TASHKENT STATE UNIVERSITY OF ECONOMICS

International journal of topics

INNOVATION SCIENCE AND TECHNOLOGY

Scopus || Electronic journal specializing in Scopus

ISSUE 2

Acceptance of papers **February, 2026**

Acceptance of papers

Published monthly

Topics

economics, technology, social sciences

ISSN 3060-5229

Electronic publication, Issue 2. 142 pages.
Approved for publication on February, 2026.

THE SCIENTIFIC-POPULAR ELECTRONIC JOURNAL **"INNOVATION SCIENCE AND TECHNOLOGY"** HAS BEEN REGISTERED UNDER THE NUMBER **C-5669633** BY THE AGENCY FOR INFORMATION AND MASS COMMUNICATIONS (AOKA) OF THE REPUBLIC OF UZBEKISTAN, EFFECTIVE FROM OCTOBER 9, 2024.

CONTACTS

Phone: **+998 50 737 87 88**

Website: https://ist-journal.uz

Email: innovationist2025@gmail.com

The scientific electronic journal “Innovation Science and Technology” has been included in the list of scientific publications recommended for the publication of main scientific results of dissertations for the award of PhD and DSc degrees in economics and technical sciences, in accordance with the Resolution No. 370 of the Presidium of the Higher Attestation Commission of the Republic of Uzbekistan, dated May 8, 2025.

Editorial board:

CONTENTS

CONTENTS

SCENARIO ANALYSIS OF IMPROVING THE ENERGY EFFICIENCY OF UZBEKISTAN'S ECONOMY UNDER CONDITIONS OF UNCERTAINTY

Muslimova F.S.
Independent Researcher
Tashkent State University of Economics

Khashimova N.A.
Professor, Doctor of Economic Sciences
Tashkent State University of Economics

Abstract: The article is devoted to the analysis of approaches to scenario forecasting of improving the energy efficiency of Uzbekistan's economy under conditions of external and internal uncertainty. The study examines methods of scenario and multifactor analysis that make it possible to account for the combined influence of macroeconomic, technological, and institutional factors on the dynamics of the energy intensity of gross domestic product. The paper substantiates the expediency of transitioning from static assessments to multivariate development scenarios reflecting alternative trajectories of economic growth and energy transformation. The practical significance of the research lies in the development of analytical tools that contribute to informed decision-making in the field of energy and investment policy, as well as in supporting the sustainable development of the economy.

Key words: scenario analysis, energy efficiency of the economy, GDP energy intensity, multifactor analysis, structural transformation, digitalization of the economy, sustainable development, economic strategy.

Annotatsiya: Mazkur maqola O'zbekiston iqtisodiyotining energiya samaradorligini tashqi va ichki noaniqlik sharoitida oshirish bo'yicha ssenariy prognozlash yondashuvlarini tahlil qilishga bag'ishlangan. Tadqiqotda yalpi ichki mahsulot energiya sig'imining dinamikasiga makroiqtisodiy, texnologik va institutsional omillarning birgalikdagi ta'sirini hisobga olish imkonini beruvchi ssenariy va ko'p omilli tahlil usullari ko'rib chiqilgan. Ishda statik baholashlardan iqtisodiy o'sish va energiya transformatsiyasining muqobil yo'nalishlarini aks ettiruvchi ko'p variantli rivojlanish ssenariylariga o'tishning maqsadga muvofiqligi asoslab berilgan. Tadqiqotning amaliy ahamiyati energiya va investitsiya siyosati sohasida asoslangan qarorlar qabul qilishga ko'maklashuvchi hamda iqtisodiyotning barqaror rivojlanishini ta'minlovchi analitik vositalarni ishlab chiqishda namoyon bo'ladi.

Kalit so'zlar: ssenariy tahlili, iqtisodiyot energiya samaradorligi, YAIM energiya sig'imi, ko'p omilli tahlil, tarkibiy transformatsiya, iqtisodiyotni raqamlashtirish, barqaror rivojlanish, iqtisodiy strategiya.

Аннотация: Статья посвящена анализу подходов к сценарному прогнозированию повышения энергоэффективности экономики Узбекистана в условиях внешней и внутренней неопределенности. В исследовании рассматриваются методы сценарного и многофакторного анализа, позволяющие учитывать совокупное влияние макроэкономических, технологических и институциональных факторов на динамику энергоемкости валового внутреннего продукта. Обоснована целесообразность перехода от статических оценок к многовариантным сценариям развития, отражающим альтернативные траектории экономического роста и энергетической трансформации. Практическая значимость работы заключается в разработке аналитических инструментов, способствующих принятию обоснованных решений в сфере энергетической и инвестиционной политики, а также обеспечению устойчивого развития экономики.

Ключевые слова: сценарный анализ, энергоэффективность экономики, энергоемкость ВВП, многофакторный анализ, структурная трансформация, цифровизация экономики, устойчивое развитие, экономическая стратегия.

INTRODUCTION

Under conditions of large-scale structural transformations in the Republic of Uzbekistan—industrialization, modernization of the energy sector, development of renewable energy sources, and digitalization—the analysis and forecasting of GDP energy efficiency acquire particular relevance. Economic growth is accompanied by changes in the sectoral structure and the expansion of energy-intensive industries, which intensifies the impact of interrelated factors on the dynamics of energy consumption and necessitates the application of comprehensive analytical tools.

Methods of scenario analysis and multifactor modeling make it possible to identify the key determinants of changes in energy intensity and to assess their contribution under various development trajectories. Such an approach ensures the formulation of well-grounded forecasts, the evaluation of alternative scenarios, and the development of effective energy policy that takes into account the role of the energy sector as a foundation for sustainable socio-economic growth.

In this context, improving GDP energy efficiency is regarded as one of the key priorities of state economic and energy policy. This indicator reflects the degree of rational use of energy resources in the process of expanded reproduction and serves as an integral indicator of structural and technological transformations in the economy. The improvement of scenario analysis methods and macroeconomic forecasting of GDP energy efficiency constitutes a necessary condition for the formation of a long-term strategy for the sustainable development of Uzbekistan's economy under conditions of heightened uncertainty.

REVIEW OF LITERATURE ON THE SUBJECT

Makarov, A. A. and Melentiev, L. A. 1973 laid the methodological foundation for systemic research and optimization of national energy economies. Their work emphasized the integration of technological, economic, and infrastructural parameters within unified optimization frameworks, forming the basis for long-term energy planning under uncertainty. Later, Voropai, N. I. 2010 expanded these system studies, highlighting the evolution of scientific directions in energy-economic modeling and the importance of scenario-based approaches in managing structural transformations of energy systems.

Forecasting the interrelations between energy and the economy has been extensively developed by Kononov, Y. D., Galperova, E. V., and colleagues 2009, who proposed models linking macroeconomic indicators with energy demand dynamics. Their framework underlined feedback mechanisms between economic growth, sectoral output, and energy consumption—an essential aspect for economies undergoing structural reforms. Similarly, Chateau, B. and Lapillonne, B. 1978 introduced the MEDEE approach, a bottom-up methodology for long-term forecasting of final energy demand, enabling detailed sectoral scenario construction.

Large-scale simulation models have also contributed significantly to scenario analysis. The National Technical University of Athens developed the PRIMES energy system model, widely used in European policy analysis for assessing alternative energy pathways and regulatory measures. Its equilibrium-based framework allows the evaluation of policy shocks, technological transitions, and market uncertainties—features particularly relevant for transition economies such as Uzbekistan.

From the perspective of structural decomposition and efficiency analysis, Ang, B. W. and Liu, F. L. 2001 proposed a perfect decomposition method (LMDI), ensuring consistency and eliminating residual errors in energy intensity studies. This methodological advance enables precise identification of drivers of energy efficiency changes, including structural, technological, and activity effects. Complementing this approach, Liddle, B. 2012 conducted panel analyses across developed and developing countries, demonstrating the complex relationship between energy intensity, GDP growth, and population dynamics. His findings suggest that structural transformation and technological progress significantly influence long-term energy efficiency trajectories.

Sectoral and technological considerations are further addressed in the assessment of nuclear energy's macroeconomic benefits by the Nuclear Energy Institute 2014, which emphasizes multiplier effects, employment generation, and energy security contributions. In this context, Shirov, A. A. and Yantovsky, A. A. 2011 explored multiplicative effects within national economies, noting both the analytical opportunities and methodological limitations of input-output and macroeconomic multiplier models when applied under uncertain conditions.

Overall, the reviewed literature demonstrates that scenario analysis of energy efficiency improvements must integrate system optimization models, macroeconomic-energy linkages, decomposition techniques, and multiplier assessments. However, despite the robustness of these methodological frameworks, there remains a research gap in applying integrated scenario modeling specifically to transition economies with structural reforms and energy sector modernization agendas. This study contributes by adapting these established theoretical and methodological approaches to the context of Uzbekistan, incorporating uncertainty factors such as technological adoption rates, investment constraints, and policy variability.

RESEARCH METHODOLOGY

The study is based on official statistical data from national energy balances, macroeconomic indicators, and sectoral production statistics, complemented by international databases. Data were collected through document analysis and secondary data review. The analysis applies scenario modeling, decomposition techniques (LMDI), and econometric estimation to evaluate the relationship between energy intensity and economic growth under uncertainty conditions.

ANALYSIS AND RESULTS

Forecasting energy consumption amid structural transformations of Uzbekistan's economy represents a multi-stage and multi-level process, the results of which are used in shaping strategic development priorities for both the energy sector and the national economy as a whole. The reliability of forecast estimates largely determines the effectiveness of energy demand management measures, the potential for energy saving, and the long-term sustainability of the energy system.

Opportunities to reduce uncertainty in forecasting the energy efficiency of the economy are associated with the identification of objective patterns of socio-economic development, the alignment of fuel and energy complex (FEC) development trajectories with the needs of the economy, as well as consideration of interconnections among individual energy subsystems. Of significant importance is the corrective impact of changes in energy prices, technological modernization of energy systems, and institutional factors on macroeconomic indicators. At the same time, the high inertia of the fuel and energy complex limits the pace of structural transformations, which must be taken into account when constructing scenario forecasts.

In conditions of high volatility of energy prices, accelerated technological development, and increasing external and internal uncertainty, the number of possible scenarios of economic and energy development grows. This enhances the importance of scenario analysis as a tool for narrowing the forecast range and assessing the robustness of the obtained results. The application of the scenario approach makes it possible to compare alternative development trajectories, identify the sensitivity of the economy's energy efficiency to changes in key parameters, and formulate more substantiated decisions in the field of state energy policy.

The long-term trajectories of economic growth in the Republic of Uzbekistan are largely determined by demographic processes that shape the scale of the economy, the volume of labor resources, and domestic demand for goods and services. At the same time, the influence of the demographic factor on energy efficiency is indirect and manifests itself through the age and gender structure of the population, the level of urbanization, the development of social infrastructure, and the quality of human capital. These parameters determine both the structure of production and the pattern of final energy consumption, which must be taken into account in the scenario analysis of the economy's energy efficiency.[7]

An important structural determinant of GDP energy intensity is the level of value added, which reflects the depth of resource processing and the efficiency of economic processes. Economies predominantly oriented toward the export of raw materials and primary processing are generally characterized by high energy intensity and low value added, which constrains the growth of energy efficiency. Conversely, the development of processing chains, innovative production, and high-technology industries ensures GDP growth with a relatively stable or declining level of energy consumption. Within the framework of scenario analysis, these structural shifts are considered one of the key factors shaping alternative trajectories for improving the energy efficiency of Uzbekistan's economy under conditions of uncertainty.

Macroeconomic analysis of the energy sector under conditions of uncertainty requires the application of comprehensive analytical approaches that allow for the consideration of the diversity of factors influencing the dynamics of economic development and the efficiency of energy resource utilization. Within scenario analysis, particular importance is attached to the structural analysis of the energy industry, aimed at identifying the most energy-intensive segments of the economy, assessing the distribution of fuel and energy resources across sectors, and determining the impact of sectoral shifts on the energy intensity of gross domestic product. Such an approach makes it possible to identify structural constraints and "bottlenecks" generating excessive energy consumption and to substantiate measures to enhance energy efficiency at both the sectoral and the overall economic levels.

An important methodological component is the integration of macroeconomic and energy models, ensuring the consistency of forecasts of socio-economic development and the dynamics of the energy sector. The use of integrated modeling frameworks makes it possible to account for feedback effects between economic growth, factor productivity, and energy consumption, as well as to assess the implications of changes in energy policy, investment activity, and technological development for the energy efficiency of Uzbekistan's economy[8].

The application of a systems approach makes it possible to consider the energy sector as a complex dynamic system operating under the influence of investment, technological, institutional, and external economic factors. Such an approach ensures the identification of stable structural interdependencies, the assessment of the adaptive capacity of the energy system, and the analysis of its response to alternative scenarios of socio-economic development under conditions of uncertainty.

Within the framework of this study, scenario analysis finds broad practical application, enabling the modeling of alternative development trajectories of both the energy sector and the economy as a whole. It provides for the consideration of environmental uncertainty, fluctuations in energy prices, changes in public policy, and the pace of the adoption of new technologies. Scenario analysis serves as a key instrument for risk assessment and for substantiating long-term strategies aimed at improving the energy efficiency of Uzbekistan's economy.

In this article, econometric analysis is employed not for the direct forecasting of the energy intensity of gross domestic product, but rather for identifying the mechanisms underlying the formation of the economy's energy efficiency under conditions of uncertainty and alternative development trajectories. In contrast to traditional regression approaches, the emphasis is placed on analyzing the relationship between economic growth rates and changes in primary energy consumption (Table 1).

Table 1. Dynamics of Gross Domestic Product, Primary Energy Consumption, and Energy Intensity of Uzbekistan's Economy [1-5]

Year	GDP, trillion UZS	Primary Energy Consumption (PEC), million toe	Energy Intensity, toe per million UZS
2010	35.5	20.5	0.577
2011	38.5	20.6	0.535
2012	42.3	20.8	0.492
2013	47.1	21.0	0.446
2014	51.5	21.2	0.412
2015	56.7	21.5	0.379
2016	61.6	21.6	0.351
2017	67.8	21.8	0.321
2018	70.7	22.0	0.311
2019	58.0	20.0	0.345
2020	63.0	19.7	0.313
2021	73.4	20.4	0.278
2022	88.8	21.2	0.239

The data presented in the table reflect the long-term dynamics of the macroeconomic and energy indicators of the Republic of Uzbekistan and demonstrate a stable downward trend in GDP energy intensity against the backdrop of GDP growth outpacing the dynamics of primary energy consumption. The observed divergence between the growth trajectories of GDP and energy consumption indicates the presence of structural and technological factors shaping an energy-efficient model of economic development. These features justify the transition from analyzing absolute indicator levels to conducting an econometric study of their growth rates, which makes it possible to adequately account for the effects of uncertainty and structural shifts.

GDP energy intensity is considered as the result of the interaction between two dynamic processes—economic growth and changes in the volume of energy consumption[4]:

$$EI_t = \frac{TE_t.}{GDP_t}$$

Differentiating this expression with respect to time and moving to growth rates, we obtain[13]:

$$\Delta ln\,(EI_t) = \Delta ln\,(TE_t) - \Delta ln\,(GDP_t),$$

Where:

$\Delta \ln(TE_t)$ — the growth rate of primary energy consumption,

$\Delta \ln(GDP_t)$ — the rate of economic growth.

Thus, a reduction in energy intensity is possible if the GDP growth rate outpaces the growth rate of energy consumption, or in the case of an absolute decline in energy consumption.

To provide a quantitative assessment of this mechanism, the following model is employed.[14]:

$$\Delta ln\,(EI_t) = \alpha + \beta_1 \Delta ln\,(GDP_t) + \beta_2 \Delta ln\,(TE_t) + \varepsilon_t,$$

Where:

α — a constant reflecting autonomous technological change;

β_1 — the contribution of economic growth;

β_2 — the contribution of changes in energy consumption;

ε_t — stochastic component.

Such a specification makes it possible to:

• avoid the problem of spurious regression in levels;

• account for the instability of macroeconomic dynamics;

• correctly interpret the model under conditions of structural shifts.

The estimation of the model based on data for 2010–2022 shows that the contribution of economic growth rates to the dynamics of energy intensity is both statistically and economically significant. At the same time, the coefficient on $\Delta\ln(GDP_t)$ has a negative sign, indicating the energy-efficient nature of economic growth in the long-term dynamics.[5; 14]

At the same time, the coefficient on $\Delta\ln(TE_t)$ demonstrates that an increase in energy consumption without a corresponding expansion of value added leads to a deterioration in energy efficiency. This confirms the structural nature of energy intensity and the limitations of purely technological measures in the absence of changes in the structure of the economy.[6; 9]

The obtained results are used not for extrapolative forecasting, but for the formation of scenario conditions. In particular:

• the inertial scenario corresponds to a situation in which the growth rate of energy consumption is close to the GDP growth rate, leading to a slow decline in energy intensity;

• the moderately intensive scenario assumes GDP growth outpacing restrained growth in energy consumption;

• the intensive scenario is based on a combination of high economic growth rates, structural shifts, and stabilization of energy consumption.

The econometric model of changes in energy intensity growth rates makes it possible to quantitatively substantiate the differences between the scenarios and to assess the limits for achieving the target indicators of energy efficiency (Figure 1) [9; 12].

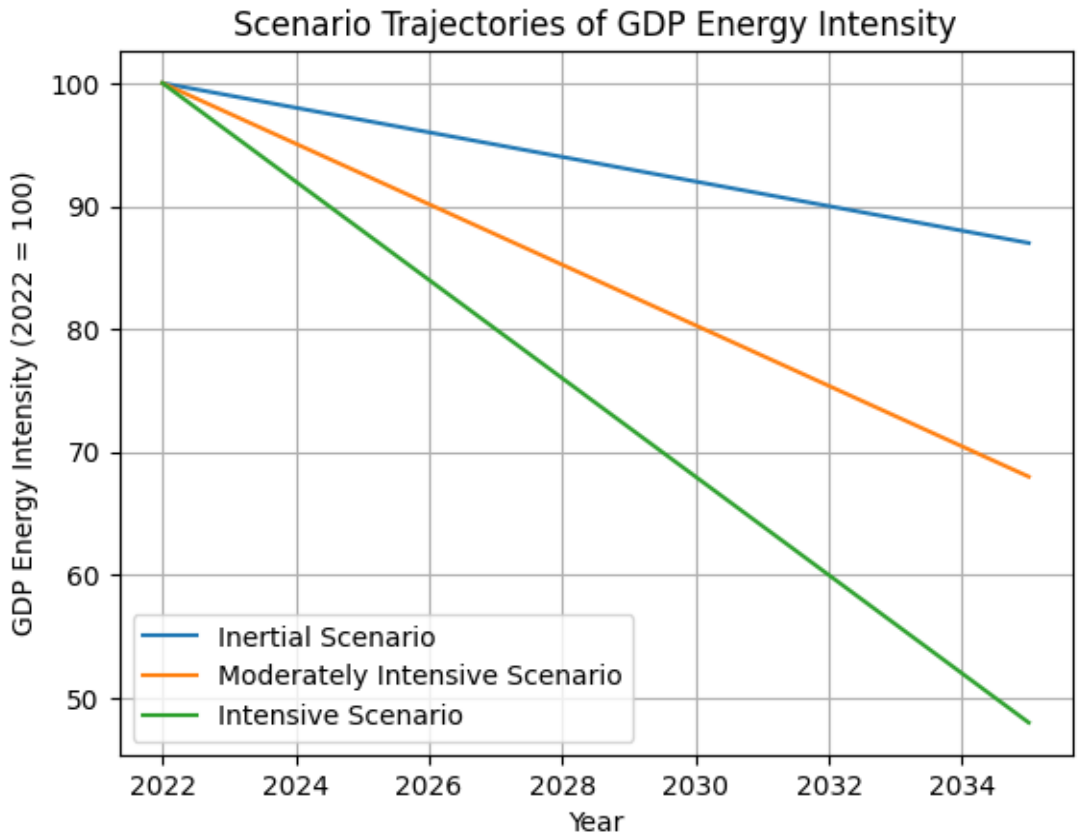

Figure 1. Scenario trajectories of GDP energy intensity [1; 3]

The graph reflects three scenario trajectories of changes in GDP energy intensity over the period 2022–2035 (base year 2022 = 100). In all cases, a decline in the indicator is observed; however, the pace and depth of the reduction differ substantially depending on the nature of economic growth and the energy policy pursued.

The inertial scenario предполагает the slowest decline in energy intensity: by 2035, the indicator decreases only to approximately 87. This implies the persistence of a high dependence of the economy on energy resource consumption and a limited effect of structural transformations. In this case, the dynamics of energy efficiency are gradual and do not ensure a significant technological breakthrough.

The moderately intensive and intensive scenarios demonstrate a more pronounced downward trend. Under the moderately intensive option, energy intensity declines to approximately 67–68 by 2035, reflecting the impact of modernization and productivity growth. The intensive scenario is characterized by the deepest reduction—to around 48—forming a stable “decoupling” effect between GDP growth and energy consumption and ensuring an accelerated transition to an energy-efficient development model.[14]

The results of the econometric and scenario analysis are of significant importance for the formulation of the state economic and energy policy of the Republic of Uzbekistan. The identified relationship between the nature of economic growth and the dynamics of GDP energy intensity confirms that achieving energy efficiency targets is impossible without purposeful structural and institutional transformations.

The inertial scenario demonstrates the limitations of an extensive development model, in which GDP growth is accompanied by an increase in energy consumption. Such a trajectory increases the economy’s vulnerability to external price and technological shocks and does not ensure a sustainable reduction in energy intensity. A more promising option is the moderately intensive scenario, which assumes the outpacing growth of value added through modernization, productivity enhancement, and the development of processing industries.

The intensive scenario reflects the strategic objective of long-term development—the formation of a regime of relative decoupling between economic growth and energy consumption. Its implementation requires a comprehensive policy framework, including technological modernization, digitalization, the development of renewable energy sources, and the improvement of the institutional environment. Overall, the analysis confirms the necessity of transitioning to a model of qualitative economic growth, in which improvements in energy efficiency become a managed and predictable outcome of structural transformation.[8]

In the conducted study, a comprehensive analysis of the dynamics of the gross domestic product (GDP) energy intensity of the Republic of Uzbekistan was carried out on the basis of econometric and scenario approaches, taking into account conditions of uncertainty and structural transformation of the economy. The results obtained confirm that energy efficiency is not an automatic consequence of economic growth, but is shaped by a combination of macroeconomic, structural, technological, and institutional factors.

The econometric analysis revealed a stable negative relationship between economic growth rates and the dynamics of GDP energy intensity in the long term, indicating the energy-efficient nature of economic growth under certain conditions. At the same time, it was found that an increase in energy consumption without a corresponding expansion of value added leads to a deterioration in energy efficiency, which confirms the structural nature of energy intensity and the limitations of isolated technological measures.

CONCLUSIONS AND SUGGESTIONS

Based on the econometric model, scenario trajectories for changes in GDP energy intensity were developed, reflecting different modes of functioning of the economy and the energy sector. The results of the scenario analysis showed that the inertial development trajectory does not allow the achievement of energy efficiency targets due to the persistence of an extensive growth model. The moderately intensive scenario ensures a sustainable reduction in energy intensity through structural shifts and improvements in factor productivity. The most significant effect is achieved within the intensive scenario, based on technological modernization, digitalization, and the stabilization of energy consumption, which corresponds to the formation of a regime of relative decoupling between GDP dynamics and energy consumption.

The obtained results have important practical implications for the formulation of the state energy and economic policy of the Republic of Uzbekistan. They confirm the necessity of transitioning to a model of qualitative economic growth oriented toward the development of processing and high-technology industries, the improvement of energy generation and transmission efficiency, and the enhancement of the institutional environment. The econometric model employed may be considered a decision-support tool that enables the quantitative assessment of the consequences of alternative development scenarios and reduces uncertainty in long-term strategic planning.

Overall, the findings of the study confirm the expediency of applying an integrated econometric and scenario-based approach to the analysis of energy efficiency in the economy. Further research may be directed toward expanding the model to account for regional differentiation, stochastic factors, and environmental constraints,

as well as deepening the analysis of the impact of digitalization and the development of renewable energy sources on the long-term dynamics of GDP energy intensity.

List of used literature:

1. State Committee of the Republic of Uzbekistan on Statistics. (2010–2022). National accounts of the Republic of Uzbekistan: Statistical yearbook. Tashkent: State Committee of the Republic of Uzbekistan on Statistics.
2. State Committee of the Republic of Uzbekistan on Statistics. (2026). Gross domestic product of the Republic of Uzbekistan: Official statistical portal. Retrieved February 8, 2026, from https://stat.uz
3. International Energy Agency. (2022). World energy balances. Paris: International Energy Agency (IEA).
4. International Energy Agency. (2022). World energy outlook 2022. Paris: International Energy Agency (IEA).
5. World Bank. (2022). World development indicators: Energy use and efficiency indicators. Retrieved February 8, 2026, from https://databank.worldbank.org
6. Voropai, N. I. (Ed.). (2010). System studies in energy: Retrospective of scientific directions of SEI–ISEM. Novosibirsk: Nauka.
7. Chateau, B., & Lapillonne, B. (1978). The MEDEE approach: Analysis and long-term forecasting of final energy demand of a country. France.
8. National Technical University of Athens. (n.d.). Brief description of the PRIMES energy system model. Joule-III Programme of the European Commission. Retrieved from http://www.e3mlab.ntua.gr/manuals/PRIMsd.pdf
9. Kononov, Y. D., Galperova, E. V., Kononov, D. Y., et al. (2009). Methods and models of forecast interrelations between energy and the economy. Novosibirsk: Nauka.
10. Nuclear Energy Institute. (2014). The economic benefits of nuclear energy—Present and future.
11. Shirov, A. A., & Yantovsky, A. A. (2011). Assessment of multiplicative effects in the economy: Opportunities and limitations. EKO, 2(440), 40–59.
12. Makarov, A. A., & Melentiev, L. A. (1973). Methods of research and optimization of the energy economy. Novosibirsk: Nauka.
13. Ang, B. W., & Liu, F. L. (2001). A new energy decomposition method: Perfect in decomposition and consistent in aggregation. Energy, 26, 537–548.
14. Liddle, B. (2012). Energy intensity, gross domestic product, and population: A panel study of developed and developing countries. Energy Policy, 41, 775–785.

Proofreader: Zokir ALIBEKOV

Layout and Designer: Oloviddin Sobir ugli

2026. № 2

To publish articles in this journal, you may submit articles, advertisements, stories, and other creative materials through the following links. Materials and advertisements are published on a paid basis.

You may subscribe to the journal at any time using the following details. Once subscribed, please send a screenshot or photo of your payment confirmation to our Telegram page @iqtisodiyot_77. Based on this, we will send the latest issue of the journal to your address each month.

“The journal “INNOVATION SCIENCE AND TECHNOLOGY” has been registered by the Agency for Information and Mass Communications under the Administration of the President of the Republic of Uzbekistan from 09.10.2024 under the registration number №390637. License number: C-5669633. PNFL: 30407832680027

Our address: Tashkent city, Yunusobod district, 19th block, House 17.

TASHKENT STATE UNIVERSITY OF ECONOMICS

Google Scholar | OPEN ACCESS | ULRICHSWEB GLOBAL SERIALS DIRECTORY

Academic Resource Index ResearchBib | ISSN INTERNATIONAL STANDARD SERIAL NUMBER INTERNATIONAL CENTRE | CYBERLENINKA

OpenAIRE | ROAD | НАУЧНАЯ ЭЛЕКТРОННАЯ БИБЛИОТЕКА LIBRARY.RU

BASE | INDEX COPERNICUS INTERNATIONAL | Crossref

doi Digital Object Identifier | CiteFactor Academic Scientific Journals | zenodo

Acceptance of articles

Published every monthly

Directions

Social, economic, political, technological, scientific

Scopus || Scientific electronic journal specializing in Scopus

CERTIFICATE NUMBER: №390637

ORDER NUMBER ACCORDING TO THE LICENSE REGISTER: C-5669633

CONTACT:

Contact us
+998 50 737 87 88

Telegram channel
t.me/scopus_IST2100

Journal official website
https://ist-journal.uz/index.php/IST