GREENHOUSE GAS EMISSION REDUCTION POLICY AND THE "CARBON FOOTPRINT" ISSUE IN DETERMINATION OF THE LEGAL REGIME APPLICABLE TO ENERGY CARRIERS AND CARBON INTENSIVE INDUSTRY PRODUCTS

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The Paris Agreement gave momentum to carbon regulation measures aimed at reduction of man-made greenhouse gas emissions, or decarbonization. In many countries, including the EU, decarbonization is becoming the centerpiece of the current political agenda. Carbon regulation measures applied by states include direct ones aimed at governing greenhouse gas emissions and indirect ones governing other relations, but having emission reduction as their primary or auxiliary goals. The latter include restrictions and prohibition of the use of "dirty" energy carriers; increasing energy efficiency and saving; driving production of renewable energy sources; border carbon adjustments. In this context, the world is experiencing an "energy transition" resulting in the expansion of production and use of renewable energy sources, as well as escalation of competition between "fossil" and "green" energy carriers. The question whether and how environmental and climatic characteristics of energy and other products, technologies, and investments should be considered when determining the conditions of competition between them is becoming ever more urgent, while the state practice shows a tendency towards differentiation of the legal regime depending on the products' "carbon footprint". This article answers this question by analyzing the legal regime applicable to energy carriers and carbon intensive industry products. The main conclusion is that there is a conflict between unilateral carbon regulation measures differentiating between the regimes applied to the same products depending on their "carbon footprint" and general WTO regulations on freedom of international trade.

Keywords: *energy law; energy resources legal regime; the Paris Agreement, WTO, GATT.*

The universal 2015 Paris Agreement "enforcing" the 1992 Framework Convention on Climate Change gave momentum to various carbon regulation measures aimed at reduction of man-made greenhouse gas emissions, decarbonization.

In many countries, decarbonization is becoming the centerpiece of the current political agenda. Thus, in December 2019, the European Commission published a program of the so-called "European Green Deal" [1] aimed at achieving net zero greenhouse gas emissions for EU countries by 2050, while maintaining the European economy competitive.

Carbon regulation measures applied by states can be divided into direct ones aimed at governing greenhouse gas emissions and indirect ones governing other relations, but having emission reduction as their primary or auxiliary goals.

The key direct carbon regulation measures include introduction of mandatory emission charges via an emissions trading system or carbon taxes; implementation of emission standards, i.e. determining the maximum permissible levels; development of artificial (special facilities) and natural (forests) greenhouse gas sinks.

Indirect carbon regulation measures include restriction and prohibition of the use of "dirty" energy carriers, such as coal; promoting energy efficiency and saving; driving production of renewable energy sources (RES), including promotion of investments in "green" technologies and equipment. This category also includes such measures announced under the European Green Deal as energy carrier taxation differentiation depending on their climatic characteristics, prohibition of funding fossil fuels and border carbon adjustments, fees imposed by the European Union on any products imported from countries that do not establish mandatory emission charges unlike the EU.

Apart from climate considerations, energy security and industrial policy concerns are driving factors for implementation of indirect carbon regulation measures. Thus, production of RES, as opposed to fossil fuels, has no strict territorial limits, meaning that it helps reduce dependency on energy import and develop national energy technologies, which, from the point of view of importing states, has a positive social and economic effect. Border carbon adjustments, in their turn, prevent "carbon drains" (carbon intensive productions "escaping" to countries with a less strict climate policy), thereby maintaining the domestic industry competitive.

Hence, the question whether and how environmental and climatic characteristics of energy and other products, technologies, and investments should be considered when determining the conditions of competition between them is becoming ever more urgent. The state practice shows a distinct tendency towards differentiation of the legal regime applied to products, technologies, and investments depending on their "carbon footprint", i.e., the total volume of greenhouse gas emissions occurring during their production and usage.

Disputes on the "green energy industry" dominate the list of the WTO Dispute Settlement Body: over the past decade, nine such disputes had been referred to the body, four of which have been settled. [2]

All these disputes concern measures of supporting domestic RES production equipment, in particular, this refers to the so-called domestic content requirements according to which the discount rate only applies to the power generated by domestic equipment assembled using domestic components. Introduction of domestic content requirements is caused by sovereign industrial policy considerations: states want to promote production of RES equipment locally in order to create workplaces, localize the corresponding technologies, and negate the dependency on import. However, as these requirements create better conditions for domestic equipment than those for imported equivalents, thereby distorting international competition conditions, they violate the non-discrimination principle, therefore, they are deemed illegal under the General Agreement on Tariffs and Trade (GATT) and the Agreement on Trade-Related Investment Measures (TRIMs). [3] Thus, the WTO's law enforcement practice clearly delineates states' industrial policy aimed at development of domestic RES production equipment sectors.

Apart from the question about legitimacy of the domestic content requirements which

is answered in the negative, the *Canada — Renewable Energy Generation Equipment* dispute raises the question of whether the discount rate for renewable energy can be considered a subsidy banned under the Agreement on Subsidies and Countervailing Measures. When considering this question, the Appellate Body ruled that, although "green" and "conventional" types of electricity are interchangeable, they belong to different "relevant markets". The Appellate Body justified its decision to consider "green" energy a separate relevant market by such factors as a structure of generating capacity costs that requires state support as opposed to that of "conventional" electric power, and different production technologies because RES generation is intermittent in nature [4]. At the same time, the Appellate Body highlighted the crucial role of the state in determining the energy balance and sensitivity of the issue that "reflects various political imperatives" such as "reduced dependency on fossil fuels for ensuring long-term stability of electric power markets, as well as attitude toward negative and positive external factors related to generation of conventional and renewable energy". The Appellate Body also noted that the power balance can be created considering the "buyers' willingness to purchase electricity produced using a combination of various generation technologies, even if it is more expensive than that generated from only conventional sources". [5] In this dispute, the narrowest solar- and wind-generated electricity market was determined to be the relevant market. Therefore, the discount rate, while deemed "financial assistance", was not recognized as a subsidy since it was used for all the electricity generated within this narrow market, meaning that no individual investor received any special "benefit". In literature, this judgment is considered a "shield" protecting the RES generation public support policy and, at the same time, criticized for being politically oriented, vague, and having fundamental errors in the legal and economic analysis. [6]

It should be noted that this judgment was based on the Agreement on Subsidies and Countervailing Measures and does not actually answer the question about legitimacy of application of various regimes to energy carriers, as well as other products according to their environmental and climatic characteristics. Furthermore, this judgment was adopted at the time of conception of RES generation, when it needed stimulation, whereas now, when RESs established a strong market presence and successfully compete with fossil fuels, the validity of this judgment seems doubtful.

GATT prohibits discrimination only of those products that are considered equivalent, meaning that, if there were no equivalence, there would be no violation: different legal and fiscal regimes can be applied to non-equivalent products.

Accordingly, the issue of equivalence of products with different carbon characteristics that has not been tested by law enforcement practice is of primary importance for the evaluation of legitimacy of carbon regulation measures.

Thus, when evaluating RES promotion measures, it is important to determine whether energy carriers with identical physical characteristics, but different "carbon footprints" are equivalent, for example, "green" and "carbon" energy, or "green" and "carbon" hydrogen.

When some of the stated criteria are not met, it is difficult to establish equivalence. For instance, the *EU — Certain Measures Relating to the Energy Sector* dispute refers to the equivalence between liquefied and pipeline natural gas that are tariffed differently. Having considered this and having made rather debatable conclusions on different physical properties and final usage of these two types of natural gas, the arbitration group ruled that they were not equivalent and that application of different legal regimes was lawful. [7] In literature, this judgment (currently under dispute in the WTO Appellate Body) is being criticized for erroneous application of criteria and disregard of the ultimate evaluation objective: the arbitration group failed to determine whether these two types of natural gas compete with each other, whereas economic data furnish convincing proof of such competition as recognized, in particular, by the antitrust arm of the European Commission. [8]

It should be noted that, according to the prevailing point of view of the doctrine based on

regulatory enforcement practice, external factors that do not affect product quality should not be considered when establishing equivalence. [9]

Based on the broad interpretation of discrimination, the national regime (Article III of the GATT) can be violated, for example, when imported "carbon" energy is deprived of benefits stipulated by the importer's legislation for domestic "green" electricity, while the most-favored-nation treatment (Article I of the GATT) is violated when border carbon adjustments are imposed on products imported from a country that does not use mandatory emission fees while the same products imported from the countries implementing mandatory payments are exempted from these adjustments.

Article XX of the GATT contains exceptions necessary to protect the environment which, under certain conditions, can justify violations of the GATT general regulations, including non-discrimination regulations. According to this article, the WTO members may adopt measures inconsistent with the general regulations of the GATT "necessary to protect human, animal or plant life" (Article XX (b)) or "relating to the conservation of exhaustible natural resources" (XX (g)) that include, among other things, clean air. [10]

A two-stage test is used to apply the corresponding exceptions: a WTO member should prove that, first, the measure itself is consistent with Article XX (b) or XX (g), i.e., it makes a significant contribution to the achievement of the relevant environmental goals; second, that the measure is implemented in compliance with the requirements of the Article introduction: prohibition of "arbitrary or unjustifiable discrimination between countries where the same conditions prevail" or a "disguised restriction on international trade". [11]

As the law enforcement practice shows, states' freedom to act when applying exceptions for environmental reasons is significantly limited, primarily by the above-mentioned requirements of the introduction to Article XX of the GATT, which are to be proven at the second stage of the test.

When considering the outlook of disputes arising out of carbon regulation restrictions, it should be assumed that their justification in terms of Article XX of the GATT would be fraught with the following difficulties.

At the first stage of the test under Article XX of the GATT, it has to be proven that the corresponding measures are "necessary" to protect the environment (XX (b)) or "relating" to the conservation of resources (XX (g)).

In both cases, the underlying question is jurisdictional in nature: can the relevant measures be aimed at protection of the environment or conservation of resources outside of the importer territory?

In addition, the fundamental reasons and goals of implementation of the measures will be of importance in either case. If, as is the case with border carbon adjustments, it is found that they are largely aimed at protection of the importer's domestic industry competitive capacity, their justification by exceptions under Article XX seems improbable. [12]

Further, as for the exception based on of Article XX (b) specifically, it should be noted that the threshold of proof is as high as possible: the measure has to be "necessary" to protect the environment, which requires a serious justification. Moreover, unilateral carbon regulation measures aimed at expansion of RES usage can have negative environmental consequences related to the manufacture and operation of the corresponding power equipment, which would require weighing of positive climatic and negative environmental factors. [13] In its turn, the exception under Article XX (g) applies with a very important reservation: a measure has to be accompanied by a simultaneous "restriction of domestic production or consumption" of the corresponding resources.

Finally, the first stage of the test, it should be established whether there are reasonable alternatives that would achieve the relevant environmental goals without violating the GATT. As that climate change fighting toolkit is rather extensive and expanding together with technological advances, such alternatives exist, for example, they may include technically and financially justified solutions for implementation of artificial and natural greenhouse gas sinks.

At the second stage of the test, it should be proven that an attempt to solve the climate issue

internationally had been made in good faith and failed before the measure was implemented, and that the measure was implemented considering conditions prevailing in other countries, in particular, taking into account the specific features of developing states.

As the universal Paris Agreement on climate was adopted in 2015, it cannot be said that the international regulation does not exist, but its efficiency can be disputed. Taking into account the conditions prevailing in exporting countries, in its turn, implies an evaluation of effectiveness of the climate change prevention measures applied by them in comparison with the measures implemented by importing countries, which, considering the lack of generally recognized effectiveness criteria and evaluation methods, can be difficult to accomplish in practice, especially when the climate measures under comparison are different in nature.

Summarizing the above, it should be stated that there is a conflict between unilateral carbon regulation measures differentiating between the regimes applied to the same products depending on their "carbon footprint" and general WTO regulations on freedom of international trade. On the other hand, as the WTO was established and is functioning primarily to promote equal competitive conditions of international trade, overexpanding the scope of application of the exceptions, including environmental ones, makes the existence of this organization seem pointless.

Therefore, the idea of a "regulatory revolution" with the motto "from competition to decarbonization" currently under discussion in the EU, [14] which is aimed at prioritizing climate regulation measures, seems difficult to implement within the existing multilateral trading system based on universal WTO agreements that give priority to freedom of trade and competition.

More prudent initiatives for reconciliation of trade and environmental objectives include adoption of an Explanatory Memorandum to Article XX of the GATT, promoting interaction between the WTO and international environmental organizations for development of recommendations on multi-lateral environmental protection agreements, implementation of mediation and conciliation procedures for settlement of commercial and environmental conflicts in WTO practice, as well as recognizing lawfulness of mandatory carbon labeling, a market measure which would prevent trade limitations while leaving the choice to the consumer. [15] One of the benefits of carbon labeling is a transparent "decarbonization price" it creates for the consumers who, when exercising their free market choice, will "vote with their money" favoring more affordable products with a "carbon footprint" or knowingly pay more for their climate choice by buying more expensive products with no "carbon footprint" or a smaller "carbon footprint", whereas the government's function will be to encourage the consumers to make the choice meeting the state's interests by means of persuasion. ■

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