ENERGY SAVING AND EFFICIENCY (AMERICA AND UKRAINE)

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Energy is one of the main drivers of modern development. Every country faces the challenge of using it wisely. In the United States, energy saving and efficiency have become part of everyday culture, while in Ukraine this issue has gained importance with the process of decentralization and energy reforms (World Bank, 2021).

The United States consumes about 18.5% of the world's energy, yet promotes active programs of energy saving and efficiency (International Energy Agency, 2023). Solar panels, wind turbines, and modern technologies have become part of daily life. Americans prefer appliances labeled ENERGY STAR® or EnergyGuide, which guarantee lower electricity consumption and long-term savings (U.S. Department of Energy, 2022).

Energy saving involves conscious behavior aimed at reducing energy use, while energy efficiency means applying technologies that achieve the same results with fewer resources (IEA, 2023). Educational institutions across the U.S. teach energy awareness from school to university, forming a responsible energy culture (DOE, 2022).

About one-third of household energy is spent on appliances such as refrigerators and washing machines (DOE, 2022). To save energy, Americans unplug unused devices, wash clothes at night, and choose hybrid cars. Although efficient equipment may cost more, it operates longer and saves money on electricity bills.

In Ukraine, the topic of energy saving became especially relevant with the decentralization reform, which gave local communities (hromadas) more financial independence. Rising energy prices and the global shift toward renewables have made energy efficiency a strategic goal.

1. Role of Local Communities

After the adoption of the Law on Voluntary Amalgamation of Territorial Communities (2015), hromadas gained the right to manage budgets and local development. This autonomy allowed them to attract investments and use energy resources more rationally.

2. Energy Efficiency as a Driver of Growth

Many communities have developed Sustainable Energy and Climate Action Plans (SECAPs) to assess energy consumption and plan measures to reduce CO_2 emissions (SAEE, 2023). These plans help to:

- analyze local energy resources,
- plan efficiency programs,
- attract investors and international partners.

The introduction of energy monitoring systems and the position of energy managers improves control and reduces costs, while also raising the quality of life for residents.

3. Financing Energy Projects

Despite expanded powers, local authorities still need additional funding. One

promising model is energy cooperatives, which unite citizens to invest in renewable energy (World Bank, 2021).

Successful global examples include:

- Germany – over 7,500 cooperatives with 20 million members producing solar and wind power (IEA, 2023);
- USA – about 800 cooperatives supplying electricity across 46 states (DOE, 2022);
- Denmark – 85% of wind turbines owned by cooperatives (IEA, 2023).

Such partnerships can be adapted in Ukraine to stimulate local clean energy production (SAEE, 2023).

Both the U.S. and Ukraine demonstrate that energy efficiency is not only about technology but also about culture, responsibility, and cooperation (IEA, 2023). Ukrainian communities have a real opportunity to become energy independent through energy management, SECAPs, cooperatives, and smart investments. Rational use of resources will reduce energy consumption, cut emissions, improve ecology, and strengthen local economies – ensuring a sustainable and secure energy future for both nations.

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