СЕКЦІЯ 1
БУХГАЛТЕРСЬКИЙ ОБЛІК, ОПОДАТКУВАННЯ ТА ЗВІТНІСТЬ В ГЛОБАЛЬНІЙ ЕКОНОМІЦІ

UDC 657

Bila Yu. A.,
Doctoral candidate of the
Department of Accounting and Taxation
West Ukrainian National University

BIOENERGY ASSETS IN THE GLOBAL CLIMATE SCENARIO: ACCOUNTING ASPECT

One of the main tasks of the Energy Strategy of Ukraine until 2050 is the development of bioenergy and the use of renewable energy sources. A promising area of energy production is the processing of biomass and energy plants into biofuel. However, the lack of a unified approach to the theoretical definition of the main elements of bioenergy and the lack of a standardized system for their recognition by accounting objects complicates production processes, which necessitates conducting research in this direction.

The term "bioenergy resources" can be found in the scientific literature. M. Talavyria et al. define bioenergy resources as "...defined in space and time renewable energy resources of biogenic origin, which are characterized by a certain potential and for which the necessary technologies of extraction/production and use exist" [1]. This concept, in our opinion, is too broad for accounting purposes. Since its main objects are assets, liabilities and capital, let us consider the definition of the term "assets". According to the National Accounting Standards 1 "General Requirements for Financial Reporting": "assets are resources controlled by an enterprise as a result of past events, the use of which is expected to lead to economic benefits in the future" [2, 3]. In our opinion, the term "bioenergy assets" would be more appropriate, which would include those types of bioenergy resources that meet the definition of an asset under National Accounting Standards 1. The common feature between bioenergy

assets and bioenergy resources, which can serve as a criterion for recognition in accounting, is their renewable nature.

According to the International Renewable Energy Agency in its report "World Energy Outlook 2023: The Path to 1.5°C", the amount of CO2 emitted by renewable energy sources can be completely absorbed in the process of photosynthesis [3]. We believe that the ability to generate environmental benefits can be considered as a sign of bioenergy assets identification [4, 5].

In accounting, a method of accounting of biological assets has been developed. According to national accounting standards: "A biological asset is an animal or plant that, in the process of biological transformations, is capable of producing agricultural products and/or additional biological assets, as well as bringing economic benefits in another way" [6]. Bioenergy assets cannot be considered identical to biological assets. Their main difference is that the assets that are created by energy undergo physical (direct combustion) and chemical transformations (pyrolysis, gasification, production of alcohols and oils) in addition to biological. Hence, the recognition feature of bioenergetic assets is the ability to create an effect as a result of biological, physical and chemical transformations.

The prefix "bio" in the studied term indicates the relation to natural life cycles and the presence of organic processes. In particular, bioenergy assets have an organic origin (animal or plant) and the ability to biodegrade, which are criteria for their recognition as an accounting object. However, in the definition it is possible not to duplicate these two features, since biodegradation is a consequence of organic origin.

We consider it necessary to highlight the term "bioenergy assets" and propose a definition that will combine all the features of this accounting object: bioenergy assets are energy crops, organic substances (products, waste, residues from animal husbandry and crop production), industrial and household organic waste, as well as fuel produced from it, which, through biological, physical, or chemical transformations, are capable of generating energy for societal needs provide environmental benefits.

We suggest to include the definitions summarized in the study and provided in legislative documents and scientific literature as the criteria for recognizing bioenergy

assets: renewability; non-fossil nature; ability to create energy as a result of biological, physical and chemical transformations; ability to bring environmental benefits; organic origin.

References

1. Talavyria M.P., Baranovska O.D., & Dobrivska M.V. (2012). Development and application of different types of bioenergy. Nizhyn: PP Lysenko M.M., 180 s.
2. Задорожний З.-М. В., Крупка Я. Д., Омецінська І. Я. Стан і перспективи розвитку вітчизняної системи обліку. Тернопіль : ТНЕУ, 2013. 294 с. URL: http://dspace.wunu.edu.ua/bitstream/316497/5794/1/Stan_i_perspektyvy_rozvytku_vitchyznkjanoji_ekonomiky-2013.pdf
3. Задорожний З.-М. В., Крупка Я. Д., Омецінська І. Я. Концепція розвитку бухгалтерського обліку, аналізу та аудиту в Україні : монографія. Тернопіль : ТНЕУ, 2015. 320 с. URL: http://dspace.wunu.edu.ua/bitstream/316497/5793/1/Kontseptsia_rorvytku_buhgalterskogo_obliku-2015.pdf
4. IRENA. (2023). World Energy Transitions Outlook 2023: 1.5°C Pathway, Volume 1, International Renewable Energy Agency, Abu Dhabi. Retrieved from World Energy Transitions Outlook 2023: 1.5°C Pathway (irena.org)
5. Bila Yu. Bioenergy Assets as an Innovative Accounting Object: Definition and Recognition Criteria. Oblik i finansi. 2023. pp. 5-10. https://doi.org/10.33146/2307-9878-2023-4(102)-5-10
6. Bila Yu. European Green Deal: accounting challenges of biofuel in Ukraine. Visnyk ekonomiky. 2023. 4. 171–180. DOI: https://doi.org/10.35774/visnyk2023.04.171
7. Ministerstvo finansiv Ukrainy. (18.11.2005). Biolohichni aktyvy: Natsionalne polozhennia (standart) bukhhalterskoho obliku 30 [Biological assets: National Accounting Regulation (Standard) 30]. Retrieved from https://zakon.rada.gov.ua/laws/show/z1456-05#Text.