

Working Paper No 2015/9 April 2015

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# Greening electricity through taxing: An analysis of GATT constraints

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**Kateryna Holzer / Ilaria Espa**

Abstract

This paper examines the legal feasibility of different design options for implementing a differentiated electricity tax based on renewable energy (RE) certificates aimed at promoting green electricity generation. It discusses the issue of likeness in light of the recent WTO jurisprudence and looks at the possibility of justification of differentiated tax rates under the general exceptions of the GATT. It also scrutinizes the potential legal hurdles for the implementation of different tax design options including the use of certificates for RE tax exemption. It argues that the placing of a quota on the number of foreign RE certificates eligible for tax exemptions would likely affect the volumes of imported green electricity and therefore trigger a violation of GATT rules. At the same time, restrictions on the eligibility of RE certificates might be defended under WTO law if they are based on qualitative criteria, such as the attachment of RE certificates to green electricity flows or to a green electricity label that is equally available to domestic and foreign suppliers of RE electricity.

Research for this paper was funded by the Swiss National Science Foundation under a grant to the National Centre of Competence in Research on Trade Regulation, and by Swisstechno and the Swiss Federal Office of Energy (SFOE), which commissioned a series of legal studies on the Swiss tax reform in the electricity sector. Part of this research was presented at the 2014 World Trade Forum on “International Trade in Electricity and the Greening Economy” that took place at the World Trade Institute on 26/27 September 2014. The authors wish to thank all the participants and, in particular, Robert Howse and Jesse Kreier for their valuable comments.

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## 1. Introduction

The rise of climate change on the international agenda has led governments around the world to resort to a wide set of policy instruments aimed at promoting the use of renewable energy (RE) sources. Many governments have, in particular, introduced specific measures to promote the use of electricity produced from renewable sources (green electricity). The main reason behind the introduction of specific regulatory and economic instruments aimed at supporting of green electricity is two-fold: on the one hand, the electricity sector is the largest single source of energy-related GHG emissions, as well as the sector carrying the biggest potential for emissions abatement.<sup>1</sup> On the other hand, green electricity still cannot compete with conventional electricity produced by fossil fuel-fired and nuclear power plants due to the existence of fundamental differences in cost structures and operating costs and characteristics.<sup>2</sup>

In the attempt to reduce the competitiveness ‘gap’ of green electricity compared to conventional sources, governments of both developed and developing countries<sup>3</sup> have adopted RE support measures aimed at lowering the cost of green electricity, raising its price and stimulating purchases of green electricity. Along with market-based instruments aimed at incentivizing investment in low-carbon technologies, governments have in particular heavily invested in the promotion of RE development by recurring to various forms of clean energy subsidies.

This paper promotes an alternative approach based on taxing electricity at different rates depending on its sources or its carbon footprint. Such approach could facilitate the transition from direct subsidization of renewable energy to a more efficient steering system, which is less burdensome for public accounts.<sup>4</sup> Taxing electricity with higher rates imposed on fossil fuel electricity and lower rates or exemptions granted to green electricity<sup>5</sup> can create appropriate incentives for renewable energy (RE) production without burdening public resources. Moreover, the revenues derived from the implementation of a differentiated electricity tax could also be used for support measures.<sup>6</sup>

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<sup>1</sup> The energy sector is currently responsible for two thirds of total greenhouse gas (GHG) emissions and fossil fuels still account for the greatest share of global power generation. International Energy Agency (IEA) (2013) *Redrawing the Energy Climate Map: World Energy Outlook Special Report*, available at [http://www.iea.org/publications/freepublications/publication/WEO\\_Special\\_Report\\_2013\\_Redrawing\\_the\\_Energy\\_Climate\\_Map.pdf](http://www.iea.org/publications/freepublications/publication/WEO_Special_Report_2013_Redrawing_the_Energy_Climate_Map.pdf), pp. 15-32.

<sup>2</sup> Green electricity is characterized by high capital investment costs and cannot rely on economies of scale contrary to conventional electricity. In Canada-FIT Program, the AB noted that because of these supply-side factors green electricity markets can only be created through government regulation. See AB Report, *Canada - Measures Relating to the Feed-in Tariff Program (Canada-FIT Program)*, 6 May 2013, WT/DS426/AB/R, para. 5.175.

<sup>3</sup> According to recent statistics, developing countries have surpassed developed countries as to the amount of financial investment in renewable energy sources. Arunabha Ghosh and Himani Gangania, *Governing Clean Energy Subsidies: What, Why, and How Legal?*, ICTSD, Geneva, 2012, available at <http://www.ictsd.org/downloads/2012/09/governing-clean-energy-subsidies-what-why-and-how-legal.pdf>, p. 2.

<sup>4</sup> The idea of privileging fiscal measures on a differentiated base instead of direct support schemes for the promotion of RE electricity development is on the rise in countries like Switzerland. See *Botschaft zum ersten Massnahmenpaket der Energiestrategie 2050 (Revision des Energierechts) und zur Volksinitiative “Für den geordneten Ausstieg aus der Atomenergie (Atomausstiegsinitiative)”*, 4 September 2013, BBl 2013 7561, 7574-7575.

<sup>5</sup> In this paper, the term ‘green electricity’ is used to designate electricity generated from renewable types of energy. ‘Grey electricity’ means electricity generated from fossil fuels. Electricity generated from nuclear power does not fall within the meaning of either of the terms and will be dealt with separately.

<sup>6</sup> *Botschaft zum ersten Massnahmenpaket der Energiestrategie 2050 (Revision des Energierechts)*, cit.

## 2. Rationale for a differentiated electricity tax

### 2.1. Taxing electricity for the promotion of renewable energy

In recent years, the set of governmental measures introduced to promote RE development and, in particular, the use of electricity produced from renewable sources has sharply increased. These measures generally aim at lowering the cost of green electricity thus stimulating purchases of final consumers, or raising the price paid to producers.<sup>7</sup>

To promote green electricity, governments use both market and command-and-control measures. The former can either be price- or quota-based mechanisms. Many countries have, for example, introduced so-called RE quota obligations, i.e. domestic schemes requiring energy generators, suppliers or consumers to have a given percentage of energy from renewable sources in their production, supply or consumption<sup>8</sup>, in pursue of national targets for the share of energy from renewable sources.<sup>9</sup> These obligations are usually fulfilled with the help of renewable energy certificates (RECs), including ‘green certificates’ used in the EU countries.<sup>10</sup>

As to the price-based instruments, the European Union and a number of non-EU countries have introduced emissions trading schemes (ETS) based on the cap-and-trade principle.<sup>11</sup> Under such schemes, a ‘cap’ is imposed on the total amount of CO<sub>2</sub> and/or other GHG emissions<sup>12</sup> that can be emitted each year by the power plants, factories and other companies covered by the system, and gradually reduced every year. Within this cap, the covered companies receive or buy emission allowances,<sup>13</sup> which they can trade and whose price is determined on the market by the interaction between supply and demand. By putting a price on carbon, ETSS give companies the flexibility to choose how to reduce GHG emis-

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<sup>7</sup> For a complete yet synthetic overview of the policy instruments implemented by both developed and developing countries for RE development since the 1970s, see The World Bank (2011), *Design and Performance of Policy Instruments to Promote the Development of Renewable Energy: Emerging Experience in Selected Developing Countries, Energy and Mining Sector Board Discussion Paper No. 22*, April 2011, available at <http://siteresources.worldbank.org/EXTENERGY2/Resources/DiscPaper22.pdf>.

<sup>8</sup> Renewable energy obligation schemes have been introduced by several EU Member States in pursuance of Article 2 ((l) of the Directive 2009/28/EC of 23 April 2009 on the promotion of the use of energy from renewable sources (RES Directive), Official Journal (OJ) L 140 of 05/06/2009. Very often, these schemes are implemented by using ‘green certificates’.

<sup>9</sup> See Art. 5 of the Directive 2009/28/EC.

<sup>10</sup> See Art. 2 (k) of the Directive 2009/28/EC.

<sup>11</sup> The EU emission trading scheme (ETS) established in 2005 is the largest international system for trading greenhouse gas emission allowances. It also operates in the Member countries of the European Economic Area (Iceland, Norway and Lichtenstein). Other countries implementing a cap-and-trade system are Switzerland, Australia, New Zealand and Kazakhstan. There are also countries that implement ETSS at regional levels, for instance, the United States (California and the Regional GHG Initiative), Canada (Quebec), Japan (Tokyo and Saitama) and China (ETSS have been introduced in six Chinese provinces). Furthermore, various countries have scheduled the launching of an ETS (e.g. South Korea) or are considering it (Mexico, Chile, Ukraine and Brazil). IEA (2013), *Redrawing the Energy Climate Map: World Energy Outlook Special Report*, cit., p. 24.

<sup>12</sup> For instance, the EU emission trading scheme covers CO<sub>2</sub>, nitrous oxide (N<sub>2</sub>O) and perfluorocarbons (PFCs).

<sup>13</sup> Each allowance conventionally confers the right to emit one tonne of covered GHG emissions.

sions in the most cost-effective way while still promoting investment in low-carbon technologies.<sup>14</sup> The electricity sector is normally covered by existing ETSs.<sup>15</sup>

The use of electricity generated from RE sources is also promoted through direct support schemes (i.e. subsidies) implemented by governments. Clean energy subsidies could take various forms, from financial transfers (e.g. consumer subsidies) to direct price support schemes such as feed-in-tariffs (FiTs), from preferential tax credits (e.g. investment tax credits, production tax credits, tax credits for consumption, etc.) to other regulatory and investment support measures aimed at lowering the cost of green electricity production or facilitating the distribution and supply of green electricity to consumers.<sup>16</sup> The use of subsidies, however, has recently come under closer scrutiny due to long-term efficiency concerns and, at least in some cases, uncertainty regarding their WTO compatibility.<sup>17</sup>

In light of all the foregoing, many countries are currently making a regulatory shift in the electricity sector moving from renewable energy promotion systems to renewable energy steering systems. In simple terms, it means a substitution of subsidies with excise taxes on electricity. If a tax is imposed equally on all types of electricity, it will have the desirable effect of reducing overall electricity consumption but will be useless in the promotion of electricity generation from renewable sources. To promote investments in renewable energy, tax rates need to be applied so as to stimulate the generation and consumption of green electricity and discourage the generation and consumption of grey electricity. The system of a differentiated electricity tax thus consists of tax rates reductions or exemptions for electricity of renewable origin.

## ***2.2. The use of electricity certificates for differentiated electricity taxation***

When assessing the compliance of a differentiated electricity tax with international trade rules, it is necessary to take into consideration the specificity of electricity as a product. The intangible nature of electricity and dependence of electricity trade on the availability of grids put constraints on the circulation of electricity in the market and limits trade in electricity among countries. Electricity has traditionally been traded within national jurisdictions or between neighbouring countries connected by grids. However, it is expected that international trade in electricity will increase in the future, as investments in modern technologies will enable the construction of international interconnected grids.<sup>18</sup> Indeed, projects to supply Europe with electricity from North Africa through interconnected grids seem to be

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<sup>14</sup> For a detailed analysis of the functioning of the existing emission trading systems in the world, see Anita Talberg and Kai Swoboda, *Emission Trading Schemes Around the World*, Background Note for the Parliament of Australia, 6 June 2013, available at [http://parlinfo.aph.gov.au/parlInfo/download/library/prspub/2501441/upload\\_binary/2501441.pdf;fileType=application/pdf](http://parlinfo.aph.gov.au/parlInfo/download/library/prspub/2501441/upload_binary/2501441.pdf;fileType=application/pdf).

<sup>15</sup> IEA (2013), *Redrawing the Energy Climate Map: World Energy Outlook Special Report*, cit., p. 24.

<sup>16</sup> For a thorough description of the various forms of clean energy subsidies currently in place in leading RE countries see Arunabha Ghosh and Himani Gangania (2012), cit., p. 20 ff.

<sup>17</sup> Among the different types of clean energy subsidies, the use of FiTs coupled with local content requirements (LCRs) has in particular been challenged before the WTO Appellate Body (AB) under the WTO Agreement on Subsidies and Countervailing Measures (ASCM). See AB Report, *Canada - Measures Relating to the Feed-in Tariff Program (Canada-FIT Program)*, 6 May 2013, WT/DS426/AB/R and WT/DS452/1, European Union and certain Member States — Certain Measures Affecting the Renewable Energy Generation Sector, Request for Consultation by China, 7 November 2012.

<sup>18</sup> IEA (2013), 'Cross-border Trade in Electricity and the Development of Renewable-Based Electric Power: Lessons from Europe, Annex 2 on Liberalisation of Electricity Markets, Competition and the Drivers of Cross-Border Trade in Electricity, p. 50

feasible.<sup>19</sup> A system of interconnected grids between the EU and Eurasia is already in place. This all means that the relevance of WTO rules applicable to international trade in electricity trade is steadily increasing.

The implementation of a differentiated electricity tax system needs also to take into consideration the homogeneity of electricity as a product. It is impossible to distinguish between green and grey electricity based on appearance and physical characteristics. The application of different tax rates to different types of electricity needs to rely on an electricity certification scheme. Different tax rates would be levied on electricity based on certificates proving the source of electricity. Electricity certification schemes are already used by some countries, in most cases, for electricity source disclosure purposes. One example of such certification is the system of guarantees of origin (GOs), envisaged by the EU Renewable Energy Directive.<sup>20</sup> The GOs are aimed to inform consumers about electricity generated from renewable energy. Each certificate is issued electronically for 1 MW/h and is valid for one year. GOs are issued on the request of any RE electricity generator, subject to a minimum capacity limit. Usually, GOs do not correspond to the physical flow of generated electricity. They are traded virtually as financial assets at the European Energy Exchange (EEX) and other electricity markets.

Besides GOs, there are other types of certificates related to electricity. For instance, renewable energy obligation schemes, which impose on the EU electricity suppliers the requirement to supply a certain percentage of electricity produced from renewable energy in order to achieve a mandatory target of a 20% of green energy in the total EU energy consumption by 2020, are based on green certificates. Furthermore, different electricity labels have been introduced with the purpose to disclose information on different quality aspects of electricity to consumers (e.g. Swiss 'naturemade', TÜV SÜD etc.).<sup>21</sup> Green electricity labels are issued by a specific certification body on request of electricity installations provided they fulfil sustainability requirements under the labelling scheme. Green electricity labels are attached to the physical flows of electricity produced by certified electricity installations. Green labels are different to green certificates in that the former certify the green origin of electricity per kWh, whereas the latter provide information on the sustainability footprint of electricity plants, including their environmental impacts, social and economic criteria and various process criteria.

Finally, the implementation of a differentiated electricity tax could also be based on renewable energy certificates (RECs) specifically issued for the purposes of granting electricity tax exemptions. The use of such tax exemption certificates (TECs), which are part of the Climate Change Levy applied to electricity and energy resources in the United Kingdom, is discussed below.

### **2.3 Electricity tax practices in the EU**

The application of taxes on electricity in EU countries is guided by the EU Directive on restructuring the Community framework for the taxation of energy products and electricity.<sup>22</sup> Art. 15(1) of the Directive allows the application of an electricity tax at different rates depending on electricity sources

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<sup>19</sup> S. Chatzivasileiadis, D. Ernst, G. Andersson, 'The Global Grid', *Renewable Energy*, vol. 57, Sep. 2013, at 372-383.

<sup>20</sup> See Directive 2009/28/EC of 23 April 2009 on the promotion of the use of energy from renewable sources (RES Directive), Article 15. Official Journal (OJ) L 140 of 05/06/2009, p. 16.

<sup>21</sup> PriceWaterhouseCoopers & WWF (2009), *Green Electricity: Making a Difference. An International Survey of Renewable Electricity Labels*, May 2009.

<sup>22</sup> See EU Directive 2003/96/EC. OJ L 283 of 31/10/2003, p. 51.

subject to the EU non-discrimination and state aid rules. It also allows Member States to apply total or partial tax exemptions or reductions. Art. 15(2) of the Directive further stipulates that the tax level can also be reduced by paying some or all the amount of tax back to the producer of RE electricity.

As regards the application of electricity taxes on imports, the practice of individual EU Member States varies. Finland used to apply an electricity tax at different tax rates based on electricity sources for domestic electricity and an average tax rate on imports of electricity trying to justify this by claiming that the source of imported electricity could not be easily traced.<sup>23</sup> In the UK, electricity tax exemptions are available for domestic and imported electricity alike if electricity comes from renewable sources. The Netherlands used to give electricity tax exemptions at the consumption level irrespective of the origin of RE electricity.

An electricity tax with exemptions for RE electricity is currently in place in a number of EU Member States, including Denmark, Germany, Lithuania, Poland, Sweden and the UK. Tax exemptions are either provided to suppliers of all types of RE electricity or only to suppliers of particular types of RE electricity (e.g. only for wind electricity in Sweden or only for wind, hydropower and solar in Denmark) or depending on the size of renewable power facilities (e.g. only to plants with installed capacity of less than 5MW in Poland).<sup>24</sup>

EU countries applying different electricity tax rates based on electricity sources resort to various types of renewable energy certificates to trace the source of electricity. In Poland, the implementation of exemptions for renewable electricity is based on green certificates, or certificates of origin. The exemption from an excise duty is granted on submission of a written statement by the electricity generator or supplier to the customs office stating that the green certificates were confirmed by the Energy Regulatory Office as a proof of the green origin of electricity.<sup>25</sup> In Lithuania, electricity tax exemptions are provided for national suppliers of domestic and imported green electricity of different sources.<sup>26</sup> The exemptions are foreseen under Article 46(2) of the Law on Excise Duty against submission of GOs, which are authorized by the transmission system operator, or any other evidence confirming that electricity was generated from renewable energy sources.<sup>27</sup> In the UK, suppliers of domestic or foreign green electricity are exempted from the tax based on the tax exemptions certificates specifically introduced for these purposes. Electricity in the UK is taxed in the framework of the Climate Change Levy (CCL) scheme, which applies an excise tax on electricity and fossil fuels in relation to climate change policy.<sup>28</sup> The CCL scheme provides exemptions for both domestic and imported green electricity. To receive exemptions, an electricity supplier must have renewables levy exemption certificates (LECs) obtained from an accredited green electricity producer in the UK or abroad. Certificates to domestic and foreign green electricity producers are issued by the Great Britain's Office of Gas and Electricity

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<sup>23</sup> The European Court of Justice (ECJ) found these differences in the application of the tax to be in breach of EU non-discrimination rules. See Case C-213/96, *Outokumpu Oy*, 1998 ECR I-1777.

<sup>24</sup> Jose M. Cansino et al. (2010), 'Tax incentives to promote green electricity: An overview of EU-27 countries', *Energy Policy*, vol. 38, issue 10, pp. 6000-6008.

<sup>25</sup> *Ibid.*, p. 6005.

<sup>26</sup> Law on Excise Duty of the Republic of Lithuania, 29/01/2004, No. IX-1987.

<sup>27</sup> Order of the Ministry of Economy on the 'Electrical Energy, Generated from Renewable Energy Sources, Guarantees of Origin Authorization Rules', 07/10/2005, No. 4-346.

<sup>28</sup> [http://www.cccep.ac.uk/Publications/Working-papers/Papers/1-9/Working\\_Paper7.pdf](http://www.cccep.ac.uk/Publications/Working-papers/Papers/1-9/Working_Paper7.pdf) (last visited 10 February 2014).

Markets (Ofgem) or the Northern Ireland Authority for Utility Regulation through electronic registration.

### 3. Issues under the GATT

#### 3.1. Status of electricity in the WTO legal system

Under WTO law, electricity qualifies as a good and falls under the GATT provisions.<sup>29</sup> It is enclosed in the GATT Schedule of Concessions as an optional commitment under the heading HS 2716.00. It is listed within subsection 27 “Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes” of section V “Mineral products”. Since the tariff commitment for electricity is optional, there are WTO members that left themselves a right to impose import duties on electricity at their own discretion. Yet, even these WTO members are obliged to observe all other provisions of GATT, including non-discrimination rules, when they trade electricity with other countries. This also applies to tax matters. First, countries would have an obligation to provide a tax treatment of the most favoured nation (MFN) to electricity imported or exported from/to all other WTO members under GATT Article I.<sup>30</sup> Second, they would need to observe the national treatment (NT) in relation to taxing electricity under GATT Article III:2.<sup>31</sup>

Furthermore, the reduction of tax rates or granting of tax exemptions for some types of electricity is subject to WTO subsidy disciplines set out in the WTO Agreement on Subsidies and Countervailing Measures (ASCM), while the use of renewable energy certificates for the implementation of a differentiated electricity tax may potentially touch upon the rules on the application of technical regulations and labels under the WTO Agreement on Technical Barriers to Trade (TBT) and the legal framework for trade in services under the General Agreement on Trade in Services (GATS). However, these issues are not dealt with in this paper.

#### 3.2. Relevant GATT rules and exceptions

##### 3.2.1. Non-discrimination principles

An analysis of compliance of a differentiated electricity tax with the MFN and NT obligations will have to be based on the like product analysis, because the MFN and NT obligations only apply to trade in like products or products which are directly competitive or substitutable. The NT obligation prohibits the application of a tax on imports at a rate which is in excess of the tax rate applied to like domestic products. If the products qualify as like, even a small difference in the tax rate to the detriment of imports would lead to a finding of discrimination.<sup>32</sup>

The main question in the examination of compliance of a differentiated electricity tax with the non-discrimination principles protected under the GATT is whether electricity originating from renewable

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<sup>29</sup> Panel Report, *Canada - Measures Relating to the Feed-in Tariff Program (Canada-FIT Program)*, 19 December 2012, WT/DS426/R, para. 7.11, footnote 46. It should be noted, however, that electricity was classified as a good in the GATT era, when there was no legal framework for trade in services established later by the WTO's General Agreement on Trade in Services (GATS). Currently, there is a discussion in the literature as to whether electricity should not be better dealt with as a service.

<sup>30</sup> The MFN provision of GATT Art. I requires that any benefit provided to a product imported from or exported to any WTO member must also be provided to a like product imported from or exported to all other WTO members.

<sup>31</sup> In general terms, the NT provision of GATT Art. III prohibits a protectionist treatment for domestic products.

<sup>32</sup> AB Report, *Japan - Taxes on Alcoholic Beverages (Japan-Alcoholic Beverages II)* adopted on 1 November 1996, WT/DS8/AB/R, WT/DS10/AB/R, WT/DS11/AB/R, p. 22.

energy (RE) can be viewed as different to or unlike electricity originating from fossil fuels.<sup>33</sup> Neither WTO jurisprudence nor the literature gives a clear answer to this question, which is part of an old debate on the accommodation of measures imposed on processes and production methods (PPMs) under the GATT regulatory framework.<sup>34</sup> Unlike EU law, which accepts trade measures based on production methods,<sup>35</sup> WTO law does not provide a clear answer as to the legal status of such measures, especially those PPMs that do not change physical qualities of products (i.e. non-product-related PPMs).<sup>36</sup>

When assessing whether products are like or different, WTO panels look at the competitive relationship between products and use four criteria that signal likeness of products: products' physical characteristics, products' end uses, consumer preferences and tariff classification.<sup>37</sup> Since electricity is electricity no matter whether it is generated from carbon-intensive or carbon-free energy sources, it falls under the same tariff code in the countries' schedules of concession and it is intended for the same use as power in all cases. Accordingly, only preferences of consumers for electricity produced from renewable sources can render green and grey electricity unlike products. An argument can be made that consumers in a particular market prefer green electricity to grey electricity under the availability of an electricity certification system that can facilitate the consumers' choice.<sup>38</sup> Uncertainty, however, exists as to whether consumer preferences for green electricity will be considered to be strong enough to prevail over other likeness criteria, which for grey and green electricity are the same (physical qualities, end uses and tariff code).

In *EC-Asbestos*, consumer preferences played a prominent role in the Appellate Body (AB) finding of unlikeness of asbestos-containing and asbestos-free products. Without going into an examination of evidence and based on the public awareness of hazards for human health from the use of asbestos, the AB made an assumption that consumers prefer purchasing products not containing asbestos. Thus, health risks associated with the use of asbestos-containing products rendered these products unlike products to those products that do not contain asbestos.<sup>39</sup> However, the consumption of fossil fuel electricity is different in this respect. The consumption of electricity generated from coal or nuclear energy does not create a direct association of consumers with health risks. The negative consequences of the consumption of coal-fired electricity are less tangible than the risks inflicted by the consumption of asbestos-containing products. Moreover, the realization of consumer preferences for green electricity depends on the availability of a certification scheme established by the regulator in the electricity

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<sup>33</sup> It should be noted that likeness of products is always assessed on a case-by-case basis.

<sup>34</sup> For more on this, see Ecoplan et al. (2013), cit., pp. 80-81.

<sup>35</sup> For instance, the ECJ did not find a PPM-based electricity tax applied in Finland in the 1990s to constitute a violation of EU law. See Case C-213/96, *Outokumpu Oy*, 1998 ECR I-1777.

<sup>36</sup> Christine Conrad, *Processes and Production Methods (PPMs) in WTO Law: Interfacing Trade and Social Goals* (Cambridge University Press, 2011), pp. 275-281.

<sup>37</sup> See e.g. AB Report, *European Communities – Measures Affecting Asbestos and Asbestos Containing Products (EC-Asbestos)* adopted 5 April 2001, WT/DS135/AB/R, para. 101.

<sup>38</sup> Howse (2009), cit., p. 3.

<sup>39</sup> AB Report, *EC-Asbestos*, cit., paras 123-126.



market. Without the use of certificates consumers will not be able to distinguish between different types of electricity and realize their choice.<sup>40</sup>

The consumers' care of the methods by which electricity is generated can also serve as evidence that 'green' electricity and 'grey' electricity are in the competitive relationship in the market and as such are not completely identical (like) products but products that are directly competitive or substitutable. In *Canada-FIT Program*, the AB remarked that directly competitive or substitutable products in the sense of GATT Article III:2, second sentence are 'products that are in a competitive relationship. What constitutes a competitive relationship between products may require consideration of inputs and processes of production used to produce the product.'<sup>41</sup> Based on this remark, different types of electricity generated by different production methods can fall under the category of directly competitive or substitutable products.

Taxation of directly competitive or substitutable products is subject to a more lenient set of national treatment rules than those applicable to the category of like products.<sup>42</sup> As per GATT Article III:2, second sentence, the tax treatment of directly competitive or substitutable products must not be identical in order to satisfy the NT requirement. In contrast to the first sentence of GATT Article III:2, domestic and imported directly competitive or substitutable products are to be taxed similarly; certain variations in the amount of tax can thus be accommodated as long as they do not result in the protection of domestic production.<sup>43</sup> Although a differentiated electricity tax, which is levied at higher rates on fossil fuel electricity and at lower rates at RE electricity with respect to all electricity sold in the market, is origin-neutral *de jure*, discrimination can occur *de facto*, if the proportion of fossil fuel electricity in electricity imports is significantly higher than the proportion of fossil fuel electricity in electricity generated domestically. This means that to meet the requirement of the second sentence of Article III:2, the amounts of imported and domestic electricity disadvantaged by a tax should be commensurate.

Finally, based on the recent WTO jurisprudence, it cannot be excluded that electricity generated from RE sources will be found to be a different or unlike product from electricity generated from fossil fuels. In the *Canada-FIT Program* case, when assessing the compliance of Ontario's feed-in tariff scheme with the rules on subsidies under the ASCM, the AB found that electricity generated from solar photovoltaic (PV) and wind power technology and electricity generated from fossil fuels were sold in different markets. The markets were considered to be different because of the differences in the type of power (solar and wind plants generate peaking power, whereas coal-based and nuclear plants generate base-load power), the differences in contracts and the differences in consumers' sizes. Yet, the biggest difference was seen on the side of supply factors. According to the AB, "supply-side factors suggest that wind-power and solar PV producers of electricity cannot compete with other electrici-

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<sup>40</sup> Certificates to facilitate consumption of RE electricity are not needed in the situation where RE electricity is generated by households and companies using solar PV panels. However, it constitutes only a small part of RE electricity consumption. A prevailing part of electricity is distributed to households and companies from the single electricity grid fed by a mix of 'green' and 'grey' electricity physically inseparable.

<sup>41</sup> AB Report, *Canada-FIT Program*, cit., para. 5.63.

<sup>42</sup> Alcoholic beverages (e.g. soju, whisky, brandy, gin, rum) are an example of products that were considered to be directly competitive or substitutable by WTO adjudicative bodies.

<sup>43</sup> See GATT Art. III:2 and Ad Art. III:2 read together.

ty producers because of differences in cost structures and operating costs and characteristics".<sup>44</sup> The AB also noted that unlike the market for conventional electricity, due to the high production costs and competitive disadvantages, the market for RE electricity would have not come into existence if a government had not created it by its regulation.<sup>45</sup> Thus, when determining the likeness of product markets in the context of the ASCM analysis, the AB looked not only at demand-side factors but also at supply-side conditions. Should supply-side factors be taken into account in the analysis of likeness of different types of electricity under the GATT, RE and fossil fuel electricity would be found to be different (i.e. unlike) products. In that case, the differences in their tax rates will not raise issues of compliance with the national treatment obligation under the GATT. It remains to be seen whether WTO adjudicative bodies will be willing to incorporate the ASCM approach to likeness in the likeness analysis under the GATT.

In sum, three different scenarios can be envisaged with respect to the analysis of likeness of 'green' and 'grey' electricity: (1) they may be found to be unlike products and thus may be treated differently in taxation; (2) they may be found like and differentiated tax rates would thus entail a violation of the national treatment rule; or (3) they may qualify as 'directly competitive or substitutable' products and a breach of the national treatment rule could arise if a disproportionate tax burden is placed on electricity imports. As follows from the *Shrimp-Turtle* jurisprudence, PPM-measures that fail to meet obligations under the GATT (in our case, this would be scenarios (ii) and (iii)) may be justified under the general exceptions of GATT Art. XX.<sup>46</sup> Whether an application of differentiated tax rates to electricity generated from different sources can be defended under the general exceptions is discussed in the next section.

### 3.2.2. *Applicability of GATT Art. XX exceptions*

Exceptions to GATT rules are available for measures taken to pursue one of the non-trade policy objectives specified in the paragraphs of GATT Article XX. An important initial step in the analysis of whether a measure can be justified under GATT Article XX is the determination of its objective. A differentiated electricity tax can fall within the scope of Article XX if the link can be established with the environmental and/or public health protection. In the first case, a country introducing a differentiated electricity tax may seek justification under paragraph (g) of Article XX, which protects a measures 'relating to a conservation of exhaustible natural resources'. In the second case, it may be able to justify a tax under paragraph (b) as a measure 'necessary to protect human, animal or plant life or health'.

In most cases, a differentiated electricity tax can qualify as an environmental or climate change-related measure falling under GATT Article XX (g). This is also likely in the case where the objective of a differentiated electricity tax is officially formulated as the promotion of production and consumption of renewable energy. While this objective *prima facie* has a link to industrial policy, in the end, the industrial policy-related objective is driven by climate change concerns.<sup>47</sup> It could be argued that the

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<sup>44</sup> AB Report, *Canada-FIT Program*, cit., para. 5.174.

<sup>45</sup> *Ibid.*, para. 5.175.

<sup>46</sup> AB Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products (US-Shrimp)*, adopted 6 November 1998, WT/DS58/AB/R, para. 121.

<sup>47</sup> For instance, a proposal for implementation of the second phase of Swiss Energy Strategy 2050, which considers differential electricity taxation as an option, is based on the assumption that renewable energy promotion and climate change mitigation goals are closely intertwined. See *Verfassungsbestimmung über ein Klima- und Energielenkungssystem. Erläuternder Bericht zum Vorentwurf* (EFV, BFE, BAFU, 2015), pp. 16-17.

promotion of RE electricity aims to substitute the generation of electricity from fossil fuels (coal, oil and gas) that causes carbon emissions and consequently leads to climate change.

The question is however whether paragraph (g) can also be invoked for justification of a higher tax rate on nuclear electricity generally considered to be carbon-neutral.<sup>48</sup> While not being associated with greenhouse gas emissions and the problem of climate change, electricity generated from nuclear power can still be connected with environmental problems. The environmental problems are caused by nuclear waste, which is stored underground.<sup>49</sup> The issue of nuclear waste storage is likely to be sufficient for arguing under paragraph (g). Yet, a higher tax rate for nuclear electricity might also be defended under paragraph (b) on the ground that the operation of nuclear power plants inflicts the risks to human life and health from possible nuclear power plants' accidents, such as those happened in Chernobyl and Fukushima. Thus, justification of a differentiated electricity tax may require an invocation of two exception clauses. The justification of a measure under several paragraphs at the same time is acceptable under WTO law, as a measure can consist of different elements that can be subject to justification under different exceptions.<sup>50</sup> In the *US-Gasoline* dispute, for instance, the panel scrutinized US standards for reformulated and conventional gasoline under three exceptions clauses: (b), (d) and (g).<sup>51</sup> Accordingly, justification of a higher tax rate for coal-based electricity compared to other types of electricity would have to be sought under Article XX (g), while justification of a higher tax rate for nuclear electricity would have to be sought under Article XX (b).

Once the link of a measure to the policy objective under a paragraph is established, the next step is the analysis of the strength of this link. Paragraph (b) requires that a measure must be necessary for the achievement of the objective of health protection, while under paragraph (g) a measure must merely relate to the objective of conservation of exhaustible natural resources. In this respect, the link between a measure and a paragraph's objective is stronger under paragraph (b). The analysis of a differentiated electricity tax for nuclear electricity under paragraph (b) consists of the necessity test, which will look at whether the same objective could be met by alternative measures that are less-trade restrictive, whether these alternative measures could be reasonably available and whether they could equally guarantee the achievement of the objective.<sup>52</sup> Although alternative measures (e.g. a complete prohibition of sales of nuclear electricity or the use of labels (certificates) discouraging the consumption of nuclear electricity) could be found, they are unlikely to be considered to be proper substitutes. A government cannot prohibit the sales of nuclear electricity until the entire substitution of this type electricity in the electricity supply is possible. Moreover, a prohibition of sales is a more trade restrictive alternative. As regards the use of labels, although being less trade-restrictive measures, they are unlikely to be found as efficient for the achievement of the objectives as the use of a tax.

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<sup>48</sup> Jayant Sathaye et al., 'Renewable Energy in the Context of Sustainable Energy', in O. Edenhofer et al. (eds)], *IPCC Special Report on Renewable Energy Sources and Climate Change Mitigation* (Cambridge University Press, 2011), pp. 732-733.

<sup>49</sup> *Ibid.*, pp. 745-747.

<sup>50</sup> AB Report, *European Communities – Regime for the Importation, Sale and Distribution of Bananas (EC-Bananas III)*, adopted 25 September 1997, WT/DS27/AB/R, para. 221.

<sup>51</sup> Panel Report, *United States – Standards for Reformulated and Conventional Gasoline (US-Gasoline)* adopted 20 May 1996, WT/DS2/R.

<sup>52</sup> AB Report, *Korea – Measures Affecting Imports of Fresh, Chilled and Frozen Beef (Korea – Various Measures on Beef)*, 10 January 2001, WT/DS161/AB/R, WT/DS169/AB/R, para. 164; Appellate Body Report, *Dominican Republic – Measures Affecting the Importation and Internal Sale of Cigarettes (Dominican Republic – Import and Sale of Cigarettes)* adopted 19 May 2005, WT/DS302/AB/R, para. 70.

The 'relating to' link with the objective under paragraph (g) will be easier to establish. Paragraph (g), however, also contains a requirement that a measure must be taken in conjunction with an imposition of constraints on domestic production or consumption. It means that the environmental objective of a differentiated electricity tax needs to be consistently pursued in the internal market through national policies. In the context of a differentiated tax for nuclear electricity, the deployment of a strategy for the phasing-out of domestic production of nuclear electricity would be in line with this requirement.

The analysis of a differentiated electricity tax under Article XX can also raise the issue of extraterritorial application, i.e. the impacts of such a tax on electricity generation methods of foreign producers. WTO case law does not exclude the possibility of justification of extraterritorial measures under GATT Article XX, especially if the link can be established between what happens in the exporting country and the risks that the situation in the exporting country inflicts on the importing country.<sup>53</sup> It should not be a problem to establish the territorial connection of risks in the case of a differentiated electricity tax. It could be argued that climate change has no territorial borders, and even if it is caused by the generation of electricity from fossil fuels in the territory of the exporting country, it has effects on climate in the importing country. Similarly, it could be argued that the environmental and health effects of nuclear plants accidents that may happen in the territories of exporting countries would also be felt in the territory of the importing country.

The accommodation of a differentiated electricity tax under paragraphs (g) and (b) of Article XX will provide only a preliminary justification of the tax. In the second step, a differentiated electricity tax will have to be assessed on compliance with the conditions of the introductory paragraph (chapeau) of Article XX.<sup>54</sup> At this stage, it will be checked whether a differentiated electricity tax is not applied in a manner that constitutes arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on trade. To pass the test on arbitrary discrimination under the chapeau of Article XX, an application of a differentiated electricity tax must take into account conditions prevailing in countries from where electricity is imported. The meaning of conditions here has a link with the objective of a paragraph or, more precisely, with the risks that a measure is aimed to mitigate.<sup>55</sup> Variations in the application of an electricity tax in relation to electricity, which carries the same risks with respect to the environment or health, would result in a finding of arbitrary discrimination preventing justification under Article XX. However, as follows from the recent WTO case law, the mode of application of a measure can somewhat deviate from the objective under a paragraph, if this is necessary for the fulfilment of country's obligations under an international agreement. The latter can apparently be untethered with the principal objective of a measure, i.e. the objective of a paragraph of Article XX under which a measure is meant to be justified.<sup>56</sup> It is however not entirely clear how this

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<sup>53</sup> Ibid., para. 134.

<sup>54</sup> AB Report, *US-Gasoline*, cit., p. 22.

<sup>55</sup> AB Report, *Brazil – Measures Affecting Imports of Retreaded Tyres (Brazil-Retreaded Tyres)* adopted 20 August 2009, WT/DS332/AB/R, para. 227. For the interpretation of the prohibition of arbitrary discrimination under the Chapeau of Art. XX by WTO adjudicative bodies, see Kateryna Holzer, *Carbon-related border adjustment and WTO law* (Edward Elgar, 2014), pp. 167-175.

<sup>56</sup> In *EC-Seals*, the scrutiny of the EU regime for seals and seal-containing products under GATT Article XX focused, *inter alia*, on finding the right balance between the principal objective of the measure to address public moral concerns regarding seal killing methods and the competing aim of accommodating subsistence needs of Inuit communities acknowledged in the UN Declaration on the Rights of Indigenous Peoples and other international treaties protecting the rights of indigenous peoples, which the EU aimed to observe. See AB Report, *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products (EC-Seal Products)* adopted 22 May 2014, WT/DS400/AB/R, paras. 5.321-5.326.

recent addendum to the interpretation of the prohibition of arbitrary justification standard under the chapeau can be reconciled with the requirement of the discrimination having a link to the objective under a paragraph, which was advanced by WTO adjudicative bodies in past disputes.<sup>57</sup> Most probably, in the view of the AB, a measure pursuing multiple objectives must not only be the least discriminatory, but also the least inconsistent in relation to the principal legitimate objective.<sup>58</sup>

That being said, there is nothing in the text of GATT Article XX and in the Article XX jurisprudence that could suggest that an electricity tax imposed at different tax rates depending on its sources would have a problem to be justified under the general exceptions of the GATT. It is an important conclusion taken into account that there will be a need for justification in the scenarios where green and grey electricity are considered to be like or directly competitive or substitutable products and the differences in tax rates trigger a violation of GATT non-discrimination rules.

#### **4. Analysis of various tax design options**

In countries with a limited potential for the development of renewable energy, the mere differentiation in tax rates for electricity may not help to achieve the target for an increased share of production of green electricity. Policymakers may therefore consider the possibility to combine a differentiated electricity tax with additional requirements, including those imposed on the eligibility of renewable energy certificates for tax exemption purposes. Restrictions, for instance, could be introduced on the admissibility of renewable energy certificates for the purpose of granting tax exemptions. These restrictions could be of both a quantitative and a qualitative nature. A quantitative restriction could be put on foreign RECs on the grounds that they can be acquired at a lower price than domestic RECs.<sup>59</sup> In terms of qualitative restrictions, the admissibility of RECs could be conditioned on the actual attachment to the physical flows of electricity, or to RECs that originate from electricity installations that are also certified for their environmental footprint. These additional requirements may further complicate the compliance of a differentiated electricity tax with WTO law, so as the way of recycling of tax revenues. Moreover, WTO law implications of an electricity tax would be different, should the tax be based on the carbon footprint of electricity.

##### ***4.1. A differentiated electricity tax with quantitative restrictions on the acceptability of certificates***

The implications of a quantitative limitation on foreign RECs eligible for tax exemptions would likely impinge on the obligation of general elimination of quantitative restrictions under GATT Art. XI:1, which forbids both import “prohibitions” and import “restrictions ... whether effective through quotas, import ... licenses or other measures”. Limiting the quantity of foreign RECs eligible for tax exemptions by a certain fixed threshold could be found to be a measure constituting a “restriction...on importation” of RE electricity. WTO jurisprudence has consistently interpreted Art. XI:1 GATT in a broad manner, considering not only measures which may formally be considered quantitative restrictions

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<sup>57</sup> It should be noted that, in the end, both the panel and the AB in *EC-Seals* found the exception provided to Inuit (and the exception linked to the maritime management) to be incompatible with the principal objective of the seals regime, i.e. the protection of public morals, and recommended to adjust the measure accordingly. For a detailed analysis of the Seals case, see T. Cottier, I. Espa, R. Liechti, T. Payosova, ‘The jurisprudence of the World Trade Organisation in 2014’, *Schweizerische Zeitschrift für internationales und europäisches Recht* (2015 forthcoming).

<sup>58</sup> Lorand Bartels, ‘The Chapeau of the General Exceptions in the WTO GATT and GATS Agreements’, 109 *American Journal of International Law* (2015 forthcoming).

<sup>59</sup> For instance, the price for GOs in the EU is presently four times lower than the price for GOs in Switzerland.

(e.g. quotas) but also other measures constraining trade through reductions in the volume of imports (or exports) to fall within its scope of application. In *India – Autos*, the Panel suggested that the term “restrictions” includes all measures imposing a condition with a limiting effect.<sup>60</sup> In *Colombia – Ports of Entry*, the Panel found that Art. XI:1 would also cover “measures which create uncertainties and affect investment plans, restrict market access for imports or make importation prohibitively costly”.<sup>61</sup> In *China – Raw Materials*, the Panel further added that any measure with “the very potential to limit trade... constitute[s] a ‘restriction’ within the meaning of Art. XI:1 of the GATT 1994”.<sup>62</sup> Based on WTO case law, a quota on the number of foreign RECs eligible for tax exemptions is likely to be viewed as a measure having a limiting effect on importation within the meaning of GATT Art. XI:1 because it creates uncertainty regarding eligibility of foreign RECs for the purposes of tax exemptions. It would thus negatively affect the competitive opportunities of green electricity produced outside the imposing country compared to domestically produced electricity accompanied by domestic RECs inasmuch as the latter would automatically grant access to the tax exemption.<sup>63</sup>

Furthermore, GATT Art. XI:1 is not the only provision that may be relevant for the purpose of assessing the legal feasibility of quantitative limitations on foreign RECs eligible for tax exemptions. A violation of the NT rule under GATT Art. III:4 may arise to the extent that a more favourable treatment would be granted to domestic electricity suppliers submitting RECs of domestic origin, associated with green electricity produced domestically, instead of foreign RECs obtained from importing green electricity. This would modify the conditions of competition in the country imposing an electricity tax between imported and domestic green electricity to the detriment of the former.<sup>64</sup>

Moreover, designing an electricity tax scheme in such a way that the tax exemptions would be fully available to domestic green electricity upon submission of domestic RECs while it may be precluded to imported green electricity accompanied by foreign RECs exceeding the quota would likely reduce chances for successfully defending the whole tax scheme under GATT Art. XX, should recourse to the GATT exceptions be needed to justify the PPM nature of an electricity tax or the possible discriminatory effects on foreign green electricity compared to domestic green electricity. As a quota imposed on foreign RECs for the purposes of tax exemptions would ultimately discourage green electricity imports while stimulating the production of green electricity in the country imposing a tax, the question is

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<sup>60</sup> Panel Report, *India – Measures Affecting the Automotive Sector*, circulated on 21 December 2001, WT/DS/146/R and WT/DS/175/R, para. 1.14.

<sup>61</sup> Panel Report, *Colombia - Indicative Prices and Restrictions on Ports of Entry*, adopted on 20 May 2009, WT/DS366/R, para. 7.240.

<sup>62</sup> Panel Report, *China – Measures Related to the Exportation of Various Raw Materials*, circulated on 5 July 2011, WT/DS394/R, WT/DS395/R and WT/DS398/R, para. 7.1081.

<sup>63</sup> This conclusion is supported by *Colombia – Ports of Entry*, where the Panel opined that the limiting effect on importation would not have to be proved based on the trade impacts of a measure so long as “changes in trade volumes result not only from governmental policies, but also from other factors, and that, in most circumstances, it is not possible to determine whether a decline in imports following a change in policies is attributable to that change or to other factors”. Panel Report, *Colombia – Ports of Entry*, ft. 35, para. 7.254. Thus, there is no need to quantify the impact determined by the preference of domestic over foreign RE GOs on the volume of green electricity imports for the purpose of proving the violation of Art. GATT XI:1.

<sup>64</sup> A detailed analysis of the case law interpreting Art. III:4 GATT and a thorough explanation of its applicability to a quantitative limitation imposed on GOs for the purposes of tax exemptions were given in Cottier et al., *Differential Taxation of Electricity: Assessing the Compatibility with WTO Law, EU Law and the Swiss-EEC Free Trade Agreement*, WTI / Heuking Kühn Lüer Wojtek, available at: [http://www.efv.admin.ch/e/downloads/finanzpolitik\\_grundlagen/els/Differential%20\\_Taxation\\_e.pdf?lang=de&mmsgid=50122](http://www.efv.admin.ch/e/downloads/finanzpolitik_grundlagen/els/Differential%20_Taxation_e.pdf?lang=de&mmsgid=50122), at 55.

whether the preference of domestic over foreign green electricity could be considered impartial. Pursuant to the chapeau of Art. XX, a measure shall not be “a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade”. The country imposing an electricity tax with such requirements would need to prove that the “conditions” prevailing domestically, on the one hand, and in the country from which green electricity is imported, on the other hand, are “relevantly different”.<sup>65</sup> It seems unlikely that the importing country could rely on the existence of the tax scheme to argue that the domestic conditions are different than those prevailing in the exporting country. As mentioned, because the quota on foreign RECs would result into discrimination between countries with the same conditions, the reason for such discrimination should be related to the objective under Art. XX (g) or (b).<sup>66</sup> However, the reason for discriminating imported green electricity against domestic green electricity does not seem to directly relate to public health or environmental protection considerations, as these goals would be promoted just as effectively by measures incentivizing the consumption of green electricity irrespective of its origin. For all the foregoing, a quota put on foreign RECs eligible for tax exemptions would likely run afoul of GATT provisions.

#### ***4.2. A differentiated electricity tax with qualitative restrictions on the acceptability of certificates***

One could also imagine limiting the admissibility of RECs for tax exemptions based on certain qualitative criteria. The admissibility of RECs could for instance be conditioned on the actual attachment of RECs to the physical flows of electricity. This requirement seems to better reflect the environment goal of stimulating the use of electricity from renewable sources in the importing country than the quantitative restrictions on RECs inasmuch as, from an environmental perspective, it is irrelevant whether the increase in the production of green electricity occurs in the territory of the importing country or elsewhere due to the global nature of climate change. Furthermore, it is an objective criterion that allows using RECs as a tool to extend a domestic tax to imports, while still treating domestic and foreign green electricity alike. Under this scenario, excluded from tax exemptions would only be certificates not linked to the importation of green electricity, while imports of green electricity would be treated the same as domestic green electricity. For this reason, this design option does not seem to entail any violations of relevant WTO provisions. Moreover, because such criterion would be equally applicable to domestic and foreign RECs accompanying green electricity flows in a way similar to labels, no additional legal hurdles would arise out of the obligations under the TBT Agreement.

Another qualitative criterion for the acceptability of RECs could consist in granting the tax exemptions upon the submission of RECs (e.g. GOs) coming from those electricity installations meeting the requirements for green electricity labels, such as ‘naturemade’ labels issued in Switzerland. The idea behind this option is to restrict the availability of tax exemptions not simply to green electricity as such (i.e. CO<sub>2</sub>-free electricity generated from renewable sources) but more specifically to green electricity produced in an ecologically sustainable manner.<sup>67</sup> This option could be implemented through GOs, as

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<sup>65</sup> AB Report, *European Communities — Measures Prohibiting the Importation and Marketing of Seal Products (EC Seal Products)* adopted 22 May 2014, WT/DS400/AB/R, WT/DS401/AB/R, para. 5.299.

<sup>66</sup> AB Report, *Brazil – Measures Affecting Imports of Retreaded Tyres (Brazil-Retreaded Tyres)* adopted 20 August 2009, WT/DS332/AB/R, para. 227.

<sup>67</sup> Green electricity labels take into account a wider range of requirements concerning ecological, social, organizational and professional factors. See Naturemade Swiss Quality Label: A Top Global Brand, available at <http://www.naturemade.ch/Dokumente/Kommunikation/PWC-Report-kurz-e.pdf>.

GOs contain information on “the identity, location, type and capacity of the installation where green electricity was produced”.<sup>68</sup> Although in principle this criterion would be applicable to both domestic and foreign GOs, the choice of a national quality label such as ‘naturemade’ would likely entail *de facto* discrimination against imported green electricity. This is because national labels are not diffused in other countries. This means that GOs qualifying for tax exemptions will almost exclusively be those of domestic origin, whereas foreign GOs would hardly qualify for tax exemptions. Limiting the admissibility of GOs for the tax exemptions to those that correspond to a national electricity label carries implications for trade in electricity similar to those arising out of the introduction of a formal quota on foreign RECs eligible for tax exemptions. Domestic GOs originating from certified installations would in fact be preferred over foreign GOs, even if the latter are coming from installations certified under another green electricity label based on ecological requirements similar to those assessed under the national label. The introduction of such a qualitative criterion is thus likely to entail a violation of Art. III:4 and Art. XI:1 GATT, while posing problems for justification under the relevant environmental exceptions available under the GATT. In order to avoid a *de facto* discrimination against imported green electricity, a tax exemption scheme should thus be based on a label, which is equally available for domestic and foreign suppliers of renewable electricity.

## 5. Conclusions

An electricity tax with different tax rates applied to different types of imported electricity against submission of renewable energy certificates can be compliant with GATT rules, provided a number of requirements are met. Domestic and imported electricity of a particular electricity type must be taxed equally and differences in taxation between electricity of different types must not exceed what is needed for the achievement of environmental or public health policy objectives.

Introducing additional requirements and constraints for imported green electricity eligible for tax exemptions could however complicate the compliance of a differentiated electricity tax with WTO law. Limiting the number of foreign certificates eligible for tax exemptions would likely affect the volumes of imported green electricity and thus trigger a violation of the national treatment obligation. However, restrictions on the eligibility of RECs might be defended under WTO law if they are based on qualitative criteria such as the attachment of RECs to green electricity flows or to a green electricity label that is equally available for domestic and foreign suppliers of green electricity.

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<sup>68</sup> See Art. 15 (6) (c) of the Directive 2009/28/EC.