

Roadmap for Sustainable Recovery of the Energy Market is Discussed in IICEC's Webinar



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The webinar has been moderated by IICEC Director of Research, Bora Şekip Güray.

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A renewable, electric, connected and smarter world

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Sinan Ak, CEO, Zorlu Enerji

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Viewpoint

A renewable, electric, connected and smarter world

We are facing one of the biggest crises in the history of the world. Together with the threats and opportunities brought by COVID-19; we are going through a process where every sector needs to review its future steps and update its action plans.

Today, along with the changes caused by the COVID-19 process; there is a question that not only the players in the energy sector, but also every person who is responsible for this planet, this world ask: What kind of energy do we want the world to be shaped with? For a carbon neutral world, the answer is clear; It is possible to create a more sustainable future with renewable energy sources... Accordingly, with the current pandemic, the decisions to be made by the countries in terms of economic incentives will either widen the gap of crises in health, humanitarian, social and economic areas, or accelerate decarbonization.

However, we are already observing that the negative effects of climate change have become more evident with each passing year. For example, carbon emissions from energy use have increased by an average of more than 1% annually over the past decade. Along with the current picture that we created, although we are still far away from the targeted point, the Paris Agreement is a milestone in terms of raising the awareness of countries about the climate crisis and enabling them to make commitments in this focus. Moreover, the cost of generating electricity from renewable sources is decreasing day by day. As solar and wind power plants increase, it will be easier to reach the targets set to reduce carbon emissions. Also, starting to produce electricity in digital environment will continue to support this process. In other words, investments based on renewable resources, especially the sun, will come to the fore, and tendency (orientation) to this area will increase significantly.

This being the case, we have to ask ourselves: "if not now, when?" Moreover, there is a risk that the increase of 2 degrees will affect the countries in our climate zone much more... For example, some climate scientists and academics, have global predictions for an increase of 2

degrees will affect Turkey between 3 and 8 degrees. As a result, we can enter a process that goes towards drought and desertification and affects the agricultural economy. We can suffer economically and socially. In northern countries with cold climates, agricultural areas will increase with warming. Therefore, they will be less affected. Next thing you know the New Mediterranean will be the Black Sea!

But the big danger is at the door for us or for Europe. The carbon emission intensity was very high due to the impact of Europe's high carbon emissions in the past. Since the 90s, they have made an intense effort to decrease this value. We also need to take steps to transition to a low carbon economy without losing time on being an exemplary sustainable country. Since we are one of the countries that will be most affected by the climate crisis, if we do not take action regarding our carbon emissions, we may not be able to sell our products to Europe.

One of the ways to prevent this dangerous trend is to make maximum use of renewable energy sources and to increase energy efficiency, while the other is to make electric vehicles more widespread. Because today, approximately 20% of the carbon emission of human origin in the world is caused by vehicles on the roads. For this reason, the development and generalization of electric vehicles is a critical issue for the carbon neutral target. Especially Europe is moving very fast in this regard. In Europe, by 2030, 50% of the vehicles used will be electric vehicles, and by 2050 there are targets to be carbon neutral. This means turning to (going towards) energy sources that no longer produce carbon emissions. No internal combustion engine vehicles, no natural gas plants, no coal plants. Imagine a world without them!

As a country we need to set our 2050 carbon neutral target to ourselves if we dream of such a future. Yes, maybe we think we were wronged in the Paris Agreement. But now the day has changed, the world has changed, technologies have changed. Our goals to invest in renewable energy have changed.

Today, we should be a country that understands this photo very well and takes action accordingly. We should act with the motto that we are doing cleaner, environmentally friendly works. Almost half of our electricity production in our country is met from renewable sources. With our high potential, it is possible for our country to increase this rate much more quickly...

As Turkey, to increase this momentum and to reduce carbon emissions we have to expand the production and use of electric vehicles, on the one hand, and we have to further increase the number of charging stations, on the other hand. In parallel we must support technologies that reduce charging time and increase range by developing battery technologies.

Although the projections made differ, it is envisioned that as of 2030 there will be, around 2.5 million electric vehicles and over 1 million charging stations referring particularly in Turkey. For this, municipalities, distribution companies and all companies in the electric vehicle charging market need to work together and invest around \$ 3 billion. \$ 2 billion of this will belong to distribution companies and \$ 1 billion to companies investing in charging stations. I believe that if we make the necessary investments quickly and create an ecosystem with a competitive understanding, we can provide a very good example on a global scale for a more sustainable life.

As Zorlu Group, we continue to fulfill our responsibility in this regard. In line with our Smart Life 2030 vision, we make pioneering investments in a new generation economy that supports the reduction of carbon emissions in many fields, including energy. With this understanding, we became one of the partners of the project "Turkey's Automobile. We nationalized the production of electric vehicle charging stations. We are now able to produce AC and DC charging stations through Vestel in Turkey. We're in position to make installation and export of electric vehicle charging stations both in Turkey and all over Europe and abroad. With our investments in our ZES (Zorlu Energy Solutions) brand, we will continue to provide uninterrupted driving comfort for electric vehicle owners in our country and abroad.

Today, electric vehicles play a big role in the transition of the world to sustainable and renewable energy production. Every day there is a new development in the electric vehicle market. We will wake up to a completely different world where you can now track electric vehicles from your smartphone, rent them on an hourly basis - and who knows, in a future maybe not

so far away- where an autonomous and electric vehicle will take you from wherever you want. As Zorlu Energy, we offer one of the first examples of this with Electrip that is the first and only electric car sharing platform in Turkey and waking up with a new development every day on this subject makes us more excited. Such developments reduce the air and noise pollution in city life, while reducing the dependency on imports for fuels and opening new doors to urban mobility by opening the door to carbon-free transportation.

Obviously, we are opening the door to a brand-new economy model, moreover a system-based major transformation. In fact, I had the opportunity to experience one of the most current and interesting examples of this at CES, the world's largest technology fair, which I attended earlier this year. Although this is a technology fair, the most interesting and talked about topics were electric cars and electric drones. Let alone the companies working on electric cars and drones only, we have seen this transformation with technology companies and even the biggest traditional manufacturers to make radical decisions with the electric vehicle concepts they offer. We witnessed that autonomous features of vehicles, with electric cars, are improving day by day. In these days, where we strive to maintain our social distance, it is thought that autonomous driving is also promising. While some vehicles supported by the leading names of the automobile industry at the fair support this idea, they signal that the developments in this area will accelerate after COVID-19. Fatal accidents caused by autonomous vehicles and high R&D costs led automotive manufacturers to suspend their business plans in this direction. For this reason, it was suspected that the advanced autonomous vehicles, which we qualified as the 4th and 5th levels, would be in demand. Nowadays, we understand that the COVID-19 process has changed this perception and that these tools are back on the agenda of the automotive industry.

In CES, which conveys that we are very close to a smarter world, we have even seen that a company can transfer 5 watts of energy from 1 meter away. This reminded me of a video recently released by a major automotive company. In the video, robotic charging stations are used instead of manpower as an attendant (official) at a parking lot. Robot charging station; communicates with electric vehicles, finds the vehicle in need of charging in the parking lot, charges it and returns to its place. Who knows, perhaps, with this trend, the valets of tomorrow will be these robot charging stations. Because the way things are going, charging our vehicle will be as vital as finding a parking lot!

Roadmap for Sustainable Recovery of the Energy Market is Discussed in IICEC's Webinar

The webinar on “Sustainable Energy & New Reality”, organized by Sabancı University Istanbul International Energy and Climate Center (IICEC), was held on June 23, 2020.

Sabancı University Founding Chairman of the Board of Trustees Güler Sabancı made the opening speech, and Fatih Birol, the Executive Director of International Energy Agency (IEA) and Kıvanç Zaimler, the President of Turkish Industry and Business Association (TÜSİAD) Energy Working Group participated in the panel discussion, moderated by IICEC Research Director Bora Şekip Güray.

Güler Sabancı, Chairman of the Founding Board of Trustees of Sabancı University, said, “We all performed successfully in the fields of energy supply security, supply quality and customer satisfaction, and strong continuity of services and field operations during the pandemic and we continue to show. Moreover, this period once again showed that sustainability would continue to be the main agenda item of our sector.” during her opening remarks.

“We expect a huge decrease in global energy consumption in 2020 due to economic problems, even seven times faster than energy demand decline after the 2009 financial crisis. As of the first six months, more than 3 million people lost their jobs in the world. The risk of losing another 3.5 million jobs over the next six months is seriously ahead of us.” said Fatih



Güler Sabancı

Birol, the Executive Director of International Energy Agency (IEA).

Emphasizing IICEC's role to bring together the prominent names of the energy sector, Güler Sabancı said; “While these days of change have been moving us into a “new reality”, the halls we are familiar with have left their places to digital platforms as we are in today. IICEC continues to bring together energy sector stakeholders in this period with the abilities of digitalization. Therefore, I see today as an essential opportunity to evaluate the changes we experience in the energy sector and our future.”

Assessing the Covid-19 pandemic, Güler Sabancı said; “We, as the public and private bodies of the Turkish energy sector, all performed successfully in the fields of energy supply security, supply quality, and customer satisfaction, and strong continuity of services and field operations during the pandemic and we continue to show. Moreover, this period once again showed that sustainability would continue to be the main agenda item of our

sector. Strengthening financial sustainability, more focusing on increasing environmental and social sustainability, should continue to guide us in our steps for a more efficient, competitive, and technology-oriented energy future. On the other hand, as stakeholders of the energy ecosystem, we must further strengthen our public, private, and university collaborations.”

Reminding that Sabancı University celebrates its 20th anniversary, Güler Sabancı continued her opening remarks as follows: “IICEC, the Energy and Climate Center of our University is getting stronger with an ever-growing effect, as a 10-years old institution, and continues to bring high-level stakeholders together. Now IICEC is updating Turkey Energy Outlook due to the impacts of the Covid-19 pandemic, which they prepare by analytical modeling and analysis. Turkey Energy Outlook, which will be the first of a kind in Turkey, will be completed soon. “

[Please click here for the webinar video.](#)

Energy Demand Decreased Seven Times Faster Than 2009

Fatih Birol, the Executive Director of International Energy Agency (IEA) and IICEC's Honorary Board Chairman pointed out that the Covid-19 process caused a shock to the world energy sector that he has not experienced until now, and said "We expect a huge decrease in global energy demand in 2020 due to economic problems. This year's drop is seven times faster than the energy demand decline after the 2009 financial crisis."

Stating that significant effects are seen in all fuels and sectors in energy, Fatih Birol revealed that 60 percent of the world oil demand comes from the transportation sector and said that the oil market faced the biggest ever fall.

Emphasizing the sharp fall in world oil demand at the beginning of April, Birol reminded the oil prices experienced negative values for the first time during "Black April".

"The fragility in the oil markets has reached a level that will create crackling in global financial markets. For this reason, as the International Energy Agency, I invited the G20 Energy Ministers to an extraordinary meeting. As a result of the decisions taken after the meeting and the regulations regarding production, we see a slight recovery in the oil markets. Due to the collapse in the economy and industry and the warm winter in many countries, natural gas demand showed the biggest decrease since World War II. There is also a huge drop in coal demand. Half of the world's coal demand comes from China. China has been affected by this outbreak, and India is the same. Only renewable energy has grown slightly while the others shrunk." he added.

There is a \$ 400 Billion Decrease in Global Energy Investments

IEA's Executive Director Birol also made crucial assessments on the impact of the pandemic from the point of investments and employment.

"In 2020, there is a 20 percent fall in global energy investments, which compromises a decrease of \$ 400 billion. This is something that has not happened



Fatih Birol

in history. The oil industry has the biggest impact." he stated.

Highlighting the critical role of renewables in recovering unemployment, Fatih Birol revealed that the size of economic recovery packages is expected to reach \$ 20 trillion by the end of this year from its current level around \$ 9 trillion.

Energy efficiency, renewable energy investments, and modernization of electricity grids are the key fields to be prioritized by these recovery packages, that would also reduce the unemployment, according to Birol. "The growth rate of renewable energy depends on the incentives." he added.

Consolidations may be Experienced in the Energy Sector

The progress of the global economic recovery and the results of the Presidential elections in the U.S. in November would have significant impacts on the economy of the energy market and the overall sector, according to IEA's Executive Director.

"Currently, global investment capacity is still limited. This may mark the supply-demand balance. If the investments fail, some countries may have serious problems. Many companies in the energy sector may have large dismiss from their offices. Besides, consolidations may be experienced in the energy sector. Some energy companies with sufficient financial resources can acquire energy companies that are in a difficult situation due to the Covid-19 outbreak. I would especially like to draw attention to Asia and the Middle East's national energy companies, which are financially stronger." he assessed, during the IICEC's webinar, followed by more than 1,200 registered participants.

Turkish Energy Industry Proved its Effectiveness in the Security of Supply

Kıvanç Zaimler, Head of TÜSİAD Energy Working Group and the President of Sabancı Holding Energy Group, assessed the overall performance of the Turkish energy industry during the Covid-19 pandemic and highlighted the country's success in sustaining the security of supply. "There was a contraction in energy demand during the epidemic period, but recovery has already started. This process was very important for testing the risk management and flexibility capabilities of the sector, and it still continues. In this process, we once again saw the importance of predictability and sustainability for the industry to develop in a more competitive and efficient way." he stated during the session.

Zaimler noted that the energy efficiency had also proved its crucial role in the market as a potential field of growth and highlighted the importance of renewable energy and the strength of the energy infrastructures as the key components of the market dynamics.

Emphasizing the importance of Turkey's focus on efficient growth, he stated that they are focused on efficient growth and renewable transaction from the



Kıvanç Zaimler

point of consumers and technology as TÜSİAD Energy Working Group. Pointing out the importance of having a strong capital structure and institutional companies in the market and consumer consciousness in energy, Zaimler stated that consumers should be out of the public's focus and positioned in the focus of the private energy sector.

Kıvanç Zaimler underlined the importance of data processing and its integration with technology during the final session of the IICEC's webinar. "The focus of all these developments and game-changing technologies is the data. The data gathered by the energy companies today can create enormous added values. Companies and institutions that successfully adopted technology, and processed their huge data, may generate significant operational incomes if they make it compatible with the climate and ecosystem." he noted.

Güray Emphasized Sustainable Energy, Importance of Economic Recovery and Energy Efficiency

IICEC Research Director Bora Şekip Güray concluded the session by highlighting the comprehensive outcomes as Covid-19 impacts on the global and Turkish energy system, prospects to achieve a more sustainable energy sector, importance of sustainable economic recovery and improved energy efficiency. Güray underlined the need for policy driven emission reductions, the importance and benefits of renewable energy and the opportunities by the new energy technologies, trends, and the technological transition that were all emphasized during the Panel. "Our



Bora Şekip Güray

distinguished panelists comprehensively assessed many important topics during this an hour-long, forward-looking panel." said Güray in his closing remarks. Güray thanked the Sabancı University Management and IICEC Board Members for their continuous support to the IICEC.

Energy Minister Dönmez Paid a Visit to Akkuyu Nuclear Power Plant Site

Minister of Energy and Natural Resources Fatih Dönmez paid a visit to the construction site of Akkuyu Nuclear Power Plant (NPP) and revealed that the foundation for the second 1,200 MW unit of Akkuyu Nuclear Power Plant (NPP) had been laid.

During his site visit, Minister Dönmez first inspected the site with his deputy Alparslan Bayraktar from a helicopter. Anastasia Zoteeva, General Manager and Chairperson of Akkuyu Nuclear



Photo: enerji.gov.tr

Inc., Zafer Demircan, Head of the Nuclear Regulatory Authority, and İbrahim Halil Dere, General Manager of the Nuclear Projects of the Ministry of Energy and Natural Resources, were accompanied Minister Dönmez during his site visit.

“Today, we had the opportunity to witness one of the important steps.

The installment of the 300 tons “extra safety cabin” will start soon with the help of a huge crane. It is an extremely critical material for the power plant. Turkey’s nuclear power plant project is amongst the world’s most safe and robust power plants.” said Minister Dönmez, according to Ministry’s press release.

Global LNG Trade Reached 485.1 bcm from 249.7 bcm in 2009, Consumer Countries such as Turkey Enjoy the Glut

According to BP’s Statistical Review of World Energy 2020 report, global LNG trade rose by 94.2% over the last decade to 485 billion cubic meters per year (bcm/yr). By 2019, the share of pipeline gas in global natural gas trade decreased to 62%, while the share of LNG increased to 38%.

Qatar was the biggest LNG exporter (107.1 bcm/yr), while Japan was the biggest LNG importer 105.5 (bcm/yr). According to the International Gas Union’s (IGU) Global LNG 2020 Report, the export growth came from the U.S., Russia, and Australia. The United States is now the third-largest LNG exporter, behind Qatar and Australia, with Russia in the fourth spot. The IGU report showed that 2019 was another record year of low prices, driven by increasing natural



gas production, the commissioning of new export infrastructure, and limited demand response from Asian markets. Of course, the Covid-19 pandemic has taken world natural gas prices in 2020 to new lows after a relatively warm 2019/20 winter.

Due to the decline of destination

clauses in LNG contracts, re-exports are becoming more important in LNG trade. IGU reported that Europe accounted for 58% of 2019 global re-exports with France and Singapore having the largest re-export loadings. The U.S. continued to add to its liquefaction capacity where US LNG

exports increased from 30 Bcm in 2018 to ~50 Bcm in 2019¹. U.S. LNG exporters have a relatively unlimited supply of inexpensive spot natural gas as U.S. LNG exports only represent 5.3% of total U.S. natural gas production² which, despite low prices, keeps increasing.

In the U.S., Henry Hub front-month prices dropped about 15%, averaging \$2.53 per MMBtu in 2019 as total U.S. natural gas supply increased 10% to 935 bcm/yr in 2019. With an additional 57.5 bcm/yr of liquefaction capacity brought online (which represents 11% growth year-on-year growth vs 2018), global liquefaction capacity reached 582.2 bcm/yr in 2019³.

As LNG spot prices may be cheaper than prices set by long-term pipeline contracts, many consumer countries are turning to LNG, enjoying the glut of global LNG. Signals of this had been given by the IEA Executive Director and IICEC Honorary Chairman

Dr. Fatih Birol at the IICEC 7th International Energy Forum stating: “We are expecting growth in the LNG markets and this is positive news for gas consumers such as Japan, Turkey and Korea.”⁴

In another meeting with journalists in 2019 Birol has remarked: “The markets will be particularly drowned in liquefied natural gas. We are expecting a significant drop in gas prices over the next two years,” adding, “Turkey has done very well to seize upon the more economic LNG trend, thanks to a timely project. If it carries out more competitive projects to fortify its energy infrastructure, the Turkish economy will surely enjoy greater benefits.”⁵ Turkey’s expansion of its LNG infrastructure capacity in recent years provided the country to cope with up to 120 million cubic meters of natural gas per day with LNG terminals and floating storage and regasification units (FRSU).

In 2019 Turkey imported 45.21 bcm of natural gas with LNG marking a 29% share; whilst the Russian share pipeline imports falling from 52% in 2017 to 33% in 2019⁶. Like other gas consumer countries, Turkey is reaping the benefits of the drop in the gas prices with increased competition and the abundance of supplies on the global market. The LNG glut provides Turkey with an advantage for the diversification of its gas supplies, enhancing country’s energy security. Turkey is buying LNG from, Qatar, United States, Algeria, Nigeria, Cameroon, Egypt and Trinidad Tobago. As Turkey is nearing the expiry of long-term contracts with Nigeria and Algeria, BOTAŞ recently signed a deal (that will start in late 2020 and will run for three years) to buy 1.2 million tons⁷ of liquefied natural gas (LNG) from French energy giant Total⁸.

IEA Outlines \$3 Trillion Plan for Sustainable Recovery

Governments can increase the GDP growth and employment rate at the same time as cutting greenhouse gas emissions, the International Energy Agency (IEA) said in its latest study carried out with the International Monetary Fund (IMF).

Based on assessments of over 30 energy policy measures under six segments (electricity, transport, industry, buildings, fuels, and emerging low-carbon technologies),

Sustainable Recovery Plan argues that the deployment of clean energy technologies could be accelerated by integrating smart energy policies into governments’ economic recovery packages.

While the global energy industry employed around 40 million people in 2019 but 3 million of those jobs have been lost or are at risk due to the COVID-19, global investment of around \$1 trillion a year over the

next three years in line with the IEA’s recommended policies can save or create around 9 million jobs a year and cut global energy-related GHG emissions by 4.5 billion mt of CO2 equivalent by the end of 2023, the Paris-based energy agency said.

If governments may act in line with the energy policies listed in the report, it can create substantial improvements to global welfare, including driving a 5% reduction in air

¹ IGU 2020, p.26.

² Total US natural gas supply increased from 850 Bcm in 2018 to 935 Bcm in 2019. (IGU, 2020)

³ IGU 2020, p.28.

⁴ <https://iicec.sabanciuniv.edu/tr/etkinlik/iicec-7-uluslararasi-enerji-ve-iklim-forumu>

⁵ <https://www.dailysabah.com/energy/2019/12/30/iea-head-turkey-could-benefit-from-energy-resource-glut-in-upcoming-period>

⁶ <https://www.aa.com.tr/en/asia-pacific/russian-share-of-turkish-gas-imports-falls-as-lng-rises/1866403>

⁷ 1.63 billion cubic meters (bcm).

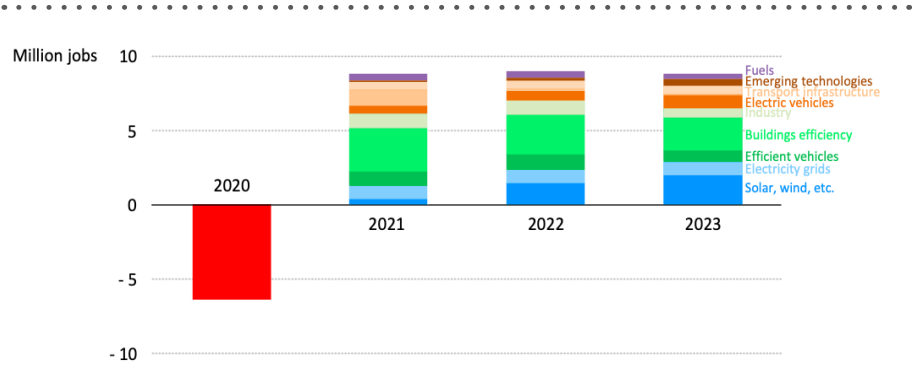
⁸ <https://www.dailysabah.com/business/energy/turkeys-botas-total-ink-3-year-lng-contract>

pollution emissions, bringing access to clean-cooking solutions to around 420 million people in low-income countries, and enabling nearly 270 million people to gain access to electricity.

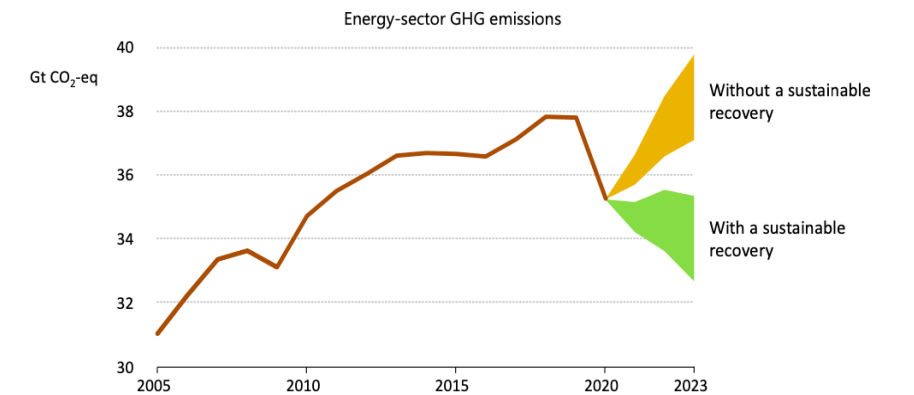
The COVID-19 pandemic is expected to cut global energy demand by 6% in 2020, while the global energy investment will experience its largest decline on record with a reduction of 20%, almost \$400 billion, in capital spending, the IEA said.

“Policymakers are having to make hugely consequential decisions in a very short space of time as they draw up stimulus packages. Our Sustainable Recovery Plan provides them with rigorous analysis and clear advice on how to tackle today’s major economic, energy, and climate challenges at the same time. The plan is not intended to tell governments what they must do. It seeks to show them what they can do,” said IEA Executive Director Fatih Birol.

The plan suggests public authorities a series of policy measures including strengthening the resilience of electricity grids, accelerating wind and solar PV deployment, modernizing existing nuclear and hydropower plants, supporting oil and gas



Graphic – Energy-related jobs at risk due to COVID-19 in 2020 and new jobs created by the Sustainable Recovery Plan⁹



Graphic – Energy-sector GHG emissions¹⁰

upstream based on its performance in methane emission reduction, and cutting down inefficient fossil fuel subsidies. The agency also expects that the Sustainable Recovery Plan will be a

key element in discussions at the IEA Clean Energy Transitions Summit to be held on July 9, which will gather ministers and private sector leaders from countries representing 80% of global energy demand.

Ocean-Based Renewable Resources Could Power 10% of Global Demand by 2050: OREAC Report

The Ocean Renewable Energy Action Coalition (OREAC) announced its 2050 vision on World Ocean Day, June 8, setting out an ambitious plan for 1,400 GW of offshore wind globally within three decades.

The report, entitled “The Ocean as a

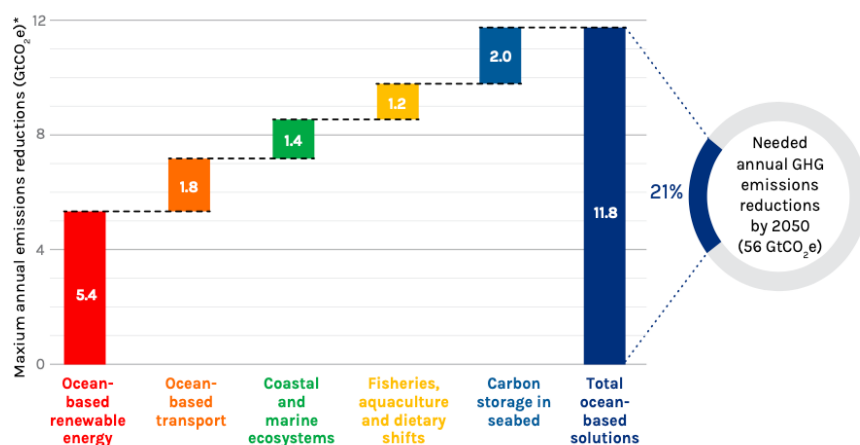
Solution to Climate Change – Five Opportunities for Action”, was prepared by the OREAC, the coalition formed in 2019 by a group of 12 companies (CWind, Equinor, GE, Global Marine Group, JERA, MHI Vestas, MingYang Smart Energy, Mainstream

Renewable Power, Ørsted, Shell, Siemens Gamesa, TenneT) and 4 partner organizations (Chinese Wind Energy Association and Ocean Energy Systems, Global Wind Energy Council, World Resources Institute, UN Global Compact).

⁹ International Energy Agency (IEA), (June 18, 2020) Sustainable Recovery Plan
¹⁰ International Energy Agency (IEA), (June 18, 2020) Sustainable Recovery Plan

The coalition specified five major areas for its ocean-based climate action vision:

- Ocean-based renewable energy (offshore wind, floating solar, wave and tidal power)
 - Ocean-based transport
 - Coastal and marine ecosystems (protection and restoration of mangroves, salt marshes, seagrass beds, and seaweeds)
 - Fisheries, aquaculture, and dietary shifts away from emission-intensive land-based protein sources towards low carbon ocean-based protein
 - Carbon storage in the seabed
- While the report asserts that the ocean-based renewable energy could meet around 10% of the global annual GHG emission reductions needed to remain on a



Graphic – Contribution of five ocean-based climate action areas to mitigating climate change in 2050 (maximum GtCO₂e)¹¹

Paris-compliant 1.5°C pathway in 2050, it estimates potential 1,400 GW of offshore wind capacity would power one-tenth of global electricity demand while saving over 3 billion tonnes of CO₂ per year.

The coalition will also launch its roadmap for 2050 later this year, which will outline the actions needed to support industry and policymakers in achieving the 1,400 GW vision.

OPEC+ Extends Production Cuts as Oil Prices Continue to Recover

As expected, OPEC+ agreed to continue its oil production cuts that have been responsible for supporting oil prices above the very low levels experienced at the outset of the Covid-19 oil demand destruction. Nonetheless, several factors going forward could affect the outlook for future oil prices. Chinese purchases of U.S. crude have been up significantly in May and June but political developments in Beijing and Washington could slow U.S. energy exports to China or affect other aspects of the U.S. China Phase 1 Trade Deal. A surge in U.S. Covid-19 cases could slow the expanding recovery of U.S. gasoline demand while traffic measures in Europe and India indicate that passenger car fuel demand recovery is still fragile. Air departures are another source of concern with

departures remaining below 50% of those in December. On the supply side, a Libyan deal to restore 1 million barrels per day (mbpd) of oil production seems more likely if an oil revenue sharing agreement can be reached. Recent crude and product inventory levels are also increasing based on data from the U.S., Japan, Singapore and other sources. Additional oil supply, rising crude and product inventories and many demand uncertainties may well stall oil price recovery. Added to all of this is a grimmer world economic outlook largely driven by concerns that increasing Covid-19 infections will continue to stall the re-opening of many businesses in large oil consuming countries.

The renewed OPEC+ deal continued the 9.7 mbpd cut agreed to in April and commenced on 1 May through

last month (June). Then starting this month, the cuts will be tapered back to 7.7 mbpd to the end of 2020 and 5.8 mbpd from January 2021 through April 2022. Saudi Arabia and Russia support keeping the 9.7 mbpd cut through the end of this month.

S&P Global Platts released a research note on June 3 asserting that Brent crude prices “may find some pockets of support” in the range of \$35 to \$40 a barrel in June. The commodity pricing agency said it expects Brent to fall back to an average of \$35 a barrel in August, citing an oil market “overhang of 1 billion barrels in surplus inventories, supply returns from shut-ins, seasonal demand wanes, and anxiety on demand grows heading into the Fall.”

While OPEC+ allies agreed on June 6 to extend production cuts until the

¹¹ High-Level Panel for a Sustainable Ocean Economy (Ocean Panel), (June 8, 2020) The Ocean as a Solution to Climate Change – Five Opportunities for Action

end of July, any country that fails to implement 100% of its output reductions in May and June under the OPEC+ deal will have to make extra cuts from July to September, according to the final declaration. Oil demand is expected to exceed supply sometime in July, but OPEC+ didn't make any statement on how to clear 1 billion barrels of excess oil inventories accumulated since March.

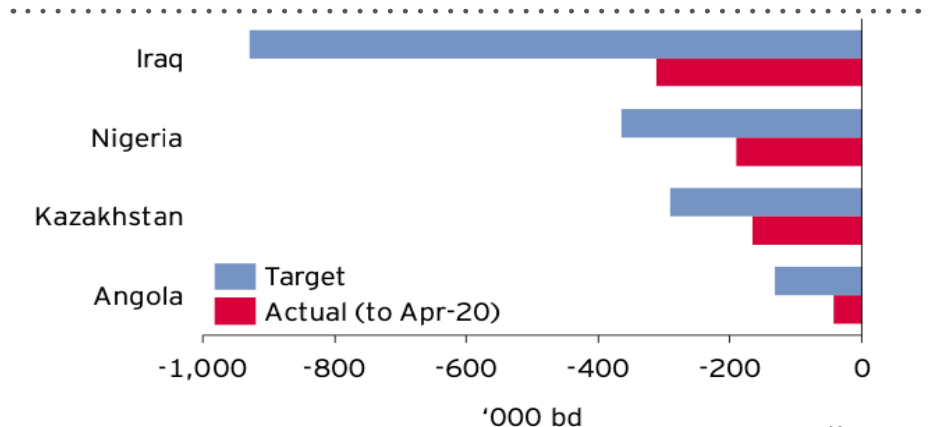
Iraq, with one of the worst compliance rates in May, agreed to extra cuts, although it was not clear how Baghdad would reach an agreement with oil majors on curbing Iraqi output. The country produced 520,000 bpd above its quota in May, while overproduction by Nigeria was 120,000 bpd, Angola's was 130,000 bpd, Kazakhstan's was 180,000 bpd, and Russia's was 100,000 bpd, OPEC+ data showed.

OPEC+'s Joint Ministerial Monitoring Committee (JMMC) will meet monthly until December to review the market, compliance and recommend levels of cuts, while OPEC+ will hold the next scheduled meeting on November 30.

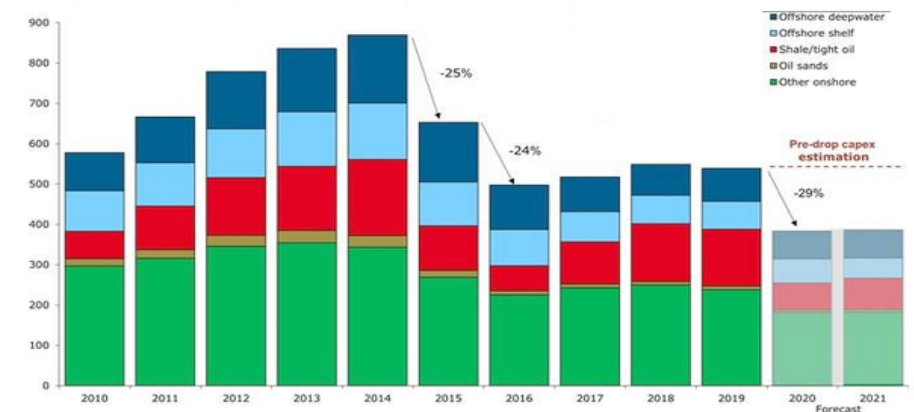
While oil prices have partially recovered after hitting 20-year lows in 'Black April', they are still well below the costs of most U.S. shale producers. "I applaud OPEC+ for reaching an important agreement today, which comes at a pivotal time as oil demand continues to recover and economies reopen around the world," U.S. Energy Secretary Dan Brouillette wrote on Twitter after the extension.

Right after the group's announcement, Saudi Arabia increased its monthly crude prices for July. Saudi Energy Minister Prince Abdulaziz bin Salman told a news conference on June 8 that the kingdom along with Kuwait and the United Arab Emirates would not cut by an extra 1.18 mbpd in July as they have done in June.

After OPEC+'s decision, industry analysts began to revise their



Graphic – Failure to comply with OPEC+ agreement in May 2020 ('000 bd) ¹²



Graphic – Global investments by supply segment 2010-2021 (billion USD) ¹³

price projections. Goldman Sachs announced that it sees a correction in oil prices on the horizon even amid a significant recovery in May and the recent extension decision. "With oil now above \$40/bbl, supplies will be incentivized to return, but we believe the risks to the downside have increased substantially and are now looking for a 15-20% correction which may already be underway after Monday's modest sell-off," commodities research team of the bank wrote in an analyst note on June 9.

Rating agency Moody's also cut its oil outlook to a more bearish one, forecasting the commodity to average \$8 per barrel lower this year than its March 2020 outlook. "To account for the deeper and longer-lasting shock to global oil demand as a result of the coronavirus shock, Moody's has

lowered its oil price assumptions and expects that Brent will average \$35 per barrel this year and \$45/barrel in 2021," the firm wrote in a research note.

Rystad Energy also released an analysis forecasting global upstream spending to reach \$383 billion in 2020, the lowest level in 15 years, and a staggering 29% decrease of \$156 billion compared to 2019.

While Rystad expected before the pandemic that upstream investments would maintain 2019 levels, both in 2020 and 2021, it now expects a substantial fall from its 2019 levels calculated at \$539 billion. Spending is also expected to be largely flat in 2021, landing only marginally higher than 2020 at \$386 billion.

The International Energy Agency (IEA) announced on June 16 that it expects

¹² EY, (June 4, 2020) Energy Market Note

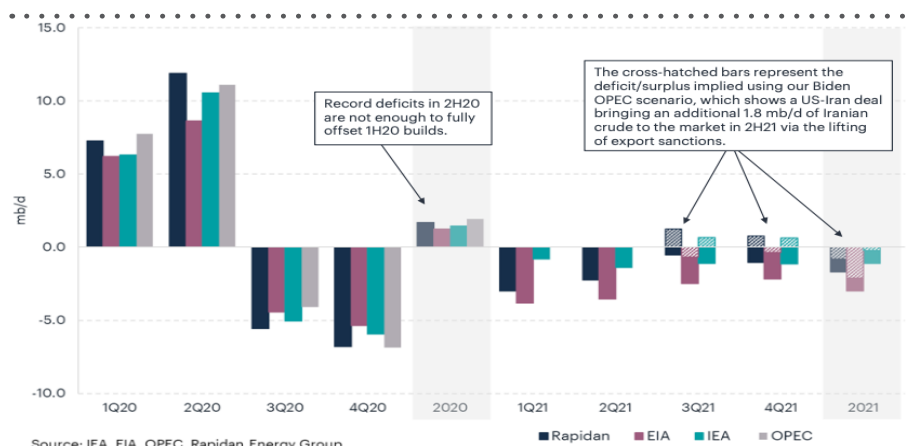
¹³ Rystad Energy, (June 11, 2020) Energy Market Note

the fall in oil demand this year to be the largest in history, but underlined that it also believes there are signs the market could reach “a more stable footing” over the coming months. The agency said that demand was expected to fall by 8.1 mbpd in 2020, before growing by 5.7 mbpd in 2021.

Meanwhile, the IEA’s oil demand forecast for this year is 91.7 mbpd, nearly 500,000 barrels higher than it expected in May, due to stronger-than-anticipated deliveries during the coronavirus lockdown. IEA Executive Director Fatih Birol told CNBC that a modest oil market recovery was being driven by three factors: China’s strong exit from lockdown measures, good compliance among OPEC+ members, and the decline of production in the U.S., Canada, and other G-20 countries.

On the other hand, OPEC+ JMMC announced after its June 18 online meeting that overall compliance with the cuts was 87% for May. “The committee stressed that the attainment of 100% conformity from all participating countries is not only fair and equitable, but vital for the ongoing and timely rebalancing efforts and helping deliver a sustainable oil market stability,” the official statement said.

Deloitte, meanwhile, published a study



Graphic – Implied global supply surpluses assuming Rapidan’s OPEC production forecast¹⁴

on June 23 warning about 30% of U.S. shale operators are technically insolvent at \$35-a-barrel oil prices. “Beneath this phenomenal growth, the reality is that the shale boom peaked without making money for the industry,” Deloitte analysts said. With the coming wave of writedowns, the shale industry’s leverage ratio could spike to 54% from 40%, according to Deloitte, potentially triggering “many negative sequences of events, including bankruptcy.”

According to S&P Global Ratings, 18 oil companies year-to-date have already defaulted on their debt, compared to 20 for all of last year. While Chesapeake Energy, a pioneer of the fracking industry, has been

in financial trouble for years, the pandemic already deepened the bankruptcy possibility. Chesapeake skipped interest payments of \$13.5 million, according to SEC filings.

On June 24, after the International Monetary Fund (IMF) said the pandemic was causing wider and deeper damage to economic activity than first thought and slashed its 2020 global output forecasts further, oil prices fell nearly 6%. As the mounting confirmed cases in the United States, China, Latin America, and India had unnerved investors and pressured oil prices, India reported oil imports in May hit the lowest since October 2011 as refiners with brimming crude inventories cut purchases.

¹⁴ Courtesy of the Rapidan Energy Group. <https://www.rapidanenergy.com>

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