

EDITORIAL

Empowering Albania: Embracing the Renewable Energy Revolution _____

_____ *Prof. Asoc. Dr. Teuta XHINDI* _____

Albania is blessed with a diverse range of renewable energy resources, offering a rich tapestry for sustainable energy production. As the world grapples with the urgent need to transition towards sustainable energy sources, Albania possesses immense potential in renewable energy. With abundant natural resources and a strategic geographical location, Albania can harness renewable energy to not only meet its domestic needs but also become a key player in the global clean energy revolution.

In Albania, the country's mountainous terrain and ample sunshine provide ideal conditions for solar power generation. With approximately 300 days of sunshine per year, Albania boasts significant solar energy potential, particularly in the southern regions. Furthermore, its numerous rivers and streams present ample opportunities for hydropower generation, historically accounting for a substantial portion of Albania's electricity production. Actually, Albania produces about 1% of its energy from the sun, while the rest of the needs are met by hydropower plants and imports.

At least 44% of the energy consumed in Albania in 2022 came from renewable sources.

This figure is almost two times higher than the average amount of renewable energy consumed in the European Union. Although this keeps Albania above the EU average, it certainly exposes it to the risk of energy security when the hydro years are not so favorable, something that has recently encouraged a trend towards diversification and projects mainly related to photovoltaics and wind turbines.

Additionally, Albania's windy coastal areas offer favorable conditions for wind energy projects, further diversifying its renewable energy portfolio.

The transition towards renewable energy not only aligns with global sustainability goals but also offers substantial economic benefits for Albania. By

investing in renewable energy infrastructure, Albania can enhance energy security and mitigate the volatility of global energy markets. Moreover, the development of renewable energy projects can catalyze economic growth, create jobs, and attract foreign investment, bolstering Albania's economy in the long run.

Furthermore, the adoption of renewable energy technologies can significantly reduce greenhouse gas emissions, mitigating the adverse effects of climate change. Albania has committed to reducing its carbon footprint as part of international agreements, and embracing renewable energy is crucial in achieving these ambitious targets. By transitioning away from fossil fuels, Albania can contribute to global efforts to combat climate change while simultaneously improving air quality and public health domestically.

To fully realize its renewable energy potential, Albania must establish a conducive policy and regulatory framework that fosters investment and innovation in the sector. This includes implementing supportive policies such as feed-in tariffs, tax incentives, and streamlined permitting processes to incentivize private sector involvement in renewable energy projects. Additionally, strengthening institutional capacity and ensuring transparent and predictable regulations are essential to attract domestic and foreign investors.

Furthermore, Albania should prioritize the integration of renewable energy into its energy mix through strategic planning and infrastructure development. This involves modernizing and expanding the national grid to accommodate increased renewable energy capacity and implementing energy storage solutions to address intermittent issues associated with solar and wind power. Moreover, fostering collaboration with international partners and leveraging financing mechanisms such as grants, loans, and public-private partnerships can facilitate the deployment of renewable energy projects at scale.

As a conclusion, the potential of renewable energy in Albania is vast and multifaceted, offering a pathway towards sustainable development, economic growth, and environmental stewardship. By capitalizing on its abundant natural resources and embracing innovative technologies, Albania can position itself as a regional leader in renewable energy production and contribute to global efforts to combat climate change. However, realizing this potential requires bold policy decisions, strategic investments, and collaboration between government, industry, and civil society.