originated in the 1970s, when the first energy crises led governments, companies, research institutions, and financial analysts to seek survival strategies, by systematically investigating social, economic, and technological solutions to the issue of security of supplies. It is in 1977 that the IEA (created within the Organisation for Economic Cooperation and Development - OECD - in 1974) began developing long-term world energy scenarios (World Energy Outlook/s – WEO/s), a reference point for anyone involved in energy.*

Orlandi points out that, in terms of figures, *if we compare the WEO 2024 with the WEO 2004, we can note that the overall share of oil, gas, and coal in world energy demand has stood at 80%, with a clear dominance of oil. What is substantially different are the expectations about future developments: in 2004, the maximum projection horizon considered was 2030, and the indications provided by the IEA in the central scenario (then called Reference Scenario) outlined a trajectory focused on a strong increase in fossil sources. By contrast, although the WEO 2024 starts from the same point (namely an identical and predominant share of fossil sources in the energy mix), it indicates very different outcomes from those expected in 2004, all oriented towards a substantial decline in all three conventional sources. By the same horizon of 2030, now very close, the share of fossil sources in the total is estimated to be around 75%. A five percentage point decrease over eight years might be regarded as relatively moderate: in fact, it represents a significant break from the past, taking into account the complete standstill recorded over the last twenty years on a global scale. Yet, in the reference scenario, i.e. the Stated Policies Scenario (STEPS), the IEA reiterates that, already in the current decade, we will reach the long-debated peak of fossil sources. After a reduction to 75% by 2030, expectations point to a definitely sharper drop by 2050, when fossil fuels are estimated to account for 58% of primary energy demand worldwide. Such a dynamics not*



only clashes with the steadfast stability shown so far, but also with the fact that, in 2023, coal, gas, and oil covered two-thirds of the increase in energy demand. The world is thus entering the age of electricity, so much so that, in the past decade, electricity demand has grown at twice the rate of overall energy demand, with two-thirds of the global increase in electricity requirements coming from China. This buoyant electricity demand will be chiefly covered by low-emission sources, including nuclear, which is experiencing renewed interest in several countries. Orlandi emphasises that, according to the WEO, these sources can produce more than half of global electricity demand by 2030. Orlandi reminds us that clean energy is accelerating its integration into the energy system in an unprecedented manner, with over 560 gigawatts (GW) of new capacity installed in 2023 (60% of which in China), annual investments approaching 2,000 billion dollars, and diminishing costs (after the rises experienced after the pandemic) for most technologies. As a result, the STEPS scenario estimates that the installed capacity of renewable energy will more than double from the current 4,250 GW to nearly 10,000 GW by 2030. Orlandi concludes that the WEO 2024 indicates with some certainty the imminent peak of fossil sources and a radical decline in their share of the global energy mix; at the same time, it supports such a strong penetration of clean energy as to cover incremental energy demand after 2030. Equally inevitable will be the growing electrification of consumption. These concise messages may suggest that the IEA has no doubts about what will happen: the world will become increasingly green and, using the words of Director Fatih Birol, is entering the age of electricity. Nonetheless, if we analyse the over 400 pages of the publication and the individual pieces of the complex puzzle of energy markets, we realise that the uncertainty surrounding each variable is evident. Therefore, the need arises for carrying out sensitivity analyses for each of the proposed scenarios in order to account for possible deviations from the outlined trajectories, including as a result of a rapidly evolving geopolitical context. Hence, the ultimate conclusion is that, even in a perspective of increasing decarbonisation and considering the ongoing transition process as inevitable, energy markets need to be interpreted with caution.



This issue of the newsletter comes with the usual technical commentaries about European and national power exchanges and environmental markets, a section focused on the analysis of Italian gas market trends, and a section with insights into the trends of the main European commodity markets.

As has become customary, the publication also reports the summary data for the electricity market in November 2024.

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Press Release