ТЕОРИЯ И ИСТОРИЯ МЕЖДУНАРОДНЫХ ОТНОШЕНИЙ И ВНЕШНЕЙ ПОЛИТИКИ

DOI 10.35775/PSI.2024.106.6.024
УДК 32.327

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«МЯГКАЯ СИЛА» ОАЭ В КОНТЕКСТЕ ДИВЕРСИФИКАЦИИ ЭНЕРГЕТИЧЕСКИХ РЕСУРСОВ НА ПРИМЕРЕ ПРОЕКТА МАСДАР-СИТИ

В связи с климатическими изменениями, с которыми сталкивается человечество, все больше стран переходят на так называемые возобновляемые источники энергии (ВИЭ), ОАЭ, выдвинувшие инициативу Масдар-сити, не стали исключением. Как известно, в эту инициативу входит проект по созданию высокотехнологичного города Масдар-Сити, в котором, как ожидается, будут задействованы высокотехнологичные разработки и строительные материалы, оказывающие благотворное влияние на окружающую среду. По предварительным прогнозам, материалы, которые будут использованы при строительстве города, помогут сократить потребление энергии и воды на 40%, что, несомненно, крайне благотворно скажется на состоянии окружающей среды в борьбе с изменением климата. Помимо прочего, проект Масдар-Сити является неотъемлемой частью «мягкой силы» ОАЭ по привлечению «зеленых инвестиций» и созданию благоприятного имиджа страны во всем мире. В целом, строительство «умного» города также вписывается в реализацию «Энергетической концепции 2050» ОАЭ, согласно которой ОАЭ планируют увеличить долю возобновляемой энергетики в топливно-энергетическом балансе (ТЭБ) страны до 44% с общим объемом инвестиций более 150 млрд долларов. Таким образом, в статье обосновывается положение о том,

что ОАЭ вряд ли откажутся от взятого курса на внедрение возобновляемых источников энергии и тем самым развития «зеленой» экономики.

Ключевые слова: *ОАЭ, Масдар-Сити, ВИЭ, диверсификация, «зеленая» экономика.*

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THE UAE'S «SOFT POWER» IN THE CONTEXT OF ENERGY RESOURCES' DIVERSIFICATION ON THE EXAMPLE OF THE MASDAR CITY PROJECT

In connection with the climate changes that humanity is facing, more and more countries are switching to the so-called renewable energy sources (RES), the UAE, which proposed the Masdar initiative, was no exception. As you know, this initiative includes a project to create a high-tech city – Masdar City, which is expected to involve high-tech developments and building materials that have a beneficial effect on the environment. According to preliminary forecasts, the materials that will be used in the construction of the city will help reduce energy and water consumption by 40%, which will undoubtedly have an extremely beneficial impact on the state of the environment in the fight against climate change. Among other things, the Masdar City project is an integral part of the UAE's «soft power» in attracting «green investments» and creating a favorable image of the country around the world. In general, the construction of a «smart» city also fits into the implementation of the «Energy Concept 2050» of the UAE, according to which the UAE plans to increase the share of renewable energy in the country's fuel and energy balance (FEB) up to 44% with a total investment of more than 150 billion dollars. Thus, the article proves the proposition that the UAE is unlikely to abandon the course taken to introduce renewable energy sources and thereby develop a «green» economy.

Key words: *UAE, Masdar City, RES, diversification, «green» economy.*

A lot of works are devoted to the subject under study to one degree or another among domestic scientists, for example, the works of Filonik A.O., Rudenko L.N. and

etc. [1. P. 444], as well as articles by I.Yu. Zhilina [23. P. 74-81], L.N. Rudenko [19. P. 60-72], A.M. Nurkanova [17. P. 56-61], B.Z. Alibekova [2] and A.I. Pomazkin [18. P. 118-119]. Among foreign scientists are the works of M. Asif [3. P. 1267-1273], E. Udemby [22. P. 34367-34385], F. Kugurullo [8. P. 2417-2433] and D. Reich [20. P. 378-382]. However, despite the fact that the topic under study has been sufficiently studied, there are not enough works devoted directly to the development and implementation of the Masdar City project as part of the fourth energy transition associated with the development of renewable energy sources (hereinafter referred to as RES). In this regard, it seems possible to focus first on the importance of RES for the entire MENA region, and then move on to the presentation of facts about the construction and main characteristics of the high-tech city of Masdar City.

In the 21st century there is a consolidation of a new trend in the policy of world powers – the adoption of a policy of «greening» their economies, which involves the introduction of a special economic model for the development of the state, which contributes to an overall improvement in living conditions for the population, a significant reduction in negative impacts on the environment and a decrease in ecological deficit [4. P. 271]. The highest priority in the concept of «green» economy has the development of renewable energy sources (RES), since their introduction accelerates the process of diversification of the country's economy, leads to sustainable economic growth in the long term [6. P. 26].

The development of alternative energy sources in the MENA region, which accounts for 45% of the world's renewable energy potential, seems to be a promising and viable solution [6. P. 26]. In addition, countries in the region are experiencing excessive energy consumption, which directly reduces the potential rate of GDP growth. It should be noted that according to the data and calculations of analysts, the introduction of renewable energy sources can provide greater GDP growth than the use of hydrocarbons [7. P. 71].

Electricity demand in the UAE exceeds the mark of more than 10%, exceeding demographic growth by 9% [12. P. 7]. In this regard, it would be legitimate to cite the statement of analysts that the region is not only the centre of accumulation of hydrocarbons, but also one of the main «energy wasters» due to its economic and demographic growth [7. P. 71].

The problem of reorientation to RES is exacerbated by the need for fundamental changes in the energy policy of states: from 1970 to 2004 the level of annual emissions into the atmosphere has increased by about 80%. The UAE and other Gulf countries lead the world in carbon dioxide emissions into the atmosphere [14. P. 169]. In this regard, RES are the most attractive because they completely replace fossil fuels (hydrocarbons), and the economic benefits from the use of RES also increase over time [6. P. 26].

In the last decade of the 21st century, fluctuations in oil prices, various oil embargoes were among the main incentives for the UAE to turn towards alternative energy in the context of the need to maintain the country's economic growth. According to recent statistics, over the past seven years, the amount of energy consumption in the

UAE has increased by an average of 4% annually [13. P. 4]. Meanwhile, electricity consumption in the UAE has more than doubled over the past 10 years [13. P. 4].

As a result of the above trends, the UAE is taking initiatives to design greener buildings, hybrid cars, low-energy household appliances, and increasingly investing in renewable energy. Thus, according to the Energy Strategy 2050, by 2050 the UAE plans to increase the share of RES in the country's fuel and energy balance (FEB) up to 44% with a total investment of more than $150 billion [9].

One of the solutions to the problem of energy efficiency is the smart city project, which involves integrated planning and creation of the city's infrastructure using digital technologies and the provision of better services against the backdrop of a general reduction in energy consumption. It should also be noted that «smart» cities through electrical networks allow you to track the use of electricity over time and thus form the habits of citizens to use the required amount of electricity, which leads to a significant reduction in the amount of electricity consumed. In addition, according to the British Standards Institute, smart cities are an effective system for involving physical, digital and human systems in the built environment to ensure a sustainable, prosperous and fulfilling future for city residents [16. P. 1].

Comprehensive Emirati Masdar Initiative [21], adopted by the government of Abu Dhabi in 2006, has the following goals: diversifying the UAE economy through renewable energy, consolidating and expanding Abu Dhabi's position in the world energy markets, positioning and creating the image of a developed and technological country [10. P. 3].

The Masdar City eco-city project, launched in 2006, is an example of the rational and correct use of human potential, knowledge and innovative technologies. Initially, the government of Abu Dhabi put forward ambitious plans to create in the shortest possible time the first environmentally friendly city in the world through the full introduction of renewable energy. Due to the economic downturn in 2015, the project was put on hold and cancelled. Subsequently, construction was resumed, and 12 years after the start of construction, the first part of Masdar City was constructed (less than 5% of the allotted arid desert area). At the moment, the completion date for the construction of the city has been postponed to 2030 [15].

Despite the rather modest pace of the project, its importance can hardly be overestimated as Masdar City is the embodiment of the leap of humanity towards cleansing the planet from emissions and chemicals. In addition, the government of Abu Dhabi, through the implementation of this project, seeks to create in the UAE a kind of analogue of Silicon Valley, where high-tech developments will be widely applied [11. P. 3].

The city has a strategic location: Masdar City is located close to Abu Dhabi Airport. This allows people living near the city to get the necessary food products in a matter of hours [5].

The buildings of the city will be located as close as possible to each other, which will prevent strong air currents and provide shade, which will lower the air temperature by 10° Celsius. In addition, special small towers with reflective surfaces will be built in the

city, which will also help cool the temperature on the city streets. All this will create comfortable conditions for life [5].

High-tech developments and building materials will be involved in the construction of buildings, which will have a beneficial effect on the environment, and these materials will also help reduce energy and water consumption by 40% [5].

More than 90 thousand people will live and work in the city with a total area of 6 km2. Transport in the city will be purely electric, mainly with the function of self-management, and entire pedestrian avenues will also be created [5].

Masdar City has become one of the UAE's steps towards combating climate change, diversifying energy resources, reducing the share of hydrocarbons in the fuel and energy balance, and creating a favorable climate image for the country. All this, in our opinion, contributes to the further rapid economic growth of the UAE, which, responding to the challenges associated with climate change, is gaining strength and attractiveness for further investment in the country's economy.

It is important to understand that the building strategy of Masdar City is based on a time approach and is focused less on buildings and technologies, and more on creating a new city model, its structure and mobility. This approach is justified by the fact that in the end Masdar City does not repeat the fate of the little-known Dongtan eco-city project in China [11. P. 5]. The Masdar City initiative is going through a gradual implementation phase, one of the main challenges of which is the need to constantly modify plans for the construction of the city in the face of recent rapid changes in technological processes.

Thus, by diversifying its own energy resources, the UAE has embarked on the true path of developing a «green» economy in its country, which is aimed at developing and creating a favorable balance of various energy sources such as water, wind and sun. The activities of the International Renewable Energy Agency headquartered in Abu Dhabi, the gradual implementation of the Masdar initiative – all this only confirms the fact that the UAE is not thinking of changing the accepted vector of renewable energy development.

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