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Renewable Energy In Multiple Crises: Tax Incentives In Turkey And Beyond

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ABSTRACT

During multiple crises, achieving and sustaining economic growth in both developed and developing countries has been a primary objective of economic policies. At this point, the availability of new energy resources has become extremely important for the growth objective. Therefore, the use of renewable energy resources in achieving growth is an important alternative not only in terms of reducing the external costs caused by traditional energy resources, but also in diversifying energy investments for growth.

However, the high cost of new technologies and installation for renewable energy is a major challenge. In order to minimize these problems, various tax incentives are provided by governments to reduce the costs of renewable energy and to expand its use. In this study, tax incentives for renewable energy in some selected countries of the world and in Turkey are compared, deficiencies and problems in the current situation are revealed and solutions are proposed.

Keywords: Energy, Renewable Energy, Tax, Incentive

JEL Code: Q28, H23, Q48

1. Introduction

Along with increasing population and industrialization, the requirement for energy is increasing exponentially. The limited availability of fossil fuels and their environmental impacts have led countries to alternative energy sources. Renewable energy sources are of significant importance, especially for countries with limited fossil fuels. Renewable energy sources such as solar, wind, geothermal and hydroelectric provide diversity in energy supply and are preferred due to their environment-friendly nature.

The era of multiple crises refers to a period in which economic, ecological, social and political crises coexist. Climate change is the most prominent of these crises and is triggered by the intensive use of fossil fuels. Renewable energy plays an important role in combating these crises. However, high costs and lack of technology development are limiting the use of renewable energy. Therefore, many countries are implementing incentives and supportive policies for renewable energy.

The purpose of this study is to identify the tax incentives for renewable energy in Turkey and to compare these incentives with the tax incentives implemented in leading countries in the field of renewable energy. In a period of multiple crises, renewable energy sources are becoming increasingly important to achieve energy security and sustainable development goals.

2. The Era of Multiple Crises and Energy: The Role of Renewable Energy Alternatives in The Fight Against Multiple Crises

The modern world is facing multiple crises that are interconnected and unfolding simultaneously. These crises manifest themselves in the economic, ecological, social and political spheres and trigger each other to become more complex. The concept of multiple crises, first defined by Morin and Kern (1993), refers to a situation in which interrelated and interdependent crises coexist. These crises can be caused by a variety of factors such as global warming, natural disasters, economic recessions, political instability and pandemics (Tiryakioğlu, 2024).

Climate change is one of the most visible and urgent of multiple crises. Global warming, increasing greenhouse gas emissions and the intensive use of fossil fuels are the main factors triggering the climate crisis. Climate change is causing not only environmental but also economic and social crises. Droughts, floods, forest fires and extreme weather events put severe pressure on agriculture and water resources, with negative impacts on food security and human health(IEA,2021c). Energy production and consumption is one of the main drivers of climate change. The intensive use of fossil fuels (coal, oil and natural gas) causes massive emissions of greenhouse gases into the atmosphere. This accelerates global warming and deepens the climate crisis. Energy crises lead to economic and political instability, becoming another component of multiple crises (IEA,2021a).

Renewable energy sources offer an important alternative to combating multiple crises. Renewable energy sources such as solar, wind, hydroelectricity and biomass offer cleaner and more sustainable methods of energy production compared to fossil fuels. Renewable energy plays a critical role in combating climate change by reducing greenhouse gas emissions. In addition, it can reduce economic and political instability by increasing energy security (IEA,2021a).

According to the International Energy Agency, the global energy crisis presents an opportunity to accelerate the transition to renewable energy. Renewable sources such as wind and solar energy can increase energy security by diversifying energy supply and reducing dependence on fossil fuels. Investments in renewable energy technologies can support economic growth and generate opportunities for new jobs.

Meanwhile, renewable energy is one of the pillars of sustainable development. Sustainable development aims to achieve a combination of economic growth, environmental protection and social equity. Renewable energy sources support environmental sustainability and promote social equity by increasing access to energy. This is particularly important for developing countries where access to energy is limited (REN21, 2024: 6).

The era of multiple crises requires dealing with complex and interconnected problems. Climate change and energy crises are important components of these multiple crises. The use of renewable energy sources offers an effective solution to combating these crises. The transition from fossil fuels to renewable energy brings not only environmental, but also economic and social benefits. Therefore, investing in renewable energy and shaping energy policies accordingly are vital to dealing with multiple crises.

3. Tax Incentives for Renewable Energy in Selected Countries

Global dependence on fossil fuels and the risk of their exhaustion could lead to a potential energy crisis. Moreover, the use of fossil fuels causes climate change and environmental problems. This has become an important issue for all countries. For these reasons, many countries are implementing policies aimed at developing and increasing the use of renewable energy.

Renewable energy resources are found throughout the world, although their types and potentials vary according to geographical differences. Many factors are taken into consideration when determining renewable energy policies. Renewable energy policies and incentive mechanisms determined by countries vary according to political, economic, cultural and technological conditions. Also, it is observed that a single incentive is not sufficient for the development of this field. Therefore, in order to examine the different policies and incentives for renewable energy, some countries are investigated.

Table 1. *Countries according to Production Capacity from Renewable Energy Sources (2023)*

Renewable Energy Sources	Renewable Energy Power Capacity (including hydroelectric power)	Renewable Energy Power Capacity (excluding hydroelectric power)	Solar PV Energy	Wind Energy	Hydroelectric Power Generation	Geothermal Energy
1	China	China	China	China	China	USA
2	USA	USA	USA	USA	Brazil	Indonesia
3	Brazil	Germany	India	Germany	Canada	Philippines
4	India	India	Japan	India	USA	Turkey
5	Germany	Japan	Germany	Spain	Russia	New Zealand

Source: *REN21, 2024: 13.*

As seen in Table 1, China, USA, Germany, India and Japan are the leading countries in terms of production capacity. In this section of the study, China, the USA, Germany, India and Japan will be discussed in the same manner. The policies and tax incentives implemented by the selected countries towards renewable energy will be analyzed.

3.1. China

China has implemented various programs to promote the use of renewable energy. "Solar Roofs" program, launched in 2009, subsidizes 50% of the investment in rooftop and building integrated photovoltaic systems. "Moreover, the 'Golden Sun Demonstration' project provides support for large PV projects and covers 70% of the cost of off-grid systems in rural areas. In addition, support is provided to facilities producing renewable energy equipment, creating jobs and contributing to economic growth (Lo, 2014: 510).

China offers various tax incentives for renewable energy. A reduced corporate tax rate of

15% is applied to technology production facilities in the fields of solar, wind, biothermal and geothermal energy. Certain projects are granted a 3-year corporate tax exemption followed by a 50% reduction for 3 years. A 150% corporate tax deduction is applied for R&D (Research and Development) expenditures. Wind and solar photovoltaic energy sales are granted a 50% VAT (Value Added Tax) refund and biodiesel sales are granted a 100% VAT refund. Incentives include vehicle purchase tax exemption for electric and hybrid vehicles and customs duty reduction for biogas, wind and solar energy technologies (KPMG, 2016: 24); (Zhang, 2022). China aims to achieve carbon neutrality and increase the use of renewable energy by 2060.

China's energy policy is of great importance on a global scale. Accounting for a significant portion of the world's energy consumption, China's energy consumption is expected to increase by 60% by 2030. China's energy choices have a decisive impact on its capacity to combat global climate change. China aims to achieve carbon neutrality by 2060 and increase the use of renewable energy sources by reducing fossil fuel use. It also aims to increase the share of renewable energy in total energy consumption to 20% (Han et al., 2022: 1).

3.2. United States of America (USA)

The USA provides various incentives for renewable energy. These include sales tax exemptions, investment and production tax reductions, property tax exemptions, grants and subsidies. The investment tax deduction is 30% for solar and small wind energy facilities and 10% for some other energy facilities. The production tax reduction applies to the sale of electricity produced from renewable energy sources. In addition, grant support is provided for properties with certain qualifications, with the option of cash grants of up to 30% of construction expenditures. These policies aim to reduce carbon emissions, reduce fossil fuel use and ensure security of energy supply (KPMG, 2016: 73).

USA states tailor renewable energy incentives to their own potential. General incentives include sales tax exemptions, property tax exemptions and tax credits. In many states, renewable energy facilities receive a 100% sales tax exemption and 100% property tax exemption. In addition, some states offer tax credits to renewable energy producers as a percentage of the investment cost or at different rates per unit of electricity produced. (Çelikkaya, 2018: 365).

The USA has great potential for renewable energy resources and is one of the countries that can lead the global energy transition. With an innovative culture and a flexible business community, the USA leads the world in terms of financing opportunities and a high quality workforce. Proper and effective policies could increase the share of energy from renewable sources to 27% of total energy consumption by 2030.

3.3. Germany

Germany is one of the countries that offers incentives through tax exemptions to encourage renewable energy investments. Germany has implemented an electricity tax since 1999, but electricity generated from renewable energy sources is exempt from this tax. Fuel taxes for gas and methane at fuel stations are deliberately kept lower than for petroleum-based fuels. Starting in 2016, incentives for electric vehicles were introduced, such as temporary purchase incentives, additional financing for the expansion of charging infrastructure and tax measures. The government provides tax incentives for energy efficient building renovations to increase energy efficiency and promote renewable energy heating. Starting in 2021, for three years, 20% of efficient building renovation expenditures will be deductible from future taxes. Tax credits are also offered for the transportation and heating and cooling sectors (EurObserv'ER, 2020 and Yaşar, 2021: 115).

Germany reached its 2020 target of 35% renewable energy generation one year early, raising its 2030 target to 65%.(EurObserv'ER, 2020). For 2050, it targets 80% renewable energy production. It also plans to reduce greenhouse gas emissions by 55% by 2030 and 80-95% by 2050 compared to 1990 levels (IEA, 2020: 27).

3.4. India

India offers various incentives for renewable energy. These include feed-in tariffs, production-based incentives, accelerated depreciation, quota obligations, capital subsidies and tax incentives. Section 3 of the Electricity Act 2003 provides for long-term feed-in tariffs for electricity generated from renewable energy. 13 states apply feed-in tariffs, the amount and duration of which vary by state. States with low energy production have high feed-in tariffs, while states with high energy production have low feed-in tariffs. In addition, the mandatory rates for renewable energy use vary between 2% and 14%. The government encourages the export of renewable energy technologies by establishing free economic zones and provides capital subsidies to reduce the initial investment costs of projects.

India offers many tax incentives for renewable energy. Renewable energy facilities are exempt from income tax for the first ten years if they start generating electricity before March 31, 2017. Excise duty and basic customs duty exemptions are provided for certain imported renewable energy equipment. Solar and wind power projects are exempt from interstate transmission charges for 25 years after commissioning (Gonsalves, 2018). Goods and Services Tax for solar and wind energy equipment is limited to 5%. In the state of Telangana, there is a VAT refund of between 50% and 100% depending on the size of the business. The states of Andhra Pradesh, Madhya Pradesh, West Bengal, Maharashtra and Gujarat offer property tax rebates of 5-10% for green buildings. These discounts are for solar water heating and rainwater harvesting systems. Businesses engaged in renewable energy activities such as solar and wind energy are allowed 80% accelerated depreciation based on net asset value under the income tax law (Shazmin et al., 2016: 544). In addition, for facilities established after March 31, 2005 by companies engaged in electricity generation and distribution activities, an additional 20% depreciation is provided on a net asset value basis in addition to normal depreciation (Invest India, 2022). These incentives aim to reduce the costs of renewable energy projects and encourage investments.

The Government of India aims to achieve carbon neutrality by 2070 and reduce carbon intensity to below 45% within a decade. It also plans to reduce total carbon emissions by 1 billion tons. By 2030, it aims to increase the installed capacity of renewable energy to 500 GW (Invest India, 2022).

3.5. Japan

Japan is one of the world's leading countries in renewable energy development and utilization. The main reason for this success is the timely formulation and implementation of laws and policies for renewable energy.

The oil crises of the 1970s severely affected Japan, and in 1978 the government developed policies promoting renewable energy (Project Sunshine) and energy conservation technologies (Project Moonlight) to improve energy security. Japan provides subsidies for renewable energy R&D and special loans for efficient energy use (Sarkerat et al., 2020, 14). In addition, special tax depreciation incentives have been available for energy-saving installations since the 1970s. The green investment tax incentive is a program for taxpayers who have received a feed-in tariff and have procured solar or wind energy equipment and put it into operation within one year. Taxpayers who meet these criteria can choose one of the specific incentives (Ulusoy et al., 2018: 143):

- Special depreciation at the rate of 30% in addition to the normal depreciation rate,

- 100% depreciation for equipment required for wind power generation,

- Tax deduction (applied as 7% of equipment costs of small and medium-sized enterprises).

Japan provides significant investments and incentives for the renewable energy sector. By 2030, it aims to reduce its energy demand and increase its renewable energy installed capacity to 36-38%. It also aims to achieve carbon neutrality by 2050 (IEA, 2021b: 15 and Obayashi, 2021).

4. Tax Incentives for Renewable Energy in Turkey

Turkey started renewable energy incentives later than many other countries, but with the current incentives, there is an increase in the use of renewable energy. Incentives started in 2005 with the "Law on the Utilization of Renewable Energy Resources for Electricity Generation" numbered 5346. However, with new regulations after 2010, incentives were increased and renewable energy use started to increase. At present, the incentives applied in this field are insufficient when compared to many developed countries.

4.1. Tax Incentives

The historical process and types of tax incentives in the field of renewable energy in Turkey are new. Stamp duty exemption was the only tax incentive for renewable energy in Turkey until 2012. In the following periods, tax incentives were expanded along with investment incentives.

Stamp duty is a tax levied on certain transactions under Law No. 488, and an exemption is applied for papers issued between investors holding investment incentive certificates for renewable energy projects and producers. In addition, transactions in organized wholesale electricity markets are also exempt from stamp duty.

In Turkey, income tax incentives for renewable energy resources stand out especially with the tradesmen exemption and income tax withholding support. Tradesmen exemption is regulated by subparagraph 9 added to the first paragraph of Article 9 of the Income Tax Law No. 193. This exemption applies to real persons who sell surplus electricity generated from renewable energy facilities up to 10 kW installed on the roofs and facades of residences within the scope of activities that can be carried out without a license. This exemption also applies to facilities established by apartment building administrations under certain conditions.

Income tax withholding support is specified in Article 14 of the Resolution No. 2012/3305 on State Aids in Investments. This support is provided for renewable energy investments realized in Region 6 and aims to encourage economic and social development in these regions. The support includes the cancellation of the portion of income tax withholding that corresponds to the minimum wage for additional employment and is applied for ten years. These incentives aim to develop the renewable energy sector and accelerate the energy transition by supporting investments (Idrisov, 2022:67).

Within the scope of large-scale and regional incentive practices in order to increase production and employment, corporate tax deduction is applied at certain rates within the framework of Article 32/A of Law No. 5520. The investment contribution amount described here refers to the amount of corporate tax that the state will forgo collecting by applying corporate tax deduction to the earnings from the investment. Investment contribution rates are applied at a rate of 50% for all regions for strategic investments. For large-scale investments, the rates vary according to regions: 25% in Region 1, 30% in Region 2, 35% in Region 3, 40% in Region 4, 50% in Region 5 and 60% in Region 6.

Law No. 6446 on Electricity Market provides for the implementation of VAT exemption. According to the Law, deliveries and services are exempt from VAT and the taxes incurred in these transactions can be deducted from the calculated VAT. This regulation is intended to provide tax advantages in the electricity market. The manufacture of turbines, generators and wind energy blades for renewable energy generation are considered priority investment areas and VAT exemption is applied in these areas. In addition, VAT collected for building and construction expenditures of TL 500 million or more within the scope of strategic investments is refunded (Idrisov, 2022:69).

In Turkey, renewable energy investments are supported with customs duty exemption under the Investment Incentive Certificate and this incentive is applied in all regions. According to Regulation No. 2012/3305 on State Aids in Investments, imports of machinery and equipment, automobile and light commercial vehicle investments, ship and yacht construction investments are exempt from customs duty. The manufacture of turbines, generators and wind energy blades

for renewable energy production is also exempted from customs duty as a priority investment.

Excise tax incentives to support the renewable energy sector in Turkey are not yet widespread enough. The Energy Market Regulatory Authority has decided to exempt 2% of biofuels (bio-diesel and bioethanol) derived from domestic sources and blended with diesel fuel from excise tax. This tax exemption is aimed at promoting the use of biofuels and ensuring the preference for domestically produced fuels. This step helps to reduce environmental impacts by increasing demand for sustainable energy sources (Yılmaz, 2020: 114).

4.2. Non-Tax Incentives

Non-tax incentive measures are also implemented in Turkey to support the use of renewable energy resources. These incentives include mechanisms such as the feed-in tariff, local content addition, license fee exemption, tender method and investment incentives.

A feed-in tariff (FIT) provides a purchase guarantee to renewable energy electricity generators at a price set by the state and usually lasts for 10-20 years. In Turkey, Law No. 5346 provided a fixed price guarantee for electricity generated from all renewable sources, while Law No. 6094 differentiated this guarantee according to the sources. With the regulations made in 2021, the price guarantee started to be calculated in Turkish cents and it was planned to support the ten-year production of power plants that will be operational until 2025 (Aydoğdu, 2021: 61).

Under Law No. 6094, the domestic content addition is paid in addition to the feed-in tariff for renewable energy facilities in order to encourage domestic production and the use of domestic equipment, and is applied for 5 years from the date the facility starts operation. This support is not provided to unlicensed enterprises and the highest support is for PV module cells (Idrisov, 2022:53).

The Unlicensed Generation Right is an important incentive that attracts investors in renewable energy in Turkey, exempting electricity generation facilities from license fees and allowing facilities up to 5 MW. This right allows residential, industrial, commercial and lighting subscribers to establish unlicensed electricity generation facilities using renewable energy sources. Unlicensed generation facilities are exempt from the license fee for 8 years and pay 10% of the license fee in the following years (Berksoy et al., 2018: 29).

With the 2016 YEKA (Renewable Energy Resource Areas) Regulation, renewable energy incentives in Turkey started to be implemented through tenders, aiming to produce advanced technology equipment domestically. The first tender was held for solar energy in Konya-Karapınar in 2017, and the second tender was organized for facilities with a total wind energy capacity of 1,000 MW in five different regions (Berksoy et al., 2018: 31).

Investment incentives encourage investors in the establishment phase of renewable energy projects with low-interest long-term loans and certain financial support. Turkey's New Investment Incentive Program, in effect since 2012, offers four different incentive schemes for General, Regional, Large Scale and Strategic Investments. These schemes provide various tax incentives such as VAT exemption, customs duty exemption, income tax withholding support.

5. A Comparison of Tax Incentives for Renewable Energy in Selected Countries and Turkey

The use of renewable energy sources is a higher cost compared to fossil fuels, and especially the initial investment costs can pose major challenges for investors. Therefore, government incentives are crucial for the development of the renewable energy sector. Incentives provided by the government can reduce the costs of renewable energy and make it competitive with fossil fuels. Governments offer various incentives to support the renewable energy sector. Among these incentives, tax incentives are an important mechanism to reduce costs. Table 2 shows the tax incentives for renewable energy in selected countries.

Table 2. *Tax Incentives for Renewable Energy in Selected Countries and Turkey*

Countries	Income Tax Incentives	VAT Incentives	Customs Duty Incentives	Property Tax Incentives	Carbon Tax	Rebates	Tax Credits
China	x	x	x		x	x	x
USA	x	x		x	x	x	x
Germany		x			x	x	x
India	x	x	x	x	x	x	x
Japan					x	x	
Turkey	x	x	x			x	

Source: *Author's calculations.*

Renewable energy incentives in Turkey are quite limited compared to leading countries around the world. This is mainly due to the fact that renewable energy policies are more recent than in other countries. The incentives provided for renewable energy investments in Turkey are generally general incentives such as VAT exemptions and customs duty exemptions. However, there are no specific tax incentives for this field.

Many countries offer property tax incentives to increase the use of renewable energy. These incentives ease the cost burden of renewable energy investments. Property tax incentives are usually in the form of exemptions, rebates and discounts. Property tax exemptions and discounts are common in Europe. In Asia, tax refunds are more preferred. In the USA, property tax reductions, exemptions and refunds are applied together. In most USA states, 100% property tax exemption is provided, while in other states tax reductions and rebates are applied. In Spain, buildings with renewable energy systems are eligible for property tax reductions ranging from 15-50%. This rate varies from city to city. In India, 5-10% property tax reduction is applied to green buildings in five states (Çelikkaya, 2017: 72). Spain, Italy, Bulgaria, Romania, USA, Canada, Malaysia and India widely use property tax incentives for green buildings. These incentives are reported to contribute significantly to the increase in green building practices at the local level.

In Turkey, buildings account for the largest share in total energy consumption after industry with a rate of approximately 40% (Gündergi, 2019: 28). Therefore, it is of great importance to meet the energy consumption in buildings with renewable energy sources. This also plays an important role in reducing foreign dependence on energy. Providing property tax incentives for green buildings can contribute to the increase in green building practices and save energy.

A number of countries offer various incentives for R&D expenditures in renewable energy. These incentives include tax credits, tax deductions and cash support programs. For example, China offers a 150% corporate tax deduction for R&D expenditures. In Ireland, this rate is 25%. In Australia, 45% corporate tax deduction is provided for small enterprises and 40% for large enterprises (Akdoğan, 2018: 118 and Çelikkaya, 2018: 373).

In Turkey, there are no specific tax incentives for renewable energy R&D expenditures; only interest support for R&D investments within the scope of investment incentives. Providing special policies and tax incentives for renewable energy R&D activities will play an important role in the development of this field.

In the EU countries, legislative and regulatory work on renewable energy started in the 1980s. Countries such as Germany, the UK and France are pioneers in this field and have established various support funds and regulations. In Turkey, the first important step towards renewable energy was taken with the "Law on the Utilization of Renewable Energy Resources for Electricity Generation" numbered 5346, which entered into force in 2005. Turkey has been a late mover in terms of legislation compared to other countries and tax incentives are scattered in the legislation. This makes it difficult to understand for those who want to benefit from incentives,

hinders the practicality of the system and causes delays. Making tax incentives comprehensible, clear and explicit in the legislation on renewable energy will facilitate incentive practices and enable better benefit (Yılmaz, 2020: 116).

The use of renewable energy resources in Turkey requires the approval and documentation of many institutions other than the Ministry of Energy and Natural Resources. This situation leads to lack of coordination, misuse of public resources and failure in implementation due to the excessive number of incentive implementing agencies and their independent actions.

Many countries have created specific institutions to carry out effective policies in the field of renewable energy. For example, in India, renewable energy policies are carried out by the Ministry of New and Renewable Energy (MNRE). In Norway, there is an organization called Enova to regulate incentives in this field (Yılmaz, 2020: 123).

The establishment of a single institution to ensure policy unity in the field of renewable energy in Turkey will contribute significantly to the acceleration of activities and policy harmonization. Moreover, the creation of special tax incentives for renewable energy will reduce bureaucratic complexities and facilitate the utilization of incentives. In order to achieve renewable energy targets and become one of the leading countries in this field, the tax incentives applied by leading countries at the investment, production and consumption stages should also be applied in Turkey.

6. Conclusion

Energy is of vital importance for all countries. With the continuous increase in the world population and the acceleration of industrialization, energy consumption is also increasing. Energy is used at every stage of economic activities and is a fundamental element of economic growth. However, the sources from which energy is supplied is of great importance both economically and environmentally.

Currently, most of the energy demand is supplied by fossil fuels. The main reasons why fossil fuels have maintained their dominance for a long time are that they are cheap and energy can be easily obtained. However, fossil fuels are non-renewable energy sources and carry the risk of depletion. This jeopardizes the security of energy supply and meeting the growing demand for energy. In addition, the use of fossil fuels causes environmental problems, threatening human life and nature.

In this context, the use of renewable energy sources is becoming increasingly important. Renewable energy increases security of energy supply and reduces environmental problems. However, multiple crises around the world make the transition to renewable energy even more critical. Crises such as climate change, energy supply security, economic uncertainties and geopolitical tensions make it imperative to reduce dependence on fossil fuels and turn to renewable energy sources. These crises require accelerating the transition to renewable energy and increasing investments in this field.

Renewable energy incentive mechanisms in Turkey are insufficient compared to other countries. Incentives were introduced late and are limited in terms of diversity. The most common incentive mechanism is the FIT and there are no special tax incentives. Existing tax incentives fall under general incentives, such as VAT exemptions and refunds, corporate tax reductions or exemptions, and customs duty exemptions.

The lack of specific tax incentives for renewable energy and the complexity of the existing tax legislation reduce the effectiveness of the incentive system and act as a disincentive for investors. Therefore, there is a need to create a special tax incentive mechanism for renewable energy in Turkey. This step will help Turkey to utilize its renewable energy potential in the most efficient way, reduce its energy dependency and become one of the leading countries in sustainable energy.

Crises such as climate change, energy supply security, economic uncertainties and

geopolitical tensions make it imperative to accelerate the transition to renewable energy. In order to be resilient against these crises and ensure energy security, Turkey needs to create special incentive mechanisms for renewable energy and solve existing problems. In this way, Turkey will be among the leading countries in sustainable energy by minimizing its energy dependence.

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