

Comparative Analysis of Renewable Energy Sources on the Example of Georgia

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Georgia possesses abundant non-conventional energy resources, which are crucial for strengthening its energy security and balancing its energy needs. Underground thermal waters, solar and wind energy, biogas and secondary energy resources have been identified as the main energy substitutes in the future. Despite their enormous potential, a concerted effort began in the 1980s to assess these resources and exploit them economically.

Specialized organizations such as “Wind Energy” and “Special Heliothermal Installation” (Cooperative “Mze”) have taken important steps in the utilization/development of these resources. However, despite their efforts, they faced problems be it technical, economic or organizational challenges that still exist today.

These energy sources are renewable and virtually inexhaustible, offering products that compete with traditional energy sources without harming the environment. They primarily serve local heating needs, thereby reducing transportation costs and easing the strain on energy distribution. More importantly, promoting the use of these resources also enhances energy security.