18th IICEC Conference Discusses Risks and Opportunities in World Energy Markets

The 18th IICEC Conference, organized by Sabancı University Istanbul International Center for Energy and Climate (IICEC), focused on "Overview of Energy Markets in Türkiye and the World: Risks and Opportunities". Alparslan Bayraktar, Minister of Energy and Natural Resources of the Republic of Türkiye, who attended the conference as the guest of honor, drew attention to the importance of smart energy transition, while Dr. Fatih Birol, President of the International Energy Agency (IEA) and Honorary President of IICEC, underlined the dynamics of competitiveness in the economy and industry driving energy transition.

Organized by Sabancı University **Istanbul International Center for Energy and Climate (IICEC)**, the 18th IICEC Conference with the theme "Perspectives on Energy Markets in Türkiye and the World: Risks and Opportunities" was held on April 11. The conference was held at Sakıp Sabancı Museum the Seed, hosted by Güler Sabancı, Sabancı (University Founding Chair of the Board of Trustees) and Dr. Fatih Birol, (President of the International Energy Agency (IEA) and Honorary President of IICEC), and the guest of honor was **Alparslan Bayraktar, Minister of Republic of Türkiye Energy and Natural Resources.**

In the panel discussion held with the participation of **Alparslan Bayraktar**, Minister of Energy and Natural Resources, and **Dr. Fatih Birol**, President of the IEA, IICEC Board Member **Kıvanç Zaimler** moderated a multi-faceted evaluation of the dynamics, risks and opportunities in the global and Turkish energy sectors.

"Energy transition 1.0 executed successfully"

Alparslan Bayraktar stated that Türkiye is implementing comprehensive "smart energy transition" strategies within the scope of strengthening energy security, increasing energy independence and achieving the net-zero emission targets. Bayraktar emphasized that significant structural transformation has been realized with the reforms carried out in energy for over more than 20 years, and that investments have been realized by the private sector in the process of increasing the installed capacity from 30,000 MW to 107,000 MW. Bayraktar stated that Türkiye stands out among emerging economies with a well-developed energy market structure.

“The story of smart energy transition continues in Türkiye”

Bayraktar continued his words as follows: "Energy transition should be in the form of the smart energy transition. When the energy transition is solely dependent on global efforts to combat climate change, it changes into a goal where there are some missing points. Smart transition must be a process that is compatible with consumers and the market. Türkiye has successfully carried out energy transition 1.0”. Drawing attention to renewable energy investments, Bayraktar said that almost all of the capacity commissioned last year was based on renewable energy. Besides, Bayraktar underlined that a new growth process has started with the developments in the YEKA model and Türkiye aims to commission 8,000 MW of renewable energy installed capacity every year until 2035 while the legislative works are underway to initiate the super permit process. Touching on the issue of natural gas, Bayraktar underlined the role of natural gas as a transition fuel in the transition from fossil to nuclear energy. Bayraktar also shared the latest developments in Black Sea gas and Gabar oil, and stated that domestic production of natural gas will reach 7.5 billion cubic meters annually in 2026.

“Energy efficiency is one of our main priorities”

Stating that the recommendations of the IICEC Türkiye Energy Efficiency Outlook study presented at the conference are in line with the strategies and priorities of the Ministry, Alparslan Bayraktar said: "Energy efficiency is the most important tool of energy transition in Türkiye. We are acting with a comprehensive energy transition program by strengthening energy efficiency, renewable energy, our oil and natural gas production, nuclear, critical mines and the energy infrastructure to support all these. I believe that we will continue our success in reducing energy intensity, which we have achieved worldwide in the last three years."

“The main reason for the energy transition is the economy and industrial dynamics”

Dr. Fatih Birol, President of the International Energy Agency (IEA) and Honorary President of IICEC, evaluated the recent developments and trends in the world energy sector. Dr. Birol stated that the transition in energy proceeds strongly and that the main reasons for this transformation are economic,industrial policies and competitiveness. Sharing that 85% of the new power plants installed in the world are based on renewable energy, one out of every four vehicles sold is an electric vehicle, and battery installations are growing rapidly, Dr. Birol said, "At COP 28, we proposed that renewable energy capacity should increase 3 times relative to the current capacity and the energy efficiency improvement rate should increase by

2 times. After 2.5 years, renewable energy investments have increased 2.7 times. But the world has failed in energy efficiency improvement rates. There was only a low increase of 1 percent improvments in this area". Pointing out that the electric age has started in the world, Birol said, "Artificial intelligence, electric vehicles and air conditioners trigger the growth in electricity demand. This trio will increase the electricity demand as much as the current total electricity production of the US and Europe in 5 years. There is a tremendous transition to nuclear in the world. In 2025, nuclear will reach a historic peak. Türkiye also needs more than one nuclear power plant. Nuclear is important for electricity supply security. There are significant advancements in Small Modular Reactor technologies."

“We will see a soft period in oil and natural gas prices”

Explaining that as the IEA, they examine the energy policies of countries every five years and provide recommendations, Birol said: "Energy supply security is extremely important. With the latest developments, the world is going through a dangerous period in terms of supply security. Energy security is everyone's problem. Türkiye has taken important steps in this regard. There have been very important developments in renewable energy. How fossil fuel prices will develop in the coming years is extremely important. Oil demand growth is slowing down and the natural gas market is developing in favor of buyers. There is good news for Türkiye here. We will see a soft period in oil and natural gas prices. We can expect a weakening in both oil and natural gas prices. This will be a positive development for Türkiye in terms of reducing energy imports, which is an important item in its current account deficit." Dr. Birol also stated that artificial intelligence has become a trillion-dollar industry, the IEA published a new study on the relationship between artificial intelligence and energy, and artificial intelligence is expected to bring new opportunities for grid management. Dr. Birol also emphasized that the political winds in the world are blowing against the fight against climate change, but climate risks are felt more often, which shows an important contradiction.

“Critical minerals rush”

The growing importance of critical minerals and supply chains was also emphasized in the panel. While Dr. Fatih Birol stated that copper and many other minerals are critical for electric vehicles, grids and batteries and require significant investment whileAlparslan Bayraktar underlined that Ministry of Energy and Natural Resources have published Türkiye’s inventory of critical minerals and that the current critical minerals rush period is closely related to geopolitical issues.

“Our country has become one of the largest energy sectors in Europe”

Güler Sabancı, Sabancı University Founding Chairman of the Board of Trustees pointed out in her speech that the energy sector, which plays a key role in ensuring economic and social development, has witnessed significant developments

recently. Sabancı said, "There are significant developments in energy security, energy trade and competitiveness, and the critical role of energy in sustainable development. With its energy strategies, growing investments, developing energy infrastructures and markets, our country has become one of the largest energy sectors in Europe and one of the most dynamic in the world. When we look at many parameters such as electricity and natural gas consumption, infrastructure and renewable energy installed capacity, Türkiye is among the top five in Europe. Our per capita energy consumption is still half of the OECD average. However, factors such as young population, urbanization, industrialization and increasing mobility needs provide a strong basis for growth in demand. Recently, important steps have been taken by the public and private sectors to strengthen energy security, increase energy independence and achieve net-zero emission targets. Energy supply security and competitiveness will continue to be among the most critical enablers of our country's economic growth and social development goals."

"IICEC is a pioneering model and center in Türkiye"

Referring to IICEC's "energy outlook" studies, which have been pioneering in the sector since 2020, Güler Sabancı said, "IICEC carried out the"Türkiye Energy Efficiency Outlook" study with a participatory approach with public, private sector and academia stakeholders in the field of energy efficiency, where important steps have been taken in energy policies recently and Türkiye has high potential and critical opportunities. Creating value from science-based approaches and business collaborations is one of the most critical success factors in today's world. IICEC is a pioneering model and center in Türkiye in this regards. Bringing together organizations that are leaders in their fields and add value to their sectors, IICEC supports a more sustainable energy future through common vision and collaborations."

Critical Findings and Recommendations in IICEC Türkiye Energy Efficiency Outlook Report

Bora Şekip Güray, **IICEC Director,** conducting studies that offer a deep perspective on the energy sector, made the launch presentation of the **'IICEC Türkiye Energy Efficiency Outlook Report'** at the conference. The study, which was carried out with a leading, analytical and long-term perspective, modeling and scenario analysis, presented the tangible energy, economy and climate contributions of an energy efficient growth perspective. According to the findings of the study, the Efficient Growth Scenario can cost-effectively achieve all of Türkiye's energy security, energy independence and net-zero emission targets. In the Efficient Growth Scenario, an average annual economic gain of USD 58 billion is achieved through savings in energy imports and emissions until 2053, with an average annual benefit-cost multiplier of 4.5. The Efficient Growth Scenario generates an additional economic contribution of USD 28 billion annually, with an additional annual average investment

of USD 4 billion compared to the the Base Case. In the Efficient Growth Scenario, the carbon intensity of the energy sector decreases by 70% by 2053, while the import rate in primary energy supply decreases from the current level of about two-thirds to about ten percent, also including the contributions from increasing in domestic energy production.

The study emphasizes the recently strengthened policy focus and targets in energy efficiency, and presents 11 solid recommendations for the sustainability of efficient and high value-added growth in energy. Bora Şekip Güray stated that Türkiye, with its strong demand dynamics on the one hand and its high energy efficiency potential in demand sectors on the other, can reach an exemplary position on a global scale through efficient and competitive growth in energy. Güray stated that the important steps taken in the recent period form an important basis, and that developments in this direction will strongly support Türkiye's energy security as well as its vision of becoming an energy trading hub and a net exporter.