

# ЕКОНОМІЧНА БЕЗПЕКА ДЕРЖАВИ ТА СУБ'ЄКТІВ ГОСПОДАРЮВАННЯ

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## BUSINESS IN THE SYSTEM OF PROVIDING OF ENERGY SECURITY OF UKRAINE

**Olha Volodymyrivna Komelina<sup>\*</sup>, Doctor of Economics, Professor.**  
**Poltava National Technical Yuri Kondratyuk University**  
**Inna Samoilenko, PhD (econ.).**

**O.M. Beketov National University of Urban Economy in Kharkiv**

\* komelina@meta.ua

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**Set of the problem.** Energy security of Ukraine in the condition of rapid rise of prices for traditional fossil fuels and increase of national economy energy dependences, influence of political, economic, environmental and financial situation, get their severity and urgency. The role of energy development infrastructure is not defined yet, and its low level of formation makes it impossible to implement projects by the production of sustainable energy development and also higher level of country energy security. Solving the problem of country energy security requires justify of scientific and practical approaches for the development of energy infrastructure and expansion of modern energy services, which could extent reduce the severity of the problem of country energy security.

**Analysis of recent researches and publications.** The modern problems of energy economics development and energy security are the subject of researching in many international organizations and institutions. One of the first studies of energy security assessment was conducted by the International Energy Agency (IEA). IEA proposed model for evaluating short-term energy security (MOSES), on the basis of which was take into account two groups of factors: the risk of supply disruption and stability of the national grid to such failures. The IEA considers that «more than billion people still has lack access to modern energy services, and thus providing these energy services is a priority for many governments around the world to bring people out of poverty» [1]. Pay some attention to results of the research of the Institute of Energy 21st Century by US Chamber of Commerce, which were described in the work «International Index of Energy Security Risk: Assessing Risk in a Global Energy Market» [2]. They estimate that in 2012 Ukraine was on the penultimate place 74 among 75 major energy consumers. Scientists of the National Institute for Strategic Studies concluded that one of the main ways to reduce risks of Ukraine's energy security is the development of market infrastructure and promoting competition in this area [1].

In the European Union adopted a new platform of energy supply – European Technology Platform SmartGrids [3], which is based on solving three problems: energy supply (where the main thing is the continuity of supply and provision of high quality energy and services), energy availability (about its price and energy thrift), energy acceptability (with minimal impact on the

environment and climate change), which are the most profitable for ensuring energy consumption from the standpoint of safety, reliability (continuity), the quality of energy supply and energy services, affordable and attractive for environmental consequences.

The problem of equitable providing of the affordable, reliable, efficient, environmentally sound, properly regulated and socially acceptable energy services examined in the works by foreign researchers J. Lilliestam, A. Patt [4]. The impact of energy consumption on city energy security distinguished in an energy reviews of International Energy Agency [5, p. 179].

The formation of the legislative field of energy relations were described in the works of N.V. Mytsa, according to which the regulation of energy relations should be «towards intensification of international cooperation and conclude appropriate bilateral and multilateral agreements which should be focused on implementation of the Energy Strategy of Ukraine and ensuring national interests» [6, p. 307].

However, despite significant scientific research achievements in the field of energy security, nowadays, it remains an understudied model of building an effective and efficient energy infrastructure through the development of energy service business, and on that basis, country energy security.

**Main aim of the research.** Investigate the role of energy service business in the system to ensure country energy security and to define mechanisms to ensure its further development.

**Results.** Summarizing the existing approaches to the interpretation of the concept of energy security we should note that the base for this study is the following approach: energy security – the ability of state and its authorities to ensure end-users of energy in sufficient quantity and adequate quality in normal conditions and under the action of destabilizing factors (emergencies) internal or external nature within the guaranteed minimum amount covering the most important needs of its individual regions, cities, towns or facilities in energy resources [7].

Energy security and efficient energy consumption has nationwide importance, but Ukraine as well as any modern country, cannot only in a position at the state level fundamentally affect the current energy situation in the country, overcome energy problems require local solutions. In the work [8, p. 34] the author classifies underlines the expediency of consideration of energy security components (ES) as goods (absence of threats in certain components of ES) into non-goods (existence of critical threats in specific components of ES), that have a certain value and provides some level of utility, but it should be taken into account its character for the subject, which it consumes – private or public. Thus, resolving the problem of energy security is associated with release of several levels of consumer utility ES and different form-building levels of its origin: the individual, entity, location (city), region, state. So, the question about energy security is systemic and requires adequate approaches to ensure it. Clearly, country's energy security is not possible without active participation of government agencies, private sector, and developed and viable energy infrastructure. The world practice shows that the effectiveness of different forms development and models of public-private partnerships could be provide through the development of specialized energy service business (energy services companies – ESC). ESC activities focused on energy saving and increase of energy efficiency of consumers through the implementation of energy efficiency projects involving different sources of its financing, which returns from the savings costs of consumed energy resources and communal services during the term of energy service agreement. As part of the relationship of energy service activity profitability of saving measures is provided by the capital of ESC. The functioning of ESC carried out on terms signed with the consumer energy service contract during which solve two main tasks.

First of all, achieves specific program and targets energy savings in their production, transmission and consumption. The essence of the mechanism of realization this task: due the realization of the first task ESC sign a contract, invest their money and receives a percentage of the savings, including from the budget costs that intended to pay for energy (if the contract signed with public bodies). ESC not involved in management, production and maintenance of buildings and structures.

Secondly, possibility to achieve a certain level of comfort with optimal energy consumption. In order to solve this problem ESC fully assumes the right to property management and provides a power saving function. Local businesses of Housing and Communal Services paying the cost of equipment and services to ESC partly within the time that specified in efficient contract, and solely from funds already received from the saving of energy and water resources. Energy Services

contracts can be used by industrial enterprises and institutions of fiscal and social services, and Housing and Communal Services.

Now in Ukraine energy service activities that related to the work of increasing energy efficiency and energy saving, which should be an important component of energy security, are new and underdeveloped. It is associated mainly with supply meters, energy-efficient equipment and materials, conduct energy surveys or supply of energy resources. The reasons for the weak development of energy service activities in Ukraine are: firstly, unstable conditions of SME's activity; secondly, inconsistency of legislation needs to the present (for example, in the existing legal framework is not defined rights and obligations of ESC); thirdly, an absence of methodology (including methodological framework for methods of measurement and verification of energy efficiency); fourthly, high financial and political risks. In addition, there are problems about ensuring financial independence of ESC because they usually do not have sufficient capacity to complete energy efficiency projects at customer sites at their own expense. That is why support of energy service activity provides a transition from direct financial assistance from the state to the formation of a system implementing effective business projects in the relevant field, including projects related to the insurance of commercial and noncommercial risks.

The main advantages of development of energy service business in the system of energy security is promote of competition and freedom of choice for consumers on choosing ESC (enterprise utilities, energy service organizations, formed new organizations in reforming the «big» energy); provide reliable and quality power supply; precise regulation of legal relations between consumers, energy service companies and energy supply companies; legal certainty and mutual responsibility between consumers and distribution companies. In turn, the power distribution companies are paid for their services only in the case of fuel and energy resources and provided energy services meets with current standards, set norms and level of technological losses.

At this stage the main role in the development of energy service business in Ukraine is about attracting on competitive base ESC to work on objects of state and municipal property as to perform certain energy saving measures or energy efficiency programs and to manage these objects using modern forms and management (concession, lease, leasing, etc.).

Constraining factors of efficient development of energy service business are lack of proper staffing, due to the slow reaction of the education market to changes in the business environment and the lack of an integrated system of legal assurance and control of the «rules» in energy service market.

In general, the development of energy service business in the system of energy ensure security should facilitate to improve reliability and quality of power supply; more efficient use of fuel and energy resources (FER), expand energy efficient; increase the stability and reliability of power supply companies; creation of conditions for access FER to the public and protection of their rights as consumers of energy and energy services in compliance with the balance of economic interests of FER consumers and suppliers; formation of necessary economic environment for investment in sustainable development and operation of regional energy systems; reduce the political and economic risks during implementation of socially important projects.

Widespread use of energy service contracts in the public sector will attract extra-budgetary funds in modernization of state and municipal property and opens the way for large-scale investment in energy saving measures. Attracting private investment can not only solve the problem of replacing outdated equipment, but to replace it with a more energy efficient, which corresponding to modern technological and environmental standards.

**Conclusions.** The main components of ensuring the country's energy security are reforming of municipal energy enterprises, de-monopolization and development of a competitive energy market and energy services; creation and development of control mechanisms on energy supply and energy services to the public within the law; formation of a system of information and educational support in the field of energy conservation and energy efficiency and so on. The implementation of the proposed measures will provide structural changes in the energy sector. For the development of a competitive energy market de-monopolization of energy supply area and improving energy security is appropriate: gradual introduction of quality standards of public services to the consumer taking into account experience of the EU; development and testing mechanisms for implementing energy service contracts within the public-private partnership. Consider that from a scientific point of view further study needs international experience in the use of certain types of energy service contracts

and models of financing such contract in Ukraine; detailed analysis of national legislation in this area and discussion prospects for the development of energy service companies in all sectors of the national economy; the issue of the introduction of modular training programs and training for government officials who are involved in the implementation of state policy in the field of energy saving.

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**Komelina Olha Volodymyrivna**, Doctor of Economics, Professor, Professor of the Department of Management and Logistics. Poltava National Technical Yuri Kondratyuk University. **Samoylenko Inna**, PhD (econ.), assoc. prof. of the Department of Management and Administration. O.M. Beketov National University of Urban Economy in Kharkiv. **Business in the system of providing of energy security of Ukraine**. The article deals with the features of the formation of energy security in Ukraine and the functions of business in its software were investigated. The role of energy service business and the role of government in the development of energy service companies which is a part of energy security was prescribe. The peculiarities of energy service business in the country were determined in the article. The main problem of energy service companies and mechanisms of i their activities intensification was determined.

**Keywords:** energy security, energy service businesses, energy service activities, energy service contract.

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**Комелина Ольга Владимировна**, доктор экономических наук, профессор. Полтавский национальный технический университет имени Юрия Кондратюка. **Самойленко Инна**, к.э.н., доцент, доцент кафедры менеджмента и администрирования. Харьковский национальный университет городского хозяйства имени А.М. Бекетова. **Бизнес в системе обеспечения энергетической безопасности Украины**. В статье исследованы особенности формирования энергетической безопасности в Украине и определена роль бизнеса в его обеспечении. Обосновано значение энергосервисного бизнеса и выделены функции власти в развитии системы энергосервисных компаний, которая является составляющей обеспечения энергетической безопасности. Определены особенности развития энергосервисного бизнеса в стране. Установлены основные проблемы развития энергосервисных компаний и механизмы активизации их деятельности.

**Ключевые слова:** энергетическая безопасность, энергосервисный бизнес, энергосервисная деятельность, энергосервисный контракт.

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**Комелина Ольга Володимирівна**, доктор економічних наук, професор. Полтавський національний технічний університет імені Юрія Кондратюка. **Самойленко Інна**, к.е.н., доцент, доцент кафедри менеджменту і адміністрування. Харківський національний університет міського господарства імені О.М. Бекетова. **Бізнес в системі забезпечення енергетичної безпеки України**. У статті досліджено особливості формування енергетичної безпеки в Україні та визначено функції бізнесу в її забезпеченні. Обґрунтовано значення енергосервісного бізнесу та виділено функції влади в розвитку системи енергосервісних компаній, що є складовою забезпечення енергетичної безпеки. Окреслено особливості розвитку енергосервісного бізнесу в країні. Виокремлено основні проблеми розвитку енергосервісних компаній та механізми активізації їх діяльності.

**Ключові слова:** енергетична безпека, енергосервісний бізнес, енергосервісна діяльність, енергосервісний контракт.