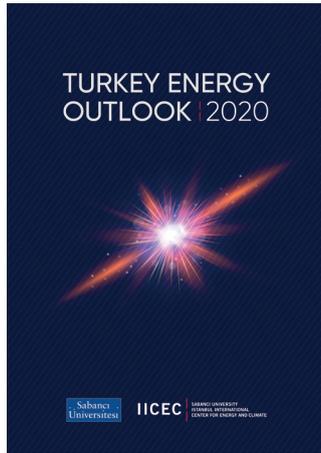
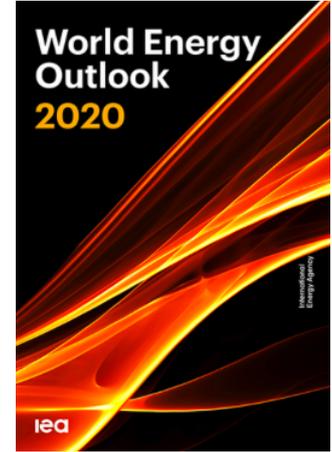


World Energy Outlook 2020 Reveals Pathways on How to Use Covid Crisis for a Faster Energy Transition

3



IICEC's Flagship Publication TURKEY ENERGY OUTLOOK Soon to be Released

5



Selim Şiper

Petrol Ofisi Received Two Awards at The Owl Awards with One Research

17



Zaur Gahramanov

SOCAR Turkey Supports the Supply Security of Raw Materials in Turkey's Domestic Production During the Pandemic

16



Ahmet Erdem

"Gas Discovery will Significantly Contribute to Turkish Economy."

8

Monthly Highlights

World Energy Outlook 2020 Reveals Pathways on How to Use Covid Crisis for a Faster Energy Transition	3
IICEC's Flagship Publication "TURKEY ENERGY OUTLOOK" Soon to be Released	5
Turkey Revised Black Sea Gas Discovery to 405 Billion Cubic Meters	7
"The Discovery in the Black Sea was the Biggest Discovery in Offshore This Year."	7
"Gas Discovery will Significantly Contribute to Turkish Economy."	7 8
Turkey's Electricity Installed Capacity Reached 93.9 GW with 50% Renewable Resources	9
MITe Released New Report Assessing Insights into Personal Mobility	10
Innovation in Batteries and Electricity Storage – Technology Report	11
IEA Publishes Global Gas Security Review 2020, Highlighting LNG's Key Role in Global Gas Security During the Pandemic	12
Oil Prices Slumped in October Over Concerns on a Second Wave in Europe and Further OPEC+ Tapering	13
SOCAR Turkey Supports the Supply Security of Raw Materials in Turkey's Domestic Production During the Pandemic	16
Petrol Ofisi Received Two Awards at The Owl Awards with One Research	17



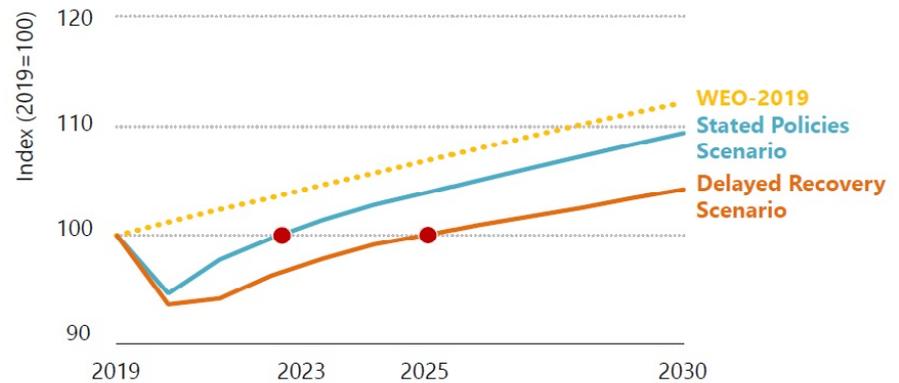
World Energy Outlook 2020 Reveals Pathways on How to Use Covid Crisis for a Faster Energy Transition

The 2020 edition of the **IEA World Energy Outlook** was launched on October 13. This issue was particularly anticipated due to the deep disruptions to global energy markets caused by the Covid-19 pandemic. It focused on two key questions: How might the pandemic and its aftermath reshape the energy sector, and does this disruption help -or hinder- the prospects for rapid clean energy transitions?

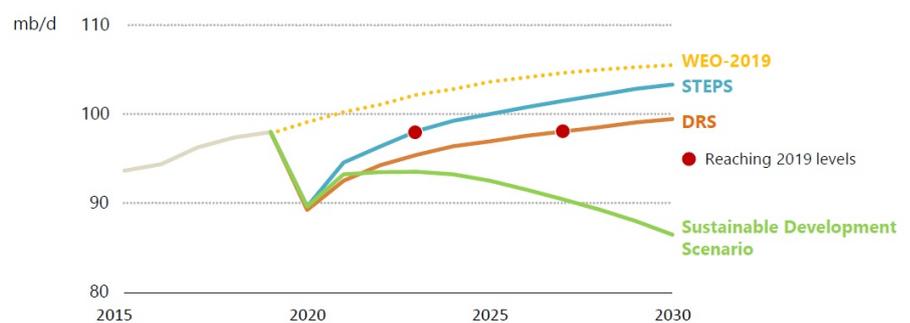
According to the latest IEA analysis, the pandemic caused, during 2020, a 5% drop in global energy demand, a 7% drop in energy-related CO₂ emissions, and an 18% drop in energy investments. As shown below, the short term impact of the pandemic was severe with two longer term scenarios for recovery: the Stated Policy Scenarios showing a gradual resumption towards the projection shown in last year's 2019 WEO and a Delayed Recover Scenario showing a longer lasting brake on energy demand.

The Stated Policies Scenario assumes that the pandemic will be brought under control in 2021 and global economic indicators will rebound to pre-crisis levels in early 2023. The Delayed Recovery Scenario assumes the same pandemic and economic recovery but shows lasting impacts on energy demand.

A third Sustainable Development Scenario shows the consequences of stronger policies, following the Covid crisis to speed up sustainable energy development. A more aggressive net-zero emissions by 2050 Scenario assumes that there



Graphic 1 – Global energy demand recovery by scenario¹



Graphic 2 – Global oil demand by scenario²

would be a widespread push towards net-zero emission technologies. This scenario also shows what changes would be needed during the next decade to meet the net-zero goal in time to avoid a 1.5°C rise in global temperature.

All of the scenarios show a declining share of coal use with coal use falling below 20%, a historic low since the industrial revolution. The fall in power demand because of the Covid-19 and coal's high GHG emissions create major investor uncertainties for coal plants. Transport fuels have also been

hard hit showing a slower recovery for oil demand growth as shown below. The Delayed Recovery Scenario (DRS) shows that world oil demand will still not exceed 100 million barrels per day, a target that was expected in past projections to be passed during 2021. "The era of global oil demand growth will come to an end in the next decade." Dr. Fatih Birol, the IEA Executive Director said. "But without a large shift in government policies, there is no sign of a rapid decline. Based on today's policy settings, a global economic rebound would soon push oil demand back to pre-crisis levels."

¹ International Energy Agency, (October 13, 2020) World Energy Outlook 2020

² International Energy Agency, (October 13, 2020) World Energy Outlook 2020



The only fossil fuel that is expected to experience growth in the Stated Policy Scenario, is natural gas, especially in Asia where it can improve air quality by replacing coal in power plants and replacing coal, oil and traditional fuels in buildings and industry.

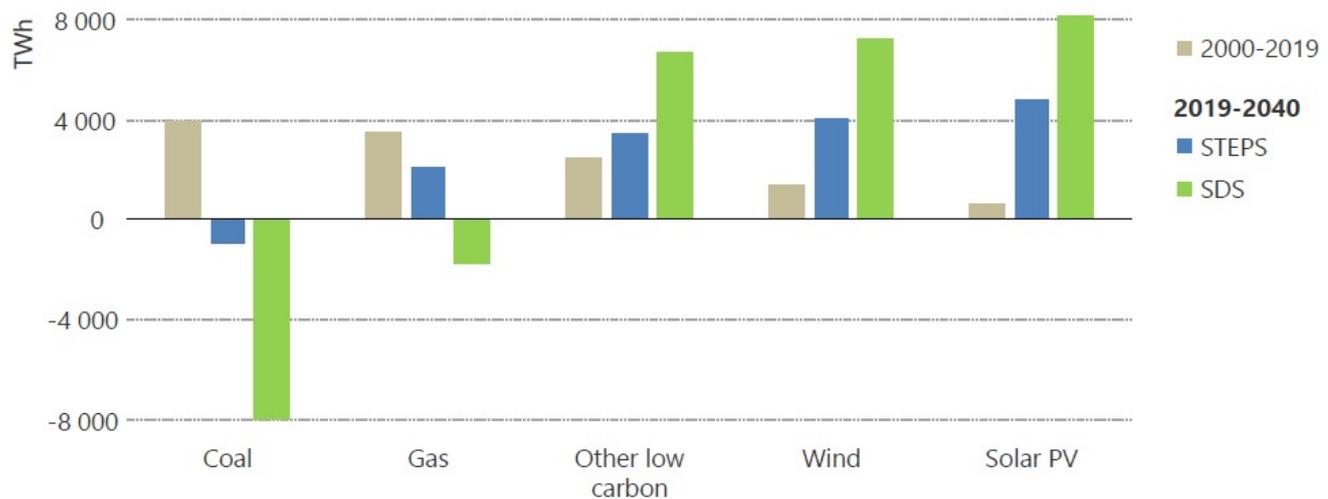
As with prior editions of the WEO, renewables continue to dominate future energy supply growth. Thanks to government policies and maturing technologies, solar PV has become the cheapest source of electricity in many countries and is set to triple current capacity levels before 2030. In all 2020 IEA scenarios, renewables meet 80% or more of global electricity demand

growth over the next decade. While hydropower remains the largest renewable source, solar is the main source of growth, followed by onshore and offshore wind. “I see solar becoming the new king of the world’s electricity markets. Based on today’s policy settings, it is on track to set new records for deployment every year after 2022.” said Dr. Birol.

Although the agency forecasts a strong growth in renewable investments, it also underlines the fact that grids are the bedrock of a clean and secure electricity future. While the transformation in the power sector needs grid expansion, depressed revenues may create

risks for timely investments which may have implications for the reliability and security of electricity supply.

As global emissions are set to bounce back more slowly than after the financial crisis of 2008-2009 and energy-related CO2 emissions fell by 7% in 2020 due to world-wide lockdowns, the IEA urges on that the world is still a long way from a sustainable recovery. The World Energy Outlook 2020 recommends governments to embrace more aggressive energy transition policies in order to boost economic growth and create more green jobs while reducing emissions.



Graphic 3 – Change in global electricity generation³

³ International Energy Agency, (October 13, 2020) World Energy Outlook 2020



IICEC's Flagship Publication "TURKEY ENERGY OUTLOOK" Soon to be Released

The IICEC Turkey Energy Outlook (TEO) will be launched in November. The TEO features two Scenarios, detailed projections out to 2040, that are built on a first-of-its-kind, comprehensive modeling framework. The TEO model developed by IICEC employs "bottom-up" methodology relying on extensive and detailed data, for example, the performance parameters of every significant power plant in Turkey. It is a holistic model that covers all sectors, fuels and technologies for the Turkish energy economy.

The Reference Scenario reflects a continuation of current policies but not necessarily achieving the most ambitious and challenging long-term targets. The Alternative Scenario includes additional policy initiatives that, while cost-effective, require more challenging policy obstacles to be overcome. The TEO Scenarios also take into account the current and possible future impacts of the Covid-19 pandemic on each sector and fuel.

The Alternative Scenario policies are estimated to produce many benefits for Turkey. For example, they show increasing clean Turkish energy technology manufacturing rather than importing these technologies. Turkey will produce more renewable and nuclear power while using energy more efficiently and addressing power system and grid flexibility. Renewable energy will also grow outside of the power sector as industry, agriculture and buildings use less coal and oil in favor of renewables and natural gas. Large reductions are shown in Turkey's energy imports with more renewables and, especially, reduced imports of natural gas due



to continued E&P success shown recently in the Black Sea.

Progress is enabled by greater private-sector participation with faster progress to competitive electricity and natural gas markets and cost-reflective energy prices while addressing social considerations. Significant energy efficiency improvements

are achieved in buildings, industry and transport by means of policy choices such as transport modal shifts, energy performance contracts in buildings and developing technologies around electric vehicles, digitalization and many others. While restrictions on GHG emissions are not included among the Alternative Scenario policies, the TEO predicts



Carmine Difulio



Bora Şekip Güray

falling GHG emissions, even with a projected growth in Turkey's consumption of energy services and a post-2040 pathway towards net-zero emissions. Throughout all of these developments, an emphasis is placed on Turkish R&D and manufacturing with the aim that Turkey should become an exporter of advanced energy technologies as it enjoys the energy security, efficiency and environmental benefits they provide to Turkey.

Professor Carmine Difulio said, "As 2020 will be my last year serving as IICEC's Director, I believe that, working with Bora Bey and the great IICEC team, we have produced a landmark long-term outlook for the entire Turkish energy economy. In addition, we've produced it near the end of a consequential year for the world's and Turkey's energy markets and it is fortunate that it wasn't, for example, released last year. The Covid-19 pandemic has taken so many lives and disrupted the world economic order. Any long-term outlook published before this tragedy

would already be obsolete. In addition, just two months ago, relatively recent Turkish E&P investments payed off in a big way, much sooner than most experts expected, opening a new era for Turkish hydrocarbon production. Any outlook that did not reflect the updated consequences of Turkish E&P activity would also have been obsolete. Consequently, with the modeling framework and policy analysis we developed prior to and during 2020, we were able to show a pathway, accounting for today's realities, towards Turkey's energy and economic security as well as advancing Turkey's energy efficiency, clean energy supplies and environmental sustainability."

IICEC Research Director Bora Şekip Güray said that the Turkey Energy Outlook, presenting a complete picture of the Turkish energy sector, would stand as a key reference for policy-makers, energy investors, technology developers and many other sector participants as well as the energy consumers. Güray pointed out that the TEO is the

outcome of a rigorous work to develop a holistic energy model along the energy value chain of supply, transformation and demand sectors and technologies. "Scenarios out to 2040 were developed within a solid modelling framework to assess implications of energy policies, commodity dynamics and technological progress on Turkey's fuel trade balances, energy security, energy market development and technology localization efforts. The TEO findings show the improvement potential to utilize untapped potential in renewable energy, energy efficiency and many other areas with today's technology and taken into consideration the potential energy technology advancements. Objective policy analyses resulted in a number of policy recommendations to further Turkey's progress to achieve a more secure, efficient, localized, technology-oriented and environmentally sustainable energy future. We hope the readers will find the TEO analyses, with a long-term perspective, both helpful and interesting."



Turkey Revised Black Sea Gas Discovery to 405 Billion Cubic Meters

Turkish President Recep Tayyip Erdoğan, on October 17, announced the discovery of an additional 85 billion cubic meters (bcm) of natural gas in the Black Sea, following the 320 bcm discovery in August.

"As a result of testing, analysis, and detailed engineering work, another 85 bcm were added to the reserves we had discovered." President Erdoğan said during his inspections at the Fatih drillship. He said the discovery came at a depth of 4,445 meters. "Total amount of natural gas reserves in the TUNA-1 well of the Sakarya Gas



Field reached 405 bcm." Erdoğan said. "The reserves we discovered in the Black Sea are the largest hydrocarbon resource of our country till today." he added. President Erdoğan emphasized that Turkey's import dependence on natural gas will considerably decrease with new discoveries.

The drilling in the TUNA-1 well was

finalized after reaching the depth of 4,775 meters as planned, the President stated, highlighting that Turkey's exploration for hydrocarbon resources in the Black Sea and the Mediterranean will continue. After maintenance and supplying, the Fatih drillship will be on duty in another well, Turkali-1, in the Sakarya Gas Field next month, Erdoğan revealed.

"The Discovery in the Black Sea was the Biggest Discovery in Offshore This Year."

Fatih Dönmez, Minister of Energy and Natural Resources, said that the 405 bcm discovery in the Sakarya Gas Field is the biggest discovery in offshore this year and ranks second when onshore discoveries are included. Dönmez said: "We will go to another location that we call Turkali-1. The size of this area is 225 square kilometers. We are planning to drill nearly 40 production wells here in the coming years. The production wells will be opened in every two months." he added.

Black Sea Gas will be Available in 2023

Minister Dönmez stated that Black Sea gas would be available to consumers in 2023, the 100th anniversary of the Republic. Dönmez revealed that that pre-engineering studies have started, and negotiations are



continuing for detailed engineering studies. Stating that Turkey will continue hydrocarbon explorations in offshore areas, Energy Minister Dönmez said that Oruç Reis seismic research vessel will complete 2D scanning in a couple of months and switch to 3D work.

Dönmez continued as follows: "These are the areas that we licensed years ago in our own continental shelf. Our seismic research vessel is now firing 2D seismic in these fields. I guess we can complete it within a couple of months. Then we will start 3D seismic shooting in the same area. If we see potential, we will send our drilling vessel for further explorations."



"Gas Discovery will Significantly Contribute to Turkish Economy."

"The latest natural gas discoveries in Black Sea are the results of the recently implemented National Energy and Mining Policy of the state and the offshore exploration capabilities of Turkish Petroleum Corporation (TPAO)." said Ahmet Erdem, Shell Turkey's Country Chairman. Stating that the 405 bcm gas discovery in Black Sea is the biggest hydrocarbon reserve in Turkey's exploration history, Erdem said that the discovery would significantly contribute to Turkey.



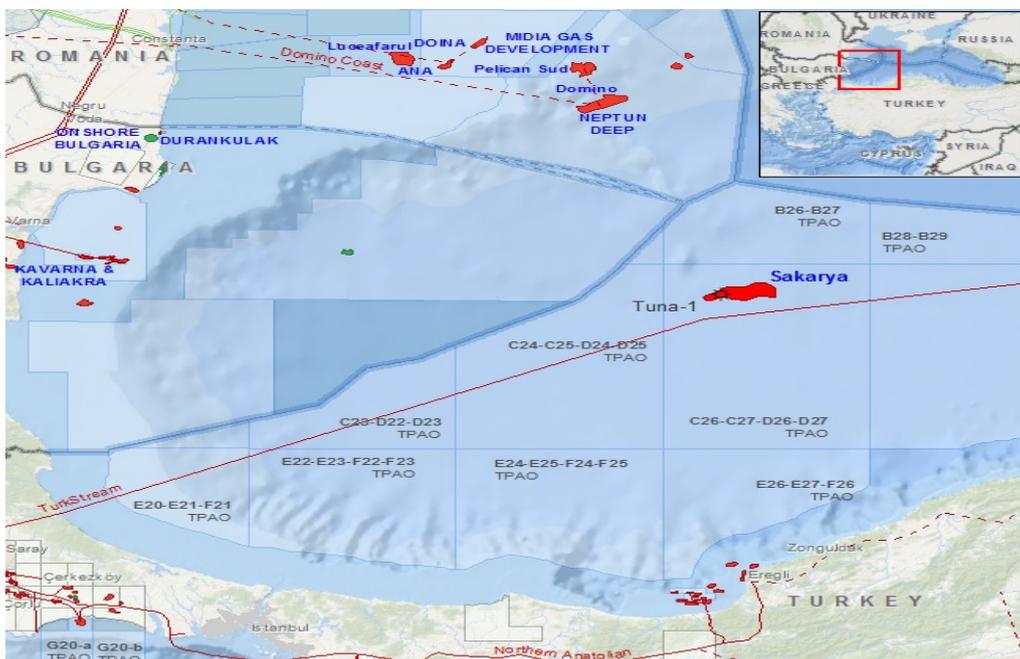
Ahmet Erdem

Shell Turkey's Country Head Ahmet Erdem also chairs the Turkey Petroleum and Petroleum Products Industry Council of the Turkish Union of Chambers and Commodity Exchanges (TOBB).

"Energy Import will Decrease Significantly"

Reminding that the renewable energy production and consequently the share of domestic resources in energy consumption have increased in recent years, Erdem said: "The ability to meet energy production from domestic resources is the most important factor in terms of our country's economy and reducing the need for imports. With the production that will begin after this discovery, energy imports, which is one of the most important expense items in the formation of our country's current account deficit, will decrease significantly."

"Meeting Turkey's increasing energy demand as a result of the country's rapid growth and rising prosperity levels with domestic resources would reduce the import dependency and budget deficit while significantly contributing to economy." said Ahmet Erdem while assessing the economic importance of the discovery.



Map – Tuna-1 well's location in western Black Sea



Turkey's Electricity Installed Capacity Reached 93.9 GW with 50% Renewable Resources

Turkey's installed capacity reached 93,919 MW as of end of October according to transmission system operator TEİAŞ's data released on company's website. The share of renewable resources, including hydroelectric, wind, solar, geothermal, and biomass constitute the 50% of the total installed capacity. The share of renewable resources with domestic resources lignite and hard coal reached 62.5% of the total installed capacity. The installed capacity of the thermal power plants almost remained same in 2020 while the share of renewables, wind and license-exempt solar power plants increased significantly.

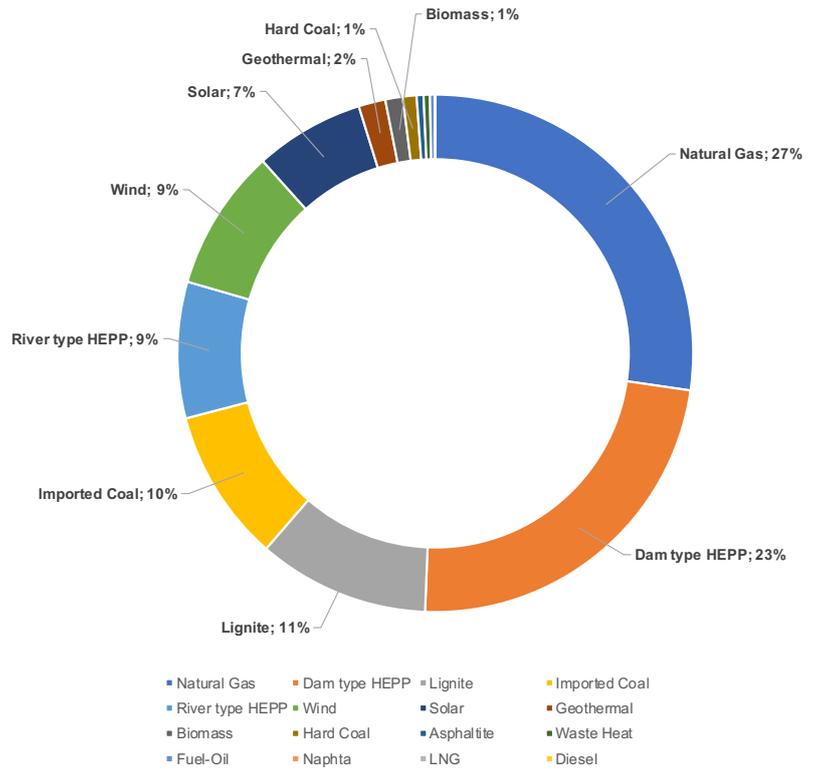


Figure 1: – Turkey's electricity installed capacity breakdown

Primary Resource	Installed Capacity (MW)	No of Power Plants	Share (%)
Natural Gas	25.634,30	336	27,294
Dam type HEPP	21.919,40	131	23,339
Lignite	10.097,30	47	10,751
Imported Coal	8.986,90	15	9,569
River type HEPP	7.996,60	575	8,514
Wind	8.330,10	314	8,869
Solar	6.454,40	7.347	6,872
Geothermal	1.579,20	60	1,681
Biomass	1022,2	245	1,088
Hard Coal	810,8	4	0,863
Asphaltite	405	1	0,431
Waste Heat	369,1	83	0,393
Fuel-Oil	305,9	11	0,326
Naphta	4,7	1	0,005
LNG	2	1	0,002
Diesel	1	1	0,001
Total	93.918,90	9.172,00	100,00



MITei Released New Report Assessing Insights into Personal Mobility

The Massachusetts Institute of Technology Energy Institute (MITei) recently released a new study, *Insights into Personal Mobility*⁴. As with all MITei studies, this was written by a large team of MIT experts (along with a few outside experts) to broadly survey an important aspect of future energy development. A systems dynamic model was used to provide estimates of transportation developments with scenarios, including a “Paris to 2°C” case. Studies of this nature tend to confirm findings in many other studies, such as from the IEA and other sources, so it is no surprise that there are few common points, especially with regard to the future role of battery electric vehicles (BEVs) and hydrogen fuel cell vehicles (HFCVs), especially in the “Paris to 2°C” case where BEVs serve light duty travel and HFCVs provide for long distance freight and other markets that value long distance travel and quick refueling times.

China is expected to have high motor vehicle growth unless the government restricts sales with an estimated 30 million vehicle fleet difference depending on this factor alone. “Pride of ownership” is expected to be an important factor in car growth in developing countries but, apart from the United States, not in developed countries. Related to “pride of ownership,” the study found that millennials are typically less interested in auto ownership than in past generations, where, especially in the United States, promoted high sales growth.

One of the more interesting findings that could be at odds with other studies is a much more sobering view of AI and autonomous vehicles. The study did not expect AI to be safe enough

to permit operation without human monitoring for the foreseeable future. The study also noted that monitoring multiple networked vehicles from remote locations would not likely be practical. Continuing on this theme, the study does not expect on-demand autonomous vehicles to be able to replace current public transportation systems even if safety concerns had been overcome. It found that roadway capacity would be too limited for even efficiently programmed autonomous on-demand services to replace the number of trips taken on public transportation and did not expect this type of service to be widely adopted except in certain enclaves.



The MITei Insights into Personal Mobility emphasizes the potential to reduce carbon emissions through decarbonizing the electric grid, the uptake of BEVs and developing hydrogen production and refueling stations for the uptake of HFCVs. While on-demand mobility services are not seen to be a panacea to urban transit problems, the study does acknowledge possible new developments in public and non-motorized transport.



⁴ <http://energy.mit.edu/wp-content/uploads/2019/11/Insights-into-Future-Mobility-Executive-Summary.pdf>



Innovation in Batteries and Electricity Storage – Technology Report

This joint study by the International Energy Agency and European Patent Office underlines the key role that innovation is playing to commercialize battery storage and clean energy technologies. It reveals a burst of innovation in the global battery technology race. Battery technology and related patents have surged 14% per year from 2005 through 2018, four times faster than the average for all technology fields and this trend is still continuing.

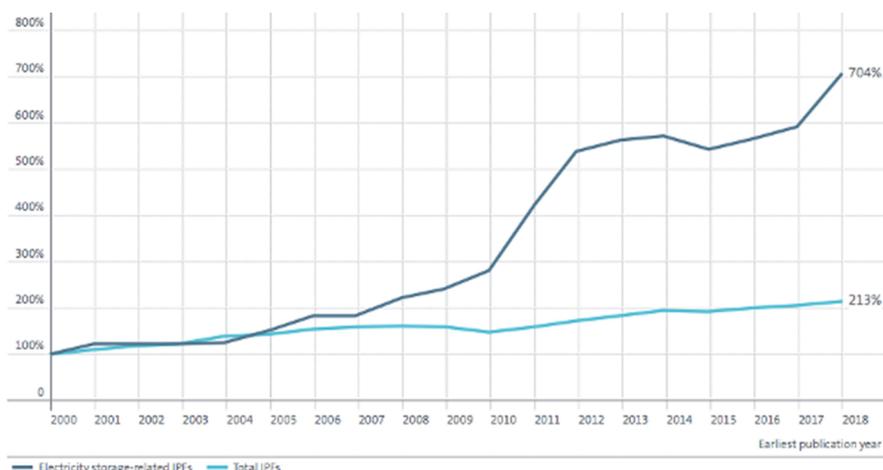
Battery technology innovations are

dominating innovation, at least as measured by patents, as they account for 88% of electricity storage patents. While an ever-expanding array of personal devices are also driving battery innovation, the IEA/European Patent Office report shows that electric-mobility is playing a stronger role.

Lithium-ion batteries dominate the innovation space, as shown below with five times as many patents than for all other chemistries combined in recent years. There is also increased activity

in near commercial applications shown by a growth of manufacturing and engineering innovation.

Japan and the Republic of Korea are leading the global battery technology race, pushing other countries to develop competitive advantages in specific parts of the battery value chain. Asian companies that are dominating R&D include Panasonic, with Toyota, Samsung and LG Electronics. Japan alone was home to the inventors of 41% of all Li-ion patenting activity from 2014-2018.



Graphic 4 – Trends in electricity storage innovation, 2000-2018, Source: European Patent Office



Figure 2: – Number of international patent families related to battery cells, 2000-2018, Source: European Patent Office⁵

IEA Executive Director Fatih Birol: “IEA projections make it clear that energy storage will need to grow exponentially in the coming decades to enable the world to meet international climate and sustainable energy goals... accelerated innovation will be essential for achieving that growth.”

Electric vehicle battery prices have decreased by almost 90% since 2010 and prices for electricity storage or similar batteries have dropped by two-thirds. These cost reductions mostly due to technical innovations, technology learning and achieving economies of scale rather than new chemistries. Nonetheless, R&D is continuing to explore more disruptive innovations, especially from more geographically varied and smaller enterprises.

⁵ Innovation in Batteries and Electricity Storage – Technology Report, pg.6



IEA Publishes Global Gas Security Review 2020, Highlighting LNG's Key Role in Global Gas Security During the Pandemic



LNG continues to play a central role in balancing global gas markets amid the slowdown, ensuring flexibility and security of supply; creating the flexibility to adjust to fluctuations in demand.

The recently published IEA Global Gas Security Review projects a fall in 2020 global gas demand by 3% or 120 billion cubic meters (bcm) – its largest annual drop on record. The IEA report also outlined why LNG was instrumental to accommodate the volatility of natural gas demand in the first half of 2020. During this period, gas exporters and importers needed additional flexibility, provided by LNG, to absorb the demand shock caused by a particularly mild winter season, followed by the Covid-19-induced lockdowns and consequent economic slowdown. In the first eight months of 2020, gas supplies to Europe from its traditional suppliers fell by almost 20% while flows to China from Central Asia fell by 15%. Although pipeline gas exporters bore

the brunt of reduced demand, LNG exporting countries also experienced varying degrees of supply cutbacks but also enjoyed more competitive pricing in many markets due to the fall in worldwide gas prices and the large LNG spot market.

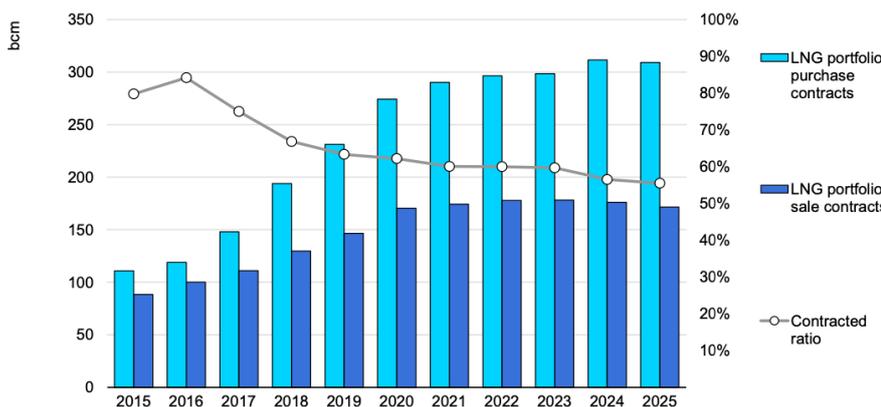
The report also highlighted the decline of LNG contracts from its 2018 high. LNG contracting has collapsed from its high of 95 bcm in 2018 to about 35 bcm in the first nine months of 2020. Compared to 2019, where the total contracting volume was 74 bcm, with no further contracting activity within this year, 35 bcm would mark a year-on-year decrease of over 50%. This is not simply the result of the Covid-19 pandemic but also reflects a well-supplied market, especially due to the growth in LNG liquefaction capacity, and increased competition in the worldwide gas market.

Natural gas demand is forecast to increase by 3%, or about 130 bcm,

in 2021 with varying expectations for different countries. Declines of gas consumption are occurring in mature markets but, long term growth is still expected in many developing economies. Looking forward to 2021, the IEA expects growth markets in Asia, Africa and the Middle East to support a recovery of global gas demand but more mature markets are likely to take longer with some not returning to their 2019 levels until 2022.

“Since the IEA started tracking flexibility in LNG markets in the first edition of the Global Gas Security Review five years ago, we have seen a notable improvement across a range of LNG market flexibility metrics. This is improving security of supply and was critical in enabling the market to adjust to the historic demand shock witnessed in the first half of 2020.” said Dr. Fatih Birol, the IEA’s Executive Director.

“Global gas demand has been progressively recovering since June, driven mainly by emerging markets.” Dr. Birol said. “However, this does not mean a return to business as usual, as the current crisis could have long-lasting repercussions.”





Oil Prices Slumped in October Over Concerns on a Second Wave in Europe and Further OPEC+ Tapering

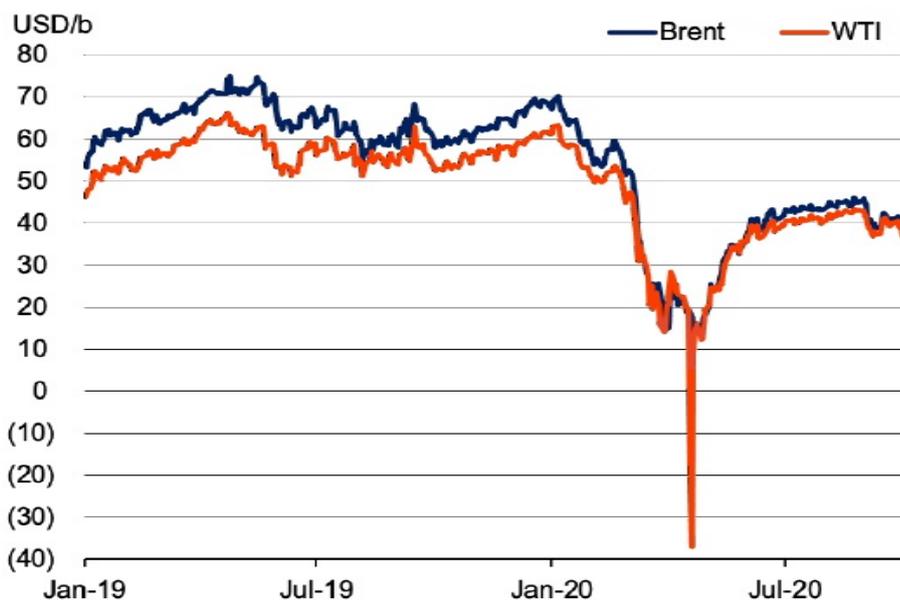
At the beginning of October, benchmark Brent and WTI posted a second straight week of losses due to deep concerns fueled with uncertainty surrounding the U.S. president's health, after U.S. President Donald Trump announced that he and First Lady Melania Trump tested positive for Covid-19, as well as the Hurricane Delta, the 25th named Atlantic storm in 2020, intensified into a Category-3 storm as it crosses the Gulf of Mexico, where produces about 17% of total daily U.S. oil production and 5% of daily natural gas production.

Royal Dutch Shell, Chevron, BP, BHP Group, Equinor, Murphy Oil, and Occidental Petroleum reported that they removed staff and secured 183 offshore facilities in the region and also halted 8.8 million barrels per day (mbpd) of oil and 8.3 billion cubic feet per day (Bcf/d) of natural gas production.

Just three weeks later, producers in the Gulf of Mexico had to evacuate staff and to halt oil and gas production once again due to another storm, Hurricane Zeta. The U.S. Bureau of Safety and Environmental Enforcement said that 1.5 mbpd of oil and 1.6 Bcf/d of gas production turned off.

Supply-Demand Balance and Price Trends

The Covid-19 pandemic is still the major uncertainty affecting the oil market outlook. IEA data shows that, from January to July, global oil demand was 10.5 mbpd lower than the same period in 2019. Projecting forward, IEA expects that 2020 demand will be 8.4 mbpd lower than in 2019.



Graphic 5 – Daily oil prices (Jan 2019 – Sep 2020)⁶

While oil supply has also decreased due OPEC+ agreements, oil stocks are rising again, partly as a result of reduced Chinese September and October deliveries. As the chart shows, oil prices crashed after the Covid-19 pandemic until OPEC+ supply cuts began to bring the world oil market into better balance. But the hoped-for recovery from Covid-19 is still delaying more normal transportation activity from returning, and oil prices are again weakening.

Analysis by the Oxford Institute of Energy Studies estimates that, in addition to demand destruction bringing the price down during the early stages of the pandemic and supply cuts bringing the price up, speculators (non-commercial traders) were further pressuring prices downward from January through April, reversed course in May and June, and again were pressuring prices downward in July and August. If so, this trend may

be continuing as dated Brent futures have again fallen below \$40/b, too low for most oil producers and, even for some OPEC countries with very low production costs, too low to avoid budget deficits.

While projecting oil prices further out depends on a variety of uncertain factors, the Oxford Institute for Energy Studies expects 2021 prices to be roughly in an approximately \$40 to \$55 range for 2021 and not much higher in 2022.⁷ This widespread of price expectations reflects very different assumptions about Covid-19 recovery and other factors.

While prices distributed within this range would bring back horizontal rigs in the United States, the overall strain on the world oil industry would continue, and oil importing countries could expect to enjoy a longer period of low prices keeping their energy costs low. Looking further out, the situation

⁶ The Oxford Institute for Energy Studies, (October 15, 2020) Short-Term Oil Market Outlook

⁷ The Oxford Institute for Energy Studies, (October 15, 2020) Short-Term Oil Market Outlook

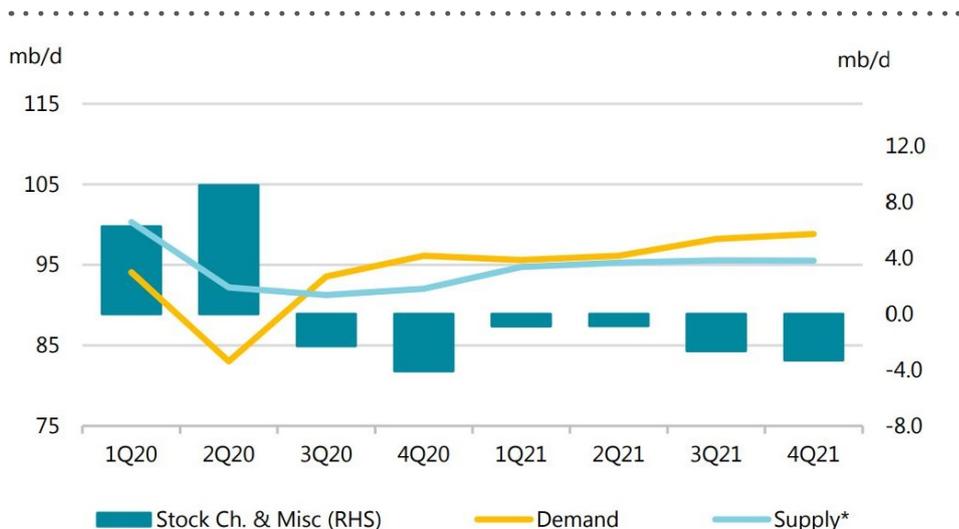


becomes more complicated. With a full economic recovery, a return to normal travel patterns, and the longer term consequences of reduced E&P investments as well as oil field depletions, we could see a tighter oil market return especially when geopolitical risks are not offset by historically high levels of petroleum and petroleum product stocks. Weighing against this are the consequences of climate policies to improve fuel efficiency and discourage purchases of gasoline or diesel-powered vehicles (factors that would lead to “peak-demand”). Under these circumstances, with very modest to zero oil demand growth in the longer term, we may see a continuing era of weak oil prices. Nonetheless, it wasn’t that long ago that we were being told about “the end of cheap oil.”

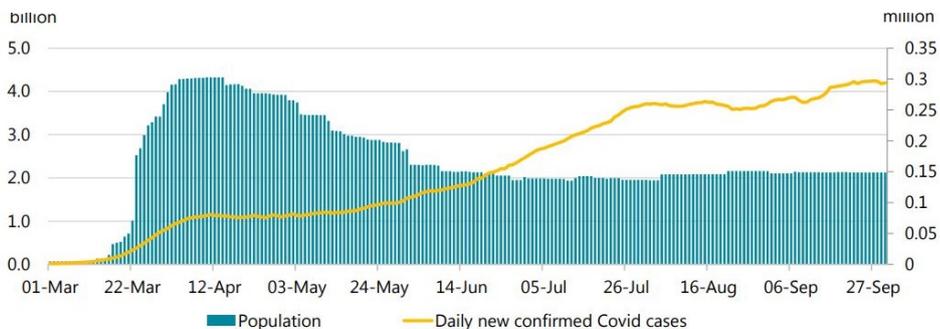
Energy Agencies’ Projections on Oil Market Recovery

The U.S. Energy Information Administration (EIA) continues to project a rapid recovery of world oil consumption, however, at lower levels than previous projections, with a significant downward revision from September to October (1.4 mbpd lower). This is indicative of the, as discussed above, the continuing new cases of Covid-19 and the delayed opening up of the world economy, especially those businesses and industries that generate travel.

“The October Short-Term Energy Outlook remains subject to heightened levels of uncertainty because mitigation and reopening efforts related to COVID-19 continue to evolve. Reduced economic activity related to the COVID-19 pandemic has caused changes in energy demand and



Graphic 6 – Global oil supply-demand balance⁹



Graphic 7 – World population under daily or nightly curfew¹⁰

supply patterns in 2020 and will continue to affect these patterns in the future,” the report said. EIA is also projecting limited price recovery for the rest of the year: “EIA forecasts monthly Brent spot prices will average \$42/b during the fourth quarter of 2020 and will rise to an average of \$47/b in 2021.”⁸

On the other hand, the International Energy Agency (IEA) also released its monthly report on October 14, saying that global oil stocks which rose during the height of the pandemic are being steadily reduced, but a second wave is slowing demand and will complicate efforts by producers to balance the market. “There is only limited headroom for the market to absorb

extra supply in the next few months. Those wishing to bring about a tighter oil market are looking at a moving target,” the IEA said.

The IEA also said “The efforts of the producers have shown some success”, noting relatively stable oil prices and a strong draw on storage, with implied global stocks falling by 2.3 million bpd in the third quarter and by a predicted 4.1 mbpd in the fourth. However, the agency added that a demand rebound over the summer was now slowing due to a second wave of coronavirus cases and new movement restrictions. “This surely raises doubts about the robustness of the anticipated economic recovery and thus the prospects for oil demand growth.” the IEA added.

⁸ Energy Information Administration (EIA), (October 6, 2020), Short-Term Energy Outlook

⁹ International Energy Agency (IEA), (October 14, 2020) Oil Market Report – September 2020

¹⁰ International Energy Agency (IEA), (October 14, 2020) Oil Market Report – September 2020



In line with the IEA's concerns, with Covid-19 cases surging across Europe, France announced that it will require people to stay at home for all but essential activities by October 30, while Germany decided to shut bars, restaurants and theatres by November 2 until the end of the month.

Oil prices tumbled on October 30, touching a five-month low, as rising Covid-19 cases in Europe and the United States heightened concerns over the outlook for fuel consumption. Brent crude dropped to \$37.46 a barrel, while WTI crude fell to \$35.79 a barrel, after dipping to its lowest since June at \$34.92. WTI fell 11% for the month, while Brent dropped 10%.

Revisions in Forecasts and Members' Positions of OPEC+

The Organization of the Petroleum Exporting Countries (OPEC) revised its oil demand forecast for 2021. Demand will rise by 6.54 mbpd next year to 96.84 mbpd, 80,000 bpd less than it expected a month ago, according to the organization's monthly report published on October 13. "While the 3Q20 recovery in some economies was impressive, the near-term trend remains fragile, amid a variety of ongoing uncertainties, especially the near-term trajectory of Covid-19," the report said.

OPEC has steadily lowered its 2021 oil demand growth forecast from an initial 7 mbpd expected in July. The group also cut its estimate of world oil demand in the current quarter by 220,000 bpd. It left its estimate of the scale of this year's historic contraction in oil use steady at 9.47 mbpd.

To tackle the radical drop in global oil demand, OPEC and its allies including Russia, a group known



Graphic 8 – U.S. oil rigs and WTI prices (Jan 2016 – Sep 2020) ¹¹

as OPEC+, agreed to a record supply cut of 9.7 mbpd starting on May 1. The cut was tapered to 7.7 mbpd in August and OPEC+ plans further tapering next year by boosting supply by 2 mbpd from January.

The OPEC+ alliance will ensure oil prices do not plunge steeply again when it meets to set policy at the end of November, OPEC's Secretary General Mohammad Barkindo said at the Energy Intelligence Forum on October 15. "We have to be realistic that this recovery is not picking up pace at the rate that we expected earlier in the year. Demand itself is still looking anemic," he said. On the following week, leading OPEC+ figures pledged action to support the oil market as concerns mounted that a second wave of the pandemic will hobble demand and an earlier plan to raise output from next year would further depress prices.

Russian President Vladimir Putin and Saudi Arabia's Crown Prince Mohammed bin Salman held two phone calls. Kremlin spokesman Dmitry Peskov said regular contact was necessary as the markets were volatile. "Nobody in the market should be in any doubt as to our commitment and our intent." Prince Abdulaziz told the opening of an OPEC+ ministerial

monitoring committee (JMMC). "Demand recovery is uneven. Today this process has slowed down because of a second coronavirus wave, but has not yet fully reversed." Russian Energy Minister Alexander Novak also told JMMC. Novak previously insisted on easing the cuts.

While OPEC+ had planned to raise output by 2 mbpd in January, top producers Saudi Arabia and Russia are in favor of maintaining the group's current output reduction of about 7.7 mbpd into next year in the face of lockdowns in Europe and rising Libyan oil output. OPEC+ is scheduled to hold a policy meeting over November 30 and December 1.

U.S. Tight Oil

As of 9 October, rig counts went up slightly to 166. Oil companies are now focusing on drilled but uncompleted oil wells (DUCs) to maintain U.S. tight oil production as prices are still too low to bring back rigs. WTI needs to exceed \$40/b to incentivize new drilling. However, as before, movement of WTI north of \$40 may be another "bear price trap" (or an "oil price trap") that simply lures investors into unprofitable investments or commodity trades.

¹¹ International Energy Agency (IEA), (October 14, 2020) Oil Market Report – September 2020



SOCAR Turkey Supports the Supply Security of Raw Materials in Turkey's Domestic Production During the Pandemic



The Covid-19 pandemic affected many sectors adversely, while SOCAR Turkey, having significant investments in the sectors strategic for Turkey, was able to continue its production and services without interruption. The group took actions to protect the health of its employees and business partners, while making an important contribution to the security of supply in cooperation with all of its subsidiaries during this challenging period, in order to create a solution for the raw material needs of Turkey and the demands of consumers.

Production Continues 7/24

Pointing out that many sectors have been experiencing raw material shortage due to the worldwide slowdown in trade by the impact of pandemic, Zaur Gahramanov, CEO of SOCAR Turkey, said: "STAR Refinery has increased the capacity utilization rate above 98 percent with its advanced technology and integration with Petkim, in an environment where the capacity utilization rates of refineries decreased in the Eastern Mediterranean. During this period, Petkim focused on the raw material production required by Turkey for production of medical equipment and packaging, with the support of STAR Refinery. It met all the demands for nonwoven polypropylene used in the production of highly-needed masks and medical overalls. Petkim

increased its net sales up to 5 billion TL within the first six months of the year, despite the pandemic. Our production facilities in Aliaga, Izmir continued production 7/24, while SOCAR Terminal, the largest container port in the Aegean region, worked diligently in order to ensure non-interruption of international trade in Turkey. SOCAR Turkey demonstrated once again that it is a reliable supplier for Turkey along with its subsidiaries during this extraordinary period."

Quick Response to Consumption Increase

Pointing out that TANAP is of huge importance in terms of Turkey's security of supply in natural gas, Gahramanov also stated that the companies of SOCAR Turkey, which serve individual consumers, showed an outstanding performance during this period of time: "We distribute natural gas to more than 1.5 million subscribers through Bursagaz and Kayserigaz. There was a significant increase in the natural gas consumption of residential customers due to the impact of measures taken across Turkey since March as part of the response to the pandemic. These two companies, serving in Bursa and Kayseri, continued to offer the best service to their customers, while implementing the measures one after another in order to secure the health of their employees and subscribers. Millenicom, our subsidiary which

pioneered the alternative telecom sector in Turkey, responded to the high increase in Internet usage without interruption."

Our Investments will Reach \$ 19.5 Billion

Stating that SOCAR Turkey's investments are in the areas strategic for Turkey, Gahramanov said: "The total amount of investments that our Group has made so far has exceeded 16.5 billion dollars. When our ongoing investments are completed, this figure will reach 19.5 billion dollars." Gahramanov added: "We feel the centuries-old brotherhood of Turkey and Azerbaijan in each project that we carry out here. Upon the appearance of the pandemic in Turkey, we prioritized taking actions to protect the health of all of our employees and business partners. SOCAR Turkey put its emergency action plans and crisis management processes into effect during this period. We relocated most of our office employees to working from home and continued our production without interruptions with the changes we made in the number of shifts. SOCAR Turkey adopted a longer-term pricing strategy for the companies we work with during this challenging period. Uninterrupted continuation of our operations in the field, offices and homes during the pandemic, through our strong digital infrastructure, enabled us to make a significant contribution in the sector."



Petrol Ofisi Received Two Awards at The Owl Awards with One Research

Petrol Ofisi, the leader of the Turkish fuel and lubricants industry, continues to receive awards for its successful activities. Petrol Ofisi's latest awards were granted at the 8th Owl Awards organized by the Turkish Researchers' Association – TÜAD to emphasize the added value, impact and importance of research in business processes and decisions. At the Owl Awards, where 49 projects were awarded in 16 different categories this year, Petrol Ofisi achieved two awards with the 'Observing the Stations through the Eyes of a Visitor' survey carried out by IPSOS with actual customers at the stations.



Selim Şiper

“ Petrol Ofisi's 'Observing the Stations through the Eyes of a Visitor' research conducted together with IPSOS was awarded in both 'Innovative Owl' and 'Master Owl' categories at The Owl Awards organized by the Turkish Researchers' Association – TÜAD. ”





Awards in the 'Innovative Owl' and 'Master Owl' Categories

Petrol Ofisi's 'Observing the Stations through the Eyes of a Visitor' survey was granted the silver award in the 'Innovative Owl' category where innovative projects with an innovative research approach that would contribute to the growth and expansion of the industry are assessed in the field of qualitative and quantitative research. Petrol Ofisi's project was also granted the silver award in the 'Master Owl' category which covers those research projects that measure, select, optimize and develop products, distribution channels and communication tools such as the price, packaging, product and advertisement, promotion, POP, etc.

"One of Our Innovative And Authentic Surveys With Actual Consumers"

Stating that Petrol Ofisi's fundamental strategy is customer-focused, Petrol Ofisi CEO Selim Şiper said: "Our first priority is our customers and

their satisfaction in every field in which we operate, in every step we take. With this approach, we conduct analysis and analytics-based studies in the field of marketing as in all other areas. We support this system through a large number of different studies that we carry out. To ensure their satisfaction, we constantly talk in different ways to our customers whom we serve and get their feedback. One of our innovative and original research activities that aims at touching our customers directly is our 'Observing the Stations through the Eyes of a Visitor' survey. It is very valuable for us that our unique survey conducted with actual consumers has been granted two respected awards at the same time at The Owl Awards organized by one of the most important NGOs in this field."

'Observing the Stations Through the Eyes of a Visitor'

Petrol Ofisi carried out the survey 'Observing the Stations through the Eyes of a Visitor' in order to understand how the communication tools used at its stations are perceived



by customers and to measure the performance of the visuals used. The study conducted by IPSOS used different methodologies such as eye-tracking measurement analyzed by tracking eye movements, traffic flow analysis at the station, in-depth interviews with customers and exit polls at the stations. The study aimed at understanding the customer's station experience by finding out which content and communication materials would strike customer attention, and provided the opportunity to identify the appropriate means and ways of communication.

Publisher

**IICEC SABANCI UNIVERSITY ISTANBUL INTERNATIONAL
CENTER FOR ENERGY AND CLIMATE**

For any questions and additional information, please contact:

Prof. Dr. Carmine Difiglio

E-mail: carminedifiglio@sabanciuniv.edu

Dr. Mehmet Doğan Üçok

E-mail: mdoganucok@sabanciuniv.edu

CONTACT

Address:

**IICEC, Sabanci University Minerva Palace,
Bankalar Cad. No: 2, Karaköy, 34420, Istanbul Turkey**

Phone: +90 (212) 292 49 39 / 1114

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