

**Energy security of the Southern Caucasus: opportunities and challenges**

ABSTRACT. Existing energy generation and distribution systems of the South Caucasus were inherited from the Soviet era and are deficient for ensuring sustainable energy security. Paradoxically, all the three countries of the region—Armenia, Azerbaijan and Georgia—are experiencing a shortage of energy resources since the 2005s and are obliged to import different types of energy from their neighbours. From a thorough analysis of geopolitical and geoeconomic realities, regional economic development trends, energy generation and distribution systems (slightly improved via international pipeline networks like SCEC, BTC and Iran–Armenia), a model of national energy consumption up to 2040 has been constructed, including peculiarities of energy import and export as well as existing active and potential reserves of renewable resources. The projected exhaustion of oil and gas fields of the Caspian Basin in the near future clearly demonstrates that the existing energy infrastructure is unable to ensure regional energy security. From this point of view only Georgia possesses enough hydro- and other kinds of renewable resources for ensuring sustainable electricity generation for the region. However, by 2040 a new regional nuclear power plant should be constructed. Correspondingly, the proposed regional energy security concept is based on regional collaboration and synergetic development of energy generation, storage, import and distribution infrastructure regardless of existing political and economic discrepancies.