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**MAJOR ASPECTS OF METHODOLOGICAL APPROACHES TO
TAXONOMY OF TRANSACTION COSTS ASSOCIATED WITH
IMPLEMENTATION OF DIRECTIVE 2003/87/EC**

The approximation of greenhouse gas (GHG) emissions regulatory framework in Ukraine to the European Union legislation in accordance with the Association Agreement between the European Union and the European Atomic Energy Community and Their Member States, of the One Part, and Ukraine, of the other part (the Association Agreement), demands a few brand new market instruments, aiming at regulation of GHG emissions, to be developed and implemented in Ukraine. Amongst these, one of the most sophisticated, complex and controversial one – the scheme for GHG emission allowance trading – is scheduled for a launch within two years since the Association Agreement entered into force. The emission trading scheme (ETS) in Ukraine shall be developed in accordance with the requirements set in Directive 2003/87/EC of the European Parliament and of the Council establishing a scheme for greenhouse gas emission allowance trading within the Community (Directive 2003/87/EC).

Alike any policy instrument, ETS contributes to an increase of private sector's expenditures with regards to a number of administrative actions being undertaken throughout the process of implementation. Looking into Ukrainian scientific world, only few authors have been investigating taxonomy of the so called transaction costs required for proper ETS launch and maintenance by private companies. M. Dovbenko offers an approach based on the Coase theory, declaring that if trade in an externality is possible and there are sufficiently low transaction

costs, bargaining will lead to an efficient outcome regardless of the initial allocation of property. It means that an increase of transaction costs can prevent the market established for internalizing externalities from reaching its equilibrium.

Despite the utter importance of studying the transaction costs, an issue of its magnitude still lacks sufficient attention in Ukraine. A lot of Ukrainian researchers underline the importance of reforming the format of accounting system for the private companies' expenditures onto environmental protection measures, which apparently plays a vital role in strategic planning. Unless an installation can properly account and report the whole volume of transaction costs associated with ETS implementation, the further budget planning could be distorted due to this imperfect reporting.

Under such circumstances, it is explicitly necessary to note the European and the US experience with regards to implementation and maintenance of ETS. The richness and variety of this experience can be easily explained by the long history of emission trading schemes – the European Emission Trading Scheme (GHG emissions, started in 2005) and the Regional Clean Air Incentives (NO_x and SO_x emissions, started in 1994 in California). A launch of these two has led to an extensive research of various aspects of ETS, including a structure of transaction costs and its magnitude.

L. McCann, P. Heindl, A. Michaelowa, A. D. Ellerman, R.N. Stavins and others have contributed to the analysis of transaction costs nature as well as determined the indicative ranges for possible expenditure of private companies in the course of ETS implementation. The foreign researchers usually explain the transaction costs as the resources used to define, establish, maintain, and transfer property rights [L. McCann], often narrowing the specific ETS-related transaction costs into the consolidated groups: pre-implementation: implementation and trading.

With regards to terminology used by the foreign and Ukrainian authors as well as a structure of expenditures provided in the Ukraine's Tax Code, the logical structure of transaction cost associated with ETS implementation in Ukraine could

be broken down into three categories: i) capital costs (MRV equipment or e.g. equipment modernization); administrative (pre-implementation and implementation costs, including hiring, consultancies, audits, MRV practices, legal costs, etc.) and trading costs (exchange fees, auction fees, brokerage, etc.). Interestingly, the Tax Code foresees the purchases of allowances among the so called operational or trading costs, although it definitely falls out of a scope of transaction costs, so we do exclude this from the structure.

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