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## **ACCOUNTING OF BIOFUEL AS A BIOENERGY ASSET**

Over the past 50 years, the scale of CO<sub>2</sub> emissions has been increasing in all countries of the world. First of all, this applies to countries where there are large volumes of industrial production: China, Asia, the USA [1]. The replacement of traditional fuels with alternative types of energy is one of the priority areas in the fight against climate change and dependence on countries that position themselves as oil and gas magnates.

Every branch of science must contribute to the achievement of climate neutrality and the development of renewable energy sources. Accounting is no exception. In the bioenergy sector, where the central objects are biofuel and biomass, accounting as an information system should ensure the correct reflection of their production processes and cost calculation, since indicators at the micro level form the price of an alternative type of energy (biofuel) at the macro level.

The Law of Ukraine “On Alternative Fuels” states that biofuel producers are obliged to keep records of the biofuels and biocomponents they produce in accordance with the procedure established by law [2]. According to the Instruction on the Application of the Plan of Accounts for Accounting of Assets, Capital, Liabilities and Business Transactions of Enterprises and Organizations No. 291 (Instruction No. 291): “Sub-account 203 “Fuel” (petroleum products, solid fuels, lubricants) accounts for the availability and movement of fuel purchased or prepared for the technological needs of production, operation of vehicles, as well as for energy generation and heating of buildings” [3]. There is no information on biofuel accounting in Instruction No. 291, which indicates a gap in the standardized accounting system for a strategically important asset of an enterprise.

It is necessary to determine the sub-account where information on the availability and movement of biofuels at an enterprise can be displayed. As for the position of scientists, this topic has been thoroughly studied by L. Hutsalenko and Y. Fabiyanska. The authors propose an integrated approach to biofuels accounting with the allocation of a separate sub-account 200 “Biofuels” in account 20 “Production stocks”, as well as an analytical accounts in terms of classification of biofuels by their types: No. 2001 “Liquid biofuels”, No. 2002 “Solid biofuels”, No. 2003 “Biogas” [4]. We believe that analytics will strengthen the information function of accounting, but the allocation of a separate sub-account for biofuels, in the presence of the existing 203 “Fuel” will complicate the processes of displaying and distributing data on available fuels at an enterprise.

I. Zamula et al. [5] in the article provide a working plan of the company's accounts, according to which firewood (solid biofuel) is proposed to be accounted for on subaccount 201 "Raw materials and materials". In our opinion, such a position is

justified under the condition of exploitation of firewood as a raw material for the production of products. In the case of using them as an energy resource, it is advisable to display them in the composition of fuel in order to avoid distortions of information about the structure of production stocks in the company's financial statements.

The Law of Ukraine “On Alternative Fuels” states that “biofuel is a solid, liquid and gaseous fuel made from biologically renewable raw materials (biomass), which can be used as fuel or a component of other types of fuel” [2]. That is, biofuel is a type of fuel (such as petroleum products), so it is advisable to display information about its availability and movement as part of production stocks on sub-account 203 “Fuel” (analytical account 2031 “Biofuel”). For structured information, we offer a working plan of accounts for enterprises, which contains analytical accounts according to the type of biofuel (20311 “Solid biofuel”, 20312 “Liquid biofuel”, 20313 “Gaseous biofuel”).

The proposed analytical accounts are relevant for enterprises that use and manufacture this type of alternative energy source. The classification of biofuel can be used to develop analytics for account 23 “Production”, which will display information on the production of biofuel by its types. Also, the proposed systematization will allow creating analytics for account 26 “Finished products”, to which an enterprise posts ready-to-use biofuel.

For Ukraine, the use of biofuel is a crucial direction for post-war economic and energy recovery as it allows the realization of the country's agrarian potential. However, there is a gap in the standardized accounting system regarding the reflection of biofuel. Therefore, it is proposed to record information about its presence and movement within the production stocks on subaccount 203 "Fuel" (analytical account 2031 "Biofuel"). To enhance the analytical accounting of biofuel, it is suggested to develop a chart of accounts for enterprises, including analytical accounts according to the type of biofuel: 20311 "Solid biofuel," 20312 "Liquid biofuel," 20313 "Gaseous biofuel." This proposal facilitates the structuring of information about biofuel for further use in making management decisions regarding this strategically important asset.

### References

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### **ЗВІТНІСТЬ ПРО СТАЛИЙ РОЗВИТОК ТА ЇЇ АУДИТ: ЕМПІРИЧНИЙ ДОСВІД МЕКСИКИ**

Звітність про сталий розвиток та проведення її аудиту є ключовими аспектами для визначення та оцінки ефективності сталого розвитку країни. Мексика, як країна з великим економічним потенціалом та складними екологічними, соціальними та економічними викликами, має важливий досвід у цій галузі. У цілому, звітність про сталий розвиток та здійснення її аудиту в Мексиці є важливим інструментом для досягнення її цілей щодо сталого розвитку та покращення якості життя свого населення.

В наших попередніх дослідженнях [1] було розглянуто питання аудиту інтегрованої звітності корпоративних підприємств.

Звідси, пропонується розглянути Мексику, корпоративні підприємства якої також розкривають інформацію про сталий розвиток у відповідних видах звітності (рис. 1).

Досліджуючи види звітності, які складають підприємства Мексики (рис. 1), можна сказати, що у 2019 році відсоток мексиканських компаній, які звітували про сталий розвиток, становив 48,00%, річна звітність – 18,00%, інтегрована звітність – 12,00%, не звітували – 22,00%. Разом з тим, у 2020 році частка підприємств Мексики, що складала звітність про сталий розвиток становила вже 32,00 %, річну – 26,00 %, інтегровану – 24,00%, не звітують – 18,00 % відповідно. Водночас, у 2021 р. частка підприємств Мексики, що складала звітність про сталий розвиток становила 38,00 %, річну – 28,00 %, інтегровану – 20,00 %, не звітують – 14,00 %. У 2022 р. частка підприємств Мексики, що складала звітність про сталий розвиток становила вже 40,00 %, річну – 36,00 %, інтегровану – 24,00 %, не звітують – 0,00 %.