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European energy transition after Covid-19: from Green Deal to 'Gas Deal'?

The COVID-19 crisis has created an unprecedented situation in Europe. As a consequence of the sanitary crisis, most European countries declared lockdown for their population, triggering an immediate slowdown in economic production. Most non-essential sectors and companies are now put on hold and the European economies are now largely focused on producing medical supplies alongside fulfilling the essential needs of the populations. The economic – and political – consequences are still impossible to evaluate precisely. Nevertheless, Europe is likely to face an economic recession at least comparable to the one caused by the 2007-2009 financial crisis. Economic analysts are focused on the importance of this recession, which goes with unprecedented volatility in stock exchange trading¹.

This situation will – mechanically – have consequences over national and European policies and strategies. Among them, the most ambitious is by far the EU Green Deal announced in December 2019 and already considered as the main area of action of the new European Commission. This Green Deal follows the path of EU climate-energy packages but is also far more consistent with the iconic goal of carbon neutrality in 2050. As the Green Deal would mean an in-depth change in national energy mixes and landscapes all over Europe, it was intended to be a priority area for funding. Now being put at risk due to the foreseeable economic recession, there is a need to decide to go on with the Green Deal objectives or to adapt them.

¹ The VIX (Volatility Index), based on S&P 500 values trading, rose to a value of 82, its previous high score being 59 in October 2008.

EU Green Deal: an already broken ambition?

The 2015 Paris Agreement is considered to be extremely ambitious with its 1.5° C target, yet compulsory for preventing catastrophic consequences of climate change. Nevertheless, few countries are now on the track to achieving the Agreement targets as they would mean reshaping not only their energy sector but, for most of them, their whole way of life. The policies and actions of European countries are considered insufficient for reaching the Paris Agreement goals². Due to this situation, worsened by harsh international economic competition on green technologies, the need has emerged for an update of the EU's policy regarding climate action, defining a new and more ambitious framework: the EU Green Deal. For now, the Green Deal only consists in the Commission's communication of December 2019³. Yet the document is already quite explicit on these Green Deal objectives with a large set of sectors included (energy, industry, housing, agriculture, etc.). The final aim is to achieve the transition of European countries and societies to a carbon-neutral situation in 2050, in line with the Paris Agreement targets⁴.

This Green Deal is an acceleration of the EU's energy and climate policy as defined in the 2008 EU climate and energy package. Proposed by the Barroso Commission, the climate and energy package consisted in three different goals for 2020, addressing the need to reduce Greenhouse gases (GHG) emissions (20 % reduction on a 1990 basis), to increase the share of renewable energy sources in the mix (20 %) and to strengthen the energy efficiency ratio (20 % energy savings). The idea of the EU Commission – and Council – was to provide a European framework in line with the Kyoto Protocol requirements with a supplementary ambition. From 2008 on, the European Union positioned itself as the most engaged region in tackling climate change issues. In 2014 the climate and energy package goals were increased with a 2030 deadline. They now intended to achieve a 40 % GHG decrease, 27 % of renewable energy sources in the national mix and a 27 % level of energy savings thanks to energy efficiency policies and technologies. However, the ambitious targets in this renewed energy and climate package have to take into account very different situations all over Europe. Nearly half of EU countries are former members of the Comecon with the consequences of Soviet-led industrialization, having very high GHG emissions levels and electricity mixes running mostly with coal. To address this situation while avoiding the difference-in-development effect, the renewed goals were set at the EU level, not at a national level. Yet, no clear indication on the transposition at the national level has been established, regarding for example the reduction in GHG emissions (per capita? GDP intensity? size of territory?, etc.). This uncertainty has led to wide differences in national policies, resulting in a global loss of efficiency. As of 2018, none of the goals had been achieved according to Eurostat data⁵. The 20 % GHG reduction goal seems to have been reached in 2020. Nevertheless, regarding the 20 % renewable energy sources and even more the 20 % energy savings through efficiency, there are important risks of missing the targets by far⁶. The EU considers that in order to achieve the current 2030 targets, an additional annual funding of 260 billion EUR is needed, underlining the lack of investments by most EU countries in the energy transition⁷.

² As shown by the Climate Action Tracker: https://climateactiontracker.org/.

³ « <u>The European Green Deal</u> », Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, Brussels, 11 December 2019.

⁴ « Environment Council approves the EU's intended nationally determined contribution to the new global climate agreement », European Commission, 6 March 2015.

⁵ https://ec.europa.eu/eurostat/web/climate-change/visualisations

⁶ Frédéric Simon, « <u>EU Way off the Mark on Energy Savings Goal, Latest Figures Show</u> », *Euractiv*, 7 février 2020

⁷ EU Commission Communication *United in delivering the Energy Union and Climate Action - Setting the foundations for a successful clean energy transition,* COM(2019) 285.

Alongside the "carbon neutrality" goal, the Green Deal – being a follow-up of the energy and climate package – also points out the need to decouple economic growth from resources use, a particularly ambitious goal given the importance of industry in a large number of European countries⁸. To succeed in this ambition, the Green Deal includes the revision of the 2030 goals from 40 % GHG reduction to 55 %, a carbon border adjustment – also known as "carbon tax" – and a complete update of energy sectors in all European countries.

This vision of "accelerating the pace" in addressing climate change issues has of course positive political implications for Europe, especially in terms of global diplomacy, but it also demonstrates the frantic rush situation of the European Union. As the climate issue encompasses a large number of sectors considered at a national level to be strategic – the most iconic being energy –, the EU must, paradoxically, be at the same time cautious – energy is a shared competence between EU and member states – and ambitious. This is one of the European contradictions towards climate policy: the balance between EU global ambitions and the member states' actual commitment. Regarding the UNFCCC international negotiations for example, there is only one common European position, yet each country has its own representation and participates in the discussion with its own agenda. Willing to encompass all efforts to tackle climate change but unable to position itself over the member states, the EU is stuck in a half-powerless situation, forced to adopt the most ambitious position in order to act as a driving belt for the whole Europe. Yet the current COVID-19 crisis frontally collides with the Green Deal targets and needs.

Covid-19 consequences: the need for a new climate deal?

Considering this situation, the European Union has to find another way of tackling climate change issues, even with lowered ambitions. There is an urgent need to revise its policy in order to save the European ambition regarding the fight against climate change. The issue is also important in terms of political influence as the Von der Leyen Commission made the Green Deal the cornerstone of its mandate. Remaining stubbornly straightforward on the Green Deal would help the Von der Leyen Commission to impose its authority within the EU, yet it would also fuel the traditional critics of a "technocratic" Europe, which is relentlessly damaging the EU's image. On the contrary, accepting a significant revision of the Green Deal would send a positive signal, yet with the risk of appearing as a "weak commission"; the most important here is to avoid transforming the Green Deal into a political lever *pro* or *contra* the Von der Leyen Commission. Opting for an all-or-nothing position would be the worst option for the EU as it could create further discord among member states based on their economic situation.

Yet a new energy and climate deal cannot forsake the global ambition for Europe to further reduce its environmental footprint – especially in terms of carbon emissions – and to strengthen the energy security of the continent. An intermediate way has to be found that conciliates the need to follow-on with the energy and climate package goals and the economic balance, especially in terms of investments and costs for European citizens. The focus of the Green Deal on the renewable energy sources (RES) needs to be balanced for a more realistic convergence between RES and low-emitting fossil fuels (e.g. nuclear and gas). Considering the goals of the European energy and climate policy, namely reduction in GHG emissions, development of energy efficiency and energy security, a new balance has to be drawn in assessing the benefits and drawbacks of each energy source, including with the perspective of low investments in

⁸ Considering the use of primary goods in green technologies, this goal seems globally unreachable. See N. Mazzucchi, « The dependence over strategic materials in renewable energies and energy efficiency: a new energy security issue », presentation at the World Energy Congress, Istanbul, 2016.

technology. Electric mixes mostly based on RES would need to re-shape the whole electric networks all over the continent, due to specific issues with the production-consumption balance. In development technologies such as huge capacity batteries and hydrogen storage are also needed to achieve an electric system mostly based on RES. They would require important funding at national and European levels that will probably be impacted by the post-COVID economic situation.

Proposition for an intermediate solution: from price issues...

Traditional low-emitting fossil sources should be favored by European states as they would allow maintaining a high level of electricity production without worsening the economic burden. The electrification of most economic sectors and the rise in domestic electric consumption for a large number of applications focus the national and European policies on the electric market and production landscape. European countries followed diverse paths regarding their electric production, yet mostly focused on nuclear or thermal power plants. However, nuclear energy, which presents important advantages in addressing climate change, cannot be considered a solution for the whole EU, as it is a capital-intensive energy source. The conversion on thermal from coal to gas is on the way in most countries, allowing the EU to look at gas as an intermediate solution that would not be costly. Poland, the Czech Republic and Germany already have national policies to switch out from coal, mostly to gas¹⁰.

Moreover, regarding natural gas, there is also the issue of non-electric uses to consider. Gas has also domestic uses (heating, cooking) and transportation perspectives, especially in the maritime use of liquefied natural gas (LNG). The EU Green Deal also pointed actions towards housing and transportation sectors with particularly high goals: a 90 % reduction in GHG emissions for the European transportation system is required to achieve carbon neutrality. Finally, the COVID-19 crisis also occurs at a time of low oil and gas prices that could be the final argument to move from the Green Deal to a Gas Deal.

The oil prices war between Saudi Arabia and Russia seems to be the third act of a strategic turmoil in the oil sector that started a little bit more than ten years ago. It started with the rapid growth of unconventional oil production in the United States in 2009, consequently to the Obama administration's decision to end the military presence in Iraq and, later, Afghanistan. The post-economic crisis development of a renewed U.S. oil producing landscape created a first shock in the oil and gas market, as over a few years the first importer became the first producer. In 2014, with Mohammed bin Salman's new orientation towards OPEC, choosing to defend volumes and not prices, the struggle between the swing producer and the other members of the organization created a reconfiguration in the global production of oil. Saudi Arabia won the round against countries considered "freeloaders" by Riyadh, namely Algeria and Venezuela. Nevertheless, this confront had an important impact on OPEC and forced the organization to sign a new deal with non-OPEC producers, especially Russia, to create the OPEC+ framework, this new alliance representing around 60 % of global oil production. It gave Russia a specific position in this renewed production framework as some kind of a new swing producer, in competition with Saudi Arabia to be the main regulator.

⁹ N. Mazzucchi, « China and European Electricity Networks: Policy and Issues », *Notes de la FRS*, n° 17/2018, 11 September 2018.

¹⁰ Example for Poland: *Energii Forum Polish Energy Sector 2050*.

Finally, in 2020, the rivalry between Saudi Arabia and Russia erupted as an open confront when Russia refused to modify its production ratio. Saudi Arabia and Russia entered this struggle at the outbreak of the COVID-19 crisis, leading to a downfall in oil prices from 70 USD on the eve of 2020 to 25 USD per barrel on April 1st. It is way too early to assess who will be the winner in this struggle, but it could be more difficult for Saudi Arabia to maintain this position for a long time as the country is far more dependent on the level of crude oil prices than Russia is. This situation is mostly due to the structure of its economy (share of crude oil in exports, economic subsidies to population, importance of the oil rent in the budget balance, etc.) and of the nature of oil exports (crude vs. refined products). Yet the oil war is still on in April and could have important side effects on other producers as well as on the global market.

The situation with oil prices has an immediate effect on gas prices and projects. As gas prices are related to oil ones, they have followed the same curve as oil has: from 2.2 USD/Million BTU (Henry Hub prices) at the eve of 2020 to 1.64 USD/MBTU on April 1^{st 11}. Gas now appears to be extremely attractive in terms of prices and could accelerate the pace towards the unification of LNG markets to a global one as a consequence of this gas glut. This economic situation creates an opportunity for Europe as gas has been for years considered an important energy source in the transition towards the zero-carbon emissions goal. The European gas landscape also appears to be mature. Gas has been used on the continent for more than forty years – with different national situations –, with a slight increase starting in the second part of the 1970s. Gas consumption on the European continent has had a flat profile for a few years due to the structure of the market and the effects of energy transitions in most countries.

... to infrastructure assessment

In this connection, European gas import infrastructures are also very important. The EU as an organization; through the Projects of Common Interest¹², and individual EU member states have been financing for years the development of both gas interconnection all over the continent and LNG regasification terminals. The second wave of LNG terminals – in the Baltic Sea and the Eastern Mediterranean –, starting in the 2010s after the 2000s wave of terminals in the Atlantic and the Western Mediterranean, offers one of the most developed LNG landscapes in the world. Europe is having important excess capability in regasification, which explains the low level in terminals use (roughly 30 % on average)¹³. These capabilities all over Europe, already financed for the most important part, would allow gas to flow without much new investment. Moreover, this European situation is also in line with the development of LNG exports in America – especially with the U.S. policy towards the security of the Euro-Atlantic area –, Africa, Asia and MENA, unlocking new gas sources for Europe¹⁴. Regarding the supply from pipelines, Russian but also Eastern Mediterranean (Cyprus, Israel) and Caucasus (Azerbaijan) sources are also to be connected to Europe through new (Turkstream, Nord Stream 2, TANAP/TAP) or potential (EastMed) gas pipelines. Russia alone is due to have an export capability to Europe of nearly 350 billion cubic meters yearly in 2021-2022 should Nord Stream 2 be inaugurated¹⁵.

¹¹ Alex Dewar, Juan Vazquez, Lluis Bori, « What Will COVID-19 Mean for LNG? », BCG, 30 March 2020.

¹² https://ec.europa.eu/energy/sites/ener/files/c 2019 7772 1 annex.pdf

¹³ Council of European Energy Regulators, *How to Foster LNG Markets in Europe,* Brussels, CEER, 2019.

¹⁴ Including prospective exporting countries such as Canada.

¹⁵ 344 Bcm according to the author's calculation and taking LNG liquefaction capacities into account.

Moreover, the issue appears strategic for countries willing to exit energy mixes based mostly on coal. Germany is now planning total exit for 2038. As the Green Deal — at least in its initial definition as of December 2019 — seems to be in a dead-end, these countries need to move on a new agenda to follow on with their coal exit strategy. EU financing for renewable energy sources and national funding will probably be limited due to the foreseeable economic recession after the COVID-19 crisis. Even with low CAPEX infrastructure, the amount available to build them and the need to have feed-in tariffs in electricity should be a burden far too heavy for countries engulfed in a global economic slowdown. Gas on the contrary would allow them to follow their path for the reduction of carbon emissions without too heavy transfers on the electricity prices for households or industry, avoiding a double-burden effect of the economic slowdown and increase in OPEX cost. A fast switch of national and European policies to gas — at least on a medium-term perspective — would act as a buffer policy until the economy of the continent recovers. Yet the EU Commission would have to be at the forefront of the definition of this Gas Deal in order to make sure that it would meet the goals in climate action as well as in energy security, especially towards Russia.

Conclusion

Europe has to make a clear choice. Following up with the Green Deal strategy without taking the global situation into account would have terrible effects on European economies and companies. Europe is a free market, built on a set of economic rules, including the free flow of people and goods. This European philosophy is flexible enough to allow – in theory – the adaptation of European policies to a vast array of economic situations. The COVID-19 crisis is creating, now and for an undefined future time, a turmoil whose magnitude has not been assessed yet. With the possibility of living through harsher times than in 2008-2009 with important negative figures in GDP growth, the EU has to play its role as a Union and as a tugboat for all its member states.

The coming months will be decisive for the future of the EU or, at least, for the remaining years of the Von der Leyen Commission. The energy sector, one the priority areas of the European Commission, is concerned by the economic situation, which calls for a deep reshuffle. A Gas Deal with more modest ambitions than the actual Green Deal would be a realistic exit way that might limit the side effects of the foreseeable economic slowdown all over Europe. Yet it would mean that the Commission forsakes its goals towards a zero-carbon economy, at least for a few years. Pragmatism on the climate and energy future, at least in the medium term, is the only way to save the efforts that European countries have already undertaken and to avoid further distrust between European stakeholders.

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