Paris Energy Club Autumn Meeting

Thursday 1st December 2022

Summary of discussion

Paris Energy Club President Pierre-Franck Chevet welcomed the participants, and expressed his sorrow for the loss of John Mitchell who passed away last August. John joined the Paris Energy Club many years ago and contributed immensely to the Club's rich discussions. Pierre-Franck Chevet emphasized the privilege for the Club to have had John as a member, adding that he will be missed by all members.

The Club President reminded participants that energy security as an energy policy goal has evolved over the past decades from availability (supply security), to affordability (energy prices volatility); the concept then evolved to focus more on sustainability (environment and climate change).

Most countries define their energy security around these three pillars, but the ongoing energy crisis affecting Europe and other regions has forced policy makers in the short-term to put much higher priority on security of supply.

EU electricity sector

The liberalization of electricity markets in the 1990s and the associated EU Directive set a new market design and functioning for such markets with the idea that such new design will lead to lower electricity prices, thus enhancing households' welfare and EU enterprises' competitiveness.

With the fight of climate change moving up on the political agenda, the EU put deployment of renewables in the energy mix along with fossil fuels phase out tools to achieve European economy decarbonization.

The current EU market design led to electricity prices that are largely unrelated to costs and Europe had among the highest electricity process in G20 countries in 2019. While nuclear energy generation does not emit carbon, the opposition to nuclear energy – fueled by the 2011 Fukushima accident – led to nuclear plant closures in Europe (Germany, France, etc.), leaving the EU electricity sector with much limited dispatchable capacities.

According to RTE, Europe's largest transmission system operator, growing share of renewables in the energy mix could translate in much higher EU electricity system cost by 2060; such prospect calls for making a room to other decarbonized electricity technologies such as nuclear or fossil fuels-based generation with CCS.

To overcome shortcomings rising from present design of the EU electricity sector, one participant suggested a new organizational scheme is needed to ensure that investments are made (in sufficient quantity and on time) while improving the efficiency of electricity markets. To maintain existing capacity at adequate level and to encourage the construction of new ones, a long-term remuneration schemes in needed for all generation units through competitive processes (tenders, selection process, etc.). Remuneration through long term contracts could contribute to reducing the costs of the energy transition to a significant extent. This competition "for" the market could be neutral or technology-specific and

would encourage new players to enter the generation segment of the electricity market. In addition, a sound competition "in" the market could be achieved through well-integrated and liquid forward markets that minimize costs to costumers without creating distortions since subsidies are not based on production.

This new design of the European power system is intended to develop a separate market for long-term contracts that favor investments consistent with integrated resource portfolios defined by government policymakers rather than by market incentives. Once in the market, these resources would operate based on market incentives in reformed hourly & real time energy & services markets.

Referring to the US electricity market design (where both regulated and deregulated markets coexist), one participant suggested that the division of roles and responsibilities between EU member countries and the EU institutions on the operation of energy markets may need to be revisited. The notion of subsidiarity that was shaped within the framework of electricity markets Directive may benefit from a fresh look.

Natural gas markets

The Ukraine-Russia war has brought the imperative quest for energy security to the fore, thus reversing – at least for some time – the objective of reducing fossil fuels in the EU – at least for natural gas. The war against fossil fuels was put on hold and LNG is momentarily (while the war lasts) considered green. While the short-term developments are giving way to a gas rush, and while Russia's invasion of Ukraine reminds the EU and beyond of the risk of gas dependency, a long-term EU policy is taking shape around energy autonomy, energy efficiency, potential revival of nuclear in some countries, development of renewables, geothermal, biogas, etc.

According to one participant, most of Europe's vulnerability is not necessarily related to the Ukraine-Russia war but is rooted in the EU market design and EU energy policy. The EU's overreliance on Russian gas, close to 40%, with Germany showing a dependance over 60% in 2020, puts Europe's gas supply at risk when gas flows from Russia are significantly reduced, as has been the case since the war in Ukraine began. In addition, the phasing out of long-term fixed or oil-indexed contracts has left Europe without an absorber. As a result, natural gas prices in Europe have increased tenfold from pre-crisis levels.

Meanwhile, the winter is coming and could trigger fierce competition between Europe and Northern Asia to attract LNG cargoes. However, Europe's gas supply will depend on what LNG cargoes Asia is willing to release due to demand destruction, fuel switching, over-commitment or if the Asian winter is milder than expected.

One participant believes that Europe's gas supplies will remain at risk as long as China's LNG imports remain volatile. In addition, U.S. LNG now accounts for nearly half of the European LNG market, which also puts Europe at risk should there be any disruptions to U.S. LNG (hurricanes, blackouts, cyberattacks). At the same time, rising gas prices are making it harder for emerging economies to switch from coal to natural gas. Gas prices are expected to decline from their peaks as demand is destroyed in many regions and new supplies enter the market in 2024 and beyond.

In the longer term, global natural gas demand in 2050 is expected to be lower than forecast last year, according to the IEA in this year's edition of its World Energy Outlook. Half of this revision occurs in advanced economies due to the deployment of renewables in the power sector and heat pumps in buildings in the U.S., reduced switching from coal to gas due to higher gas prices, slowing natural gas demand growth in China, and so on.

Natural gas markets are also affected by ongoing geopolitical developments. Natural gas markets are also affected by ongoing geopolitical developments. As a result of US and EU sanctions and embargoes, the future status of Russia, the world's largest holder of gas reserves, which is also the second largest producer of natural gas and the largest exporter of gas, is likely to change, with collateral impacts on global natural gas markets and trade.

Spending announced under the U.S. Inflation Reduction Act has triggered reactions from U.S. allies in Europe, who fear a relocation of energy-intensive European industries to the United States.

Climate negotiations at COP27

COP27 marks 30 years since the United Nations Framework Convention on Climate Change (UNFCCC) was adopted and seven years since the Paris Agreement was reached at COP21. Policymakers and world leaders are meeting in Egypt to take the next step in addressing the climate crisis, at a time when the impact of the conflict in Ukraine has had far-reaching economic, social, and geopolitical consequences that will be felt for years to come.

COP27 participants traveled to Egypt to build on the success of COP26 in climate change mitigation and with the intention of setting new ambitions for adaptation. The aim was also to finalize the rules of implementation of the Paris Agreement in order to make the agreement fully operational. Described as an Arab-African conference, COP27 was also intended to put forward the demands and concerns of developing and least developed countries. Indeed, climate finance was a key element of COP27.

The economic transformation required to achieve zero emissions is unprecedented and requires investments in the order of several hundred billion dollars over the next 30 years. Many investments will have a positive return, meaning that the private sector has a financial incentive to invest, provided there is sufficient economic, political and regulatory stability and tools to manage risk.
The final agreement highlights that $4-6 trillion per year must be invested in renewable energy through 2030 - including investments in technology and infrastructure - for the planet to reach net zero emissions by 2050. Yet some have expressed concern that no real progress has been made on ambition or fossil fuel emissions reductions since COP26.

However, many signs on the road to COP27 and associated preparatory work have shown that there will be difficulties to achieve a broad consensus on what should be done. The world most developed economies (G20) gathered in Indonesia couple of weeks ahead of Charm El-Sheikh's Conference, but its climate and environment track led to no tangible results, even though such a meeting would have had a major and probably positive impact on the COP27 negotiations.