2020-IP19

IEA Press Webinar
World Energy Outlook 2020

Causing more disruption to the energy world than any other event in history, with its scars likely to be felt for many years to come, COVID-19 is having a huge impact globally on emissions, technologies and investments. In the shadow of this pandemic and its impacts, governments are urgently seeking policies that would reverse the downturn in their economies. In light of this, on 13 October, a month earlier than usual, the IEA's **World Energy Outlook 2020** was released. Recognising that many governments were also considering seriously their approach to clean energy transitions, the **IEA's Executive Director Fatih Birol** felt that an earlier release of one of the IEA's flagship publications, providing 'cool-headed' analysis on the energy sector, would provide them with a much-needed and timely resource.

In addition to the traditional analysis, this year's edition would consider the duration and severity of the pandemic and the response of governments to the myriad of problems they faced, including climate change:

- The consequences of a delayed recovery from the pandemic would be analysed. While many countries had announced policies and targets that would see the global economy recovering to 2019 levels in the next year, which would be addressed using the Stated Policies Scenario (**STEPS**), this immediate 'bounce back' was by no means certain. To address this uncertainty, the Delayed Recovery Scenario (**DRS**) was developed, where the global economy would return to its pre-crisis size only in 2023.
- More and more governments were pledging to bring emissions to net zero by 2050. The Sustainable Development Scenario (**SDS**), however, only achieves the Paris Agreement, energy access and air quality goals by 2070. To meet an earlier achievement of these goals, the Net Zero Emissions by 2050 case (**NZE2050**) was introduced.
- And finally, while longer-term trends were analysed as a matter of course, the next ten years would be critical to the achievement of energy and climate goals. The NZE2050 case was deployed to model what would be needed in the next ten years to put global CO_2 emissions on track for net zero by 2050.

Dr. Birol identified four key points from the report that he wished to emphasise:

1. **Oil**. There has been and continues to be much debate regarding peak oil. Has it been reached or not? While analysis suggests the era of global oil demand growth would end within the next 10 years, in the absence of a major shift in global policies, there were no clear signs of a global oil demand peak. Furthermore, in the absence of government policies, an economic rebound would be coupled with an oil demand rebound. COVID-19 was certainly bringing about behavioural changes, through teleworking, reduced air travel and suchlike. On the other side, for example, an increased use of private cars means that oil demand has, in fact, changed little. And while 2.5% of global car sales were for electric vehicles, 40% of sales were for SUVs, which illustrates the limits to oil demand change.
2. **Renewable energy technologies**. Renewable energy technologies are projected to meet 80% of global oil demand growth over the next 10 years. While the lion's share of growth would met by solar PV, onshore and offshore wind also grows. Aided by the very low cost of capital globally and strong government support in many countries, solar is becoming the cheapest

source of electricity generation. The numbers show solar to be the new king of electricity generation across the globe.

3. **Climate change**. While global CO_2 emissions are down by 7% this year, the world is far from doing enough to put these emissions into structural decline. When the global economy rebounds, in the absence of major policy changes, then so will emissions. Even if the rebound occurs much later, there is still little light at the end of the tunnel – low economic growth is not a low emissions strategy. In this context, the Chinese government's plan to reach net-zero emissions by 2060 is welcomed. With China's economic rebound this year, its emissions have already returned to 2019-levels. It was 15 years ago that the World Energy Outlook showed China becoming the world's number 1 emitter and now, 15 years later, the country is responsible for more than 30% of global GHG emissions. However, the policies that China plans to introduce to achieve its 2060 goal is, as yet, unclear: its 14th 5-year Plan is keenly awaited.
4. **Africa**. The IEA has long been at the forefront of international efforts to assess and understand the persistent electricity access deficit in many parts of the world. Access to electricity has been addressed in consecutive World Energy Outlooks over the past 20 years. Sub-Saharan Africa is home to three-quarters of the global population without access to electricity. Despite population growth in sub-Saharan Africa, the number of people with access to electricity has gradually increased and the number without has decreased. But, with the pandemic, the region has been particularly hard hit, and this trend is reversed. For the first time in almost 10 years, people without access to electricity was rising.

Dr. Birol then handed over to **Tim Gould**, Head of Division for Energy Supply Outlook and Investment, and **Laura Cozzi**, Chief Energy Modeller and Head of Division for Energy Demand Outlook, to discuss the report's findings in greater detail. However, without entering into greater detail, further points of interest together with some reiteration of earlier messages are presented below:

- Bringing the pandemic under control in 2021 would allow energy demand to return to pre-crisis levels by early 2023. A longer pandemic would usher in the slowest decade of energy demand growth for a century.
- After a 5% drop in energy demand in 2020, renewables lead the rebound while coal never gets back to pre-crisis levels.
- In the STEPS and the DRS, oil demand reaches a plateau in the 2030s as transport fuels are no longer a reliable engine for growth; a stronger push for efficiency, electrification and recycling would be needed for oil use to fall.
- A lower price and demand outlook, due in the near term to COVID-19, adds to the strains on countries that rely on oil and gas revenues. The pressure for changes in strategies and business models is even stronger in the SDS.
- Solar PV is now the cheapest source of electricity in most countries in part due to low cost financing and is set to triple before 2030 under current and proposed policies, with the potential to grow much faster.
- Electricity transformations require a step up in grids expansion to ensure that electricity remains reliable, affordable and secure; depressed revenues, however, are creating risks for timely investment.
- Global emissions are set to bounce back, albeit more slowly than after the financial crisis of 2008-2009; but the world is still a long way from a sustainable recovery.

- Net zero energy emissions in 2050 would require a set of dramatic additional actions over the next 10 years. Energy companies, citizens and investors all need to be on board – with unprecedented contributions to make.
- Using existing energy infrastructure as in the past would “lock in” emissions for decades to come; the associated 1.65°C global average temperature increase would put all climate goals out of reach.

Some final points:

- As noted above, while the pandemic will leave lasting scars, it is still an open question whether it represents a setback for a more secure and sustainable energy system, or a catalyst that accelerates the pace of change.
- Renewables have taken off, with solar PV leading the way. But a slowdown in improving access to electricity and a risk of under-investment in grids are warning signs for the future.
- The crisis has squeezed oil and gas revenues and investment, forcing producers to reassess their strategies to align with technology and policy shifts.
- Getting to net zero means ramping up clean technology deployment while continuing to reduce costs, especially through innovation for hydrogen and other low-carbon fuels, battery storage and CCUS.
- There are no short cuts; only profound changes, guided by good policies, can deliver a better energy future. This is a choice – for citizens, investors, companies, **but most of all for governments**.

Keith Burnard