

# SYNERGY

Bilkent Energy Policy Research Center Newsletter



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## Trump vs. Biden on Energy Policies

Last week, we had the first of three debates between the US Presidential candidates for 2020. The US President Donald Trump and the Former US Vice President and the Democrat Party Candidate Joseph Biden confronted each other for the first time in a live debate. It was one of the most exciting debates of history in terms of American standards. Joseph Biden was repeatedly interrupted by Donald Trump, which was called "Clown" by his opponent. However, in this short article, rather than discussing that, I will try to focus on how these two candidates plan to work on energy topics if they get elected.

In the oil and natural gas sectors, the United States became a significant player with shale developments in the last decade. What happens next will be entirely dependent on the election outcome.

The candidates' approaches to these two sectors are completely different. Donald Trump favors the oil and gas companies and focuses on building an export network for these two commodities. To achieve that, the current President put serious effort into keeping the market prices stable, especially during the Oil Price War crisis between Saudi Arabia and Russia.

While Donald Trump is building strong alliances with Saudi Arabia and the United Arab Emirates to ensure price stability, he also tries to control the supply side by imposing sanctions on Iran and Venezuela, other major oil and gas producers. The sanctions also limit other major powers China, India, and indirectly Russia's accessibility to these energy sources. The limitations cause these countries



to look for alternatives.

If the election results favor Donald Trump, I expect the continuation of the current policies. The sanctions on Iran and Venezuela will become harsh until the regimes collapse in both countries. However, if we see a Biden administration as the polls favored, the policies will be different.

One of the Democratic candidates' main promises is to connect tackling economic recovery and climate change issues altogether by spending \$2 trillion in four years. With this investment, Biden aims to accelerate clean energy in the transportation, electricity, and building sectors, create economic opportunities and strengthen infrastructure while also tackling climate change. With this mindset, Joseph Biden does not share Donald Trump's sympathetic oil and gas industry approach. Therefore, the relationship between Saudi Arabia and Iran might be different in Biden's presidency. Biden might want to renew the Joint Comprehensive Plan of Action (JCPOA) with Iran signed while he

was the Obama Administration, vice president. Agreement with Iran can mean the return of Iran's oil and natural gas exports to the energy markets.

In an interview last month, Joseph Biden claimed that Donald Trump's strict sanction policy towards Iran created an increase in Iran's resilience and became ineffective. Biden stated that under his administration, he would follow a sensible way if Iran chooses diplomacy option with the full commitment of preventing Iranians nuclear weapons. Finally, Biden pointed out that the sanctions should not hinder the Iranians' fight against the coronavirus.

Domestically, despite Trump's argument that Biden will ban all of the fracking activities in the oil and gas sector, the Democratic candidate ensured that he would not follow such a policy. However, to reach the climate policy target, Biden needs to be careful and pragmatic in his approach to the oil and gas industries. Current drilling permits help the federal government to collect nearly \$15



billion, and part of these revenues are financing education and other social services in the Democratic states like New Mexico. The revenues from the Permian Basin generated \$2.2 billion for the education system.

Under these circumstances banning drilling activities in these regions may cause fiscal spending to decline on social services. However, Biden can control the growth of the oil and gas sector by limiting access to water.

In June 2020, the Trump administration passed a law to pull back the federal protection for millions of streams and acres of wetlands. Since the shale operations require enormous amounts of water, reverting this law and imposing taxes on water usage may reduce the shale investments.

Up to now, Biden did not clearly explain the mechanisms on greening the energy in detail, yet he clearly stated that the United States would return to Paris Climate Agreement. Such a policy will help to restore relations with European countries as well.

When we compare the candidates' approach towards China, Russia, and European countries, we see differences. In the Trump

administration, the diplomatic relations with these countries occur with personal agreements between the leaders. Joseph Biden, on the other hand, proposes a more institutionalized approach to dealing with the issues.

For China, if Biden gets elected, we can expect the abolition of short term oil and agricultural trade deals and have more long term agreements that focus on protecting the US intellectual property.

When we look at Russia, we can expect that the relationship between the candidates will depend on China's economic development. If the Chinese threat to the American economy continues to grow, relations with Russia may improve to isolate China. However, in each outcome, such a policy will not be an easy one.

In the Trump administration, the desire to sell LNG to European countries will continue to put pressure on Russian energy exports. On the other hand, if Biden gets elected, the US government will become more skeptical of Russia due to accusations of their involvement in the 2016 elections. So, they may need to resolve these issues first.

Finally, on the European side, Germany would clearly benefit the Biden administration as polls in the country suggests that Germans fear Trump more than coronavirus. As we discussed, due to Trump's ambitious LNG export project to Europe, Germans had difficulties completing the NordStream 2 pipeline project with Russia. Biden can help with resolving this issue, and investments in renewable energy in the United States may create business opportunities for the German energy firms as well.

Overall, the result of the election will provide two completely different policy sets to the world, and it is very likely that it will have a huge impact on world politics and the economy. Up to now, the polls are favoring Joseph Biden 50,7% to 42,8%, yet this in 2016, they were also favoring Hillary Clinton %50 to 44%. So, there is still room for Trump to win the election.

In the stock exchange, the values of renewable energy companies are increasing every day as an indicator of expecting Biden to win. On the other hand, future oil prices are remaining around \$40-\$45 for the next 12 months, where we can comment that things are still uncertain.



# Energy Poverty As the Covid-19 Winter Approaches

Last winter, we were barely aware of Covid-19 and what it may cause. For the last nine months, we gradually changed our lives and work routines to contain contagion. We hope that this will be temporary, and our lives will turn back to normal in a couple of months as vaccine studies will come to rescue us. Hope is a good thing, but there is a rough road ahead.

One of the most problematic subjects is energy poverty. For some, it is defined by the disproportionate share of energy expenditures in a household's income. Given a threshold for this share, households can be classified by their energy expenditures. Energy poverty is a reality, so does the covid19 and the unemployment and limits of monetary expansion.

Last month, the UK's Energy Helpline publicized the results of their study on utility bills for this winter. Since most of the homeworkers and their kids, practically all family, will spend their weekdays at home, the natural gas and electricity bills will increase. This is the case for poor workers, too. Some may have to be physically present at their workplaces, but their kids and extended family is probably spent most of their time at home. According to Energy Helpline, this will cost 2 billion pounds to British consumers. This will add an extra of 21.44 pounds (1 day a week home working) to 107.18 pounds (5 days a week) for the utility bills.

The same initiative has another study claiming "45% of homeowners from the poorest background are aware of" greenhouse grants. The same can be said for other countries. The poorest part of the society is less informed about efficiency, energy consumption, and government grants than the rest. But most of the time, they pay a higher proportion of their salaries to utility companies.

In the past, Turkey experimented with an "energy-efficient light bulb." handovers to school kids.



Some of the bulbs were crashed for fear of listening devices, and it is not a joke ("Dinleme cihazı var diye ampülleri kırdılar", Milliyet, 6 January 2009). There are also rumors like the "other light" (LED, CFL) is harming eyesight and even make you cancer. There is a certain truth about the harmful effect of the blue part of the light. But when you go to a store, if white lights are three shelves, yellow is one shelf. In a simple example like light bulbs, people resist changing their light bulbs, and even if they change, they predominantly opt for the wrong choice.

Generally, the winter period is where the hefty part of heating bills are paid. With little daytime and sunlight, we rely more on artificial light. Most of the people are unaware of the effect of the appliance on their bills. When raging against utility bills, some claim, "they just switch on/off the light and watch TV." Having all these effects merged into a Covid19 Winter will be detrimental for consumers. Especially poor segments of the energy consumers are in dire need of regulatory mechanisms.

So what has to be done? The first step is to accepting and carrying

out an impact assessment. How much does the house occupancy change energy consumption? For each homeworking day, it may add up to 7 hours of boiler energy consumption and electricity consumption attached to it. Then there comes the TV, computers, and lightning. Also, we should not forget about home lunching and hot drinks. This may increase the bills more than any other winter we have seen before.

The second step is to find the poverty line. By contributing 1 kWh electricity or 1 m3 of gas on these people's budgets should make a health, wealth impact, and increase educational achievement. This is not a solid-red line, but it has to be drawn. The third step, I believe, is the regulatory mechanisms for installing the bills up until a year.

The fourth step is information campaigns. The fifth step is community solidarity.

There is no easy way to mitigate energy poverty. As covid19 will hit the energy-poor worse this winter, we need a better policy framework for the poor and informational awareness for the rest.



## An Eco Friendly Mining Trend: Green Mining

Energy means life. Without energy, modern human society as we know it wouldn't be developed. The desire to access energy made human beings do lots of research. We can see that wood was an essential energy resource when we look throughout history because human beings used it to burned it up and did so much work with it daily. But after a while, technology took its turn, and human beings wanted more, so they found coal. It was effortless to reach, common, and a lot better energy source than burning woods. So human beings learned how to use underground sources for energy consumptions. Therefore they learned mining activities; it was working progress. The result was fulfilling, but extracting ore had a lot of negative aspects of human beings and the environment.

It is directly connected with the people who lives somewhere with an ore reserve, which is economically feasible and valuable to extract. There is a common belief that, when a mining company wants to build a plant on an area to process the ore underneath, they're going to make an end of nature and everything that belongs in it. This is incorrect. Unfortunately, the damage is inevitable, but we live in a growing world where the need for energy is on an increasing trend. Since mining activities can't be stopped for the sake of being one of the most important sources of production of energy, mining Technologies improved in an environmentally sensitive way.

Green mining is choosing new and environmentally friendly pieces of equipment in extracting and processing ore stages, new methods on mine closures, and

Technology	Old Method	Green Mining Method
Power Use and Emissions	Large amounts of grid power were necessary. Equipment used high-emission fuels like diesel and propane.	The mining site will have its own heat and power plant running on natural gas. Equipment will also run on natural gas.
Water Use/Wastewater production	Huge amounts of freshwater had to be pumped to the site for use. This water would then be used and up to 850 gallons of waste water would be produced per minute which then had to be pumped miles away to evaporation ponds.	Almost the entire initial freshwater brought in to start the process can be recycled. More than 120 acres of evaporation ponds will be eliminated and freshwater consumption will be reduced by about 90%.
Tailings	Mine tailings needed to be stored behind a tailings dam along with the wastewater.	Water will be removed and recycled from the tailings to create a paste. The paste will be layered and impact on the environment will be minimized.
Air Emissions	Harmful chemicals had been emitted into the atmosphere from previous methods.	The harmful chemicals are still produced, but now there are flue gas treatment plants to minimize CO2 and other chemical emissions.

Figure 1: Molycrop’s Usage of Green Mining Methods

reduction of chemical use to reduce environmental impacts. And green mining requires consistent research stages and developing new techniques to improve the project. Green mining is not as prevalent as it should be right now. But it is promising to see that the mining industry is dedicated to implementing mining activities by green mining measures. For example, decreasing energy usage in the plants and making more efficient electricity usage plans still make this process efficient. To understand the actual effect of green mining, let’s look at a case study of an American mining company Molycorp.

It can be seen that even though the damage that is being done by the mining activities is not entirely removed, using green mining methods is a good start for the mining industry’s future to take shape.

While these alternative methods

to replace the old methods sound good, it requires large amounts of fundings, and not all the mining companies in the world can increase their fundings simultaneously in short notice. That being said, according to implement green mining measures, unregulated mines should be shot down.

The new ones must also be open following these measures, which is unlikely when the bad conditions are considered. Like countries with financial pressure, lack of operable ore deposits, or underdeveloped countries with small funding companies. In the future, with more mining companies support, green mining methods are going to be more popular, and this is going to help the whole industry to change. And projects like Molycrop’s are a starting point for creating the future and protecting the environment as much as we can during mining activities.

Hande Mert

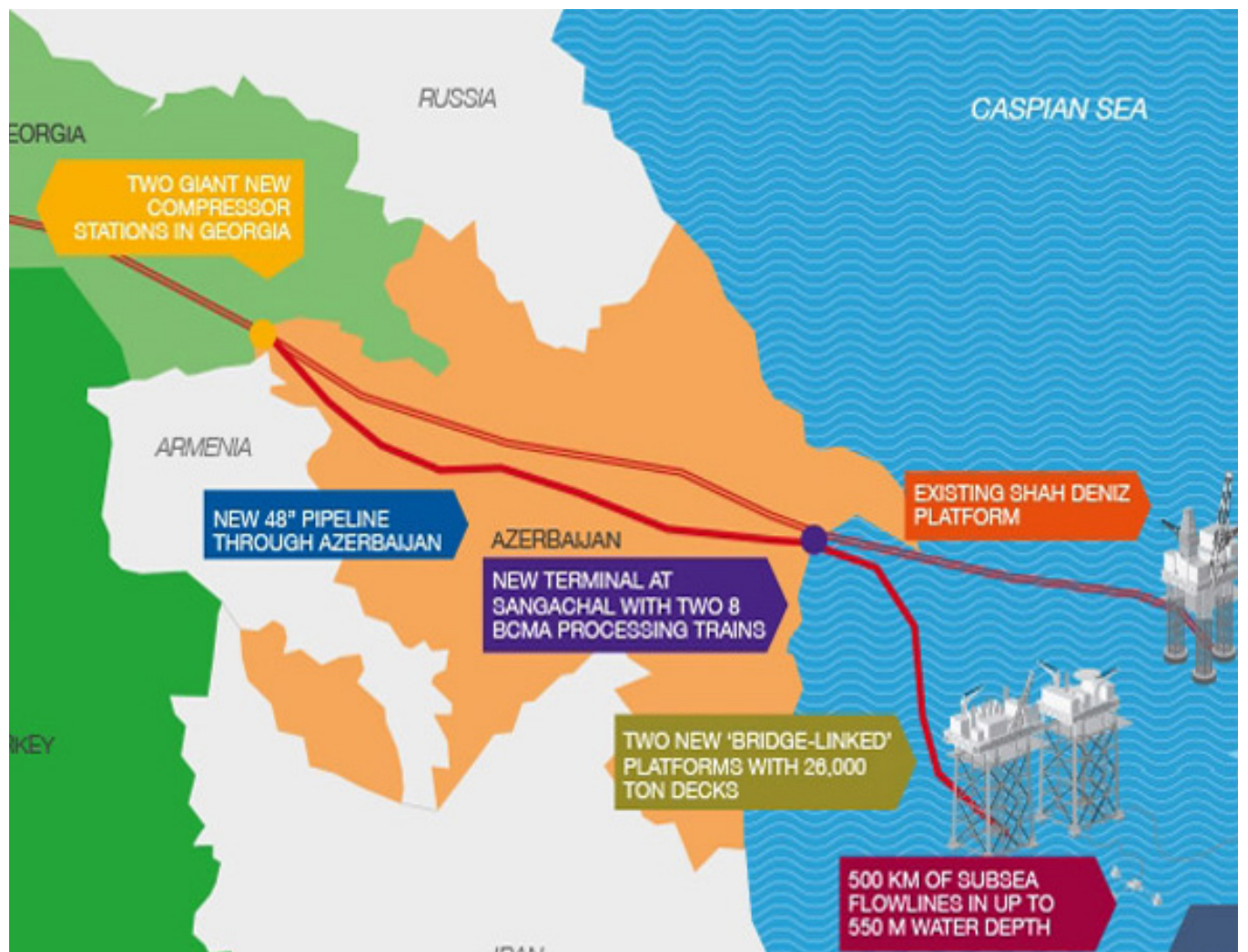
BRENT OIL	42.13 \$/BL	GASOLINE	6.89 ₺/LT
USD/TRY	7.76	DIESEL	6.16 ₺/LT
EUR/TRY	9.15	FUEL OIL	3.82 ₺



## Escalating Tension In Caucasia With A Historical Context

The Caucasus is a post-Soviet region known for ethnic diversity, energy resources, and interstate conflicts. These interesting dynamics and critical geopolitics of the region motivate other countries (regional powers, so to speak) to expand their sphere of influence. Russia, Turkey, and Iran are the most important actors in world politics, which are highly interested in Caucasian countries' agenda because of economic relations/interdependence, energy security, the balance of power, and cultural/historical ties. Azerbaijan and Armenia are two countries that have experienced war during the 90s, and they have no diplomatic relations. The territory of Nagorno-Karabakh is still a contested issue between the two countries. In recent days, international society follows the military conflict between them bothersomely. In this text, the outlook on countries' situation in the energy field will be provided, and the potential effects of war on energy markets concerning our experiences will be discussed.

Before analyzing the ongoing event and its relation with the energy sector, understanding both countries' current situation matters. Firstly, Armenia is the side that remains in the background in terms of presence in the energy field. Although they have significant resources for producing domestic electricity, the absence of reserves (neither oil nor gas) is a problem that weakens Armenia's hand in international relations as a country which is a low populated, small economy and trying to recover the impact of centrally-directed Soviet economic system. Regarding these conditions and import data, it can be said that Armenia is a Russia-dependent country in terms of energy. Russia-Georgia-Armenia and Iran-Armenia pipelines connect these countries and play an essential role in energy trade relations in the region. When we continue with Azerbaijan, it will seem that they are the side, which leads to some concerns in the energy field because of their position. The



country is a significant producer of natural gas and crude oil. They are one of the few energy self-sufficient countries in the world.

According to International Energy Agency data, Azerbaijan's oil production is 34 643.0 kt, and natural gas production is 958 013.0 TJ-gross by 2019. Azerbaijan hosts some pipeline, which is strategically important not only for its neighbors and region but beyond. Baku–Novorossiysk, Baku–Tbilisi–Ceyhan, Trans-Anatolian gas pipeline are some of them. Since Azerbaijan is a starting point for energy export, these pipelines concern countries, including Turkey, Georgia, Russia, and some European countries.

Nagorno-Karabakh is a long-standing and sensitive issue that blocks the diplomatic relations between the two countries. 2020 has been a year that witnessed an escalation in this conflict. In July 2020, we saw close combat, and there was a loss of lives. Finally, on the 27th of September, the war started. Although the overseas supplies are not so proximate to conflict zone Nagorno-Karabakh, and war has not affected the energy markets yet, analysts have concerns about the potential danger and preservation of

energy security. Both Yerevan and Baku warned about security risks to the region as well. Although discussions are centered around Azerbaijan oil and gas reserves, Armenia's Metsamor nuclear power station, which is already under the threat of an earthquake, is also an aspect of our topic and should be considered.

As explained above, the Azerbaijan-Armenia conflict is not a catastrophic event for the energy field yet. However, the 20th century provides us some examples that show the limits of destruction in the energy field and the Middle East, known for rich natural resources reserves and military conflicts. My first example is the Iran-Iraq War. The difference between this and the Azerbaijan-Armenia War is the Iran-Iraq War was between two countries, which have rich oil reserves and Iraq's motivation for annex Iran's Khuzestan Province, which is oil-rich. As a result of this situation, both sides' natural resource reserves became the target of each other. Unsurprisingly, Iraq's attacks on oil facilities impacted Iran's economy, and oil demander countries suffered from high oil prices. This was a war which is ended by stalemate, and both sides declared their victory.



When we interpret this result, it can be said that the Iran Revolution, which caused the inefficient use of oil and prevented the fulfillment of the country's potential due to unsuccessful governance, consolidated itself within the state. On the other hand, Saddam Hussein also sustained its regime, and Iran-Iraq War's costs have been tried to compensate for the Invasion of Kuwait. The invasion of Kuwait was a military move which is ended by Kuwaiti oil fires. Because of this, over 700 oil well has been fired, and resources have been wasted. When we continue chronologically, the Invasion of Kuwait formed the Gulf War basis and the Invasion of Iraq and brought instability to the oil rich region. Building trust for energy markets became harder. Although the Azerbaijan-Armenia conflict is not energy-based, like examples from the Middle East, they are useful for comprehending the extent to which a war that reaches energy resources could have a heavy price.

In conclusion, war is a phenomenon that is incredibly harmful to countries' economies and the well-being of their societies, as it can be observed from developments in the energy field. Authoritarian regimes that seek solutions about domestic political problems in aggressive foreign policy and ultranationalist, expansionist and revisionist approaches in foreign policymaking may lead to catastrophic results for people in the region and across the world. At this point, international law/organizations, diplomacy, and third actors should step in and should struggle for mediation and peace in favor of common interests.

Batuhan Özkan

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