

Clean Energy vs Supply Security and Geopolitical Risks at COP-28? Where does Türkiye Stand in All This? - Mehmet Ögütçü



One of the most important discussions of the COP-28 summit, which was held in the United Arab Emirates in November 2023, focused on this question. And also, on what to do to support developing countries in the fight against climate change and financing clean energy investments. The geopolitical importance of energy is re-emerging strongly, gaining new dimensions beyond traditional elements, including the supply of critical minerals, further increasing uncertainty and instability in the markets.

2023 gone down in historical records as a year with record temperatures, which have been known so far and have been extremely disturbing to climate scientists. Recently, the flood disaster killed more than 6,000 people in Derna (Libya) caused tremendous damage, and virtually paralyzed critical infrastructure. On the other side of the world, an area of 18.5 million hectares, the size of Syria, was burned in the fires in Canada. These and similar events in just the last few months have made the urgent call for countries to correct their traditional, slow-speed lane in the fight against climate change even more important. In this context, the UN climate summit (COP28) was an important opportunity to achieve this, but will this opportunity be seized in reality? At COP28, countries must agree to adopt economy-wide targets covering all greenhouse gases that deliver the aggregate level of emissions reductions needed over the next decade to limit global warming to 1.5 degrees.

Tackling the climate crisis, including energy, food, land use and cities, is equally important to change global energy systems, which will require transforming every sector, from the way the world produces and consumes. What is more vital is to build the resilience of countries against the increasingly serious effects of climate change, to strengthen the weak, and to provide green climate finance, especially to the world's most vulnerable and poor countries. Unfortunately, before the meeting in Dubai even takes place - based on my first-hand experience - I can say that COP-28 will be no more than rhetorical statements, as was the case in Sharm el-Sheikh, where the previous COP meeting was held.

The foreseeable future is still with fossil fuels

When we say clean energy, we mean energies that are as free from carbon emissions as possible and pollute the environment the least such as wind, solar, geothermal, biomass, green hydrogen, fuel cell. Hydro and nuclear may also be included. Of course, they are cleaner compared to fossil fuels such as oil, natural gas and coal, but it is not possible to say that renewable energies are completely clean and do not harm the environment and health at all.

Today, energy production (especially the burning of fossil fuels) alone accounts for nearly three-quarters of global greenhouse gas emissions. Not only it is the biggest driver of climate change, but burning fossil fuels and biomass also has a huge cost to human health. If we think about these numbers, we will understand better what the facts are among all this talk: Fossil fuels make up approximately 80 percent of the global energy mix today (26 percent coal, 23 percent natural gas and 29 percent oil).

Of course, we have made significant progress in the last decade, both in increasing the share of renewables in electricity production and in directing more money to this field, but it is not possible for us to radically change this composition in favour of green energy in the foreseeable future. There is a full-scale future forecast battle now between the International Energy Agency (IEA) and OPEC regarding the future of fossil fuels. While the IEA claims that the decline in fossil fuel demand and the rise of renewables will occur soon, OPEC and international oil companies (especially those that recently acquired rival oil companies such as Exxon Mobil and Chevron) accuse the IEA of acting with political motivations and being part of a certain ideological agenda against fossil fuels. I heard this first-hand from the mouth of OPEC Secretary General Haitham al-Ghais at a meeting I attended in Fujairah. He went further and accused the IEA of torpedoing investment in fossil fuels.

Countries that stand out in renewable energy

It is an unquestionable necessity for the world a transition from fossil fuels to an energy mix dominated by low-carbon energy sources. The problem boils down to how fast to progress and ensure the transition to clean energy will not harm energy security. As a matter of fact, there is a great effort that has accelerated in recent years, especially to slow down global warming and rein in climate change.

The share of renewables in global electricity production has increased by 10 percent since 2010, reaching 30 percent by the end of 2022. This progress, of course, varies from country to country. For example, in the United Kingdom,

where I live, 42.3 percent of electricity come from fossil fuels in 2022, while 36 percent from renewable sources such as solar, wind, hydropower, nuclear energy and biomass (produced by burning food, plants and organic matter).

If we look at other countries, Iceland provides 87 percent of its energy from renewable sources. Iceland followed by Norway with 72 percent and Sweden with 51 percent. These countries' high percentages are largely due to their abundant natural resources such as geothermal, hydroelectric and wind energy. As of July 2023, hydropower dominates the power grids of countries with the cleanest energy production capacity worldwide. In Latin America, 100 percent of Paraguay's energy capacity is installed in hydroelectric power plants.

The EU produced 2,641 TWh (terawatt-hours) of electricity in 2022. Almost 40 percent of this came from renewable sources. Fossil fuels constituted 38.6 percent and nuclear electricity 20 percent. The main fossil fuel used to generate electricity was gas (19.6 percent), followed by coal (15.8 percent). Of course, energy is not only used for electricity production, but also for industrial production, road and rail transportation, agricultural production, heating and cooling of households, and the fuel requirements of sea tankers and aircraft. New technologies are changing the game. Contrary to the popular belief, China is leading, not the USA, the EU or Japan.

Turkey's position on the world scale

With the Green Deal and the Paris Climate Agreement, to which Turkey has recently put its commitments into effect, it becomes a necessity for all countries to turn to sustainable energy investments. Since Turkey is already fossil fuel poor (98 percent of natural gas and 92 percent of oil are dependent on imports), a rapid shift towards clean energy sources will not actually shake or tire Turkey too much. In other words, if technology, financing, tariffs, legislation and climate change commitments can be synchronized within the framework of a correct and smart strategy, it is actually possible for Turkey to complete the transition to green energy faster and at lower cost than other countries..

Currently, as of 2023, Turkey's renewable energy installed capacity is 56,838 MW. The share of clean energy in total electricity production has increased to 54.30 percent. This is a remarkable achievement. We can say that it is in an advanced position compared to many EU countries. Turkey ranks fifth in Europe and twelfth in the world in terms of installed capacity in renewable energy. It is among the top 10 among those investing in and using solar panels worldwide. It ranks first in Europe and fourth in the world in panel production. It is the first country in Europe in terms of geothermal potential and the fourth in the world in terms of installed capacity. Likewise, with the 867 MW wind energy capacity added last year, its total installed power increased to 11 thousand 969 MW and ranked sixth in Europe in terms of installed power.

In a country like Turkey, where fossil energy imports constitute approximately one-fourth of its total annual imports (and this import rate corresponds to three-quarters of its energy needs), the inability to benefit from renewable resources sufficiently and the weak effectiveness of energy efficiency studies unfortunately make it inevitable for its foreign dependency in primary energy supply to continue. And, accelerating the shift towards clean energy by reducing fossil fuels.

Clean energy incentive mechanisms

To electrify economies efficiently and rapidly realize green transformation in almost every field, increasing renewable energy from megawatts to gigawatts, improving networks and making a smooth transition from fossil fuels to green without disrupting the world energy markets require the state's incentive, support mechanisms and strategic guidance to come into play.

Every country uses similar mechanisms to strengthen green transformation and accelerate the energy transition process. In my opinion, the biggest problem with incentives and supports is that, while they should be put into effect for a temporary period, taxpayers' money collected in the Treasury is generously distributed to electricity producers, regardless of performance, without targeting

the result, and long-term purchase guarantees are given. Interestingly, private sector companies that advocate full freedom in the energy market (where the state also has strategic objectives, so it cannot be left completely to market forces) advocate almost eternal continuation when it comes to state support and incentives. Finding the middle ground between the two is vital for Türkiye's energy future.

Are the geopolitics of energy changing?

Definitely. Geopolitics based on competition over traditional resources, protection of pipelines and international strategic transit routes is now being redefined to take into account renewable energy, critical minerals, electricity transmission networks, cybersecurity, investment, climate change and transit risks.

Geopolitical concerns and crises even took precedence over issues such as economy, climate change, technology, investment and trade. A serious energy crisis broke out in 2022 when Russia invaded Ukraine. Natural gas prices alone increased eightfold, creating energy inflation, although the balance was subsequently regained. We experienced the fastest rise in interest rates in the last 40 years and a downward decline in interest rates is not expected until the mid2025.

However, with the outbreak of new conflicts and the prolongation of existing ones, new concerns about the global energy system (and beyond) are emerging in a critical region such as the Middle East, where energy production is concentrated, exactly 50 years after the first oil embargo. Especially if the conflict in Gaza spread to Iran, the energy world's prospects will become not so bright and markets will fluctuate to an unprecedented extent.

Energy crises are painful, but history shows that they can also trigger a wave of innovation and change. The deployment of clean energy has never been as rapid as it is now. Electric vehicles, solar pumps, renewable energy sources, efficient

appliances are all growing massively. In the future of global energy, not only solar panels and wind turbines, but also green hydrogen, fuel cells, small nuclear reactors and energy storage systems are gaining importance. Thanks to the technological breakthrough that has nothing to do with expensive lithium batteries, critical metals in limited supply, it becomes possible to store energy by using common industrial materials such as steel and concrete, providing clean energy to the electric grid at any time of the day.

Despite all its challenges, a new clean energy economy is emerging. With the intertwining of energy, climate, finance and industrial policies worldwide, clean energy production is breaking new ground. Now the energy sector has begun to change irreversibly, from production to use, from financing to new technologies.

Opportunities for Turkey

Globally, investment in clean energy in the last 20 years has tripled that of fossil fuels. It is estimated that another 4 trillion dollars must be invested in clean energy to achieve the 2030 targets. The resources of the state or international financial institutions are not sufficient to achieve this goal. It is necessary to mobilize the private sector more strongly, improve investment environments, and minimize instabilities and risks. We also have to develop partnerships between the state-private international funds in more creative ways, especially on a win-win basis.

While EU Green Deal harmonization efforts continue in the industry, it is becoming very difficult to find financing for imports and not to disrupt fossil fuel investments. Green financing models are becoming more popular day by day, banks are now considering carbon emissions in their loan criteria, but there is still a long way to go.

Beyond the support provided within the country, state support will be needed in matters such as political connection, directing the leverage in international

organizations, ease of financing, mitigating the difficulties created by insurance and legislation, at least initially, until effectiveness is achieved in the world markets.

While the EU will shape all its policies on the basis of green transformation in the coming period, it is a necessity for Turkey, which carries out nearly half of its trade with the EU, to direct its policies in all relevant areas, especially trade and industry, by closely following the steps to be taken by the EU, both to maintain and deepen its integration with the EU. Turkey needs a road map that is compatible with these transformation policies that are taking place in the world economy, especially in the EU, that encourages green investments, that will contribute to the transformation of global value chains.

Turkish companies have gained rich experience in renewable energy. The country has competent companies that carry this to surrounding countries and even realize important renewable projects in Europe and beyond the Atlantic. Just as Turkish contractors undertake billions of dollars of projects all over the world, there are also attractive opportunities abroad for renewable energy companies that have created turnkey work capacity.

Here is the conclusion from the meetings I held in London, Washington and Dubai: Unfortunately, at COP-28, developed countries clashed among themselves regarding the lack of green climate finance and the allocation of sufficient funds. Especially the US, far from moving away from fossil fuels, has started to increase it even more. Less developed countries will continue to wait for finance and investment aid before making commitments. In the meantime, leading countries in carbon emissions, such as China and India, will continue their discourse on climate change and clean energy while placing stronger emphasis on vital energy security goals over the next decade, expected to be ridden with widespread conflicts.



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