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SYNERGY

Bilkent Energy Policy Research Center Newsletter

Energy Policy Research Center

Background of the Rosneft Sanctions in Venezuela

On February 18, 2020, The United States imposed sanctions on Rosneft Trading SA to cease the support of the Venezuelan president Nicolas Maduro. The sanctioned company was a subsidiary of Russia's state-controlled oil company Rosneft, and it had a key role in trading Venezuelan oil. In this short article, I will briefly mention the background of Rosneft's role in the country and the dynamics that lead to sanctions.

The developments in Asia also changed the flow of oil and natural gas. At the beginning of the century, the premier trade destination for the oil and natural gas suppliers was Europe and North America. However, as the economic development realized in India and China, the demand for these goods increased accordingly. In 2014, Europe was buying 80% of its natural gas and 65% of its oil from the Russian Federation. Nevertheless, the European countries questioned the reliability of the supply security of Russians after the Ukrainian crisis. They began to discuss implementing sanctions to the Russian Federation. This move caused Russians to look for other markets, especially in Asia. China and India made agreements with the Russian Federation on energy cooperation.

The agreement between the Russian Federation and India have different segments. The cooperation between the two countries occurs in nuclear energy, oil, natural gas, and the refining sector. As an energy buying country, India imports 81% of its petroleum and 44.5% of its natural gas. In this area, the Indian government has two crucial goals. First of them is to decrease the spending in the energy sector, and the second is to ensure the supply security of the energy flow, which is the essential pillar of the Indian economic growth. In the Literature Review section, I am discussing this cooperation in a more detailed way.

China, on the other hand, is another country that requires modern refinery systems to feed its economy. They also invested in building complex refineries and made agreements with Venezuela and Iran to supply the necessary oil for the operation. More than $50 billion loaned to Venezuela. All this investment was necessary because of the classification of the oil that Venezuela had. Chinese refineries needed to process the highest quality of petroleum products that had the lowest levels of sulfur and carbon emission. Similarly, Rosneft, the Russian oil company that invested in Indian refineries, made investments in these regions.

In the 20th century, the United States was the largest buyer of Venezuelan oil, and it did not enjoy the sudden interest of the Chinese and Russians to the commodity. When the oil prices declined from $145 to $45 in 2008, the Chinese government managed to export 3-times more oil than expected due to its agreement with Venezuela and, as a rival country, gained a significant advantage against the United States. The Venezuelans could not export oil to the United States since all their supply was going to China to pay its debts. The economic conditions get worsened in the country, and Venezuela faced one of the most devastating economic crises in history. By showing the anti-democratic actions of the Venezuelan leader Maduro, the United States imposed sanctions on the country and limited the necessary commodities to extract oil in the region.

In January, Rosneft was accounted for about 440,000 barrels a day of exports, according to Bloomberg data. Last year Rosneft's 57% of trade was between India, and 41% was between China. So, it was helping the Venezuelan oil to flow these countries. Furthermore, the Venezuelan government was still owed around $800 million to Rosneft of the $6.5 billion loans. According to the Rosneft, the sanctions were arbitrary and selective since it was not imposed on the U.S. oil companies.

Last year, the U.S. government granted permission to Chevron, which is the major American oil company operating in Venezuela, to continue doing business. During the year, they also extended the grant two times that became the main reason for tension between other oil companies and the U.S government accused of being unfair in its actions in the region.

Gökberk Bilgin

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Technical Factors and The New Wave of Subsidization

In the complex and artificially constructed markets, such as electricity, the mishandling of regulation could yield dire consequences for the general beneficiaries.

In the case of electricity markets, it's the general taxpaying public. For all matters concerning the changes in the general structure, the satisfaction of the citizens should always be held in regard as taxpayers will likely have to subsidize the social motives behind the new policies, such as the example of subsidizing investments in renewables. Using the financial markets as a medium for establishing the emissions trading system to limit the release of CO2 emissions by producers is a relatively recent mechanism where the EU has given the markets the responsibility for regulating the pricing of the emissions quotas. Given the low-liquidity in even the best-performing emissions markets, the method is bound to fail as the lack of transactions and motivation by the quota issuer countries will slowly drive out the participants to elsewhere.

The fossil fuels that give purpose for the emissions trading system have a different story evolving in the background. Given the volatile international political economy of oil, the remarks made by some oil-producing nations require some questioning to be done to reveal their underlying motives. Overstating the possible oil production numbers, whether on purpose or not, should most of the time be approached with caution as the two basic factors in an oil field are most of the time inversely related; the production rates and the length of a fields life.

Production can be ramped up in the short term, potentially damaging the well structures, but will play out as shortening the life and health of a field leading to declining efficiency in the medium to long term. As the pressure in a production well decreases, driving the well production lower, new measures such as pumping liquids/gases into the well to increase pressure or drilling new wells within the field is required to sustain the production rates and the life expectancy of a field.

A bigger problem with the current energy mix on top of the environmental costs is the replacement of lost reserve numbers. They have, for the past decade, never been in the positive, and the world is constantly eating away from its available reserves without adding in any excess capacity. The fact that between 75-80% of world daily output being generated from fields discovered more than 25 years ago highlights a time-lapsed trend on oil production.

The oil major's failure in finding new elephant fields and setting future company-wide strategies based on profitability rather than increasing reserve capacity is a sign of an industry-wide shift in future projections. Following a similar pattern to the development of oil, the new shift to a renewable and natural gas dominated energy mix will entail a lot of the processes to be repeated in establishing functioning markets. In this manner, the regulation of and subsidizing of renewable-based electricity production will need to be done in a manner not harmful to the taxpayers while ensuring uninterrupted energy supplies through the improvements in the natural gas infrastructure and marketplace. The financial instruments that create liquid markets with multiple active participants is a must for the functioning of the physical markets.

Alpcan Efe Gencer

Tensions in Eastern Mediterranean

France augments its military presence in Eastern Mediterranean as a show of support to Athens amid Turkish efforts in the region. French Minister of Defence Florence Parly gave an interview to the Greek press on Sunday, signaling increased defense cooperation between France and Greece.

"France intends to stand by Greece and help it to confront multiple tensions in the Aegean and Eastern Mediterranean," the French minister said to Vima newspaper in the interview. Previously, France made several remarks in favor of Greece for the disputes in the Eastern Mediterranean, but this is the first time such a statement is given by a senior cabinet member, the minister of defense. And secondly, Defence Minister Parly also included the region of Aegean in her speech when meaning to assist Greece.

Her comments continued with remarks to deliver France's political and partly military support to both Greece and the Greek Administration of Southern Cyprus for their efforts to defend their alleged maritime zones and claims, calling Turkey to refrain from lacking respect.

The interview coincides at a time when the flagship of the French Navy, the aircraft carrier Charles de Gaulle reaches the region to exercise with the Greek Navy. The ship is escorted by a Greek frigate at the moment and is operating on the alleged exclusive economic zones (EEZ) of the Greek Administration of Southern Cyprus.

But we can expect that Charles de Gaulle's presence in the region concerning the EEZs on the area would not last much because, as we had explained in detail on the 3rd issue of our Operation Mediterranean Shield series the presence of this ship in the region would primarily focus on counter-terrorism operations. President Macron announced that the Charles De Gaulle's activity in the area which just got back from concentrated operations in the Sahel region is to conduct surveillance and reconnaissance operations to target Islamic State in Iraq and Syria as part of Operation Chammal and at the end of April the ship will be deployed to the Atlantic Ocean.

Ercan Emre Çelik

Sustainability Projects of Municipalities in Turkey

With the intensification of climate change and its effects over our daily lives, summits, agreements, and decisions over this topic have increased rapidly on interstates level. Notably after Greta Thunberg's speech on UN Climate Change COP24, states enhanced their initiatives. They once again started to develop policies towards sustaining carbon emissions, raising awareness, and promoting environment-friendly commodities.

On the other hand, there are cities (and their municipalities) that contribute to this effort independently from their countries as well. In 2018, 4.2 billion people, 55 percent of the world's population, lived in cities.

By 2050, the urban population is expected to reach 6.5 billion. Cities occupy just 3 percent of the Earth's land but account for 60 to 80 percent of energy consumption and at least 70 percent of carbon emissions. Moreover, cities generate about 80 percent of the global GDP. Considering that they are a crucial part of the system, if we want to achieve sustainability, efforts should accommodate the majority of cities and not just a few which wish to take part. For towns, the UN has Goal 11: Sustainable Cities and Communities as an SDG (Sustainable Development Goal).

In Turkey's sense, several projects and subsidies are being participated by municipalities. Cities of Bursa, Denizli, İzmir, İstanbul, Gaziantep, Eskişehir and İzmir are part of One Planet City Challenge by WWF. It is a program that forms sustainability goals to be reached until 2030 for cities. It upholds decisions about relevant categories such as transportation, agriculture, renewable energy, solid waste management, energy efficiency, and social infrastructure and services.

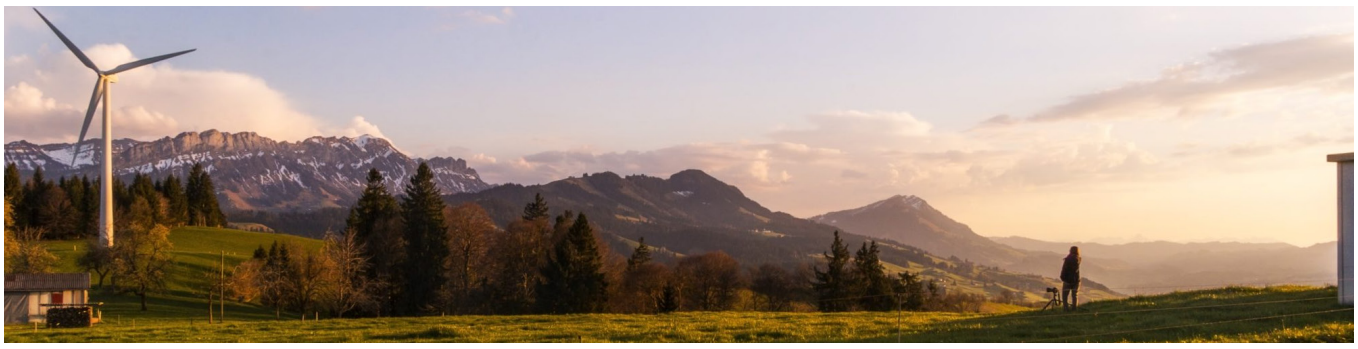
For subsidies, Turkish municipalities work with the World Bank. They have Sustainable Municipal Services as a beneficiary program for districts to support sustainable development in Turkish cities. The program aims to improve the economic, financial, environmental, and social sustainability of Turkish cities by enabling interested municipalities to access financing for their priority investments and to deliver enhanced services to their citizens. Program şs conducted jointly with Bank. The total value of investments (infrastructure and management) is up to EUR 500 million.

Developments above are quite pleasing for the future in Turkey, but having only seven cities participate in sustainability efforts is not enough. Turkey's energy demand is increasing, and its external dependence is accelerating. If Turkey aims to maintain the balance between economy and energy demand, the participations of cities should be increased.

Yiğit Mert Yüreklitürk

BRENT OIL	56.59 $/BL	GASOLINE	6.79 ₺/LT
USD/TRY	6.13	DIESEL	6.40 ₺/LT
EUR/TRY	6.63	FUEL OIL	3.94 ₺

History of Renewable Energy



Throughout the history of humankind, energy has been a necessity and tool to ease and expedite the human life. Although most people believe that energy term got involved in our lives with the Industrial Revolution, it all started with waterwheels, which convert hydropower to mechanical power at 200 BC in Europe. Before fossil fuels, almost all sources used for energy were renewable since it was the nature itself. In the 16th century, windmills were very popular among farmers to mill grain in the Netherlands. However, ancient versions of these windmills had been found and used in Central Asia and the Middle East in the 7th century. The only difference was the direction of windmills. These people used it in a horizontal form.

After the Industrial Revolution and the rise of technology, the sun has become an option to produce energy. French Augustin Mouchot invented the first solar energy system in 1860. According to records and his own words, he was aware of the fact that coal could be drained away in the future. Because of that, he went towards and ran trials on his project 'sun meter.' After that, a British professor William Grylls Adams studied on how selenium cells can be used to harness sunlight and transform it to electricity and he succeeded. It is the ancestor of today's solar panels.

In 1888, American farmer Charles F. Brush invested a windmill that generates energy from wind power in Cleveland, Ohio. After a decade, Denmark had 72 turbines to convert wind power to electricity. It can be said that the 20th century was a revolution for renewable energy. Famous physicist Albert Einstein worked on 'photo-electric effect' and consummated by examining how light-cells carry potent forms of energy that can be harnessed to power buildings across the civilized world. In 1927, renewable energy became a topic of commercials in the US with wind turbines.

Three decades later, after Brush invented wind turbines, it had become widespread across the US. In 1935, Colorado landmark was built to control the water flow along the Colorado River and to provide Southern California and Arizona with a steady water supply. At the time, it was the largest hydroelectric facility in the US. Also, the first nuclear power reactor was built in 1951 to test whether nuclear energy is transformable to electricity or not. 1958 saw the principal US satellite utilize sun oriented vitality as its capacity source. The Vanguard 1 propelled on St. Patrick's Day.

The idea of peak oil during the 1950s started another drive towards renewables. Sunlight based, hydro, and others were taken advantage of by both naturalists and industrialists. They were both similarly worried about the exponential increase in the human populace, in oil utilization, and understood that it is a limited asset and will run out paying little mind to the size of the stock today. A developing ecological development, the improvement of natural sciences, and a push against contamination implied that like never before previously, sustainable power source became a logical advancement for the future, yet a need for humankind.

Kaan Demirci

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Enerji Politikaları Araştırma Merkezi

Enerji Yoksulluğu Kavramı ve Litaratür Gelişimi Paneli

Yaşar Arslan
GAZBİR Başkanı

Erinç Yeldan
EPAM - Direktör

Muhsin Fatih Ersoy
EPC Enerji

Barış Sanlı
EPAM

Tarih: 26 Şubat 2020 Çarşamba
Yer: A130
Başlama Saati: 13:00

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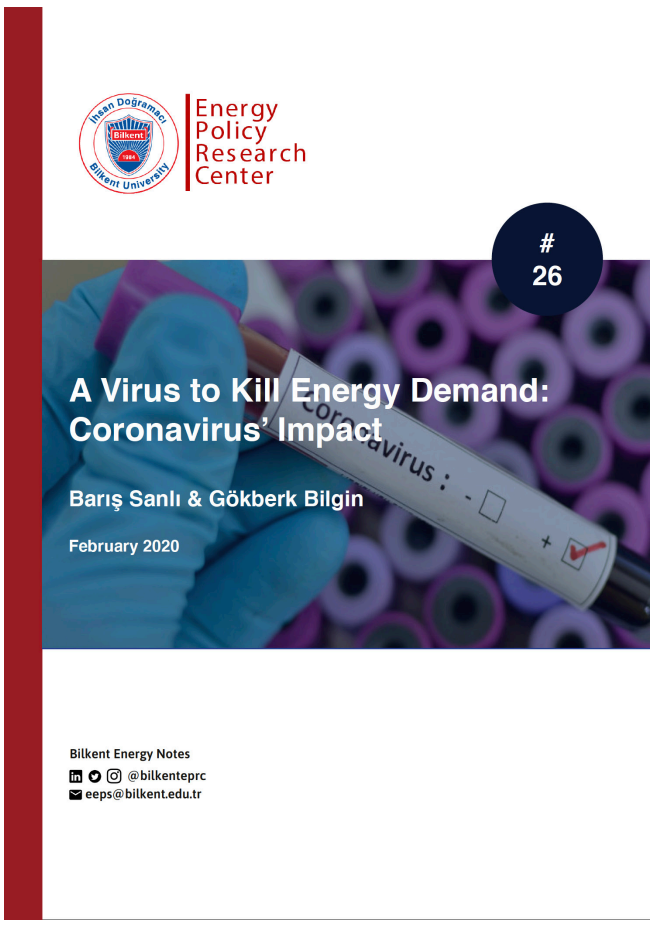
The first event of 2020 will be on Energy Poverty and Literature Review. The panel will be Turkish and it will begin at 13:00 on February 26, 2020 at A130. Also, last week, we published a report on Coronavirus' impact on energy demand. You can check our report in our website.



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