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NUCLEAR AND SOLAR ENERGY ARE EXPERIENCING A GLOBAL SURGE, COAL AGE IS COMING TO AN END

Sabancı University's Istanbul International Center for Energy and Climate (IICEC) hosted the conference entitled 'Business World and Sustainable Energy' in Istanbul.

During the keynote speech, Dr. Fatih Birol, International Energy Agency (IEA) Executive Director and IICEC Honorary Board Chairman, discussed global energy markets under four main headings: the age of coal is ending, falling natural gas prices, growing interest in renewable energy—especially solar—and the return of nuclear power plants.

A panel was also held at the conference, moderated by Ahmet Erdem, Shell Türkiye Country President. The speakers at the panel included Nursel Ölmez Ateş, Borusan Holding People, Communication and Sustainability Group President; Ebru Dildar Edin, Business Council for Sustainable Development Türkiye (BCSD Türkiye) High Advisory Board President; Filiz Gökler, Baker Hughes Türkiye Country Director; and Mehtap Anık Zorbozan, Enerjisa Enerji Independent Board Member.

At the conference organized by Sabancı University's **Istanbul International Center for Energy and Climate (IICEC)** in Istanbul, which addressed current global and Türkiye's energy and climate agenda, the topic of "**Business World and Sustainable Energy**" was explored from multiple perspectives.

The keynote speech of the conference, where trends, challenges, and opportunities in the field of sustainability were discussed from the perspective of the business world, was delivered by **Dr. Fatih Birol**, Executive Director of the International Energy Agency (IEA) and Honorary Chair of IICEC. In his speech, Dr. Birol made four key analyses of global energy markets. Dr. Birol underlined that the decline in prices in the natural gas market provides an advantage for Türkiye and continued; "Natural gas prices, which rose to top levels with the start of the Ukraine-Russia war, are now at more reasonable levels. There

is a serious decrease in natural gas prices. This is very good news for Türkiye. In 2025, 2026, and 2027, a serious amount of supply will be provided by some sources to natural gas markets. This supply corresponds to half of the amount of natural gas provided in the past 30 years."

Dr. Birol also pointed out that the demand for coal has decreased completely except for one or two countries. He said; "The main reason for this is not the climate factor. The main reason is that it is more national as a domestic source. China and India are still building coal plants, but their growth is extremely slow compared to the past."

"Nuclear electricity production will soon reach its highest level"

Dr. Birol noted that more than 85 percent of all power plants commissioned in the world in 2023 have renewable energy and that nuclear power plants are also being built again. Stating that most of the electricity in the future will come from renewable energy, Dr. Birol said; "Nuclear energy is making a comeback all over the world. Japan, where the last accident occurred, has started to grow its nuclear power generation capacity again. Korea and Sweden have the same policy. We can say that there is no country left that opposes nuclear power plants. New power plants are being built in France, Poland, Türkiye, and the US. I think world nuclear electricity production will reach its highest level in 2025-2026."

Dr. Birol also emphasized energy efficiency and stated that he defined energy efficiency as the "first fuel" and that all countries can benefit from this field.

"The European Union is in a difficult situation in terms of energy"

Dr. Fatih Birol evaluated the European energy markets and continued as follows: "The European Union is in a very difficult situation regarding energy prices, energy security, and economic dependence. The major issue is their excessive dependence on one country, namely Russia, for energy. European Union countries have purchased 65 percent of their oil and 75 percent of their gas from Russia, which was a significant oversight. Another error was turning their back on nuclear energy, and a third was failing to sustain the momentum they had achieved years ago in solar energy development. Natural gas prices have dropped to 5 dollars, but in the USA, they are below 2 dollars. Electricity prices in Europe are almost three to five times those in China. If you are an industrialist in Europe and 60-65 percent of your production costs are energy-related, competing with the USA or China at these prices is not feasible. Additionally, Europe needs a new industrial master plan. That's what I suggested."

"The panel brought the business world together"

In the panel moderated by Shell Türkiye Country President **Ahmet Erdem**, Borusan Holding Human, Communication and Sustainability Group President **Nursel Ölmez Ateş**, Business Council for Sustainable Development Türkiye (BCSD Türkiye) High Advisory Board President **Ebru Dildar Edin**, Baker Hughes Türkiye Country Director **Filiz Gökler**, and Enerjisa Enerji Independent Board Member **Mehtap Anık Zorbozan** took part as speakers.

Panel Moderator Shell Türkiye Country President **Ahmet Erdem** stated that there are important opportunities to think, plan and build a sustainable future with important multi-dimensional dynamics and underlined that energy will continue to be one of the most important elements of economic growth and social development.

Erdem emphasized that, in addition to the vital and economic gains of energy, reducing carbon emissions and developing sustainable energy solutions are very critical for a sustainable future in the context of energy transformation. Stating that the business world should not ignore critical factors such as technology, innovation, and financing for the future of sustainable energy, Ahmet Erdem emphasized that decision-makers and all stakeholders, as well as the energy sector, should work together to develop sustainable energy solutions and highlighted the importance of collaborations within this framework.

"Energy transformation is now a necessity"

In her speech at the panel, **Borusan Holding Human, Communication and Sustainability Group President Nursel Ölmez Ateş** noted that energy transformation has become a necessity to achieve global climate targets and said; "Sustainable energy transition has become one of the main agenda items of the business world. In order to comply with international regulations, energy-intensive sectors are turning to renewable energy solutions. As members of the business world, we focus on renewable energy investments that will meet our energy needs and support the reduction of greenhouse gas emissions, while also projecting energy efficiency solutions. On the other hand, the development and accessibility of new energy technologies create a multiplier effect, but practices aimed at strengthening infrastructure and technical capacity are also among our priority topics. Access to green financing resources is also a critical issue for increasing sustainable energy investments. We are closely monitoring all these developments and taking responsibility for the sustainable energy transformation."

"200 trillion US dollars are needed by 2050"

Another panelist, **Ebru Dildar Edin, President of the High Advisory Board of the Business Council for Sustainable Development Türkiye,** expressed the following views in her speech; "In addition to the need for collective effort and strong will to significantly reduce energy waste and transition from fossil to renewable energy sources, the world requires 200 trillion US dollars by 2050 for the transition to a low-carbon economy. This amounts to approximately 7 trillion US dollars in green financing annually. The good news is that global investments in the clean energy transition reached US\$1.1 trillion in 2022, with an annual growth rate of 29%. This figure currently matches fossil fuel investment, but we believe that increased cooperation will boost nature-friendly investments. Developments like Türkiye's historical level of installed solar energy capacity and renewable energy's contribution exceeding 51% in electricity generation highlight our country's potential in this area. We also recognize the need for more renewable energy projects to meet our green transformation goals."

"Our focus is on investing in sustainable energy technologies"

Filiz Gökler, Baker Hughes Türkiye Country Director, started her speech by stating that Baker Hughes is a global energy technology company, operating with approximately 55,000 employees in more than 120 countries. She continued as follows: "In the scope of combating global climate change and securing sustainable energy transformation, we implement sustainable practices that reduce our operational footprint while also focusing on investing in tomorrow's sustainable energy technologies such as next-generation hydrogen fuel, carbon capture, usage and storage, geothermal, and clean energy."

"It is vital to achieve a balance between energy supply, security, and sustainability, and to lead the energy transition by overcoming challenges such as limited financing, inflation, global and regional political instability, geopolitical tensions, supply chain challenges, and deficiencies in policies and regulations."

"We believe that energy producers, technology and service providers, energy buyers, policymakers, and society in general should work together on the energy transformation journey, guided by integrated thinking and shared sustainability standards. Let's carry energy into the future together."

"Renewable energy capacity should triple"

Enerjisa Enerji Independent Board Member Mehtap Anık Zorbozan noted that the future of energy is shaped by the increasing trend towards renewable energy sources, energy efficiency, and sustainable energy technologies, and said; "However, these trends create new risks for countries in terms of affordability, electricity security, and the durability of clean energy supply chains. Managing risks and meeting the investment needs of the new era will be on the agenda for the coming period. To achieve the 2030 carbon targets, renewable energy capacity must be tripled, the pace of energy efficiency improvements must be doubled, electrification must be increased, and methane emissions from fossil fuel operations must be reduced. Global energy investment is projected to rise to US\$3.2 trillion in 2030, which is approximately 15% above the levels forecast for 2023. For climate finance, both public and private sector resources need to follow an integrated strategy."

During the opening speech of the conference, **Sabancı University IICEC Coordinator Dr. Mehmet Doğan Üçok** pointed out that social and economic sustainability should be developed in the field of energy and said; "Sustainable energy offers versatile benefits across several areas, including environmental protection, support for environmental sustainability goals, economic benefits, and more efficient use of technologies and resources in energy production. In this context, we see that sustainable energy, as the guarantee of the future, has become an economic and social necessity rather than a choice."