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IENE Comment

Energy efficiency emerges as pivot for Energy Transition with a Clear Impact on SE Europe

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*By Costis Stambolis **

As uncertainty over energy transition grows, including future energy supply, concerns over energy price are hikes have become a daily worry for governments, industries, and households alike. Energy markets have entered a new era of volatility, with supply security challenged by geopolitical crises, the rising costs of the energy transition, and shifting demand patterns. In this context, interest is increasingly turning toward energy efficiency as a stabilising factor—one that can balance energy availability, reduce costs, and act as a quiet but powerful driver of sustainable growth.

For Europe, and particularly for South East Europe (SEE), energy efficiency improvement is not just a policy aspiration but a necessity. The European Union, as part of its Green Transition strategy, has set specific targets to improve energy efficiency across all member states. The latest benchmark aims for a reduction of 11.7% in final energy consumption by 2030 compared to 2005 levels. This ambitious goal has been woven into the National Energy and Climate Plans (NECPs) of EU member states, each adjusting the target to reflect their own energy systems and economic structures.

Over the past fifteen years, the EU has invested heavily in energy efficiency programs, with a particular focus on buildings. The building sector, being one of the largest energy consumers, offers the clearest path toward meaningful reductions. Through regional and cohesion funds, and with the financial backing of European-controlled banks such as the European Investment Bank (EIB) and the European Bank for Reconstruction and Development (EBRD), substantial resources have been directed toward upgrading heating systems, improving insulation, and promoting more efficient appliances. Countries in SEE, both EU member states and Western Balkan partners, have been direct beneficiaries of this financial support.

Yet, despite consistent EU funding, the actual results remain murky. There is still no clear and comprehensive picture of how these energy efficiency applications have impacted final energy consumption in SEE. Accountability is patchy, monitoring mechanisms remain underdeveloped, and governments often struggle to ensure that EU and national funds are used effectively. This is a point of growing concern. Without proper evaluation, it is

impossible to know whether investments are yielding the expected returns in reduced consumption and lower emissions. Energy efficiency, while widely acknowledged as beneficial, must be underpinned by data, transparency, and public trust.

At the same time, the cultural dimension of energy efficiency should not be underestimated. While policymakers, technocrats, and financiers see efficiency as a crucial instrument in managing energy demand, the broader population often views it as an abstract concept, disconnected from their daily lives. Making energy efficiency a household word—something that resonates with all social strata—remains a challenge. Only with broad public support can the necessary behavioural changes take root, whether in household energy use, transport habits, or industrial practices.

Globally, energy efficiency has risen in prominence as a central component of the energy debate. The publication of the latest **BP Energy Outlook in September 2025** has given the issue renewed visibility. The report makes special reference to the impact energy efficiency will have in controlling global energy demand in the decades ahead. As BP notes, "the extent to which the doubling in global GDP by 2050 leads to increases in primary energy demand depends on the extent to which energy efficiency improves, after a period of slower-than-usual gains over the past five years." In its Current Trajectory scenario, energy efficiency is expected to improve by about 2% per year on average, while in the "Below 2" scenario—aligned with climate goals—efficiency rises by around 3.3% annually.

The implications are striking. Faster gains in efficiency, coupled with somewhat slower GDP growth, mean that global primary energy demand grows far more slowly than the 1.7% annual average seen over the past two decades. In other words, energy efficiency is emerging as the most cost-effective tool to moderate demand, reduce emissions, and prevent runaway energy costs.

For SEE, this global trend carries specific weight. The region is heavily dependent on imported energy, particularly natural gas, oil, and increasingly LNG. Price volatility directly affects economic stability, with households and industries bearing the brunt of rising bills. Investing in efficiency—whether through modernising the housing stock, upgrading industrial processes, or reducing losses in electricity distribution—offers one of the few strategies that simultaneously improves competitiveness, reduces import dependency, and advances climate targets.

There are already success stories in the region. Greece, for example, since 2013 is pushing large-scale building renovation programs, offering subsidies for households to improve

insulation and heating systems. Latest reports indicate that energy consumption in buildings is levelling off. Bulgaria has seen measurable gains in electricity savings through grid modernisation and energy efficiency funds. Serbia, though outside the EU, has benefited from EBRD-backed schemes to improve efficiency in industry and municipal services. Yet these efforts, while notable, remain fragmented and often insufficient in scale.

The next decade will be critical. As energy markets continue to experience turbulence, SEE governments must elevate energy efficiency from a secondary policy objective to a central pillar of energy security. This means strengthening regulatory frameworks, ensuring strict accountability for funds spent, and communicating more effectively with citizens about the tangible benefits of efficiency measures. Equally, regional cooperation could play a role: sharing best practices, pooling resources, and aligning national schemes with EU-wide strategies.

Ultimately, energy efficiency is not a silver bullet, but it is one of the few policy tools that delivers across the board: economic, environmental, and social. It lowers costs for households, enhances competitiveness for industries, reduces reliance on external suppliers, and brings countries closer to their climate goals. For SEE, with its unique vulnerabilities and opportunities, the case for prioritising energy efficiency could not be clearer. The challenge now is to turn intent into measurable action—and to ensure that energy efficiency becomes more than just a policy slogan, but a lived reality across the region.

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