

Differential Taxation of Electricity: Assessing the Compatibility with WTO Law, EU Law and the Swiss-EEC Free Trade Agreement

April 18, 2014

Prof. Thomas Cottier, World Trade Institute,
University of Bern

Dr Ilaria Espa, World Trade Institute,
University of Bern

Simon Hirsbrunner, LL.M.
Heuking Kühn Lüer Wojtek, Brussels

Dr Kateryna Holzer, World Trade Institute,
University of Bern

Tetyana Payosova, World Trade Institute,
University of Bern

This legal opinion has been established for:

Federal Finance Administration (FFA)

Swiss Federal Office of Energy (SFOE)

State Secretariat for Economic Affairs (SECO)

Members of the Working Group accompanying the study:

Abt, Marianne (SECO)

Bruchez, Pierre-Alain (FFA, lead)

Daguet, Sandra (FFA)

Marioni, Renato (SFOE)

Rambeau-Bysäth, Johanna (DEA)

Zurkinden, Kuno (SECO)

Your contact person for the project:

Tetyana Payosova

tetyana.payosova@iew.unibe.ch

Scientific coordination:

Prof. Thomas Cottier

Simon Hirsbrunner, LL.M.

Acknowledgement and Disclaimer:

The authors are grateful to the Members of the Working Group accompanying the study for informed and competent input and critical review of previous drafts. The opinions expressed herein are the authors' own findings and do not reflect the official views of the Swiss Government.

Table of content

1	Executive Summary	3
2	Introduction	6
2.1	Background and goals	6
2.2	Assignment.....	6
2.3	Approach taken in the analysis.....	7
3	Overview of EU law and national laws of selected EEA countries on guarantees of origin for electricity	8
3.1	Legislation on guarantees of origin and differential electricity taxation in the EU and Member States ..	8
3.2	Germany	10
3.3	Italy	10
3.4	Finland.....	13
3.5	The Netherlands	15
3.6	Poland.....	16
3.7	Sweden	18
3.8	United Kingdom.....	19
4	Compatibility of electricity tax differentiation for “green” and “grey” electricity with EU and WTO law: a general overview	22
4.1	The scope of application of bilateral agreements EU-Switzerland, EU law and WTO law to electricity taxation.....	22
4.1.1	The 1972 Free Trade Agreement Switzerland – EEC	23
4.1.2	EU Law	23
	a) Scenario 1: status quo.....	23
	b) Scenario 2: a possible future Electricity Agreement	25
4.1.3	WTO law.....	27
4.2	Differentiated Tax Rates on Electricity and Non-Discrimination Rules	29
4.2.1	Prohibition of discriminating tax practices in the bilateral relations EU - Switzerland.....	29
4.2.2	EU law.....	29
4.2.3	GATT rules and exceptions applicable to a differentiated electricity tax.....	30

4.3	Differentiated Tax Rates for Electricity and Rules on Subsidies	38
4.3.1	State aid prohibition in the 1972 Free Trade Agreement Switzerland – EEC	38
4.3.2	EU law	39
4.3.3	WTO rules on subsidies.....	42
4.4	General Conclusions.....	48
5	Legal analysis of the tax design options	49
5.1	Differentiated Taxation based on Tradable Guarantees of Origin (Options A and D)	50
5.1.1	The 1972 Free Trade Agreement Switzerland – EEC	50
5.1.2	EU Law	53
5.1.3	WTO Law.....	56
5.2	Differentiated Taxation Based on Guarantees of Origin Linked to Physical Flows (Options B and C).....	58
5.2.1	The 1972 Free Trade Agreement Switzerland – EEC	59
5.2.2	EU Law	61
5.2.3	WTO Law.....	62
5.3	The Possibility of Justification of the Proposed Tax Design Options under the General Exceptions of Art. XX GATT	67
5.4	Carve-Out of Subsidised Green Electricity Imports	68
5.5	Differentiation at a Consumer Level and Tax Recycling Issues.....	71
6	Legal Conclusions	74
7	Political Risk Assessment	78
ANNEXES	80
ANNEX 1:	Support instruments for energy from renewable sources in EU Member States.....	80
ANNEX 2:	Tables on Compatibility of Electricity Tax Differentiation with FTA Switzerland – EEC, EU Law and WTO Law	81
ANNEX 3:	Excerpts from Relevant Legal Texts.....	85

List of Abbreviations

AB	Appellate Body
Art.	Article
ASCM	Agreement on Subsidies and Countervailing Measures
BGE	Judgment of the Federal Tribunal (Bundesgericht)
BTA	Border Tax Adjustment
CCL	Climate change levy
CVD	Countervailing duty
ECJ	Court of Justice of the European Union, European Court of Justice
ECR	European Court Reports
EEA	European Economic Area
EFTA	European Free Trade Association
ENEL	Ente Nazionale per l'energia ELettrica
ETS	Emission trading scheme
EU	European Union
FIT	Feed-in tariff
FTA	Free trade agreement
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariffs and Trade
GC	General Court of the European Union
GC	Green certificate
GO	Guarantee of origin
HS	Harmonized Commodity Description and Coding System
MFN	Most-favoured nation
npr-PPM	Non-product related process and production method
NT	National treatment
OECD	Organisation for Economic Co-operation and Development
OJ	Official Journal of the European Union
PTA	Preferential trade agreement
QR	Quantitative restriction
REC	Renewable Energy Certificate
REN 21	Renewable Energy Policy Network for the 21st Century
RES	Renewable energy sources

ROC	Renewable Energy Obligation
SR	Directory of Swiss Law (Systematische Rechtsammlung)
TFEU	Treaty on the Functioning of the European Union
UNCTAD	United Nations Conference on Trade and Development
VAT	Value added tax
WTO	World Trade Organization

1

Executive Summary

Forming part of the second phase of the Energy Strategy 2050, the Swiss Federal Council seeks to prepare the groundwork for transferring current policies based on promotion of the use of renewable energy to a steering system providing appropriate incentives to foster recourse to renewable energy production. To this end, a future policy is planned to rely more on fiscal measures and less so on subsidies. Various measures are being considered in this context, including the introduction of a differentiated electricity tax based on electricity generation sources. The study assesses these options in the light of WTO law, Swiss-EU relations and EU law. It concludes that differential taxation, based upon different production and process methods (PPMs) for fossil, atomic and renewable forms of energy production can be rendered compatible with obligations under international law, provided that imported and domestic products based upon respective similar forms of production are either taxed equally or differences in taxation neither exceed what is required to create level playing fields among different forms of production nor what is required to achieve particular goals of environmental protection (climate change) and health policies (atomic risks). The study examines in detail four options of a differential electricity tax submitted for review:

1. According to **Option A**, all green electricity benefits either from an energy tax exemption or a reduction, irrespective of its geographic origin. The tax benefit is conditional on guarantees of origin (GOs), which certify that the electricity is generated from renewable energy sources. These GOs are tradable.

Option A is compatible with the prohibition of discriminatory taxation pursuant to Art. 18 of the existing 1972 Free Trade Agreement with the EU (FTA Switzerland – EEC). Notwithstanding the fact that Switzerland is not a member of the EU, it is helpful in this context that comparable models are being developed in the EU, as is explained in further detail in this study. The taxation is non-discriminatory with respect to the origin of the product. Differentiation between non-renewable and renewable sources, e.g. between fossil and solar energy, or atomic and hydro power, can be justified under Art. 20 FTA in the context of climate change and health concerns, respectively. The same is true for WTO law. Recent case law considers different forms of production to constitute different and non-competing markets. To the extent that differentiation should be found to violate the principle of national treatment, identifying less favourable treatment of imported like products, the measure can basically be justified under the general exceptions pursuant to Art. XX GATT.

Option A runs no (or a very low) risk of being found incompatible with the state aid rules of the FTA Switzerland – EEC. Although strictly speaking not legally required under the Agreement, it could be helpful to incorporate certain features of EU state aid policy, in order to pre-empt a potential state aid challenge by the European Union based on the FTA. Similarly, it is not very likely that Option A could be found incompatible with the rules on subsidies in the WTO Agreement on Subsidies and Countervailing Measures (ASCM), as the probability is high that there will be no adverse effects and no distorting benefits granted to ‘green’ electricity producers in exporting countries. It is also defensible to exclude electricity from existing hydroelectric power stations from an advantageous tax treatment, provided certain safeguards are observed, which are outlined in the legal opinion. However, it would be risky to treat imports of green electricity differently depending on whether or not they have benefit-

ed from state support in the country of origin. Whether or not the implementation of Option A through tradable GOs violates the rules on financial services under GATS needs further clarification, but can be said to carry a low risk of being challenged.

The compatibility of this design option with FTA, EU law and WTO law ultimately will depend on the detailed modalities of the measure. Yet, as a matter of principle, we do not see an obstacle to further Option A.

2. **Option B** is largely identical to Option A, with the fundamental difference that the tax exemption or reduction is conditional on a proven (*gross*) physical flow of green electricity between the country concerned and Switzerland. In terms of the FTA and WTO law, the option is assessed similar to Option A, but does not raise issues under GATS to the extent that GOs are not traded separately from electricity. If GOs are used for tax reductions and as a certificate system linked to physical electricity flows, this system also falls under the Agreement on Technical Barriers to Trade (TBT Agreement) and has to be shaped accordingly.

Additional legal issues, however, arise in relation to the two additional options submitted under Option B:

- a. According to a first alternative (B+1), only physical flows of green electricity from countries having concluded a corresponding bilateral governmental agreement would qualify for a tax exemption or reduction.

The compatibility of such a “conditional most-favoured nation treatment” with the FTA Switzerland – EEC and WTO law is subject to legal uncertainty. The EU rules which authorise two or more EU Member States to operate joint support schemes for energy from renewable sources are not part of the FTA and in any event, their interpretation is unclear. Under the GATT, electricity is defined as a tradable good and therefore is subject to unconditional MFN.

- b. According to a second alternative (B+2), the existence of a physical flow must be demonstrated on the level of the producer rather than on the level of the country.

The compatibility of such an approach with the FTA Switzerland – EEC and WTO law much depends on whether domestic producers and importers are treated in a non-discriminatory manner in terms of proving the existence of physical flows.

Overall, the compatibility with the FTA and WTO law will ultimately depend on the detailed modalities of the measure. Yet, as a matter of principle, we do not see any obstacle to further Option B.

3. **Option C** is again largely identical to Option B, with the fundamental difference that (i) only GO from neighbouring countries are being considered and (ii) there must be a *net* physical inflow from an individual exporting country (imports to Switzerland exceed Swiss exports to the country concerned).

There is a tangible risk that this option would be considered incompatible with the FTA Switzerland – EEC and WTO law. This is because the exclusion of countries with a negative trade balance inevitably results in discrimination on the grounds of the origin of the electricity.

There is also a risk of a finding of selective state aid within the meaning of the FTA.

Justification under the environmental and health exceptions of the General Agreement on Tariffs and Trade (GATT) will most likely fail as discrimination between countries where similar conditions prevail would not have a link to the policy objectives reflected in paragraphs (b) and (g) of Art. XX GATT. Also, from the perspective of ASCM subsidies disciplines, Option C bears a higher risk of incompatibility with WTO law, as adverse effects on renewable energy producers in net importing countries will be created.

4. According to **Option D**, the amount of imported green electricity that qualifies for a tax exemption or reduction is limited and may even be completely excluded from preferential tax treatment.

Option D implies a quantitative restriction under Art. 13 FTA and Art. XI GATT, discrimination under Art. 18(1) FTA, Art. 110 Treaty on the Functioning of the European Union (TFEU) and Art. III:4 GATT and possibly results in selective state aid under the FTA and the ASCM. Measures would need to be defended under Art. 20 FTA and Art. XX GATT, but are likely to fail because they explicitly protect the Swiss renewable energy sector from foreign competition. The key question that remains is whether the findings on discriminatory taxation and selective state aid under EU law could be mitigated by the fact that the Directive on the promotion of the use of energy from renewable sources (RES Directive) 2009/28/EC seems to authorise individual EU Member States to operate their own national support schemes.

The possible conclusion of a bilateral Electricity Agreement with the EU will considerably limit the room for manoeuvre of the Swiss legislator. Switzerland will have to align the policy choices with regard to the promotion of certain energy sources and depending on the structure of the institutional set-up, Swiss measures will be subject to a more intense scrutiny. The substantive assessment will largely depend upon legal developments within the EU in respect of the Directive 2009/28/EC of 23 April 2009 on the promotion of the use of energy from renewable sources, whose compatibility with primary EU law is currently being put into doubt.

In conclusion, the system of differential taxation of electricity designed as options A and B passes the test on compliance with the FTA, EU law and WTO law, whereas design options C and D entail high risk of being found unlawful. Given that neighbouring countries and the EU are pursuing comparable goals and using comparable instruments, the political risks for Switzerland of being challenged upon introducing measures based upon Options A or B are considered to be manageable. The study does not address scenarios of taxation of forms of electricity exclusively imported and not produced in Switzerland. This constellation will need to be addressed in a separate paper.

2 Introduction

2.1 Background and goals

Being part of the second phase of the Energy Strategy 2050, the Swiss Federal Council seeks to prepare the groundwork for transferring current policies based on promotion of the use of renewable energy to a steering system providing appropriate incentives to foster recourse to renewable energy production. To this end, a future policy shall rely more on fiscal measures and less on subsidies. Various measures are being considered in this context, including the introduction of an electricity tax. It is felt that it would make little sense if such a tax were applied uniformly to all categories of electricity, whatever the source. While this would have the welcome effect of reducing electricity consumption overall, it would be of little use in the promotion of electricity generation from renewable sources within Switzerland. Currently, electricity production from renewable sources is being promoted by means of a feed-in tariff (FIT), which amounts to a subsidy. The Federal Council is examining the possibility of phasing out this FIT. In order to mitigate the effects of a policy shift, the new energy tax shall be differentiated so that a lower tax rate, or no tax rate, will apply to electricity from renewable sources. This alone, however, would not guarantee that the target for an increased share of production of electricity from renewables in Switzerland would be attained. The Federal Council therefore also needs to consider whether differentiation according to the source of the electricity needs to be combined with differentiation according to the geographical origin. The differentiation of the electricity tax would be limited in time and phased out 10 to 15 years after its introduction.

When evaluating the feasibility of the project of differential taxation, the effects on cross-border trade and investment and Switzerland's international legal obligations need to be taken into account. The European electricity grids are closely interconnected and the Swiss grid plays an important role in the transit supply of electricity to Southern Europe. Recent studies show that a solution to ensuring access to and supply of electricity is steadily moving towards an international interconnected grid, thus going beyond the borders of nation states. Plans to supply electricity to Europe from North Africa, increasingly interconnected national grids in many regions of the world (e.g. Europe, Central America and ASEAN countries) confirm these developments. With a view to deploying renewable energy in the most efficient way, researchers predict the advent of a global electricity grid. This would be not only economically viable but also technologically feasible, and the main constraints are of a social and political nature.¹ Recent changes in the sector further imply that regulation of electricity supply will be subject to the principles of multi-layered governance, with an increasing role of international law. The present legal opinion has thus also been informed by the multi-layered governance approach and addresses the issues raised by the Commissioner from the perspective of the bilateral agreements between Switzerland and the EU, EU law and WTO law.

2.2 Assignment

We have been asked to evaluate the compatibility of such a differentiated energy tax from the perspective of Swiss EU relations within the FTA Switzerland – EEC of 1972, EU law and WTO law. As part of our review of EU law we also assess the likely implications of a possible future Electricity Agree-

¹ S. Chatzivasileiadis, D. Ernst, G. Andersson, *The Global Grid*, Renewable Energy, vol. 57, Sep. 2013, at 372-383.

ment with the EU to the extent that this is possible today, given that the negotiations concerning this Agreement are currently on hold. We shall explain our approach in this regard, and the reservations flowing from this approach, in greater detail below. For the sake of completeness, we draw attention to the fact that aspects of the Energy Charter Treaty (ECT), to which Switzerland and EU Member States are parties, could in principle also be worth considering. The ECT specifically deals with trade in energy, including trade in electricity and trade in energy equipment, and is mainly based on the principles and disciplines of GATT 1994. However, the question of compatibility of differentiated electricity tax has not been part of our mandate.

In our assessment, we will discuss the following four options with several additional modalities:

1. According to **Option A**, all green electricity benefits either from an energy tax exemption or a reduction, irrespective of its geographical origin. The tax benefit is conditional on guarantees of origin (GOs), which certify that the electricity is generated from renewable energy sources. These GOs are tradable.
2. **Option B** is largely identical to Option A, with the fundamental difference that the tax exemption or reduction is conditional on a proven (gross) physical flow of green electricity between the country concerned and Switzerland.
 - a. According to a first alternative (B+1), only physical flows of green electricity from countries that have concluded a corresponding bilateral governmental agreement would qualify for a tax exemption or reduction.
 - b. According to a second alternative (B+2), the existence of a physical flow must be demonstrated on the level of producers rather than on the level of a country.
3. **Option C** is again largely identical to Option B, with the fundamental difference that (i) only GO from neighbouring countries are being considered and (ii) there must be a *net* physical inflow from an individual exporting country (imports to Switzerland exceed Swiss exports to the country concerned).
4. According to **Option D**, the amount of imported green electricity that qualifies for a tax exemption or reduction is limited and may even be completely excluded from preferential tax treatment.
5. Finally, we have also been asked to address two modalities with respect to a tax differentiation on the side of the producer/supplier vs. a tax differentiation on the side of the consumer. In addition, we shall address the issue of the various available ways to recycle electricity tax revenues.

2.3 Approach taken in the analysis

In order to assess various modalities of the four key options for a differentiated tax on electricity in Switzerland as outlined above, we first address the legislation on the guarantees of origin and differentiated taxation of energy. We also draw a line between various types of certificates currently used for electricity. Further, we provide examples of individual national policies of the selected European Economic Area (EEA) countries with a focus on their GOs systems and preferential fiscal treatment of 'green' electricity, if this occurs.

We then turn to a general analysis of differentiated taxation of ‘green’ electricity based on GOs under the applicable legal provisions. In particular, we discuss compatibility of the policy being enquired about with the 1972 Free Trade Agreement between Switzerland and EEC, EU law and the possible future bilateral Electricity Agreement between Switzerland and EU, as well as Switzerland’s WTO obligations. Our next step is to assess the compatibility of each of the four options with a special focus on their specific modalities. Finally, we provide concise legal conclusions, as well as a political risks assessment to facilitate the political debate on the policies we have examined. The main findings are also summarised in three tables presented at the end of the legal opinion.

Our assessment takes into account the state of the international legal framework as of 1 March 2014. Rather than carrying out an abstract legal analysis we proceed by way of a risk assessment, bearing in mind that the specific design of the energy tax is still subject to on-going discussions and, moreover, that the applicable legal standards sometimes lack precision and leave room for interpretation.

3 Overview of EU law and national laws of selected EEA countries on guarantees of origin for electricity

3.1 Legislation on guarantees of origin and differential electricity taxation in the EU and Member States

a. Guarantees of origin

In the EU, guarantees of origin (GOs) are envisaged by the Directive 2009/28/EC of 23 April 2009 on the promotion of the use of energy from renewable sources.² This is in line with a mandatory target of a 20% share of “green” energy in the EU’s total energy consumption by 2020. In the EU, similarly to Switzerland, the GOs have a function of informing end users about the share of energy produced from the renewable energy sources. Each GO is issued electronically for a specified amount of electricity (standard size is per 1 Megawatt hour (MW/h)) and has to be used within one year after the issuance. Double counting is excluded (i.e. the same GO cannot be sold and at the same time be used to prove to a consumer the origin of renewable energy) and GOs are cancelled as soon as they are used. GOs are issued on the request of any enterprise producing renewable energy, subject to a minimum capacity limit. National bodies (either a transmission system operator or an electricity regulator) are responsible for the certification of renewable energy power producers and the accuracy of the GO. In most cases GOs do not follow a physical flow of the electricity produced. They are separately designed and sold as financial assets.

Currently, GOs are traded on a voluntary market. GOs can be transferred separately from the electricity to which they relate. Electricity cannot per se be sold to the final customer as “green” electricity. However, the possibility that GOs can follow the physical flow of electricity is not excluded; in such a case, they will be used as labels only. Furthermore, in the EU context it is important to distinguish

² Official Journal (OJ) L 140 of 05/06/2009, p. 16; see generally Renaud van der Elst, ‘Les défis de la nouvelle directive sur les énergies renouvelables et son impact sur le commerce intra- et extracommunautaire’, in ; Dirk Buschle/Simon Hirsbrunner/Christine Kaddous, *European Energy Law*, Droit européen de l’énergie, p. 179.

between green certificates and GOs.³ While green certificates count towards 20% targets, GOs cannot be used to fulfil that obligation.

The implementation of GOs in EU Member States is not strictly regulated by the aforementioned Directive. Thus, the GO systems vary within the EU – there are examples of an advanced system, where GOs are also used as evidence for a national support system (e.g. the Netherlands, Sweden and Romania). Thus, EU Member States may freely decide whether other support schemes can be combined with the GO. Some countries still have systems under development (e.g. Bulgaria and Estonia).

As mentioned above it is important to differentiate between GOs and other instruments (e.g. renewable energy certificates or green certificates) used to promote an increased share in production/use of renewable energy.⁴

b. Green certificates

Another instrument foreseen by Directive 2009/28/EC is the green certificate. In 2007, a mandatory EU target of a 20% share of renewables in the EU energy mix to be achieved by 2020 was established. This Directive set individual targets for each Member State of the EU. Green certificates can thus be used to meet these individual targets (Art. 2 (k) of the Directive). Very often green certificates are referred to as renewable obligation certificates (ROCs) (e.g. in the UK), as they have to meet a national renewable energy quota obligation. These schemes are so far of a national character only and intra-EU transfer has not been foreseen by the policy makers.

The acronym RECS stands for the Renewable Energy Certificate System and covers the whole lifecycle of a Renewable Energy Certificate (REC): from issuance through transfer and redemption. Similarly to the guarantees of origin they certify the origin of electricity (renewable sources vs. non-renewable) to consumers. RECs are tradable on a voluntary market. RECs are still quite widespread across Europe but with growing introduction of guarantees of origin they are expected to be phased out by 2016. At that time they will be replaced by the GO system pursuant to the RES Directive 2009/28/EC.

In parallel there exists the so-called Environmental Product Declaration, based on an international standard ISO 14025. This provides consumers with information on the environmental impacts of a product throughout its lifecycle. This certification system has been applied, among others, to electricity (e.g. in Sweden and Italy).

c. Electricity taxation

Pursuant to Art. 15(1)(b) of the EU Directive 2003/96/EC on restructuring the Community framework for the taxation of energy products and electricity,⁵ different tax rates apply to electricity depending on its sources, and Member States may apply total or partial exemptions or reductions in the level of taxation. Furthermore, Art. 15 (2) of said Directive authorises Member States to refund to the producer

³ See last sentence of recital 52 of the preamble to the RES Directive 2009/28/EC: “It is important to distinguish between green certificates used for support schemes and guarantees of origin.”

⁴ See Renaud van der Elst, *Les défis de la nouvelle directive sur les énergies renouvelables et son impact sur le commerce intra- et extracommunautaire*, in Dirk Buschle/Simon Hirsbrunner/Christine Kaddous, *European Energy Law, Droit européen de l'énergie*, p. 179, p. 193.

⁵ OJ L 283 of 31/10/2003 p. 51.

some, or all, of the amount of tax paid by the consumer on electricity produced from renewables. The relative room for manoeuvre granted by the Directive is, according to Art. 15 (1) first sentence, “without prejudice to other Community provisions”, which essentially means that the rules on non-discrimination and state aid control must be observed.

When considering the policies of individual EU countries, no single approach concerning the tax treatment of imported electricity can be observed. While some countries apply an average tax rate on the grounds that the origin of imported electricity cannot easily be proven (e.g. Finland, 1990s), others provide exemptions from an electricity tax also for imported electricity if it comes from renewable sources (e.g. UK, 2001 – present). There are also examples of imposing different tax rates on electricity by providing for a total exemption for green electricity at the level of consumers (e.g. Netherlands, 1999–2005).

In the following, we shall comment on the existing support schemes for energy from renewable sources in a representative sample of Member States of the European Economic Area (EEA). A table with a summary of the situation in individual EU Member States is attached as **Annex 1**.

3.2 Germany

In Germany, GOs are linked to feed-in tariffs. The current system is currently under EU state aid investigation. We shall refer below to the GO system and the on-going investigation where appropriate.

3.3 Italy

In compliance with Directive 2009/28/EC, Italy is required to increase the share of renewable energy sources in total energy consumed to 17% by 2020.⁶ Accordingly, Italy’s target is to achieve 43.823 MW overall installed power capacity from RES, able to provide 98.885 GWh.⁷

In Italy, electricity generated from renewable energy sources is promoted through a variety of incentive mechanisms, including but not limited to feed-in and premium tariffs and green certificates.⁸ Depending on the source and the size of renewable energy plant operators, available schemes may either

⁶ Legislative Decree of 3 March 2011 No. 28, “Attuazione della direttiva 2009/28/CE sulla promozione dell’uso dell’energia da fonti rinnovabili, recante modifica e successiva abrogazione delle direttive 2001/77/CE e 2003/30/CE”, Art. 3.1, available at: http://www.acs.enea.it/doc/dlgs_28-2011.pdf (last visited 18 February 2014).

⁷ Invitalia (2012), RES – Renewable Energy Sources in Italy, p. 1, available at: http://www.google.ch/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCoQFjAA&url=http%3A%2F%2Fwww.invitalia.it%2Fsite%2Feng%2Fhome%2Fmedia-center%2Fresources%2Fdocumento1395.html&ei=UrwFU86fO8q0yAOLsoDABg&usq=AFQjCNG9_zkXt1OBVfK_KfjmfU5bCvyz9g&bvm=bv.61725948,d.bGQ (last visited 18 February 2014).

⁸ Other mechanisms include simplified off-take schemes (so-called *ritiro dedicato*) and net metering schemes (so-called *scambio sul posto*). For a comprehensive yet concise overview of the whole array of measures used to promote renewables see CMS (2013), Renewable Support Mechanisms across Europe: A Comparative Study, pp. 32-35, available at: http://www.cms-dsb.com/Hubbard.FileSystem/files/Publication/66d448bf-8611-4409-bb4f-4ccee4bbbcf9/Presentation/PublicationAttachment/d2078c0b-4df4-45f2-9e72-359f37f345fb/CMS_Renewable_Energy_Guide_April_2013_b.pdf (last visited 19 February 2014).

be mandatory or elective, as well as concurrent with each other or exclusive.⁹ With an installed power capacity of 41.352 MW in 2011¹⁰ and one of the highest rates of power capacity expansion and investment in renewable energy, Italy is expected to exceed its 2020 target.¹¹

a. The Guarantees of Origin System

GOs were first introduced in Italy through the Legislative Decree No. 387/2003¹², implementing Directive 2001/77/EC on the promotion of electricity produced from renewable energy sources in the internal electricity market. Subsequently, the “Fuel Mix Disclosure” Decree¹³ and the Legislative Decree No. 28/2011¹⁴ reformed the procedures regarding the issuing and utilisation of GOs in accordance with the RES Directive 2009/28/CE. GOs are issued, transferred and cancelled electronically. The whole system is administered by the GSE (Gestore Servizi Energetici), a state-owned company fully owned by the Ministry of Economy and Finance.¹⁵ According to Art. 34 of the Legislative Decree 28/2011, GOs have the sole purpose of enabling electricity suppliers to disclose the share of renewable energy in their fuel mix to final customers.

Following the adoption of the more recent Ministerial Decree of 6 July 2012 implementing, *inter alia*, Art. 34 of the Legislative Decree 28/2011, GOs are the only tool to be used by electricity suppliers to certify the RES share within the disclosure system as of 1 January 2013.¹⁶ Moreover, not only are GOs tradable in Italy both nationally and internationally but, starting from the 2012 disclosure year, foreign GOs can count towards the calculation of RES share in energy fuel mixes irrespective of whether they correspond to effective physical imports of electricity.¹⁷ Hence, the number of GOs that can be imported and used in Italy is no longer dependent on the actual flow of electricity and the GO market has been detached from the electricity market.

⁹ RES Legal Sources on Renewable Energy: *Italy*, available at: <http://www.res-legal.eu/search-by-country/italy/tools-list/c/italy/s/res-e/t/promotion/sum/152/lpid/151/> (last visited 18 February 2014).

¹⁰ Invitalia (2012), *supra*, p. 7.

¹¹ In 2011, cumulated power capacity from RES rose by 36.6% with 11.068 MW new installations. Moreover, Italy invested \$28 bln in RES in 2011, making it the 4th largest investor country among G-20 countries. *Id.*

¹² Legislative Decree of 29 December 2003 No. 387, “Attuazione della direttiva 2001/77/CE relativa alla promozione dell’energia elettrica prodotta da fonti energetiche rinnovabili nel mercato interno dell’elettricità”, available at: <http://www.camera.it/parlam/leggi/deleghe/03387dl.htm> (last visited 18 February 2014).

¹³ Decree of the Ministry for Economic Development of 31 July 2009, “Criteri e Modalità per la fornitura ai clienti finali delle informazioni sulla composizione del Mix energetico utilizzato per la produzione dell’energia elettrica fornita, nonché sull’impatto ambientale della produzione”, available at: <http://www.autorita.energia.it/it/docs/riferimenti/090731msemix.htm> (last visited 20 February 2014).

¹⁴ Legislative Decree of 3 March 2011 No. 28, “Attuazione della direttiva 2009/28/CE sulla promozione dell’uso dell’energia da fonti rinnovabili, recante modifica e successiva abrogazione delle direttive 2001/77/CE e 2003/30/CE”, available at: http://www.gse.it/it/Statistiche/Simeri/AreaDocumentale/Documenti%20Normativa/Dlgs_3marzo2011_FER_2020_in_GU.pdf (last visited 20 February 2014).

¹⁵ GSE website, available at: <http://www.gse.it/en/company/mission/Pages/default.aspx>.

¹⁶ GSE (2013), *EECS Electricity Domain Protocol for Italy*, available at: <http://www.gse.it/en/company/activities/Pages/default.aspx> (last visited 18 February 2014), p. 6.

¹⁷ Art. 31.5 of the Ministerial Decree.

Finally, within the current GO system, GOs carry information regarding whether and to what extent the unit of energy has benefited from any support scheme, such as investment or production support. However, “no impacts on the disclosure system come from the relation between GOs and support schemes”.¹⁸

b. The Green Certificates System

The introduction of the market-based mechanism of the “green certificates” (GCs) to promote the production of electricity from renewable sources in Italy dates back to the end of the 1990s, when the Legislative Decree of 16 March 1999 No. 79 established the obligation for electricity suppliers to inject into the national electricity system a minimum quota of electricity produced by plants using renewable sources.¹⁹ The required mandatory quota of renewable energy production, originally set at 2%,²⁰ reached 7.55% in 2012.²¹ GCs represent proof of compliance with the renewable quota obligation. Each GC conventionally corresponds to 1 MWh of renewable electricity. The certificates are issued by GSE, which acts as a supervisor and regulates the market by purchasing excess certificates or selling additional certificates.²²

The quota obligation applies to both producers and importers of electricity from non-renewable sources entering more than 100 GWh of electricity per year.²³ In other words, electricity producers may fulfil the quota obligation either by generating green electricity themselves or by purchasing green certificates. Until 2011, electricity importers could be exempted from the obligation to buy GCs provided they submitted GOs certifying that the imported electricity was produced from renewable sources.²⁴ Following several investigations by GSE, however, it emerged that this feature of the Italian GCs system gave rise to the practice of presenting “fake” renewable energy (RE) GOs solely for the purposes of avoiding the obligation to buy GCs.²⁵ Accordingly, since 2012, electricity importers have no longer been able to benefit from the exemption enabling them to buy GCs despite the green origin of the imported electricity.

¹⁸ *Ibid.*, p. 9.

¹⁹ Legislative Decree of 16 March 1999 No. 79, “Attuazione della direttiva 96/92/CE recante norme comuni per il mercato interno dell’energia elettrica, available at: <http://www.autorita.energia.it/it/docs/riferimenti/bersani.htm> (last visited 20 February 2014).

²⁰ *Ibid.*, Art. 11.2.

²¹ RES Legal Sources on Renewable Energy: Italy. Viewed at: <http://www.res-legal.eu/search-by-country/italy/single/s/res-e/t/promotion/aid/quota-system-certificati-verdi/lastp/151/> (last visited 20 February 2014).

²² Ministerial Decree of 18 December 2008, “Incentivazione della produzione di energia elettrica da fonti rinnovabili ai sensi dell’articolo 2, comma 150, della legge 24 dicembre 2007, n. 244”, Art. 14

²³ Legislative Decree of 16 March 1999 No. 79, *supra*, Art. 11.2.

²⁴ Ministerial Decree of 18 December 2008, *supra*, Art. 8.2.

²⁵ In 2010, only 1.2% of the imported electricity was subject to mandatory purchase of GCs. See GSE (2013), Rapporto Annuale delle Attività 2012, pp. 70-71, available at: http://www.gse.it/it/Dati%20e%20Bilanci/GSE_Documenti/Rapporto%20Attivit%C3%A0/GSE_Rapporto%20Attivit%C3%A0.pdf (last visited 19 February 2014).

Finally, Italy is currently in the process of phasing out the GCs system and since 1 January 2013 the scheme has ceased to be accessible.²⁶ Eligible plants put into operation prior to 31 December 2012 will still receive incentives for the whole eligibility period,²⁷ but in the form of a premium tariff as from 1 January 2016.²⁸ Specific procedures are currently in place to facilitate this transition so as to allow for the complete elimination of GCs during the years 2013–2015.²⁹

c. Electricity taxation

Italy imposes both an excise tax and a value-added tax (VAT) on electricity. The excise taxation of electricity, applicable both on domestic and imported electricity, is differentiated depending on whether electricity is used for domestic, public lighting or other uses, as well as on the basis of consumption thresholds.³⁰ In particular, excise tax is not charged on the first 150 kWh per month of consumption (where capacity is up to 3 kW). For consumption above that threshold, excise tax is charged at a fixed rate, which is slightly higher for secondary residences. For industrial consumers, excise tax is charged at a fixed rate on consumption over 200 MWh per month.³¹ According to Art. 52.2 of the Consolidated Law on Excise Duties (*Testo Unico sulle Accise*), “electricity produced from renewable sources whose capacity does not exceed 20 KW” is exempted from excise tax.³² The VAT is also differentiated depending on its use, varying from a 10% rate for households to up to 22% for public lighting and other uses.³³ However, since 1993 Italy has promoted the generation of electricity from wind and solar energy through a reduction of 10% on the VAT for deliveries and services related to investments in wind power plants and solar energy installations and investments in grids that distribute this electricity.³⁴

3.4 Finland

Finland’s target under the Directive 2009/28/EC is to increase the share of renewable energy sources in total energy consumption to 38% by 2020, compared to the 2005 level of 28.5%. Today, as much as 70% of the renewable energy used in Finland stems from wood-based by-products of industrial pulp and paper producing processes. To reach its national target, Finland aims at further exploiting other

²⁶ Legislative Decree No. 28/2011, *supra.*, Art. 25.11 b).

²⁷ *Ibid.*, *cit.*, Art. 25.7-8.

²⁸ Ministerial Decree of 6 July 2012, “*Incentivi per energia da fonti rinnovabili elettriche non fotovoltaiche*”, Art. 20, available at: http://www.mise.gov.it/images/stories/normativa/DM_6_luglio_2012_sf.pdf (last visited 19 February 2014)

²⁹ *Ibid.*, Art. 19.

³⁰ ENEL Website, *Imposte Gravanti sull’Energia Elettrica*, available at: http://www.enel.it/it-IT/clienti/enel_servizio_elettrico/imposte_info/ (last visited 19 February 2014).

³¹ OECD (2013), Italy: Inventory Of Estimated Budgetary Support And Tax Expenditures For Fossil-Fuels, p. 2, available at: <http://www.oecd.org/site/tadffss/ITA.pdf> (last visited 19 February 2014).

³² See *Testo Unico sulle Accise*, Art. 52, available at: <http://www.actasrl.com/pdf/TESTO%20UNICO%20DELLE%20ACCISE%20%202007%2006%2001%20-%20ULTIMO%20AGGIORNAMENTO%20AL%2001-06-2007.pdf> (last visited 19 February 2014).

³³ ENEL Website, *Imposte Gravanti sull’Energia Elettrica*, available at: http://www.enel.it/it-IT/clienti/enel_servizio_elettrico/imposte_info/ (last visited 19 February 2014).

³⁴ RES Legal Sources on Renewable Energy: *Italy*, available at: <http://www.res-legal.eu/search-by-country/italy/single/s-res-e/t/promotion/aid/tax-regulation-mechanisms-i-reduction-in-value-added-tax/lastp/151/> (last visited 18 February 2014).

sources of renewable energy so as to reach 884 MW of wind capacity, 14.598 MW of hydro capacity and 13.152 MW of bioenergy capacity by 2020.³⁵

a. Guarantee of Origin System

The Finnish guarantee of origin system for electricity covers production based on renewable energy sources. The system has been fully operational since the implementation of the 2003 *Act on Verification and Notification of Origin of Electricity*.³⁶ The Finnish electricity transmission system operator Fingrid is legally responsible for issuing the guarantees of origin for the production of renewable energy. In practice, however, issuance and approval of production devices has been outsourced to the private service provider Grexel.³⁷

Following the Directive 2009/28/EC, Finland's legislation on GOs was revised in 2011 and the Finnish system is in practice based on European Energy Certification System (EECS) electronic certificates, i.e. standardised and tradable GOs based on the EECS.³⁸ GOs are aimed at electricity disclosure and are not *per se* linked to any form of support to green electricity including differential taxation. However, as requested by Directive 2009/28, Finnish GOs specify, *inter alia*, whether and to what extent the installation has benefited from any kind of support scheme. As from 25 March 2011, the financial support for RES electricity consists of a market-based feed-in tariff scheme to support wind energy, biogas and small-scale production (100kW–8 MW) from wood energy.³⁹ While no relation exists between renewable energy support (i.e. feed-in tariffs) and electricity disclosure, GOs constitute the proof of ownership of generation attributes.

b. Electricity Taxation

Finland has been applying excise taxes on electricity since the adoption of the *Act on Excise Duty on Electricity and Certain Fuels*,⁴⁰ a new version of which was implemented on 1 January 2011.⁴¹ The excise taxation of electricity is differentiated depending on whether electricity is used in industry and professional greenhouse cultivation (lower (II) tax category) or for all other uses (higher (I) tax category).⁴² At the beginning of 2011, electricity consumption tax in tax class (I) increased from

³⁵ REN21 (2012), *Renewable 2012: Global Status Report*, available at: <http://www.theengineer.co.uk/Journals/2012/06/11/r/o/f/RenewableS-2012-GLOBAL-STATUS-REPORT.pdf> (last visited 23 January 2014).

³⁶ Act No. 1129/2003.

³⁷ Bröckl *et al.* (2011), *Guarantees of origin and eco-labelling of electricity in the Nordic countries*, Final Report Gaya Consulting Group. Viewed at: http://www.nordicenergy.org/wp-content/uploads/2012/02/guarantees_of_origin_and_eco-labeling_of_electricity_in_the_nordic_countries1.pdf (last visited 23 January 2014).

³⁸ *Ibid.*

³⁹ Act on Production Support to Electricity from Renewable Energy Sources No. 1396/2010.

⁴⁰ Act No. 1260/96.

⁴¹ OECD (2012), *Finland: Inventory Of Estimated Budgetary Support And Tax Expenditures For Fossil Fuels*, available at: <http://www.oecd.org/site/tadffss/FIN.pdf> (last visited 23 January 2014).

⁴² Euroelectric (2012), *Taxes and Levies on Electricity in 2011*. Viewed at http://www.euroelectric.org/media/60787/taxes_and_levies_on_electricity_2011_-_final-2012-560-0006-01-e.pdf (last visited 23 January 2014).

0.87 cents/kWh to 1.69 cents/kWh and in tax class (II) from 0.25 cents/kWh to 0.69 cents/kWh.⁴³ However, for the time being “taxation for electricity is the same regardless the fuel used in production”⁴⁴ and is applied both to domestic and imported electricity alike.⁴⁵ The taxation of electricity in Finland is implemented and controlled by Finnish Customs and “GOs are not used as a basis to differentiate electricity rates”.⁴⁶ Parties liable to pay tax on electricity have to lodge an electricity tax declaration for each month with Customs by the 18th day of the following month and pay the imposed taxes by the 27th day of that month.⁴⁷

Following the *Outokumpu Oy* case,⁴⁸ the same tax treatment shall be imposed on network operators and electricity producers regardless of whether the consumed electricity is Finnish or imported. In the dispute at issue, the European Court of Justice condemned the *Act on Excise Duty on Certain Sources of Energy*⁴⁹ as discriminatory for imposing a flat rate of duty on imported electricity calculated so as to correspond to the average rate levied on electricity produced in Finland, the latter being instead differentiated depending on the method of production of electricity. This is important because, according to the latest statistics, Finland imports electricity from Sweden, Norway, Estonia and Russia.⁵⁰

3.5 The Netherlands

In 2010 renewables accounted for a 4% share of the renewable energy consumption in the Netherlands. The target of the Netherlands according to the EU RES Directive constitutes 14%, thus an 11.6% increase is required. The main support policies in the Netherlands are aimed at promoting innovation in the renewable energy sector.

a. Guarantees of Origin System

Dutch legislative initiatives on disclosure of the fuel mix in the produced/supplied electricity date back to 2001. The current system of the GOs has been built upon a previously existing system of electricity certification. Currently, according to the Dutch Electricity Act 1998 (*Elektriciteitswet 1998*), all suppliers of green electricity are obliged to provide a certificate of origin for green electricity supplied to consumers. Suppliers must ensure that they have sufficient guarantees of origin in their account each month to be able to discharge their obligation. Within one month after the end of the period when elec-

⁴³ Espensen *et al.* (2012), *Nordic Tax Report 2011: Electricity Sector*, available at: <http://nordenergi.org/wp-content/uploads/2012/05/SK-12-nordenergi-tax-2011.pdf> (last visited 23 January 2014).

⁴⁴ Written exchange with Mikko Heikkilä, Senior Engineer of the Division “Markets” of the Finnish Energy Authority on 13 January 2014.

⁴⁵ *Ibid.*

⁴⁶ *Ibid.*

⁴⁷ Tulli Customs (2014), *Customer Bulletin 21 on Energy Taxation*, January 2014. Viewed at: http://www.tulli.fi/en/finnish_customs/publications/excise_tax/excise_taxation/021.pdf (last visited 23 January 2014).

⁴⁸ ECJ, Case C-213/96, *Outokumpu Oy*, 1998 ECR I-1777.

⁴⁹ Act No. 1473/94.

⁵⁰ Finnish Energy Industries (2013), *Finland Electricity Statistics*. Viewed at: <http://energia.fi/en/statistics-and-publications/electricity-statistics/production/production-imports-and-exports> (last visited 23 January 2014).

tricity was supplied, the corresponding quantity of GOs has to be cancelled. Certificates of origin are issued by an independent Dutch body – CertiQ.⁵¹

b. Renewable Energy Support Scheme including Fiscal Measures

Traditionally, feed-in premiums were the key instrument to support production of electricity from renewable energy sources (Stimulerend Duurzame Energieproductie – SDE), which was adjusted in 2011 (to become the so-called SDE+). The new system includes four rounds of financial support that shall encourage competition among technologies. For each round a reference price is determined. Technologies that require the least subsidy qualify for support in the first round. Moreover, unlike the previous scheme the current scheme focuses on short-term implementation of the renewable energy. It is financed through a special levy on the electricity bills of consumers.⁵²

Apart from the consumer tax from which the feed-in tariff is financed, the fiscal measures include a tax relief (on income or corporate tax) for the companies investing in renewable energy. Before 2005 the Netherlands also had a special energy tax exemption for green electricity. A Regulatory Energy Tax was introduced in 1996 for households and medium-small enterprises aiming at energy conservation and increased renewable energy use. This tax was automatically levied through the electricity bill. With the envisaged tax level, the average price for green electricity was the same as for electricity from traditional energy sources. Within the framework of this energy tax the Netherlands introduced an energy tax exemption (1996–2004) that was available for electricity with a green certificate. As mentioned above, this fiscal support scheme has been replaced with a more modern system.⁵³

3.6 Poland

Poland supports electricity generation from renewable energy sources in light of its energy mix objectives. According to the Polish Energy Policy it aims to achieve a share of renewable energy in the final energy mix up to 15% by 2020 and to 16% by 2030.

a. Guarantee of Origin System

The main initial support scheme for electricity generation from renewables is a quota system linked to the system of certificates of origin issued to the producers of the electricity from renewable energy

⁵¹ See: Regeling garanties van oorsprong voor duurzame elektriciteit, van 8 december 2003, nr. WJZ 3073206; RES Legal: Electricity Promotion in Netherlands, available at: www.res-legal.eu/ (last visited 25 February 2014); Government of the Netherlands, Progress Report: Energy From Renewable Sources in the Netherlands 2009-2010 (EC Renewable Energy Directive 2009/28/EC), available at: <http://www.rvo.nl/sites/default/files/Progress%20report%20energy%20from%20renewable%20sources%20in%20the%20Netherlands%202009-2010.pdf> (last visited 25 February 2014); CertiQ B.V., EECS Electricity Domain Protocol for the Netherlands, available at: http://www.aib-net.org/portal/page/portal/AIB_HOME/FACTS/AIB%20Members/Domain_Protocols/Domain%20Protocol%20the%20Netherlands%20v2.4.pdf (last visited 25 February 2014).

⁵² Renewable Energy Policy Country Profiles, 2011, available at: http://www.reshaping-res-policy.eu/downloads/RE-SHAPING_Renewable-Energy-Policy-Country-profiles-2011_FINAL_1.pdf (last visited 25 February 2014).

⁵³ Energy Report 2011, The Government of the Netherlands, available at: <http://www.government.nl/government/documents-and-publications/reports/2011/11/01/energy-report-2011.html> (last visited 25 February 2014), and see also International Energy Agency, Policies and Measures Database, available at: <http://www.iea.org/policiesandmeasures/pams/netherlands/> (last visited 25 February 2014).

sources.⁵⁴ In cases where renewable electricity was produced but not traded as such, the producer would be entitled to sell the certificate itself. Where the origin of the electricity was disclosed to the final consumer, the supplier was obliged to obtain certificates of origin for the given amount of electricity supplied. Otherwise, a substitution fee was charged.⁵⁵ The price of the certificates of origin is correlated with the substitution fee, determined by the Energy Regulatory Office. While certificates of origin can be traded at the Polish Power Exchange, a lot of power companies sell them based on bilateral agreements with companies trading electricity and bound by a quota obligation. According to the Polish Energy Law Act, all entities selling energy are obliged to comply with quota requirements for 'green' electricity.⁵⁶ The quota is increased each year as defined on an annual basis in the Regulation of the Ministry of the Economy.

In November 2013, the new draft Act on Renewable Energy Sources introduced a GO into Polish law. A GO will be used to confirm to the final customer that the electricity has been generated from a renewable energy source (RES) or from agricultural biogas in a RES installation. This draft Act is aimed to implement the EU Directive 2009/28/EC on the promotion of the use of energy from renewable sources. There is no limitation on the capacity starting from which the GOs will be issued in Poland. The guarantees will be issued for each MWh of electricity generated.

The draft RES Act requires that an application for GOs should specify, among other things, whether the RES installation defined in the application benefited from support mechanisms for generating electric energy in a RES. However, there is no provision specifying the consequences of such a situation. Notably, according to the RES Directive 2009/28/EC, support schemes linked to GOs are not excluded and remain the prerogative of the EU Member States.

The GOs should not be confused with "certificates of origin", also known as "green certificates" mentioned above. Pursuant to the draft RES Act, no property rights arise from the GOs and they do not give their holders the right to use instruments supporting energy generation in RES. The GOs are not the same as "green certificates" and cannot be cancelled in order to fulfil statutory quota obligations. Additionally, as opposed to "green certificates", the GOs may be traded between entities based in different EU Member States, Switzerland and the EFTA Member States. The Polish Regulator will also recognise GOs issued in those countries. An interest in purchasing Polish GOs has been already ex-

⁵⁴ Anna Poblocka, Electricity Promotion in Poland, RES Legal / European Commission, 11.11.2013, available at: http://www.google.com/url?sa=t&rct=j&q=certificates%20of%20origin%20in%20poland&source=web&cd=5&ved=0CEIQFjAE&url=http%3A%2F%2Fec.europa.eu%2Fregional_policy%2Fsources%2Fdocgener%2Fevaluation%2Fpdf%2Feval2007%2Fexpert_innovation%2F2011_synt_rep_pl.pdf&ei=1NjMUoX_KsjQhAeDpYDwAg&usg=AFQjCNHvGiDwPNd9EYuXbNXICGxgr1ADQ&sig2=Pc08WkUg2t55g8en6NGNXQ&bvm=bv.58187178,d.ZG4 (last visited 10 February 2014).

⁵⁵ Expert Evaluation Network Delivering Policy Analysis on the Performance of Cohesion Policy 2007-2013. Year 1 – 2011, Task 1: Policy Paper on Renewable Energy and Energy Efficiency of Residential Housing. Poland, available at: http://ec.europa.eu/regional_policy/sources/docgener/evaluation/pdf/eval2007/expert_innovation/2011_synt_rep_pl.pdf (last visited 10 February 2014).

⁵⁶ Order of 18/10/2012 (Rozporządzenie Ministra Gospodarki z dnia 18 października 2012 r. – Order on the quota obligation).

pressed by trading companies from other European countries in connection with a high demand for environment-friendly products among their customers.⁵⁷

b. Electricity Taxation

Support of renewable energy through taxation is also common in Poland. Based on the Energy Law Act and additional regulations, small RES power facilities (less than 5 MW) are granted tax exemptions, e.g. from stamp duty on certificates of origin and concession. Moreover, electricity produced from renewable energy sources is exempted from the excise tax (approx. 20 PLN per 1 MWh).⁵⁸ Generally, the excise tax is collected on electricity according to Art. 11 Tax Law when it is supplied to the end-user or consumer. Electricity from renewable sources is exempt from consumption tax. Both generators and suppliers of electricity are exempt from paying tax on all renewable electricity sold to end-users or consumed.⁵⁹ Generators and suppliers are exempted from the tax when they submit their certificates to the competent authority (Art. 30 para. 1 Tax Act), which is the customs office.⁶⁰ Costs of this tax relief are borne by the state (Art. 1 para. 2 Tax Act).

3.7 Sweden

Sweden's electricity support scheme is based on three systems, which are meant to provide incentives for the use of energy from renewables: a quota system, a tax regulation mechanism and a subsidy system.⁶¹

a. Electricity taxation

While subsidies are only available for the installation of photovoltaic installations and will run out on 31 December 2016,⁶² the tax regulation mechanism is more differentiated. Two different taxes are being levied.

Firstly, an energy tax is levied on the consumption of electricity. The persons liable to pay the tax are commercial electricity producers and suppliers.⁶³ Only wind energy generated by non-commercial producers or suppliers is exempt from the energy tax.⁶⁴

Secondly, certain preferences are being granted in connection with the annual real estate tax, which is imposed on owners of power plants (in certain circumstances also owners of land on which a power plant is located). The amount of the tax depends on the precise value of the power plant. Worth noting is that this tax generally does not distinguish between renewable and fossil energy sources. The only

⁵⁷ <http://www.lexology.com/library/detail.aspx?g=3a95d85e-f2c7-4f9b-a12f-8f68260c84eb> (last visited 10 February 2014).

⁵⁸ Dz.U. 2009 Nr 3 poz. 11, USTAWA dnia 6 grudnia 2008 r. o podatku akcyzowym.

⁵⁹ Art. 30 para. 1 in conjunction with Art. 9 para. 1 Tax Act.

⁶⁰ Art. 14 Tax Act.

⁶¹ <http://www.res-legal.eu/search-by-country/sweden/tools-list/c/sweden/s/res-e/t/promotion/sum/200/lpid/199/>, last visited 03/03/2014 (last visited 25 February 2014).

⁶² <http://www.res-legal.eu/search-by-country/sweden/single/s/res-e/t/promotion/aid/subsidy-grants-for-the-installation-of-photovoltaic-installations/lastp/199/>, last visited 03/03/2014 (last visited 25 February 2014).

⁶³ See Chapters 11 §§ 1, 5 Act No. 1994:1776 on Energy Tax.

⁶⁴ See Chapter 11 § 2 No. 1 Act No. 1994:1776 on Energy Tax.

exception concerns wind energy, which is subject to a reduced tax payment (0.2% instead of 0.5%). It is also worth noting that hydro-electric power plants are subject to a higher tax rate of 2.8%.⁶⁵

b. Sweden-Norway Cooperation Scheme

The Kingdoms of Norway and Sweden put into effect a joint market for electricity certificates on 1st January 2012. One certificate is issued for each megawatt hour (MWh) of electricity generated from renewable sources. Electricity certificates issued in one country can be used to comply with the electricity certificate obligation in the other country. By means of the certificates system, Norway and Sweden intend to develop production capacity resulting in a total of 26.4 TWh renewable electricity production by the year 2020. Norway is obligated to finance half of this amount, which is 13.2 TWh, regardless of the share of new capacity created in each country. Electricity certificates are financed by end-consumers, paying for them within the quota on renewable electricity consumption. Certificates issued in other countries are in principle not taken into account. Cooperation between Sweden and Norway is temporary and will exist only till 2035.

Interestingly, the same renewable energy facility can qualify for GOs and electricity certificates, meaning that for each MWh both the GO and electricity certificate can be issued.⁶⁶ Only GOs fulfil the disclose function for electricity, while electricity certificates form a basis for the support scheme. Apart from GOs, the RECS certificates can also be issued for the same volume of electricity generated and traded on the voluntary market.

We have assessed whether the joint certificate system of Norway and Sweden could be used as a reference model for the envisaged introduction of a differentiated electricity tax, based on GOs, in Switzerland. It seems to us that this is not the case. This is because the Norwegian/Swedish certificates are not linked to an energy tax. To the contrary, Art. 5 (4) of the Agreement between Norway and Sweden clarifies that any investment or operational support that the parties may wish to provide through their tax system, is in principle unaffected by the certificate systems. The two states have merely agreed that they will provide information on any national support measures that are granted through the tax system. They have also entered into a (rather vague) commitment according to which they will give due consideration to each other's interests. Finally, they will take care not to provide support in a manner that materially alters the competitive conditions for production eligible for electricity certificates in the two countries.

3.8 United Kingdom

The UK has committed itself to an 80% reduction of carbon emissions by 2050 against 1990 levels.⁶⁷ Decarbonisation of electricity is considered to be the prime strategy to achieve this objective. With respect to renewables, the target is that they will account for 15% of energy supply by 2020.⁶⁸ Decar-

⁶⁵ <http://www.res-legal.eu/search-by-country/sweden/single/s/res-e/t/promotion/aid/tax-regulation-mechanisms-i-reduced-real-estate-tax/lastp/199/>, last visited 03/03/2014 (last visited 25 February 2014).

⁶⁶

http://www.aibnet.org/portal/page/portal/AIB_HOME/FACTS/AIB%20Members/Domain_Protocols/20130301_Domain_Protocol_EECS7_Statnett.pdf (last visited 25 February 2014).

⁶⁷ Climate Change Act 2008.

⁶⁸ Renewables Roadmap 2011.

bonisation of electricity is being achieved through the electricity market reform, which foresees three measures: a carbon price floor, feed-in tariffs and an emissions performance standard.⁶⁹

A carbon price floor reinforces the incentives created by the EU ETS by keeping emissions allowance prices high enough to attract low-carbon investment.

Feed-in tariffs are aimed to mitigate the effects of a carbon price floor for most vulnerable electricity generators and stimulate them still more to invest in 'green' electricity production. The UK has chosen a FIT scheme with a contract for difference (CfD), where a variable payment is made to ensure that the generator receives the agreed tariff assuming that it sells its electricity at the market price. In the UK, a FIT scheme with CfD is considered to be a more effective form of promotion of renewable electricity than the current support mechanism – a renewable certificates trading system under the Renewables Obligation (RO).⁷⁰ FIT will replace RO in 2017 after a period when they run in parallel, from 2013–2017. Unlike renewable certificates, FIT with CfD will also be available to generators of nuclear electricity.

An Emissions Performance Standard (EPS) limits the amount of carbon dioxide that new power plants can emit per kWh of electricity generated. An EPS will be imposed if the market mechanisms mentioned above are not sufficient in themselves to steer the electricity sector away from fossil fuel forms of generation.

The UK has also introduced its own mandatory ETS, in addition to the participation of its industries in the EU ETS. This scheme is called the CRC ('Carbon Reduction Commitment') Energy Efficiency Scheme. It applies to sectors in the UK that are not covered by the EU ETS. These are large, non-energy-intensive organisations like supermarkets, hotels, water companies, banks, local authorities, including state-funded schools and all central government departments. However, in contrast to the EU ETS, the CRC applies only to carbon emissions associated with the use of electricity and gas.⁷¹

a. Renewable Energy Certificates

As mentioned above, the UK government plans to phase out the Renewable Obligation (RO) system, which has been in place since 2002. The RO system was designed to encourage the generation of electricity from renewable energy sources by awarding Renewable Obligation Certificates (ROCs) to generators. The RO obliges licensed electricity suppliers to source a certain proportion of electricity from renewable sources (15.4% by 2015/16).⁷² Suppliers meet their obligations by submitting ROCs to the UK Office for Gas and Electricity Markets (Ofgem). A ROC has a market value. If suppliers do not have sufficient ROCs to cover their renewable energy obligation, a payment needs to be made into the buy-out fund.⁷³ Suppliers make payments to the buy-out fund at a fixed price per MWh shortfall. Money from the buy-out fund is paid back to electricity suppliers in proportion to how many ROCs they

⁶⁹ *Planning Our Electric Future: A White Paper for Secure, Affordable and Low-Carbon Electricity*, July 2011 (hereinafter - White Paper 2011).

⁷⁰ <https://www.gov.uk/government/policies/maintaining-uk-energy-security--2/supporting-pages/electricity-market-reform> (last visited 25 February 2014).

⁷¹ <https://www.gov.uk/crc-energy-efficiency-scheme> (last visited 25 February 2014).

⁷² *UK National Renewable Energy Action Plan*, 2010.

⁷³ <https://www.ofgem.gov.uk/environmental-programmes/renewables-obligation-ro> (last visited 25 February 2014).

have submitted. All costs of the ROC system are passed on to consumers. Consumers whose supply companies fail to submit sufficient ROCs pay higher bills for electricity, whereas consumers whose supply companies submit large numbers of ROCs pay less.⁷⁴

An interesting characteristic of the UK RO system is a differentiation based on energy sources. Initially, each form of renewable energy technology received the same level of support, namely one ROC/MWh of electricity generated. While the motivation behind such a technology-neutral approach was to stimulate competition between technologies and not to distort the market, the RO in its initial form gave an advantage to more established technologies, such as landfill gas and onshore wind. Support for less developed technologies that were further from commercial viability appeared to be insufficient. Consequently, in 2009, the UK Government introduced differentiation (or banding) in the operation of the ROC system so that different level of support was provided to different technologies depending on their maturity and development cost. Currently, there is a reduction in the tariff for onshore wind (a more commercially viable technology) to 0.9 ROCs/MWh and an increase for small wave and tidal stream generating companies under 30 MW (less mature technologies) to 5 ROCs/MWh.⁷⁵

b. Excise tax on electricity

Finally, there is a measure in the UK electricity sector, which is directly relevant in the context of this study. In 2001, the UK Government introduced the Climate Change Levy (CCL), an excise tax on electricity and some fossil fuels. The name of the tax stresses its original purpose: to support the UK climate change policy in addition to the EU ETS, CRC Energy Efficiency Scheme, ROCs, FITs and other market-based mechanisms. The levy was primarily designed to promote energy efficiency. CCL is imposed on coal, gas, liquefied petroleum gas and electricity and adds approximately 15% to the energy bill of a typical UK company (the cost is then passed on to customers in the form of higher prices).⁷⁶ Revenues from the CCL are largely recycled back to industry through a 0.3% reduction of the employer payments of National Insurance Contributions. Part of the revenue is diverted to the Carbon Trust, an institution that fosters research and promotion of energy efficiency and renewable energy sources.

Energy intensive firms can get an 80% discount on the tax rate if they join a so-called Climate Change Agreement (CCA) and adopt a specific target for energy- or carbon-intensity. Although the CCL was expected to contribute more than half of all industrial emissions reductions,⁷⁷ a study shows that the CCA had failed to place binding constraints on energy use by CCA companies and, as a result, enabled companies to circumvent their carbon constraints.⁷⁸

⁷⁴ http://www.realreturnenvironment.com/index.php?option=com_content&view=Art.&id=297:renewable-obligations&catid=44&Itemid=102 (last visited 25 February 2014).

⁷⁵ Foxon, T.J. and Pearson, P.J.G. (2007). 'Towards improved policy processes for promoting innovation in renewable electricity technologies in the UK', *Energy Policy*, 35(3), 1539-1550.

⁷⁶ http://www.cccep.ac.uk/Publications/Working-papers/Papers/1-9/Working_Paper7.pdf (last visited 10 February 2014).

⁷⁷ *UK Climate Change Programme*, 2000.

⁷⁸ http://www.cccep.ac.uk/Publications/Working-papers/Papers/1-9/Working_Paper7.pdf (last visited 10 February 2014).

The CCL is paid per kilowatt hour of electricity or per unit (kilogram) of fossil fuel. It is paid to HM Revenue and Customs (HMRC) office at the time of supply to industrial and commercial consumers of energy. It has variable tax rates for different types of fuels, ranging ad valorem from 6.1% on coal to 16.5% on natural gas.⁷⁹

CCL also applies to imported electricity and fossil fuels. For taxable products imported from EU Member States, the main rates of CCL are payable at the time of supply to industrial or commercial consumers in keeping with the principles of the single market. For taxable products imported from countries outside the EU, the main rates of CCL are payable at the time of importation and included in the importer's customs declaration. For the purposes of this study it is particularly important to note that 'green' electricity, irrespective of its origin, is exempted from CCL.⁸⁰ For the implementation of the CCL exemption system, a separate 'green' electricity certification system has been introduced. Ofgem and the Northern Ireland Authority for Utility Regulation (NIAUR) certify that renewable source electricity has been produced by an accredited generator. Certification takes the form of Renewables Levy Exemption Certificates (Renewables LECs) that are issued for each complete MWh of renewable electricity produced. 'Green' electricity is then acquired by an electricity utility and offered for sale to an industrial or public sector consumer under the terms of a renewable source contract.

4 Compatibility of electricity tax differentiation for “green” and “grey” electricity with EU and WTO law: a general overview

4.1 The scope of application of bilateral agreements EU-Switzerland, EU law and WTO law to electricity taxation

In the following, we shall give an overview of the relevant international legal framework, which consists, for the purposes of this opinion, of the 1972 Free Trade Agreement Switzerland – EEC, EU law and WTO law. The Energy Charter Treaty will not form part of this analysis for the reasons outlined above. The Free Trade Agreement, EU law and WTO law share a common heritage insofar as the 1947 GATT Agreement, which is part of WTO law, was a source of inspiration for the creation of the EU

⁷⁹ It should be noted that while the CCL establishes a meaningful price incentive for energy efficiency overall, individual CCL rates created a perverse effect in that the carbon contained in gas and electricity is taxed at almost twice the rate as carbon contained in coal. Some explain this by political pressures arising from historical ties between the Labour Party and the coal industry, which had suffered from the dash for gas during the 1990s. See Martin R. et al. (2009), *The Impacts of Climate Change Levy on Business: Evidence from Micro-data*, http://www.bruegel.org/fileadmin/bruegel_files/Website_images/Funded_research_projects/ECE_folders/Event_1_280909/Paper_contribution_28.09.2009.pdf (last visited 10 February 2014).

⁸⁰ Note that the UK exports/imports electricity only to/from EU Member States (whereas gas comes mainly from Norway, but also from the Netherlands and Belgium, and coal mainly from Russia, but also from the US and Colombia). The UK has three electricity interconnectors (to/from France, the Netherlands and Ireland) that are used for importation and exportation of electricity. Until recently the interconnector with France was used solely for imports and the one with Ireland solely for exports. This pattern has changed since 2008 with more exports to France, fewer exports to Ireland and some imports from Ireland. In 2011 imports from France were 6 terawatt hours and exports were 1 terawatt hour. Imports from the Netherlands were 3 terawatt hours and exports less than 1 terawatt hour. Trade with Ireland was less than 1 terawatt hour in either direction. See <http://www.nemo-link.com/pdf/Nemo-Link-Interconnector-EN.pdf> and Bolton P. (2013), *Energy imports and exports*, Standard Notes for UK Parliament, <http://www.parliament.uk/business/publications/research/briefing-papers/SN04046/energy-imports-and-exports-> (last visited 10 February 2014).

founding Rome Treaties, whereas the GATT and EU law, in turn, eventually informed the Free Trade Agreement. Indeed, the Preamble to the Free Trade Agreement makes reference to the Parties' intention to "eliminate progressively the obstacles to substantially all their trade, in accordance with the provisions of the General Agreement on Tariffs and Trade concerning the establishment of free trade areas". Whereas the FTA has remained unchanged, WTO law and, in particular, EU law have evolved ever since. There are also considerable differences on an institutional level. The institutional structure according to the Free Trade Agreement has remained very loose, as shall be explained below. The WTO institutional set-up is not very developed either, but at least it provides for a dispute resolution mechanism. The EU institutional structure is developed and is characterised by a continuous development of the legislation, a stringent, albeit politically driven, surveillance system and an effective judicial control.

4.1.1 The 1972 Free Trade Agreement Switzerland – EEC

The Free Trade Agreement between Switzerland and the European Economic Community of 22 July 1972 ("FTA Switzerland–EEC")⁸¹ applies to trade in electricity, as electricity is legally defined as a good with a tariff position in the Harmonized Commodity Description and Coding System (HS). The implication of the FTA has been limited as no tariffs are operated and quantitative restrictions do not physically apply. Disciplines essentially relate to Art. 18. They address discriminatory taxation and possibly disciplines on subsidies under Art. 23 of the Agreement. If one of the contracting parties believes that the other party has failed to comply with its obligations under the FTA, it may in principle refer the matter to the Joint Committee, which is responsible for the supervision of the Agreement, with a view to resolving the issue. Should it not be possible to resolve the issue through the Committee, or if exceptional circumstances require immediate action, the party concerned is entitled to adopt safeguard measures.⁸² Given the weakness of this structure and the lack of an independent dispute settlement mechanism, it is hardly surprising that there is no single uniform view of the correct interpretation of the FTA. As a consequence, the way in which the Agreement is applied in Switzerland and the EU may differ.

For the purpose of this study, none of the other agreements concluded with the EU, in particular the 1999 and 2004 Bilateral Agreements are directly relevant.

4.1.2 EU Law

a) Scenario 1: status quo

EU law takes an interest in fiscal measures mainly out of concern that Member States could use their tax scheme to discriminate against non-resident importers, to bestow unfair advantages on certain companies or industries, or to lure investors onto their territory. As Switzerland is not a member of the EU, it is in principle not bound to observe EU law, save in the cases when it has agreed to comply with the "acquis communautaire" in corresponding bilateral agreements. To date, there is no agreement in place that incorporates the relevant "acquis" relating to electricity, although the FTA may also apply to trade in electricity as explained above. Nevertheless, it is worth considering EU law for a number of reasons, such as the following:

⁸¹ SR 0.632.401.

⁸² See Arts. 22 (2) 2nd subparagraph and 27 (2) FTA Switzerland-EEC.

- The EU institutions may construe certain provisions of the FTA in line with EU law, although this can vary from case to case and the EU policy in this regard is often driven by political motives and therefore not always consistent.
- There are examples of the Swiss Federal Tribunal using EU law as a reference point, when construing provisions of the FTA or indeed Swiss domestic law.
- It has become constant practice to evaluate the euro-compatibility of Federal laws and the Swiss legislator may wish to unilaterally endorse selected elements of EU law.
- Most importantly, it is possible that Switzerland and the EU may conclude a bilateral agreement in the electricity sector, although the negotiations are currently on hold following the adoption of Art. 121a Federal Constitution.

The Treaty on the Functioning of the European Union (TFEU) includes several provisions relating to the Member States' autonomy to adopt fiscal measures. The two main provisions which are relevant for the present legal analysis are the prohibition on discriminatory taxation in Art. 110 TFEU, and the state aid prohibition in Art. 107 TFEU. Furthermore, the production, transport and trade of electricity, as well as services which are of considerable importance in a grid industry, are covered by a number of texts of EU secondary law, including the already mentioned Directive 2009/28/EC of 23 April 2009 on the promotion of the use of energy from renewable sources (RES Directive 2009/28/EC).

The above-mentioned Directive 2003/96/EC on restructuring the Community framework for the taxation of energy products and electricity defines minimal tax levels that must be observed by the Member States. Art. 15(1)(b) of the Directive authorises Member States to apply total or partial exemptions or reductions in the level of taxation. They may also refund to the producer some, or all, of the amount of tax paid by the consumer on electricity produced from renewables pursuant to Art. 15 (2). Not being a Member State, Switzerland is not obliged to comply with the Directive.

On 13 April 2011, the European Commission proposed an amendment to this Directive which, however, does not seem to affect the aforementioned Arts. 15 (1) b and (2).⁸³ Since then, EU Member States have not made any real progress towards the adoption of the amendment. After a negative (non-binding) vote of the European Parliament in April 2012, the fate of the Directive is still in the balance. The Presidency of the EU, which is currently held by Greece, has proposed that the Economic and Financial Affairs Council should adopt a political agreement relating to the Directive on 20 June 2014.

It should also be borne in mind that imports of goods into the EU are subject to the WTO-law-based Anti-Subsidy Regulation of the EU. It is possible that this Regulation also applies to electricity. Consequently, the EU may impose countervailing duties in the not very likely event that the application of the differentiated energy tax results in exports of cheap green electricity to the EU, thereby causing material injury to the Union's industry.

⁸³ Proposal for a Council Directive amending Directive 2003/96/EC restructuring the Community framework for the taxation of energy products and electricity, COM/2011/0169 final.

b) Scenario 2: a possible future Electricity Agreement

At present, it is not possible to determine whether the negotiations on a new bilateral agreement dealing specifically with electricity will ever be concluded and what the precise outcome will be. Given these circumstances, we have proceeded as follows in order to render possible a meaningful risk assessment in line with the general approach in our legal opinion. We have made certain conjectures based on the respective negotiation mandates and reliable information, including public presentations by representatives of negotiation teams. We have then assumed a “worst case scenario” whereby the EU will impose its likely negotiation objectives, to the extent that these can be determined from an outside perspective.

It is common knowledge that the EU intends the Agreement to incorporate large parts of the relevant “*acquis communautaire*” concerning electricity. The EU will most probably want to include in the Agreement the prohibition on discriminatory taxation within the meaning of Art. 110 TFEU, and the state aid prohibition in Art. 107 TFEU, combined with a more stringent institutional set-up, although this is subject to negotiations and the details are still unclear. The Agreement is likely to contain relevant secondary legislation of the EU. In line with our “worst case scenario”, moreover, it cannot be ruled out that Switzerland may have to accept the RES Directive 2009/28/EC, either completely or in part.

Furthermore, the prospect cannot be excluded that a possible future Electricity Agreement could also refer to the Directive 2003/96/EC on restructuring the Community framework for the taxation of energy products and electricity, albeit only in a cursory manner. If one considers the precedent set by the Agreement of 21 June 1999 between the Swiss Confederation and European Communities concerning air transport matters,⁸⁴ a possible future Electricity Agreement could perhaps include a total or partial reference to Arts. 14 (1)(a) and 15 of the Directive, which are worded as follows:

“Art. 14

In addition to the general provisions set out in Directive 92/12/EEC on exempt uses of taxable products, and without prejudice to other Community provisions, Member States shall exempt the following from taxation under conditions which they shall lay down for the purpose of ensuring the correct and straightforward application of such exemptions and of preventing any evasion, avoidance or abuse:

(a) energy products and electricity used to produce electricity and electricity used to maintain the ability to produce electricity. However, Member States may, for reasons of environmental policy, subject these products to taxation without having to respect the minimum levels of taxation laid down in this Directive. In such case, the taxation of these products shall not be taken into account for the purpose of satisfying the minimum level of taxation on electricity laid down in Art. 10;

...

Art. 15

⁸⁴ SR 0.748.127.192.68; the bilateral Air Transport Agreement refers to Arts. 14 (1) b and (2) of Directive 2003/96/EC.

1. Without prejudice to other Community provisions, Member States may apply under fiscal control total or partial exemptions or reductions in the level of taxation to:

(a) taxable products used under fiscal control in the field of pilot projects for the technological development of more environmentally-friendly products or in relation to fuels from renewable resources;

(b) electricity:

— of solar, wind, wave, tidal or geothermal origin;

— of hydraulic origin produced in hydroelectric installations;

— generated from biomass or from products produced from biomass;

— generated from methane emitted by abandoned coalmines;

— generated from fuel cells;

(c) energy products and electricity used for combined heat and power generation;

(d) electricity produced from combined heat and power generation, provided that the combined generators are environmentally friendly.

Member States may apply national definitions of ‘environmentally friendly’ (or high efficiency) cogeneration production until the Council, on the basis of a report and a proposal from the Commission, unanimously adopts a common definition;

(e) energy products and electricity used for the carriage of goods and passengers by rail, metro, tram and trolley bus;

(f) energy products supplied for use as fuel for navigation on inland waterways (including fishing) other than in private pleasure craft, and electricity produced on board a craft;

(g) natural gas in Member States in which the share of natural gas in final energy consumption was less than 15 % in 2000;

The total or partial exemptions or reductions may apply for a maximum period of ten years after the entry into force of this Directive or until the national share of natural gas in final energy consumption reaches 25 %, whichever is the sooner. However, as soon as the national share of natural gas in final energy consumption reaches 20 %, the Member States concerned shall apply a strictly positive level of taxation, which shall increase on a yearly basis in order to reach at least the minimum rate at the end of the period referred to above.

The United Kingdom of Great Britain and Northern Ireland may apply the total or partial exemptions or reductions for natural gas separately for Northern Ireland;

(h) electricity, natural gas, coal and solid fuels used by households and/or by organisations recognised as charitable by the Member State concerned. In the case of such charitable organisations, Member States may confine the exemption or reduction to use for the purpose of non-business activities. Where mixed use takes place, taxation shall apply in proportion to each type of use. If a use is insignificant, it may be treated as nil;

(i) natural gas and LPG used as propellants;

(j) motor fuels used in the field of the manufacture, development, testing and maintenance of aircraft and ships;

(k) motor fuels used for dredging operations in navigable waterways and in ports;

(l) products falling within CN code 2705 used for heating purposes.

2. Member States may also refund to the producer some or all of the amount of tax paid by the consumer on electricity produced from products specified in paragraph 1(b).

3. Member States may apply a level of taxation down to zero to energy products and electricity used for agricultural, horticultural or piscicultural works, and in forestry.

On the basis of a proposal from the Commission, the Council shall before 1 January 2008 examine if the possibility of applying a level of taxation down to zero shall be repealed.”

If the EU has its way, Switzerland will in all probability accept the case law of the ECJ and perhaps even the decisional practice and the various communications and guidelines of the European Commission, which are of relevance to renewables.

In the context of the “*acquis communautaire*”, which is likely to be part of the this agreement, it is worth noting that the proposed phasing-out of the feed-in tariffs in Switzerland is in line with the European Commission’s current thinking on the promotion of renewable energy sources. In the recently published Communication on “*Delivering the Internal Electricity Market and Making the Most of Public Intervention*” of 5 November 2013⁸⁵ the Commission has taken the view (on page 15) that feed-in tariffs have the disadvantage of shielding renewable energy producers from market price signals. The Commission has advocated moving towards feed-in premiums and other support instruments, such as quota obligations, because they supposedly force producers to respond to market prices.

4.1.3 WTO law

Like in EU law, the main concern of WTO law in the field of taxation is discriminatory treatment of imported products and of like or directly competitive and substitutable domestic products. The WTO non-discrimination rules applicable to the extension of domestic taxes to imports are relevant for external relations of the EU. Although EU Member States, subject to internal market rules including the rules of non-discrimination, have a sovereign right to decide on the type, rate and basis of taxes which they levy in their national jurisdictions, they do not have the power to decide on tariffs on imports into and exports from the EU. This is an exclusive competence of the EU.⁸⁶ To the extent that the EU has not concluded international agreements, general WTO law applies in external relations. The same holds true for Switzerland. Relations with the third parties are subject to specialised rules in preferential trade agreements (PTAs). In the absence of those, WTO law applies. It also informs and influences the interpretation of PTAs.⁸⁷

⁸⁵ C(2013) 7243 final.

⁸⁶ B Olsen “Gaining intergovernmental acceptance: legal rules protecting trade”, in J.E. Milne and M.S. Andersen (eds.) *Handbook of Research on Environmental Taxation* (Edward Elgar 2012).

⁸⁷ Countries enjoy sovereignty in taxation and other regulatory matters as long as a tax or a regulation concerns domestic consumers, producers and products produced domestically. However, when an internal measure is extended to internationally traded goods (imports and exports), the design and operation of a domestic tax system is subject to WTO law. See Ecoplan et al (2013) *Border Tax Adjustments: Can energy and carbon taxes be*

Under WTO law, electricity is considered to be a good.⁸⁸ It is listed in the HS under the optional heading HS 2716.00⁸⁹ and can be found in the list of commitments of WTO members with respect to the application of tariffs (GATT Schedules of Concessions).⁹⁰ There are WTO members that have not made tariff commitments on electricity in their GATT Schedules. These WTO members can impose import tariffs on electricity at their own discretion. However, the absence of legally binding tariff ceilings (bound tariffs) for some WTO members does not release them from obligations under the GATT in general, when electricity is imported or exported. This particularly relates to the obligation to observe GATT non-discrimination rules when imports of electricity are taxed. The GATT non-discrimination rules firstly contain the obligation to accord a most-favoured nation (MFN) treatment to like products imported or exported from/to all other WTO members under Art. I GATT,⁹¹ Secondly, it entails the obligation to accord the national treatment (NT) under Art. III GATT, which prohibits discrimination between imported and like domestic products.⁹²

It should be mentioned that the physical nature of electricity imposes certain limitations on international trade in electricity. This is because the relative immobility of electricity as a good means that it can only be traded among countries connected by grids. Consequently, international trade in electricity currently takes place between contiguous countries. A further extension of trade in electricity would require substantial investments in infrastructure and innovations.

Furthermore, since electricity was defined as a good prior to the advent of disciplines on services in the WTO's General Agreement on Trade in Services (GATS), WTO experts are currently discussing whether electricity would not be better dealt with as a service.⁹³ While there are many arguments in favour of GATS being more apt to deal with a grid industry, the rules on services so far have not been extended to electricity under WTO law. However, trade in GOs may constitute financial services and thus fall under the GATS Agreement and the Understanding on Commitments in Financial Services to which both the EU and Switzerland are parties.⁹⁴

adjusted at the border? pp. 23-24. See also Appellate Body Report, United States — Tax Treatment for “Foreign Sales Corporations” adopted on 20 August 2001, WT/DS108/AB/R, paras. 90 and 98.

⁸⁸ 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.

⁸⁹ In the HS, electricity is listed within subsection 27 “Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes” of section V “Mineral products”.

⁹⁰ For example, Switzerland committed itself to a zero tariff rate on electricity. See <http://tariffdata.wto.org/default.aspx> (last visited 10 February 2014).

⁹¹ The MFN rule under Art. I GATT basically says that any advantage given to a product from/to any country has also to be given to a like product from/to all other countries.

⁹² The NT rule under Art. III GATT applies to the imposition of internal taxes and regulations on imports. It should be noted that the MFN rule described in the previous footnote also applies to the way the internal taxes and regulations are imposed on imports (see the text of Art. I GATT).

⁹³ See e.g. R Howse, *World Trade Law and Renewable Energy: The Case of Non-Tariff Barriers* (UNCTAD, 2009) p. 15.

⁹⁴ See Panagiotis Delimatsis, *Financial Innovation and Climate Change: the case of renewable energy certificates and the role of the GATS*, 8(3) *World Trade Review* 2009, 439-460; Panagiotis Delimatsis and Despina Mavromati, *GATS, Financial Services and Trade in Renewable Energy Certificates (RECs) – just another market-based solution to cope with the tragedy of the commons?*, in Cottier et al. (eds), *International Trade Regulation and the Mitigation of Climate Change*, Cambridge University Press, 2009.

4.2 Differentiated Tax Rates on Electricity and Non-Discrimination Rules

4.2.1 Prohibition of discriminating tax practices in the bilateral relations EU - Switzerland

Art. 18 FTA Switzerland–EEC provides that the “contracting parties shall refrain from any measure or practice of an internal fiscal nature establishing, whether directly or indirectly, discrimination between the products of one contracting party and like products originating in the territory of the other contracting party”. Accordingly, the principles of interpretation set out above in connection with WTO law should broadly apply. While the Swiss Federal Tribunal tends to construe Art. 18 FTA as being equivalent to its counterpart in EU law, which is Art. 110 TFEU,⁹⁵ the provision is actually modelled on Art. III GATT 1947 and Art. 6 of the EFTA Agreement.⁹⁶

It is important to note, however, that the exceptions under Art. 20 FTA Switzerland – EEC – other than under Art. XX GATT – do not apply to issues of taxation but are limited to restrictions on imports, exports and transit of goods. They cannot be invoked in the field of taxation and subsidies. Moreover, the FTA Switzerland – EEC does not explicitly impose a proportionality test in the field of taxation and subsidies. Whether or not the FTA embodies this principle is therefore a matter of further interpretation in good faith, by reference to the object and the purpose of the FTA.⁹⁷ If one considers the case law of the ECJ, the proportionality principle can only be considered to be part of a bilateral agreement if exceptional circumstances exist.⁹⁸ This could mean that a tax or state measure cannot simply fall foul of the FTA Switzerland – EEC because it is considered to be disproportionate.

4.2.2 EU law

a. Scenario 1: status quo

If Switzerland and the EU do not agree on extending the relevant “acquis communautaire” in a specific bilateral agreement, Switzerland is not legally obliged to comply with EU law, although the country may have its own interest to unilaterally follow certain policy choices of the EU and the corresponding legislation for the reasons outlined above.

b. Scenario 2: A possible future Electricity Agreement

As mentioned above, a possible future electricity agreement could include a provision, which is either identical with or equivalent to Art. 110 TFEU. This provision states that “no Member State shall impose, directly or indirectly, on the products of other Member States any internal taxation of any kind in excess of that imposed directly or indirectly on similar domestic products” and moreover, “no Member State shall impose on the products of other Member States any internal taxation of such a nature as to afford indirect protection to other products”. Art. 110 TFEU is originally based on Art. III.2 GATT (“the products of the territory of any contracting party imported into the territory of any other contracting party shall not be subject, directly or indirectly, to internal taxes or other internal charges of any kind in excess of those applied, directly or indirectly, to like domestic products. In addition, no con-

⁹⁵ BGE 131 II 271, E. 10.4.1.

⁹⁶ See “Botschaft über die Genehmigung der Abkommen zwischen der Schweiz und den Europäischen Gemeinschaften” of 16/08/1972, BBl 124 II 653, 697.

⁹⁷ Art. 31 (1) Vienna Convention on the Law of Treaties of 23 May 1969, SR 0.111.

⁹⁸ ECJ, Judgment of 7 March 2013, C-547/10 P, Swiss Confederation / Commission, para. 83.

tracting party shall otherwise apply internal taxes or other internal charges to imported or domestic products in a manner contrary to the principles set forth in paragraph 1”).⁹⁹ As briefly mentioned above, Art. 110 TFEU broadly corresponds to Art. 18 FTA Switzerland – EEC.

The substantive test according to Art. 110 TFEU is comprehensive. It takes precedence over the rules governing quantitative restrictions.¹⁰⁰ Notwithstanding, a simultaneous application of Art. 107 (1) and Art. 110 TFEU, which prohibits state aid, is possible.¹⁰¹

Art. 110 TFEU may in principle apply to a tax on energy, given that energy is considered a “product” within the meaning of the provision.¹⁰² Furthermore, the European Court of Justice (ECJ) has held that it is irrelevant whether the tax is imposed on the electricity provider or the consumer.¹⁰³ Whereas the provision was initially understood to correspond to a non-discrimination rule, more recently it has also been used more broadly to target all kinds of restraints, irrespective of whether or not they discriminate against imports.¹⁰⁴ It does not prevent EU Member States from using their fiscal sovereignty to apply different tax rates based on grounds that are recognised by the EU legal order in order to orientate the demand towards certain product groups, as long as this does not result in an indirect discrimination against imports.¹⁰⁵ Most notably, the ECJ held in its *Outokumpu* judgment that the prohibition “does not preclude the rate of an internal tax on electricity from varying according to the manner in which the electricity is produced and the raw materials used for its production, in so far as that differentiation is based ... on environmental considerations.”¹⁰⁶ The Court qualified this statement with reference to the “present state of development Community law”.¹⁰⁷ Therefore, it is relevant that this judgment was adopted 16 years ago and since then the “acquis” has undergone several significant changes, in particular as a result of the adoption of the aforementioned RES Directive, including its specific institutional provisions concerning the approval and monitoring of national support schemes. In addition, the conditions governing the interplay between Art. 110 TFEU and the prohibition of state aid according to Art. 107 (1) TFEU have become more complex. Finally, it must be borne in mind that the legal assessment depends on the specific design of the energy tax.

4.2.3 GATT rules and exceptions applicable to a differentiated electricity tax

As already noted, the imposition of taxes on imported electricity is subject to non-discrimination provisions of the GATT – the MFN clause (Art. I) and national treatment clause (NT) (Art. III:2). The

⁹⁹ Stumpf, in: Schwarze, EU - Kommentar, 3rd edition, Art. 110 TFEU, para. 4.

¹⁰⁰ See ECJ, C-252/86, *Bergandi*, ECR 1988, 1343, para. 33; C-228/98, *Dounias*, ECR 2000, I-577, para. 39; C-313/05, *Brzezinski*, ECR 2007, I-513, para. 50.

¹⁰¹ See ECJ, C-73/79, *Commission/Italy*, ECR 1980, 1533, para. 9; C-206/06, *Essent*, ECR 2008, I-5497, para. 59.

¹⁰² See ECJ, C-393/92, *Almelo*, ECR 1994, I-1477, para. 28; C-158/94, *Commission/Italy*, ECR 1997, I-5789, para. 17; C-206/06, *Essent*, ECR 2008, I-5497, para. 43.

¹⁰³ See ECJ, C-206/06, *Essent*, ECR 2008, I-5497, para. 49.

¹⁰⁴ Stumpf, in: Schwarze, EU - Kommentar, 3rd edition, Art. 110 TFEU, para. 20.

¹⁰⁵ Seiler, in: Grabitz/Hilf/Nettesheim, Das Recht der Europäischen Union, Art. 110 TFEU, para. 31

¹⁰⁶ ECJ, Case C-213/96, *Outokumpu Oy*, ECR 1998 I-1777, para. 31.

¹⁰⁷ See para. 30 of the judgment.

extension of a domestic electricity tax on imported electricity is deemed to be a border tax adjustment (BTA) measure.¹⁰⁸

Since the MFN and NT obligations only apply in relation to like products or products which are in a competitive relationship, an assessment of compliance with MFN and NT needs to be based on the like product analysis. The NT requirement prohibits the imposition of a tax on imports in excess of the internal tax applied to like domestic products. If the products at issue are determined to be like, even a slight difference in the tax rate for domestic products and imports would lead to a finding of discrimination against imported products.¹⁰⁹ The determination of likeness involves the assessment of physical characteristics, end uses, consumer preferences and tariff classification of the products at issue. WTO panels have traditionally employed these criteria in assessing the likeness of products.¹¹⁰ The question, which has direct relevance to our analysis, is whether, based on these traditional likeness criteria, electricity generated from renewable energy can qualify as a different (or 'unlike') product to electricity generated from fossil fuels or whether 'green' and 'grey' electricity are like products.¹¹¹ We address this question below.

a. Measures based on processes and production methods (PPMs) in WTO law

The question of likeness of electricity produced from different energy sources is linked to the debate in WTO law about the legality of regulatory differentiation based on processes and production methods (PPMs).¹¹² In contrast to EU law, where differentiation in tax rates on the basis of PPMs is accepted,¹¹³ the use of measures based on non-product-related (npr) PPMs, which do not leave any traces on physical qualities of the product, remains a sensitive issue in the WTO for a number of reasons. Import restrictions based on npr-PPMs are measures with extraterritorial jurisdiction. Although the measures are enforced on the territory of an importing country, their effects are felt in exporting countries.¹¹⁴ If faced with differentiated tax rates for electricity in Switzerland, electricity generators in Italy would be induced to invest in the development of renewable energy sources in order to be eligible for a lower tax rate or a tax exemption. This effect can be viewed as an intrusion into the business practices and policies of other countries.

Furthermore, measures based on npr-PPMs inflict considerable costs on exporting countries. In order to meet the PPM requirements of an importing country, exporting countries need to invest in new tech-

¹⁰⁸ Ecoplan et al (2013) *Border Tax Adjustments: Can energy and carbon taxes be adjusted at the border?* p. 84.

¹⁰⁹ Appellate Body 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.

¹¹⁰ Appellate Body Report, *Japan-Alcoholic Beverages II*, *supra*, p. 114; Appellate Body Report, *European Communities – Measures Affecting Asbestos and Asbestos Containing Products (EC-Asbestos)* adopted 5 April 2001, WT/DS135/AB/R, para. 101.

¹¹¹ It should be noted that these criteria, although applied by WTO panels, do not constitute an exhaustive list of criteria that can be employed in the likeness analysis. Likeness is always determined in the context of each case. See R. Howse (2009), *supra*, p. 3.

¹¹² On the PPM debate in the WTO and the 'product-process' doctrine, see Ecoplan et al. (2013), *cit.*, pp. 80-81.

¹¹³ As discussed above, in the *Outokumpu Oy* case regarding an electricity tax with different tax rates applied in Finland in the 1990s, the PPM-nature of the tax raised no objections from the ECJ and was not found to be contrary to the Community law. See Case C-213/96, *Outokumpu Oy*, 1998 ECR I-1777.

¹¹⁴ See C. Conrad, *Processes and Production Methods (PPMs) in WTO Law: Interfacing Trade and Social Goals* (Cambridge University Press, 2011), pp. 275-281.

nologies and in the development of higher standards. These effects of PPM measures have met resistance, especially by developing countries.

However, since the GATT *Tuna-Dolphin* dispute in the early 1990s, the views on npr-PPMs in the WTO have undergone significant evolution. WTO adjudicative bodies have developed more tolerant views on the use of npr-PPMs. The *Shrimp-Turtle* dispute in the early 2000s made it clear that even if measures, which are linked to npr-PPMs, violate GATT rules, they can be justified under Art. XX GATT exceptions, provided that all the requirements under Art. XX are met.¹¹⁵ Whether a differentiated tax on electricity can meet the conditions for justification under Art. XX GATT is analysed in section 4.2.3.c.

b. Assessment of likeness of 'grey' and 'green' electricity

The existing case law does not provide a clear answer to the question of likeness of 'green' and 'grey' electricity in the GATT context. Based on the traditional approach to the determination of likeness of products followed by WTO panels, 'green' electricity is unlikely to qualify as an 'unlike' product to 'grey' electricity. Of the four likeness criteria, only the criterion of consumer preferences might make a difference between 'green' and 'grey' electricity, which are otherwise the same products if the three other criteria are applied. If economic evidence exists that Swiss consumers of electricity are willing to pay higher prices for electricity generated from renewable energy, it can serve as an argument that 'green' electricity and 'grey' electricity are not like.¹¹⁶ The question is whether consumer preferences will trump the three other features of electricity, which are identical (same physical characteristics, same end uses and same tariff code), and single out 'green' electricity from 'grey' electricity.¹¹⁷ It should be mentioned that in *EC-Asbestos* consumer preferences surpassed other criteria of likeness. Even without reference to evidence, the Appellate Body (AB) assumed that consumers would prefer asbestos-free products. In the end, it was one of the reasons why the AB found asbestos-free products to be unlike asbestos-containing products.¹¹⁸ It should be noted, however, that in the asbestos case, there was a direct link between products and their health effects. The negative effects of electricity generated from coal or nuclear power are less tangible for consumers. Consumer preferences for 'green' electricity are still in the process of formation through the GO system.¹¹⁹

Furthermore, evidence of consumer preferences towards 'green' electricity can also be a sign of the existence of a competitive relationship between 'green' and 'grey' electricity in the market. A competitive relationship between products is not only a characteristic of 'like' products but also a characteristic of products which are 'directly competitive or substitutable'. Consequently, 'green' and 'grey' electric-

¹¹⁵ Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products (US-Shrimp)*, adopted 6 November 1998, WT/DS58/AB/R, para. 121.

¹¹⁶ Howse (2009), *supra*, p. 3.

¹¹⁷ The acknowledgement of the existence of consumer preferences for 'green' electricity would need a sort of political endorsement on the part of a panel in support of renewable energy, climate change, environmental and public health national policies.

¹¹⁸ Appellate Body Report, *EC-Asbestos*, *supra*, paras 123-126.

¹¹⁹ It is true that households and businesses can already use solar PV panels to consume solar energy directly. Yet, it is a small-scale practice, whereas most households and industrial consumers still get electricity from the single grid, where 'green' and 'grey' electricity cannot be physically separated.

ity may alternatively qualify as ‘directly competitive or substitutable products’.¹²⁰ It is worth mentioning that in the recent *Canada-FIT Program* dispute, when analysing the application of the government procurement exception to the NT obligation under Art. III:8 GATT, the AB noted that the range of directly competitive or substitutable products within the meaning of Art. III:2 can be described ‘as 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.’¹²¹

If ‘green’ and ‘grey’ electricity are found to be ‘directly competitive or substitutable’ products, compliance of a differentiated electricity tax with the NT obligation will be assessed under the second sentence of Art. III:2 GATT. Accordingly, in this case the NT obligation would not require the imposition of the same tax rate as in the case of ‘like’ products, but the imposition of a tax which is similar so that it does not ‘afford protection to domestic production’.¹²² While not protectionist on its face, a differentiated electricity tax can be found to be *de facto* discriminatory against imports. For differentiated electricity tax to pass the non-discrimination requirement, an equal burden should be placed on domestic and imported electricity. In practical terms this means that the amounts of domestic and imported electricity disadvantaged by a tax (that is, electricity generated from nuclear energy and coal) must be proportional. However, in practice it might not be the case so long as Switzerland mainly imports nuclear-generated electricity, and does not generate electricity from coal.¹²³

It is interesting to observe that the Appellate Body in *Canada-FIT Program* found in the context of the analysis of subsidisation that conventional electricity and renewable electricity amount to different markets. As regards the subsidy claims, the Appellate Body agreed with the panel's characterisation of the FIT measures as government purchases of goods. However, it agreed with Canada's argument that electricity produced from wind power and solar photovoltaic (PV) technology is sold in its own product market separate from that or those where electricity produced from conventional technologies is sold. In justifying this finding, the Appellate Body noted that the electricity market could be differentiated by looking at the different types of consumer contracts, the size of customers and the type of electricity generated (base-load versus peak-load). However, the main justification for its findings appears to be the fact that "supply-side factors suggest that windpower and solar PV producers of electricity cannot compete with other electricity producers because of differences in cost structures and operating costs and characteristics".¹²⁴ The Appellate Body acknowledged that "in circumstances where the supply of electricity from different sources is blended and, for as long as the differences in costs for conventional and renewable electricity are so significant, markets for wind- and solar PV-generated electricity can only come into existence as a matter of government regulation".¹²⁵ And significantly, it

¹²⁰ Examples of products that WTO panels found to be directly competitive or substitutable, include different types of alcoholic beverages (e.g. shochu, whisky, brandy, rum, gin etc.).

¹²¹ Appellate Body Report, *Canada-FIT Program*, *supra*, para. 5.63.

¹²² See Art. III:2 read together with Ad Art. III:2.

¹²³ This disproportional burden on imported electricity may be alleviated if hydropower-sourced electricity, which constitutes a large part of the domestically produced electricity in Switzerland, were to be excluded from tax reduction and taxed about as much as electricity generated by nuclear power plants.

¹²⁴ Appellate Body Report, *Canada-FIT Program*, *supra*, para. 5.174.

¹²⁵ *Id.* para. 5.175.

went on to explain that: "It is often the government's choice of supply-mix of electricity generation technologies that creates markets for wind- and solar PV-generated electricity. A government may choose the supply-mix by setting administered prices (based on the principles of cost recovery and reasonable margin) for technologies that would not otherwise be able to recover their costs on the spot market. Alternatively, a government may require that private distributors or the government itself buy part of their requirements of electricity from certain specified generation technologies."¹²⁶ The analysis of the Appellate Body made in the context of the SCM Agreement may also inform the analysis of like products in the context of Art. III GATT. Different forms of electricity production may not be found to be in a competitive relationship and therefore also not be considered like products or competing products subject to non-discrimination. In this case, differential taxation being part of the overall regulatory system is fully consistent with Art. III GATT.

In conclusion, there are three two possible outcomes of a WTO panel's analysis of compliance of a differentiated electricity tax with the non-discrimination rule of Art. III:2 GATT: (1) 'green' and 'grey' electricity are found to be (i) not like products and therefore open to different taxation. Or, they may be considered (ii) 'like' products and the difference in tax rates for these products automatically amounts to the violation of the NT obligation; or (iii) 'green' and 'grey' electricity are found to be 'directly competitive or substitutable' products and a violation of the NT obligation might be caused by a disproportionate tax burden on the group of imported electricity. In options (ii) and (iii), the measure, as discussed in the next section, may be justified under the exceptions of Art. XX GATT. However, as discussed in the next section, there is a possibility that this violation may be justified under the exceptions clauses of Art. XX GATT.

c. Recourse to the exceptions of Art. XX GATT

Justification of a likely violation of GATT non-discrimination rules, particularly the NT obligation under Art. III GATT by the application of differentiated electricity tax rates can be sought under the general exceptions clauses of Art. XX GATT. Scrutiny of a measure under Art. XX presents a complex assessment of compliance with various conditions set by both the paragraphs and the chapeau of Art. XX.¹²⁷

A crucial initial point in the analysis of the possibility of justification of a differentiated electricity tax under Art. XX GATT is a correct determination of the objective with which the tax is introduced. In order to fall under the exceptions clauses of the provision, the purpose of the tax must be either the protection of the environment, including limiting climate change, if recourse is made to paragraph (g), or the reduction of risks for human, animal and plant life or health, if recourse is made to paragraph (b). In other words, the objective of the tax cannot be formulated as merely the promotion of renewable energy in Switzerland, because this could be perceived as a measure related to a protectionist objective (i.e. support of domestic production of green electricity) rather than environmental or public health purposes. This needs to be taken into account by the government when officially announcing the purpose of the tax.

¹²⁶ Ibid.

¹²⁷ Panel Report, *United States – Standards for Reformulated and Conventional Gasoline (US – Gasoline)*, 29 January 1996, WT/DS2/R, paras 6.20 and 6.35.

Justification of a differentiated electricity tax can be sought under two exceptions clauses of Art. XX: as a measure that relates to the conservation of exhaustible natural resources (paragraph (g)) and also as a measure necessary to protect human, animal or plant life or health (paragraph (b)). Recourse to this clause would be needed if a higher tax rate for nuclear electricity compared to solar or wind-generated electricity could not be justified solely on environmental grounds under paragraph (g) but would require an argument that some types of electricity inflict considerable damages to human, animal and plant life or health. This is particularly the case of nuclear electricity, which, in addition to negative impacts on the environment from the storage of nuclear waste, also carries risks to human and animal life and health due to the threat of accidents at nuclear power plants. WTO case law supports the possibility to defend a measure under several paragraphs of Art. XX as different aspects of the measure could be justified under different exceptions clauses of the provision.¹²⁸ In practice it would mean that a lower tax rate for wind electricity and a higher tax rate for hydropower electricity would be defended under paragraph (g), whereas a higher tax rate for nuclear electricity would be defended under paragraph (b).

However, it should be kept in mind that justification under paragraph (b), which requires proof of the *necessity* of a measure, generally presents a higher hurdle than justification under paragraph (g). To fall under paragraph (b) of Art. XX, a measure must be deemed to be necessary, that is, there must be no alternative measure reasonably available which is less trade-restrictive and which can equally contribute to the pursued objective.¹²⁹ Therefore, the question is whether the phasing-out of nuclear energy is possible only through the introduction of a differentiated electricity tax or whether other, less trade restrictive measures exist, which are reasonably available for the achievement of this objective. Tax differentiation can be found to be necessary given that a complete ban on nuclear electricity is both unavailable (unfeasible) and more trade restrictive, and a labelling scheme, while being less trade-restrictive, is unlikely to be effective for the achievement of the purpose.

In order to place a differentiated tax rate for nuclear electricity under paragraph (g) rather than paragraph (b), it can be reasonably argued that nuclear plant accidents and nuclear waste deposits associated with the generation of electricity at nuclear power plants cause an environmental problem. Consequently, a higher tax burden for nuclear-based electricity can qualify as a measure relating to the conservation of exhaustible natural resources, which allows its justification under paragraph (g) of Art. XX. Paragraph (g) also requires that a measure is taken in conjunction with restrictions on domestic production or consumption. Taking into account that Switzerland plans to phase out domestic electricity from nuclear plants, this requirement can be met. Nevertheless, it is more convincing to argue in recourse to the exception clause (b) for justification of a higher tax rate for electricity generated from nuclear power as the risk to human life from nuclear energy generation is more evident than the risk to

¹²⁸ Appellate Body 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. In *US-Gasoline*, the panel examined the measure (US standards for reformulated and conventional gasoline) under three paragraphs of Art. XX – paras (b), (d) and (g). See Panel Report, *United States – Standards for Reformulated and Conventional Gasoline*, *supra*.

¹²⁹ Appellate Body 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. For a discussion of the requirements under the two exceptions clauses, see Ecoplan et al. (2013), *supra*, pp. 99-101.

the environment.¹³⁰ More so given that nuclear energy generation does not cause greenhouse gas emissions and thus tax differentiation for nuclear electricity has no connection to achieving the climate policy objective of emissions reductions as it has for solar or wind energy. The link with paragraph (b) in the case of tax differentiation for nuclear electricity thus seems to be closer. Yet, paragraph (g) could be invoked as an alternative.

A question which can be raised regarding the possibility of justification of a differentiated electricity tax on the basis of health and environmental exceptions is whether it is possible to defend a measure targeting production activities (electricity generation) and having negative environmental or health impacts on the territory of other countries. In *US-Shrimp*, the AB opined that Art. XX exceptions could be available for measures with extraterritorial jurisdiction.¹³¹ At the same time, the AB took note of the existence of a territorial nexus between the situation happening in exporting countries (shrimp fishing methods) and the risks for the importing country, which imposes the measure (the death of turtles on the US territory).¹³²

Provided the territorial nexus is required for justification under paragraph (g), such a nexus can be established in the context of differentiated electricity tax rates for renewable and fossil fuel electricity. Indeed, climate change, which would be addressed by such tax differentiation, has no territorial boundaries and is equally felt in Switzerland. As regards a different tax rate for nuclear electricity, it can be argued that negative environmental effects from nuclear plant accidents that happened in other countries, can well be felt in Switzerland depending on the direction of the wind blowing at the time of an accident.¹³³

Once a differentiated electricity tax has fallen within the scope of the above-mentioned paragraphs, it will also have to satisfy the conditions of the chapeau (introductory paragraph) of Art. XX.¹³⁴ The chapeau requires that a measure does not constitute “a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade”. In simple terms, the chapeau of Art. XX requires differentiation in the design and the implementation of a measure between countries where conditions (with respect to the objective of a measure) are not the same.¹³⁵

¹³⁰ Take the example of the recent huge nuclear power plant accident in Fukushima, Japan, in 2011, which was caused by a powerful earthquake. This catastrophe prompted the adoption of legislation phasing out nuclear energy in some countries, including Switzerland.

¹³¹ Appellate Body Report, *US-Shrimp*, *supra*, para. 121.

¹³² *Ibid.*, para. 134.

¹³³ When the explosion of one of the reactors at the Chernobyl power plant happened in Ukraine in 1986, Sweden, which is located more than a thousand kilometres away from Ukraine, reported an increased level of radiation on its territory, and Belarus suffered from radioactive contamination as much as Ukraine.

¹³⁴ Appellate Body Report, *US-Gasoline*, *supra*, p. 22.

¹³⁵ Reinhard Quick, ‘The Community’s Regulation on Leg-Hold Traps: Creative Unilateralism Made Compatible with WTO Law through Bilateral Negotiations?’ in M Bronckers and R Quick (eds), *New Directions in International Economic Law: Essays in Honour of John H. Jackson* (Kluwer Law International, 2000) 254; Joost Pauwelyn, ‘U.S. Federal Climate Policy and Competitiveness Concerns: the Limits and Options of International Trade Law’, *Nicholas Institute for Environmental Policy Solutions Working Paper* (2007) 43.

Where discrimination between countries where the same conditions prevail exists, the reason for such discrimination should have a link to the objective reflected by a paragraph of Art. XX.¹³⁶

Moreover, as it follows from case law, the following characteristics of a measure are essential for successful justification under Art. XX. First, the implementation of a measure should reflect “basic fairness and due process”.¹³⁷ For instance, a measure should be administered in a transparent manner and there should be a reasonable length of time between the adoption of a measure and its coming into force.¹³⁸ The ‘phase-in’ time should allow importers to become familiar with all the requirements of a measure and foreign producers to consider alternative markets.¹³⁹ Second, it is important that, before introducing a measure, a country attempts to enter into negotiations with its trading partners with the aim of concluding an agreement on the subject regulated by the measure.¹⁴⁰ In other words, attempts should be made to negotiate a harmonised differentiated electricity tax system with the EU (the trading partner of Switzerland in electricity), before Switzerland introduces a tax. Only when such negotiations fail, may Switzerland proceed with the imposition of a tax unilaterally.

That being said, a differentiated electricity tax as such is eligible for defence under the health and environmental exceptions of Art. XX. The success of defence, however, depends on the specificities of the proposed design options.

d. Status of Guarantees of Origin for Electricity under WTO law

It is important to note at this stage that the terms of the issue under WTO law may vary significantly when elements of differentiation between imported and domestically produced electricity are introduced by means of RE GOs considered as either purely tradable certificates or as a proof of origin inherently linked to actual physical flows of electricity (for a detailed explanation of the nature of GOs see section 3.1.a).

In the situation where GOs are traded in the secondary markets, i.e. financial markets, this can be qualified as trade in services under the WTO law. It means, that trade in GOs would have to be analysed not under the GATT, but under the GATS, including its Annexes on Financial Services and the Understanding on Commitments in Financial Services in light of the specific commitments of Switzerland and the EU. There are two main observations that need to be made in this respect. First, the national treatment obligation under the GATS non-discrimination rules is not a general obligation as under the GATT and depends on the commitments in the specific sector that would cover trade in GOs and in a specific mode of trade. The same is true for market access disciplines under the GATS. Secondly, there are no agreed subsidies rules under the GATS, just the negotiation mandate (Art. XV).¹⁴¹ Trade in

¹³⁶ Appellate Body Report, *Brazil – Measures Affecting Imports of Retreaded Tyres (Brazil-Retreaded Tyres)* adopted 20 August 2009, WT/DS332/AB/R, para. 227.

¹³⁷ Appellate Body Report, *US-Shrimp*, *supra*, para. 181.

¹³⁸ *Ibid*, para. 174.

¹³⁹ Although there are no norms regarding the ‘reasonable time period’, the ‘phase-in’ period of one year is likely to be reasonable.

¹⁴⁰ Appellate Body Report, *US-Shrimp*, *supra*, para. 171, footnote 174. It should be noted that attempts need not necessarily result in the conclusion of such an agreement. What is important is merely that Switzerland would try to negotiate an agreement.

¹⁴¹ Panagiotis Delimatsis, *Financial Innovation and Climate Change: the Case of Renewable Energy Certificates and the Role of the GATS*, 8(3) World Trade Review 2009, 439-460; Panagiotis Delimatsis and Despina

services contains a separate set of issues, which cannot be addressed in detail in this legal opinion. But limitations of trade in GOs can still indirectly affect trade in electricity and this will be addressed in the sections below.

4.3 Differentiated Tax Rates for Electricity and Rules on Subsidies

4.3.1 State aid prohibition in the 1972 Free Trade Agreement Switzerland – EEC

Art. 23 (iii) FTA Switzerland – EEC prohibits “any public aid which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods”. The provision is modelled on its counterpart in EU law, which is today Art. 107 (1) of the TFEU (see below). It is debatable whether or not both contracting parties intended Art. 23 (iii) FTA Switzerland – EEC to apply to state aid granted by means of tax exemptions or reductions.¹⁴² Yet, a comparison with EU law and WTO law suggests that it is not unreasonable to assume that fiscal measures may also have state aid implications. It is unclear under which conditions this would be the case. In the following, we shall assume that the criteria developed under EU law, which we shall describe in more detail below, can be used as a reference.

The state prohibition according to the FTA Switzerland – EEC is subject to implicit exceptions that are not set out in the Agreement. Indeed, both the EU and Switzerland continue to grant subsidies despite the unconditional wording of the FTA. The EU has adopted for its own state aid law a set of exceptions and justifications, which are codified in various Regulations and Communications. These texts are non-binding on Switzerland, are constantly evolving and are influenced by other EU policies, to which Switzerland has not signed up. Nevertheless, the European Commission has a tendency to consider these texts as being objective benchmarks against which the practices of the contracting parties must be measured.

This may be illustrated with the following example. In 1992, the Commission took issue with the fact that the Austrian state had granted investment aid to the car manufacturer Chrysler and the commercial vehicles manufacturer Steyr-Daimler-Puch for a new car factory in Austria for the construction of the Chrysler Voyager.¹⁴³ The Commission pointed out that the level of the aid was not in line with the EU’s regional aid guidelines. The fact that Austria was not an EU Member at the time was considered irrelevant. Consequently, the Commission took the view that the aid was incompatible with the Free Trade Agreement with Austria, which was identical with the ones that had been concluded with Switzerland and the other EFTA States. After the EU had failed to impose its view through negotiations in the Joint Committee, it threatened to revoke the tariff concessions relating to the Chrysler products pursuant to Art. 27 (3) of the Free Trade Agreement. The issue was finally settled. Three other cases in

Mavromati, *GATS, Financial Services and Trade in Renewable Energy Certificates (RECs) – Just Another Market-based Solution to Cope with the Tragedy of the Commons?*, in Cottier et al. (eds), *International Trade Regulation and the Mitigation of Climate Change*, Cambridge University Press, 2009.

¹⁴² The European Commission seems to believe that the FTA extends to fiscal state aid measures; see decision of 17 February 2007 on the incompatibility of certain Swiss company tax regimes with the Agreement between the European Economic Community and the Swiss Confederation of 22 July 1972, C(2007) 411 final, see generally Thomas Cottier & Rene Matteotti, *Der Steuerstreit Schweiz-EG: Rechtslage und Perspektiven*, in: Schweizerisches Jahrbuch für Europarecht 2006/2007. Bern/Zürich 2007, S. 221-256; Simon Hirsbrunner & Simone Seidl, *Kantonale Steuervergünstigungen im Visier der Europäischen Kommission*, SZIER/RSDIE 2006, 541; Simon Hirsbrunner, *Wer hat Recht im Steuerstreit mit der EU? - Anmerkungen aus europarechtlicher Sicht*, Zeitschrift für Europarecht (EuZ), Mai 2007, S. 46.

¹⁴³ See for example, European Commission, press release IP/93/200 of 19/03/1993.

the following year concerning Austrian state aid in favour of Chrysler, Steyr and Grundig were dealt with in identical fashion.¹⁴⁴

There is a risk that a similar difference of opinion between Switzerland and the EU could lead to a similar outcome. This is due to the weak institutional framework that has been set up by the Free Trade Agreement with the EU. Should a party consider that a certain practice is incompatible with the proper functioning of the Agreement then it may refer the matter to the Joint Committee (Art. 27 (3) (a) FTA Switzerland – EEC). The party concerned may adopt safeguard measures if the Joint Committee fails to act within three months. If the Committee decides that a certain practice constitutes incompatible state aid it sets a deadline for its abolition. Again, the party which has referred the matter to the Committee may adopt safeguard measures if the other party fails to comply with the Committee's decision by the time of the deadline.

When the prohibition of state aid in Art. 23 (iii) FTA Switzerland – EEC was for the first time invoked in a serious manner, this happened outside the procedural framework which is foreseen in the FTA Switzerland–EEC. On 13 February 2007, the European Commission adopted a decision concerning allegedly inadmissible fiscal practices in favour of certain kinds of company structures in Switzerland.¹⁴⁵

From a legal viewpoint, there is undoubtedly a risk that a preferential tax treatment in favour of “green” electricity could be considered to constitute state aid within the meaning of Art. 23 (iii) FTA Switzerland – EEC. The compatibility of the aid then depends on the interpretation of the above-mentioned implicit exception to the prohibition, which in turn depends on the design of the tax.

4.3.2 EU law

a. Scenario 1: status quo

Should the differentiated energy tax result in a subsidy which causes injury to the EU industry, either by undercutting or depressing the EU market price, this could give rise to concerns pursuant to the EU Anti-Subsidy Regulation.¹⁴⁶ In relation to Switzerland, and absent an Electricity Agreement, the assessment will be essentially based upon the WTO rules on subsidies in GATT and the SCM Agreement which the said Regulation implements.

Irrespective of such a hypothesis, Switzerland is not legally obliged to comply with EU law, although it may be in its interest to unilaterally follow certain policy choices of the EU and the corresponding legislation for the reasons outlined above.

b. Scenario 2: State aid prohibition in a possible future Electricity Agreement

If one assumes in line with the above “worst case scenario” that a possible future Electricity Agreement with the EU will incorporate the “acquis communautaire” in the state aid field, then the Agreement will prohibit “any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the produc-

¹⁴⁴ European Commission, *XXIIIth Report on Competition Policy*, 1993, paras. 98 seq.

¹⁴⁵ Commission decision on the incompatibility of certain Swiss company tax regimes with the Agreement between the European Economic Community and the Swiss Confederation, C(2007)411 final.

¹⁴⁶ Council Regulation (EC) 597/2009 of 11/06/2009 on protection against subsidised imports from countries not members of the European Community, L 188 of 18/07/2009, p. 93

tion of certain goods shall, in so far as it affects trade between Member States” (see the wording of the EU counterpart Art. 107 (1) TFEU).

The criteria of Art. 107 (1) TFEU are met if

- there is a transfer of state resources,
- the aid granted constitutes an economic advantage that the undertaking or the economic sector concerned would not have received in the normal course of business,
- the state aid is selective in favour of certain companies or economic sectors, and
- it has an effect on competition and trade between Member States.

The qualification of fiscal measures as state aid usually hinges on the second and the third criteria (advantage and selectivity).

An advantage can consist not only of a positive benefit, such as a subsidy, but also of state measures which, in various forms, mitigate the charges which are normally included in the budget of an undertaking and which thus, without being subsidies in the strict sense of the word, are similar in character and have the same effect.¹⁴⁷ As concerns fiscal measures, it follows from the case law of the ECJ that a measure by which the public authorities grant certain undertakings a tax exemption which places the recipients in a more favourable financial position than other taxpayers amounts to state aid. Likewise, a measure allowing certain undertakings a tax reduction or to postpone payment of tax normally due can amount to state aid.¹⁴⁸

In order to determine whether a measure is selective, it is necessary to consider whether, under a particular statutory scheme, a state measure is such as to favour ‘certain undertakings or the production of certain goods’ within the meaning of Art. 107 (1) TFEU over other undertakings in a comparable legal and factual situation in the light of the objective pursued by the measure concerned.¹⁴⁹

However, a tax measure which, although conferring an advantage on its recipient, is justified by the nature or general scheme of the tax system of which it is part does not satisfy that condition of selectivity.¹⁵⁰ Consequently, there is no state aid if the member state concerned is able to demonstrate that the measure under consideration results directly from the basic or guiding principles of its tax system. In this context, a distinction must be made between, on the one hand, the objectives attributed to a particular tax scheme which are extrinsic to it and, on the other, the mechanisms inherent in the tax system itself which are necessary for the achievement of such objectives. Tax exemptions which are the result

¹⁴⁷ ECJ, Joined Cases C- 328/99 and C- 399/00, *Italy and SIM 2 Multimedia v Commission*, ECR 2003 I- 4035, para. 35; Case C- 222/04, *Cassa di Risparmio di Firenze Ors.*, ECR 2006, I- 289, para. 131; Joined Cases C- 393/04 and C- 41/05, *Air Liquide Industries Belgium*, ECR 2006 I- 5293, para. 29.

¹⁴⁸ GC, Judgement of 07/03/2012, Case T-210/02 RENV, *British Aggregates*, para. 46.

¹⁴⁹ ECJ, Case C- 143/99, *Adria-Wien Pipeline*, ECR 2001, I- 8365, para. 41; see also Case C- 172/03, *Heiser*, ECR 2005, I- 1627, para. 40; Joined Cases C- 182/03 and C- 217/03, *Belgium and Forum 187 v Commission*, ECR 2006, I- 5479, para. 119; Case C- 88/03, *Portugal v Commission*, ECR 2006, I- 7115, para. 54; and Joined Cases C- 428/06 to C- 434/06, *UGT-Rioja Ors.s.*, ECR 2008, I- 6747, para. 46

¹⁵⁰ ECJ, Case C- 143/99, *Adria-Wien Pipeline*, ECR 2001, I- 8365, para. 42; Case - 88/03, *Portugal v Commission*, ECR 2006, I- 7115, para. 52.

of an objective that is unrelated to the tax system of which they form part cannot circumvent the requirements under Art. 107 (1) TFEU.¹⁵¹

This means that one must firstly identify the common or “normal” regime applicable in the member state concerned. Subsequently, one needs to assess whether the measure derogates from that common regime inasmuch as it differentiates between economic operators who, in the light of the objective assigned to the tax system of the Member State concerned, are in a comparable factual and legal situation.¹⁵² This means in essence that one needs to assess, in light of the environmental objective of the energy tax, whether there is an unjustified tax differentiation to the detriment of certain goods or technologies.¹⁵³ Even if one were to consider that Switzerland may legitimately grant an advantage to green electricity suppliers, the fact of excluding certain green technologies or, depending on the design of the differentiated tax, certain or all imports, may nevertheless justify a finding of a selective advantage within the meaning of the state aid prohibition.

For the reasons given above, it cannot be ruled out that the differentiated energy tax could fall under the state aid prohibition according to the possible future Electricity Agreement. This does not mean that the tax will automatically be incompatible with the Agreement. It may be exempt from the prohibition, provided that it pursues a legitimate objective. Here, the promotion of renewables is likely to constitute an objective reason which is able to justify an exemption from said prohibition. In order to ensure compatibility, it is recommended to underpin the reasons for the tax exemption or reduction with arguments that are familiar to EU law. The objectives which are pursued by the tax scheme should best be aligned with the RES Directive 2009/28/EC, by referring to the need to increase the share of energy from renewable sources. Moreover, it must be demonstrated that the levying of the tax leads to a substantial increase of the electricity costs for the renewable sector and this increase could not be passed on to the consumers without a substantial impact on the intended increase of the share of renewables.

The creation of fundamental contradictions with the EU’s climate policy should best be avoided, for example by declaring an energy source as renewable which is not recognised in the already mentioned RES Directive 2009/28/EC.¹⁵⁴ Furthermore, the GOs should meet the criteria set out in the Directive.

Moreover, the tax exemption or reduction must be proportionate. Unfortunately, the existing “acquis communautaire” offers only limited guidance in this regard because the tax scheme under consideration does not fit neatly into any of the categories which are mentioned in the relevant Group Exemption Regulation and Communications, including the current Draft Commission Guidelines concerning environmental and energy state aid. Notwithstanding, the following general comments may be made:

¹⁵¹ See the summary of the case law by the GC, Judgement of 07/03/2012, Case T-210/02 RENV, *British Aggregates*, para. 46-48.

¹⁵² GC, Judgement of 07/03/2012, Case T-210/02 RENV, *British Aggregates*, para. 49.

¹⁵³ GC, Judgement of 07/03/2012, Case T-210/02 RENV, *British Aggregates*, para. 68 seq.

¹⁵⁴ See Art. 2 of the Directive: “DefinitionsFor the purposes of this Directive, the definitions in Directive 2003/54/EC apply. ...The following definitions also apply:(a) ‘energy from renewable sources’ means energy from renewable non-fossil sources, namely wind, solar, aerothermal, geothermal, hydrothermal and ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases”

- The compensation that is granted should be adequate to achieve the stated objective. Particular care should be taken to ensure that the compensation does not become an incentive to increase the overall consumption of electricity.
- The compensation should not result in overcompensation.
- In its Draft Commission Guidelines on Environmental and Energy Aid for 2014-2020, which are likely to be finalised by 9 April 2014, the European Commission seems to advocate tax reductions (to a level of 20% of the normal tax, although the precise percentage threshold is still subject to debate), rather than complete exemptions.¹⁵⁵ The tax exemption or reduction should be regularly reviewed to determine whether it still is necessary and proportional.
- The compensation through the differentiated energy tax should be limited in time. The European Commission has indicated in the above-mentioned Draft Guidelines that it would authorise aid schemes for a maximum period of 10 years. This period is renewable.¹⁵⁶ This could mean that Switzerland introduces the differentiated energy tax for an initial period until 2035, with the option of extending the duration if this is necessary and proportionate.
- The qualification of the differentiated energy tax as state aid also has the following institutional consequences. Given recent political developments it is uncertain if at all and when the bilateral Electricity Agreement will be signed and ratified. By the time it is signed, Switzerland will in any event already have implemented the differentiated energy tax. Judging from past experience with other agreements between the Union and third countries, the Union is likely to demand a review of any existing state aid measures upon the entry into force of the Agreement and request modifications if necessary. This means that the Swiss Confederation has an interest in documenting the reasoning underlying the design of the measure, including the proportionality arguments. Any subsequent amendments of the differentiated energy tax after the entry into force of the agreement risk triggering a new review by the authority, should such an authority exist, that would have the power to supervise the application of the state aid rules in Switzerland.

4.3.3 WTO rules on subsidies

a. An overview

The imposition of differentiated tax rates for electricity possibly falls under the WTO disciplines on subsidies.¹⁵⁷ The respective provisions are contained in Art. VI and XVI GATT and the Agreement on

¹⁵⁵ Draft Commission Guidelines concerning Environmental and Energy State Aid, paras 176, 179.

¹⁵⁶ Draft Commission Guidelines concerning Environmental and Energy State Aid, para. 171.

¹⁵⁷ Similarly to what applies in an EU context, disciplines of the ASCM and Art. III of the GATT are cumulative obligations, notwithstanding the fact that both provisions may address the same type of discriminatory behaviour. In the most recent case dealing with feed-in tariffs for “green” electricity in the Canadian province of Ontario, the Appellate Body confirmed that even if a WTO panel finds a violation of Art. III GATT, it still has to assess claims under the ASCM due to different remedies attached. According to the Appellate Body there is no clear rule as to the order of the analysis when claims both relate to Art. III GATT and the ASCM, since the or-

Subsidies and Countervailing Measures (ASCM) and address those subsidies, as a form of governmental intervention, that distorts international trade by giving ‘an artificial competitive advantage to exporters or to import-competing industries’.¹⁵⁸

The ASCM defines what government actions constitute subsidies, types of subsidies and respective regulations for each type. WTO disciplines on subsidies differentiate between three categories of subsidies. As one category was phased out (the so called non-actionable subsidies according to Art. 8 ASCM), only two categories of subsidies currently exist under the WTO law: prohibited and actionable. Prohibited subsidies include subsidies that are contingent *de jure* or *de facto* on export performance or on the use of domestic goods over imported goods.¹⁵⁹ Actionable subsidies are as such not prohibited unless they cause an adverse effect on trade with other partners.

A WTO Member can take two types of actions against subsidies. Art. 7.8 ASCM provides for the “multilateral track”, where a claim is brought to the WTO, thus entrusting a panel to decide whether a subsidy indeed exists and whether it distorts trade with the Member(s) concerned. On the other hand, a WTO Member is entitled to determine the existence of a subsidy through national investigations according to the procedure laid down in the ASCM and based on the findings impose countervailing duties (CVD) on the subsidised imported products. The imposition of CVDs is also known as the unilateral track. The EU frequently opts for the unilateral track by conducting investigations on the basis of the aforementioned EU Anti-Subsidy Regulation.¹⁶⁰ Importantly, both the multilateral and the unilateral track can be successful only when the subsidies cause adverse effects on the producers of the like products of other Members.

We shall start with the analysis of the differentiated taxation under the premises of the actionable subsidies. Thus, differentiated electricity taxation will have to be scrutinised under a four-step test.¹⁶¹ In order to prove that it constitutes a subsidy a complaining party will have to show that:

1. There is a financial contribution by a government or any public body (Art. 1.1(a)(1)) or an income or price support (Art. 1.1(b));
2. This financial contribution confers a benefit;
3. The subsidy is specific;
4. It has an adverse effect on the trade interests of other WTO Members.

Financial contribution by a government can take one of three forms:¹⁶²

- (a) direct transfers of funds (e.g. subsidies in the narrow sense);

der does not change the outcome of the analysis and thus lies within the margins of discretion of the WTO panels and the Appellate Body. Appellate Body Report, *Canada – Measures Relating to the Feed-in Tariff Program*, WT/DS412/AB/R; WT/DS426/AB/R, circulated on 6 May 2013, para. 5.5.

¹⁵⁸ WTO Secretariat, *World Trade Report 2006: Exploring the links between Subsidies, Trade and the WTO*; see also Panel Report, *Brazil – Export Financing Programme for Aircraft*, WT/DS46/R, adopted 20 August 1999, as modified by Appellate Body Report WT/DS46/AB/R, DSR 1999:III, 1221, para. 7.26; Panel Report, *Canada – Measures Affecting the Export of Civilian Aircraft*, WT/DS70/R, adopted 20 August 1999, upheld by Appellate Body Report WT/DS70/AB/R, DSR 1999:IV, 1443, para. 9.119.

¹⁵⁹ Art. 3.1 (a) and (b) ASCM.

¹⁶⁰ Council Regulation (EC) 597/2009 of 11/06/2009 on protection against subsidised imports from countries not members of the European Community, L 188 of 18/07/2009, p. 93.

¹⁶¹ Art. 1 and 2 ASCM.

¹⁶² Art. 1.1(a)(1)(i)-(iii) ASCM.

- (b) fiscal incentives (government revenue that is otherwise due is forgone);
- (c) provision of goods or services apart from general infrastructure or purchase of goods.

ASCM also covers situations where a government entrusts a private body to provide a financial contribution in any of these three forms or provides financial support indirectly (e.g. through a funding mechanism) (Art. 1.1(a)(1)(iv) ASCM). Importantly, prohibited subsidies are presumed to be specific according to Art. 2.3 ASCM.

b. “Financial contribution by a government”

Differentiated taxation could fall under the second category, namely fiscal incentives. The wording of the ASCM operates with the term of government revenue, otherwise due, that is foregone or not collected. The WTO adjudicating bodies clarified that government revenue means “[t]he annual income of a government or State, from all sources, out of which public expenses are met.”¹⁶³ The Appellate Body has repeatedly confirmed that: “[...] the ‘foregoing’ of revenue ‘otherwise due’ implies that less revenue has been raised by the government than would have been raised in a different situation, i.e. ‘otherwise’”. Moreover, the word ‘foregone’ suggests that the government has given up an entitlement to raise revenue that it could ‘otherwise’ have raised. This cannot, however, be an entitlement in the abstract, because governments, in theory, could tax all revenues. There must, therefore, be some defined, normative benchmark against which a comparison can be made between the revenue actually raised and the revenue that would have been raised ‘otherwise’. We, therefore, agree with the panel that the term ‘otherwise due’ implies some kind of comparison between the revenues due under the contested measure and revenues that would be due in some other situation. We also agree with the panel that the basis of comparison must be the tax rules applied by the Member in question. “What is ‘otherwise due’, therefore, depends on the rules of taxation that each Member, by its own choice, establishes for itself.”¹⁶⁴

Notably, the mere fact that revenues are not ‘due’ from a fiscal perspective (i.e., where a government chooses not to tax certain income) does not determine that the revenues are or are not ‘otherwise due’ within the meaning of Art. 1.1(a)(1)(ii). For this reason and “[a]s Members, in principle, have the sovereign authority to determine their own rules of taxation, the comparison under Art. 1.1(a)(1)(ii) of the SCM Agreement must necessarily be between the rules of taxation contained in the contested measure and other rules of taxation of the Member in question. Such a comparison enables panels and the Appellate Body to reach an objective conclusion, on the basis of the rules of taxation established by a Member, by its own choice, as to whether the contested measure involves the foregoing of revenue that would be due in some other situation or, in the words of the SCM Agreement ‘otherwise due’.”¹⁶⁵

¹⁶³ Panel Report, *Canada – Certain Measures Affecting the Automotive Industry*, WT/DS139/R, WT/DS142/R, adopted 19 June 2000, as modified by Appellate Body Report WT/DS139/AB/R, WT/DS142/AB/R, DSR 2000:VII, 3043, para. 10.159.

¹⁶⁴ Appellate Body Report, *Canada – Certain Measures Affecting the Automotive Industry*, WT/DS139/AB/R, WT/DS142/AB/R, adopted 19 June 2000, DSR 2000:VI, 2985, para. 90; Appellate Body Report, *US – FSC*, *supra*, para. 90; Appellate Body Report, *United States – Measures Affecting Trade in Large Civil Aircraft (Second Complaint)*, WT/DS353/AB/R, adopted 23 March 2012, para. 806.

¹⁶⁵ Appellate Body Report, *US – FSC*, *supra*, para. 88-89.

Therefore, the benchmark and the exact outcome of the analysis would depend on a design of taxation system in Switzerland in general and taxation of electricity suppliers.¹⁶⁶

The recent WTO case-law confirms that the ASCM recognises that the WTO Members not only have sovereign authority to determine the exact structure and rate of the domestic tax regimes, but also to make adjustments in the taxation system, as tax systems are not static. Furthermore, it suggests that the following analysis has to be conducted to identify whether the government revenue is due:

1. Comparison between the tax treatment applicable to the alleged subsidy recipients (objective reason behind the differential treatment should be taken into consideration);
2. Benchmark for comparison – tax treatment of comparable income of comparably situated taxpayers, whereas structure of domestic tax regime and its organising principles play an important role;
3. Comparing reasons for the challenged tax treatment with the benchmark tax treatment.

Moreover, any changes in tax rates cannot be interpreted too narrowly, because this would limit the sovereign power of the states to put in place a national taxation system. Based on the test outlined above the Appellate Body in *US – Large Civil Aircraft (2nd Complaint)* recognised that reduction in the Washington State B&O tax rate that applied to commercial aircraft and component manufacturers constitutes the foregoing of the revenue that is otherwise due.¹⁶⁷

Firstly, it is necessary to note that differential tax rates for different energy sources will be envisaged at the outset by the Swiss government following the environment-related objectives pursued. Furthermore, some academics suggest that when an environmental objective stands behind the differential tax rates, this objective can be considered as a principle defining the logics of a tax.¹⁶⁸ Thus, it is suggested that a panel would have to consider objectives and evaluate how they relate to green electricity tax exemption (lower tax rate) and to the general electricity tax. While in the EU law such a taxation measure would be subject to the analysis of its proportionality and necessity, the WTO law does not explicitly entail such analysis. Therefore, while there is no certainty, there is a high probability that the first element of the analysis, i.e. foregoing of government revenue which is otherwise due, will not be met, and the differential treatment of ‘green’ and ‘grey’ electricity would not constitute a subsidy.

With respect to the first step of the analysis, there is an additional requirement that a financial contribution is to be provided by a government or a public body. All levels of government (central or local) fall under this definition. Thus, differentiated electricity taxation in principle qualifies as a financial contribution by a government.

¹⁶⁶ According to the Appellate Body Report, *US – FSC*, *supra*, paras 8.18. 8.37 “[...] examination as to whether there is revenue foregone that is ‘otherwise due’ must be based on actual substantive realities and not be restricted to pure formalism. [...] The key point is that the tax rules applied by the Member in question are the basis for the comparison.” Appellate Body Report, *US – FSC (Art. 21.5 - EC)*, paras 86, 91-92. See also in Mavroidis / Bermann / Wu, *The Law of the World Trade Organization*, 2010, at p. 563.

¹⁶⁷ Appellate Body Report, *US – Large Civil Aircraft (2nd Complaint)*, *supra*, para. 831.

¹⁶⁸ Luca Rubini, *The Definition of Subsidy and State Aid. WTO and EC Law in Comparative Perspective*, Oxford University Press, 2009, at 260-280.

c. *Benefit*

In the next step, the Complaining party would have to prove that the financial contribution confers a benefit to the recipient. According to the panel in *EC – DRAMs*, a WTO adjudicating body shall assess whether the benefit was conferred not from the perspective of the grantor, but rather from the perspective of the recipient.¹⁶⁹ As confirmed in the recent case law, Art. 1.1(b) ASCM, which requires that the financial contribution should confer a benefit, does not provide a particular methodology for this analysis. The main idea behind the benefit analysis is to determine whether a recipient of the financial contribution is better off in the marketplace with such a financial contribution rather than without it.¹⁷⁰

As the ASCM does not define what a ‘benefit’ is, WTO panels and the Appellate Body often resort to the wording of Art. 14 ASCM, dealing with calculation of the amount of a subsidy in terms of benefit. The benchmark used under Art. 14 ASCM is the prevailing market conditions. Thus, the WTO adjudicating bodies usually resort to two main analytical tools: ‘private investor test’ (following Art. 14 ASCM) or a test based on ‘the cost of production’¹⁷¹ (primarily case-law on agricultural products¹⁷²), whereas the first test is most commonly applied. In any case the benefit should encompass some form of advantage and place a recipient in a more advantageous position than would have been the case without a financial contribution.¹⁷³ As was confirmed by the recent case of *Canada – FIT Program*, the approach of using Art. 14 ASCM as a relevant context for interpretation purposes is correct. However, Art. 14 ASCM does not address the exact case of ‘the foregone government revenue’ and thus the analytical tools developed thereunder cannot apply in the same way as they apply for other types of financial contribution explicitly mentioned in Art. 14 ASCM (e.g. loans or purchase of goods by the government).

In the present constellation, a panel will have to assess the situation of the renewable energy suppliers both with and without financial contribution – i.e. to assess whether granting a lower tax rate confers a benefit. Here we do not address the case where the Swiss Government introduces a single tax with the same rate for any type of electricity and would then pay a separate reimbursement to the producers or consumers of electricity. The relevant market for comparison will be ascertained based on the supply-mix defined by Switzerland. As was established in recent WTO case law,¹⁷⁴ there are obvious differences in infrastructural costs and operating costs for renewable energy and for conventional energy as the latter benefits from largely amortised cost structures. Therefore, conventional energy producers generally exercise price constraints on renewable energy producers. For the reasons of high capital

¹⁶⁹ Panel Report, *European Communities – Countervailing Measures on Dynamic Random Access Memory Chips from Korea*, WT/DS299/R, adopted 3 August 2005, DSR 2005:XVIII, 8671, para. 7.212; see also Appellate Body Report, *Canada – Measures Affecting the Export of Civilian Aircraft*, WT/DS70/AB/R, adopted 20 August 1999, DSR 1999:III, 1377, para. 154.

¹⁷⁰ Appellate Body Report, *US – Large Civil Aircraft (2nd Complaint)*, *supra*, para. 873.

¹⁷¹ Petros C. Mavroidis / George A. Bermann / Mark Wu, *The Law of the World Trade Organization*, WEST 2010, at 571.

¹⁷² Panel Report, *European Communities – Export Subsidies on Sugar*, Complaint by Australia, WT/DS265/R, adopted 19 May 2005, as modified by Appellate Body Report WT/DS265/AB/R, WT/DS266/AB/R, WT/DS283/AB/R, DSR 2005:XIII, 6499, para. 7.264

¹⁷³ Panel Report, *Canada – Aircraft*, *supra*, para. 9.112.

¹⁷⁴ Appellate Body Report, *Canada – Feed-in Tariff*, *supra*, paras 5.167 – 5.191; Panel Report, *Canada – Feed-in Tariff*, *supra*, paras 7.279-7.284.

costs of renewable energy production and the need to balance positive and negative externalities in light of the public policy objectives pursued (e.g. environmental goals), governments generally intervene to create markets for renewable electricity generation. The recent panel and Appellate Body reports in the *Canada – FIT Program* case suggest that such intervention related to market creation needs to be cost-based, meaning that a comparison between treatment of conventional electricity generators and renewable energy electricity generators should take into consideration the full costs of the respective mode of electricity generation. Thus, the amount of tax reduction would be of importance here.¹⁷⁵

Thus, we suggest that the finding of a benefit conferred by a differential tax rate would depend on the magnitude of difference between tax rates in light of the capital costs of green electricity production.

d. Specificity

In the third step the complaining party will have to address the required specificity of the subsidy. According to Art. 2 of the ASCM, specificity is established where a subsidy is limited to certain enterprise(s) or industry (-ies), or enterprises in certain regions. Presumably Swiss legislation will define which enterprises (i.e. suppliers of renewable energy) qualify for tax rebates (e.g. only those electricity suppliers that supply 'green' electricity) and thus tax differentiation will be industry specific. However, Art. 2.1(b) ASCM offers leeway for WTO Members to differentiate between enterprises, industries and geographical regions where such differentiation is based on objective eligibility criteria, which are adhered to by the authority granting subsidies and applied automatically. Moreover, these criteria have to be spelled out in the legislation and thus ensure transparency. Footnote 2 to Art. 2.1(b) ASCM clarifies that eligibility criteria should be neutral (non-discriminatory), should not favour certain enterprises over others and should be "economic in nature and horizontal in application". The footnote also gives examples of such criteria, namely, size or number of employees of enterprise.

The negotiation history of the ASCM agreement suggests that the earlier drafts of Art. 2 ASCM negotiated during the Uruguay Round referred also to other examples, e.g. incidence of pollution, and health and safety standards, which at the very end were not included in the agreement.¹⁷⁶ The panel may take this element of negotiation history into consideration; however, according to the established WTO practice, the ordinary meaning of 'specificity' based on Art. 2 and footnote 2 would prevail.

So far differentiation based on environmental grounds has not been subject to dispute settlement proceedings in the WTO, so at this stage it is not completely clear whether the panel would recognise 'green' origin of electricity as an objective criterion. If the panel chose not apply Art. 2.1 (b), and a target group of enterprises for reduced tax rate were to be specified in the law, the panel would find that the financial contribution is *de jure* specific according to Art. 2.1(a) ASCM.

e. Adverse Effect

Art. 5 ASCM prohibits WTO Members from resorting to the use of specific subsidies that cause adverse effects on the interests of other members. The adverse effect can take the form of:

- (i) injury to the domestic industry of another WTO Member;

¹⁷⁵ Mavroidis / Bermann / Wu, *The Law of the World Trade Organization*, 2010, p. 575.

¹⁷⁶ Rüdiger Wolfrum / Peter-Tobias Stoll / Michael Koebele, *WTO. Trade Remedies*, Max Planck Institute for Comparative Public Law and International Law, Martinus Nijhoff Publishers, 2008, p. 462.

- (ii) nullification or impairment of benefits accruing directly/indirectly to another WTO Member;
- (iii) serious prejudice to the interests of another Member.

Injury is defined through Art. 15 ASCM. Determining injury is complex and includes assessment of the volume of subsidised imports, their effect on prices of the domestic like product and the impact of the imports on a domestic producer. Differential taxation probably will not cause increased imports of Swiss 'green' electricity to neighbouring countries, due to the specificities of the market. Here also the questions of 'likeness' arises similarly to Art. III GATT.

Nullification or impairment means that a benefit was granted to the WTO Member, and this benefit was nullified or impaired by the application of subsidies by another Member (in our case – Switzerland). For instance, in the earlier GATT report on *EEC - Oilseeds* (adopted), the panel found that such nullification or impairment would occur where “the effect of a tariff concession is systematically offset or counteracted by a subsidy programme” (similar to non-violation nullification and impairment).¹⁷⁷

Serious prejudice is defined in Art. 6 ASCM. There are four instances of presumption of serious prejudice, e.g. the forgiveness of debts (i.e. forgiveness of government-held debt, grants to cover debt payments) or subsidies to cover operating losses sustained by an industry. The ASCM further identifies four situations of serious prejudice, including the effect of the subsidy to displace or impede the imports of a like product into the market of the subsidising Member (i.e. Switzerland), which seems to be the most relevant for our case and might come into play in some of the four options for tax differentiation. Here the key factor would be whether tax differentiation is employed based on country of origin of the electricity. For the cases of serious price suppression that would fall under the serious prejudice element, the magnitude of the subsidy would have to be evaluated, as well as the causal link between the subsidy and prices of the product in the relevant market. Establishing such a link for some of the options, as will be addressed below, also does not seem to be feasible.

To sum up, there is a likelihood that some of the four options would qualify as subsidies (see further under the specific options). Importantly, unlike GATT, the ASCM does not have Art. XX-like provisions (i.e. no general exceptions). The possibility of application of Art. XX GATT to the ASCM belongs to a rather academic discussion and would not be considered by the panel in a real case.

4.4 General Conclusions

The analyses of WTO law, EU law and the Swiss – EU Free Trade Agreement allow for the conclusions that differential taxation of imported and domestic fossil, greenhouse gas emitting, nuclear power based electricity, and of imported and domestic electricity based upon renewable energy, is in principle compatible with the obligations of Switzerland under international economic law and can be shaped accordingly. These different forms of electricity are produced by different means and thus different process and production methods (PPMs). Taking account recent case law, they may even be considered to constitute different and non-competitive markets within highly regulated systems of electricity production, thus allowing for differential taxation. Whereas in EU law, this differentiation is influenced by policy choices on an EU level, WTO law is more neutral in this regard. If considered to be part of the same market for electricity, differential taxation is possible to the extent that it does not upset the com-

¹⁷⁷ Panel Report, *European Economic Community – Payments and Subsidies Paid to Processors and Producers of Oilseeds and Related Animal-Feed Proteins*, adopted on 25 January 1990 (L/6627 – 37S/86).

petitive relations, i.e. that tax differentials take into account differences in capital and production costs of different ways of production, seeking to create an overall level playing field. Health and environmental concerns finally allow justifying additional steps in differential taxation seeking the protection of particular public goods and goals, promoting and encouraging renewable energies to the extent that measures of support do not exceed what is necessary to achieve the regulatory purposes envisaged in legislation.

More specifically, it is possible under international law to create tax incentives for renewable energies supporting environmental climate change goals or goals of public health by taxing these forms of electricity production at lower rates than fossil fuel based or nuclear energy based forms of electricity production. The tax rebate should not exceed what is necessary to achieve the regulatory goals envisaged, and should not exceed, from a point of view of subsidisation, what is needed to create level playing fields for the different ways of production.

It will be important to treat all like methods of electricity production in equal terms, independently of their origin. Nuclear energy produced in Switzerland and abroad should be subject to the same rates. The same holds true for different forms of fossil fuelled energy production, and for forms of production from renewables. The legal problems discussed arise when different forms of production are compared for imports and for domestic production of electricity. Yet, as long as the conditions set out above are respected, higher taxes on imported fossil based or nuclear based production as compared to domestic hydropower or other renewable forms of production can be justified in international economic law. The principles of non-discrimination assume that all forms of electricity are produced both abroad and in Switzerland. The taxation of forms of production of imported electricity which do not exist, or no longer exist, in Switzerland raises different issues. This constellation is not addressed in the present study and will be addressed in a separate one. Whereas under EU law, a tax affecting a certain product does not simply turn into an import tariff because a particular product is not produced domestically¹⁷⁸ this is the case under WTO law. For example, higher taxation of imported nuclear power upon terminating atomic production in Switzerland will need to be assessed on the basis of rules applicable to import tariffs and possible exceptions. On the other hand, if in lieu of nuclear power plants replacement capacities were to be based upon newly built natural gas fuelled stations securing the base load next to hydropower, equal taxation of domestic and imported electricity will be subject to the WTO disciplines set out above. Much depends upon the modalities chosen. We therefore turn to the four design options submitted.

5 Legal analysis of the tax design options

All four options put forward by the commissioner are intended to differentiate the taxation imposed on electricity depending on its source (i.e. green or grey, with nuclear production excluded from the tax benefit granted to the latter along with big hydraulic dams) and, to a lesser or greater extent, its origin (i.e. the country of electricity generation). Importantly, it is suggested that each of the options be implemented through GOs, either linked to actual physical flows as in Options B and C, or considered as financial assets tradable irrespective of effective flows of electricity as in Options A and D. According

¹⁷⁸ ECJ, Case 24/68 – Commission/Italy, ECR 1969 193, para. 11.,

to the mandate, it is requested to examine whether any of the proposed options would be compatible with Switzerland's commitments arising out of the FTA Switzerland – EEC, EU law, and WTO law. It is noteworthy that the different eligibility criteria envisaged for each of the proposed options entail, more or less explicitly, implications for imported electricity. Option A extends the differential tax scheme imposed in Switzerland on green and grey domestic electricity, by means of GOs, to imported electricity. Options B and C condition the granting of the tax exemption and/or reduction for imported electricity upon the submission of foreign RE GOs. They are supposed to correspond, respectively, to “proven physical flows” and to “proven net physical flows” originating in neighbouring countries.

Two variants of Option B are also proposed: Option B+1, limiting the tax benefit to imports coming from countries with which Switzerland has signed an agreement; and Option B+2, conditioning the tax benefit upon the proof of physical flows measured on a producer rather than a country level. Finally, Option D limits at the outset the number of foreign RE GOs qualifying for the tax exemption and/or reduction to a certain percentage of total electricity consumption.¹⁷⁹

Each proposed option is thus scrutinised to assess whether its specific implications for imported electricity would amount to a violation of Switzerland's international obligations. The analysis will be carried out by regrouping the proposed options into two main clusters based on the underlying conception of the use of GOs inspiring them. On the one hand, Options A and D, under which GOs themselves, in their capacity as tradable financial assets, are subject to tax differentiation and, when foreign, excluded to a variable extent from the tax benefit granted to domestic green electricity. On the other hand, under Options B and C, imported RE GOs are linked to actual or net physical flows of green electricity entering Switzerland in order to qualify for the tax exemption/reduction. Within each set of options, a less and a more “protectionist” variant is essentially proposed.

5.1 Differentiated Taxation based on Tradable Guarantees of Origin (Options A and D)

In Option A the only element of differentiation is the differential tax treatment applied to green and grey electricity. In Option D, an additional element is introduced by placing a limit on the number of foreign RE GOs qualifying for the tax exemption/reduction.

5.1.1 The 1972 Free Trade Agreement Switzerland – EEC

a. Option A

From the viewpoint of the FTA Switzerland – EEC, option A is defensible for the following reasons.

The compatibility of the differentiated energy tax must first be measured against Art. 18 FTA Switzerland – EEC, which provides that the “contracting parties shall refrain from any measure or practice of an internal fiscal nature establishing, whether directly or indirectly, discrimination between the products of one contracting party and like products originating in the territory of the other contracting party”.

In principle, the envisaged differentiated tax does not give rise to any discrimination because domestically produced and imported green electricity are treated equally. One could perhaps object that the unequal treatment of green and grey electricity is problematic. However, there are good reasons to

¹⁷⁹ For a more detailed description of each option, see section 1.2.

argue that any such concerns, to the extent that they may exist, would not be justified. As already mentioned, the ECJ has declared that EU Member States, within Art. 110 TFEU, may legitimately apply different tax rates on the basis of environmental considerations.¹⁸⁰ Although the possibility cannot be ruled out, it seems rather unlikely that the EU would come to another conclusion when construing Art. 18 FTA Switzerland – EEC, which is similar to Art. 110 TFEU. The Swiss Federal Tribunal has in turn taken the view that Art. 18 FTA Switzerland – EEC should be considered as being equivalent to Art. 110 TFEU.¹⁸¹ Therefore, Switzerland and the EU should in principle share a consensus that a differentiation for environmental reasons is defensible, it being understood that a final assessment depends on the design of the tax measure.

The fact that certain green electricity benefits from more advantageous tax conditions could result in a finding of state aid within the meaning of Art. 23 (1) (iii) FTA Switzerland – EEC. This would be the case if certain economic operators are disadvantaged if such operators, in the light of the objective assigned to the tax system of the Member State concerned, are in a comparable factual and legal situation. How this criterion would be applied in practice is difficult to predict. The risk of a negative finding cannot be excluded.

Even if such a worst case scenario were to materialise, any risk of negative consequences seems remote. This is because the EU itself seems to believe that it may invoke an implicit exception under the FTA Switzerland – EEC for measures that are objectively justified. Art. 20 FTA Switzerland – EEC provides that the parties to the Agreement may impose prohibitions or restrictions on imports, exports or goods in transit for reasons of “public morality, law and order or public security, the protection of life and health of humans, animals or plants, the protection of national treasures of artistic, historic or archaeological value, the protection of industrial and commercial property, or rules relating to gold or silver.” Even though this provision does not formally apply to fiscal measures and state aid, as explained above, Switzerland can take comfort from this provision in that the objective of protecting “life and health of humans, animals and plants” is legitimate and would serve as a reasonable basis for designing the system of taxation.

In any event, it is doubtful that the state aid prohibition pursuant to Art. 23 (1) (iii) FTA Switzerland – EEC is self-executing. Therefore, individuals would find it difficult to rely on it before the national courts. The EU as a party to the Agreement could in principle invoke the prohibition, but is rather unlikely to do so. This is because the Union and its Member States themselves already differentiate between green and grey electricity and it would be highly contradictory if they were to argue that a tax differentiation is generally incompatible with the FTA. It is a different matter if the differentiation is combined with additional restrictions.

b. Carve-out of green electricity from hydroelectric power plants

As a preliminary remark, it is recommended to exclude electricity produced in pump storage units. This is because there are good reasons to argue that this kind of electricity is not genuinely green. This is at least the current view of the European Parliament and the Council of the European Union, as confirmed by recital 30 of the preamble to the RES Directive 2009/28/EC. However, other hydropower electricity is undoubtedly green and the fact of excluding it from an advantageous tax regime could be

¹⁸⁰ ECJ, Case C-213/96, *Outokumpu Oy*, ECR 1998 I-1777, para. 31.

¹⁸¹ BGE 131 II 271, E. 10.4.1.

considered to be contradictory. This could support a finding of selective state aid in favour of those green electricity categories that qualify for a favourable tax treatment.

A more in-depth review suggests that it is probably justifiable to exclude electricity from certain hydropower plants if this is justified with reference to objective criteria, which are applied evenly. One could for example argue that it is objectively justified to exclude electricity from hydropower plants that have already been in operation for a considerable number of years. Because these plants are already deployed, there is no need to provide incentives for investments, apart from investments in maintenance and occasional improvements. For these reasons it is arguable that state support is not necessary. § 23 (2) of the German Renewables Energy Act provides an illustration of how such a distinction could perhaps be put into practice. It follows from an interpretation *a contrario* of this provision, that hydroelectric power plants that were already in operation before 1 January 2009 may only benefit from public support within the meaning of the Act if certain exceptional circumstances exist, for example if there have been investments in a performance increase since the cut-off date of 1 January 2009.¹⁸²

It is also noteworthy that in Sweden, a higher real estate tax is imposed on hydroelectric power plants than on wind energy farms (see above section 3.7).

Moreover, it should (at least in theory) be fairly straightforward to determine whether or not a certain MWh of electricity originates from a hydroelectric power plant and for how long this plant has been operational. Provided that the GOs accompanying the electricity transfer comply with the requirements of the RES Directive 2009/28/EC, they should in principle contain all relevant information. According to Art. 15 (6) of said Directive, a GO should specify, among other things,

“(a) the energy source from which the energy was produced and the start and end dates of production;

...

(c) the identity, location, type and capacity of the installation where the energy was produced;”
and

“(e) the date on which the installation became operational.”

c. Option D with percentage restriction

The introduction of percentage thresholds constitutes a quantitative restriction by means of fiscal measures. This could be considered a violation of Art. 13 FTA Switzerland – EEC, according to which neither Switzerland nor the EU may introduce “new quantitative restriction on imports or measures having equivalent effect”. It would be challenging to demonstrate that such a restriction fulfils the purpose of protecting “life and health of humans, animals and plants” within the meaning of Art. 20 FTA Switzerland – EEC. Such a measure could also be deemed to correspond to a discriminatory taxation within the meaning of Art. 18 (1), and possibly selective state aid within the meaning of Art. 23 (1) (iii) FTA Switzerland – EEC.

¹⁸² This follows from the wording of § 23 of the German Renewable Energy Act: „§ 23 Wasserkraft ...

(2) Der Anspruch auf die Vergütung nach Absatz 1 besteht auch für Strom aus Anlagen, die vor dem 1. Januar 2009 in Betrieb genommen wurden, wenn nach dem 31. Dezember 2011 1. die installierte Leistung oder das Leistungsvermögen der Anlage erhöht wurde oder 2. die Anlage mit einer technischen Einrichtung zur ferngesteuerten Reduzierung der Einspeiseleistung nach § 6 Absatz 1 Nummer 1 erstmals nachgerüstet wurde.“

To sum up, there is a tangible risk that a percentage restriction could be considered incompatible with the Free Trade Agreement.

d. Option D with 0 imports

Similar considerations apply to a scenario whereby the amount of imports, which could qualify for a tax benefit, is reduced to 0. As the RES Directive 2009/28/EC is not a part of the FTA Switzerland – EEC, Switzerland cannot rely on it to argue that it is legally authorised to operate its own national support scheme for the promotion of renewables. Even if Switzerland were to fall under the Directive, it is doubtful whether it really applies to the differentiated energy tax under consideration. We shall elaborate on this topic below.

Despite these legal reservations, it is important to note that the EU may have limited political appetite to raise this issue because it tolerates national support schemes by its own Member States and therefore would not wish to expose its own policy to scrutiny under the FTA.

5.1.2 EU Law

a. Scenario 1: status quo

It is possible, although not very probable, that the EU might initiate an anti-subsidy investigation pursuant to the EU Anti-Subsidy Regulation¹⁸³ in the not very likely event that the application of the differentiated tax results in exports of cheap green electricity to the EU. This could ultimately result in the imposition of countervailing duties by the Union. However, such a scenario does not seem very realistic, in particular considering that the EU Member States themselves subsidise exports of green electricity and electricity trade flows are hardly ever one-directional. On substance, it would be informed by the ASCM.

Irrespective of such a hypothesis, Switzerland is not legally obliged to comply with EU law, although it may be in the country's own interest to unilaterally follow certain policy choices of the EU and the corresponding legislation for the reasons outlined above.

b. Scenario 2: possible future Electricity Agreement

i. Option A: main differences as compared to the FTA Switzerland – EEC

From the viewpoint of a bilateral Electricity Agreement, it is not very likely that option A will be considered problematic. This is because this option does not distinguish between domestic and imported green electricity and the ECJ has previously accepted the idea of environmental policy objectives justifying a differentiated treatment.¹⁸⁴

It should nevertheless be borne in mind that the RES Directive 2009/28/EC provides for a close monitoring of national renewable energy policies. Each EU Member State must notify its renewable energy action plan to the European Commission, which evaluates the plan and issues recommendations if this is necessary. The Commission also monitors the implementation of the plan and intervenes if a state does not implement the planned measures or deviates from the set trajectory (see Art. 4 of the Directive). It is not clear whether Switzerland would have to adopt a similar action plan and who would

¹⁸³ Council Regulation (EC) 597/2009 of 11 June 2009 on protection against subsidised imports from countries not members of the European Community, OJ L 188 of 18/7/2009, 93.

¹⁸⁴ ECJ, Case C-213/96, *Outokumpu Oy*, ECR 1998 I-1777, para. 31.

monitor the implementation of such a plan. However, the autonomy of the Swiss authorities, and by extension the Swiss legislator, will most likely be restricted one way or the other.

Generally, the establishment of an institutional structure will be a significant qualitative change.

Should Switzerland accept the state aid “*acquis communautaire*”, then the adequacy and the proportionality of the differentiated tax will be subject to close scrutiny. The consequences could be considerable and they could for example extend to the selection of the energy sources, the level of the tax benefit (no over-compensation), the duration of the scheme, etc.¹⁸⁵

ii. Carve-out of green electricity from hydroelectric power plants

A carve-out of green electricity from hydroelectric power plants would broadly be assessed in the same way as under the Free Trade Agreement. In order to justify such an exception one would have to argue that there is no objective need to provide state support to existing dams, which are not in need of investments or refitting.

iii. Option D with percentage restriction

If certain imports of green electricity are excluded by percentage thresholds, this constitutes a quantitative restriction by means of fiscal measures. There is a considerable risk that this would be considered incompatible with the agreement.

iv. Option D with 0 imports

If imported green electricity is excluded from a tax benefit which is otherwise available for domestically produced green electricity, this constitutes discriminatory taxation and selective state aid. The question is whether this finding could be mitigated by the fact that the above-mentioned RES Directive 2009/28/EC seems to authorise individual EU Member States to operate their own national support schemes.¹⁸⁶ This follows, among other things, from Art. 3 (3) last sentence of the Directive, where it is stated that:

“without prejudice to [Arts. 107 and 108 TFEU], Member States shall have the right to decide, in accordance with Arts. 5 to 11 of this Directive, to which extent they support energy from renewable sources which is produced in a different Member State”.

According to the Directive, the Member States must adopt the necessary measures to increase the share of energy from renewable sources on their territory to certain target levels. It is characteristic for a Directive that each Member State may decide autonomously on the appropriate measures of implementation.

As a preliminary comment, it would be unusual if a directive, which is an instrument of secondary law, were able to modify the meaning of a provision of primary law, such as Art. 34 TFEU concerning the prohibition of quantitative restrictions and Art. 110 TFEU concerning the prohibition of discriminatory

¹⁸⁵ See *Draft European Commission Guidelines on environmental and energy aid for 2014-2020*, http://ec.europa.eu/competition/consultations/2013_state_aid_environment/index_en.html (last visited 10 February 2014).

¹⁸⁶ This argument is used by the German Federal Republic in the on-going dispute concerning the German Renewable Energy Act, of the Commission decision of 18/12/2013 to initiate proceedings against the German Renewable Energy Act, C(2013) 4424 final, para 251.

taxation.¹⁸⁷ This is an issue which is at the heart of the aforementioned ECJ proceeding concerning case C-573/12 - Ålands Vindkraft AB/Energimyndigheten. In this proceeding, Advocate-General Yves Bot has taken the view that the aforementioned Art. 3 (3) of the Directive should be declared null and void because of the apparent conflict with primary law. He has recommended introducing a transitional period of two years, after which national support schemes should no longer be tolerated.¹⁸⁸

The European Parliament and the Council of the European Union have since taken the extraordinary step of requesting a reopening of the oral proceedings. It is currently (at the beginning of March 2014) not known whether the Court will indeed reopen the oral procedure and it is very difficult to predict how the Court will ultimately decide on the merits. It cannot be ruled out that political considerations will result in the Court circumventing the issue altogether.

Simultaneously, the Commission is leading the political debate on the possible future legal framework for support schemes for renewables covering the period from 2020 to 2030.¹⁸⁹ The Commission's proposal reflects the lowest political common denominator. The principle that support schemes are national is unchanged. However, rather than setting national renewables targets, the EU will set an EU-wide target of probably 27%, which shall be reached by the joint effort of the Member States. The Commission will supervise compliance of the Member States with their commitments through a new governance process. If required, the Commission will undertake further EU action. This concept should leave the Member States the necessary flexibility to achieve their greenhouse gas reduction targets in the most cost-effective way according to their specific national circumstances, energy mixes and capacities to produce renewable energy. The Member States will be free to decide how they implement their commitments through national support schemes.

Irrespective of how the Ålands Vindkraft case develops and how the legal framework will be adapted for the period between 2020 and 2030, there is a risk that a differentiated excise tax is considered not to fall under the definition of a "national support scheme" within the meaning of the RES Directive 2009/28/EC. According to Art. 2 (k) of the Directive, a support scheme may in principle extend to "tax exemptions or reductions", or "tax refunds". However, it is open to question whether the European Parliament and the Council had an excise tax in mind when they adopted the Directive. It is possible that they were merely considering tax benefits in favour of the creation of additional energy generation capacity, such as the creation of a new wind farm, or the installation of solar panels. Furthermore, the rights of Member States to create national support schemes, is "without prejudice" to Arts. 107 and 108 TFEU, which encapsulate EU state aid control.¹⁹⁰

All things considered, there is a tangible risk that an exclusion of imported green electricity from a tax reduction or exemption is considered incompatible with a possible future bilateral Electricity Agreement.

¹⁸⁷ See also Renaud van der Elst, *Les défis de la nouvelle directive sur les énergies renouvelables et son impact sur le commerce intra- et extracommunautaire*, in ; Dirk Buschle/Simon Hirsbrunner/Christine Kaddous, *European Energy Law, Droit européen de l'énergie*, p. 179, p. 195 seq.

¹⁸⁸ See para. 121 of the Advocate-General's opinion of 28 January 2014.

¹⁸⁹ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – *A policy framework for climate and energy in the period from 2020 to 2030*, COM(2014) 15 final.

¹⁹⁰ See the wording of Art. 3 (3) RES Directive 2009/28/EC.

5.1.3 WTO Law

a. Option A

Option A does not carry any significant WTO compatibility issue in addition to the underlying question of whether GATT rules allow for differentiating tax rates between green and grey electricity (see section 4.2.3). In this case, the likeness issue arises with respect to a potential NT violation. However, because national and foreign grey electricity would be treated consistently, it is unlikely that a WTO dispute would be raised under Art. III GATT on the basis of a denial of tax exemption/reduction. Moreover, even if grey and green electricity were to be considered like products for the purposes of GATT, the absence of any limitation on imported green electricity as well as on the foreign RE GOs qualifying for the tax benefit would make it easier to justify Option A under Art. XX GATT because green electricity would also be treated the same irrespective of its origin (see section 5.3). For the same reason, the same conclusion seems to hold true in the case of big hydraulic dams being excluded from the tax exemption and/or reduction, especially considering that the practice of excluding them from RE incentive policies is currently adopted in other countries importing electricity to Switzerland.¹⁹¹

In terms of subsidies rules, Option A would have to be analysed according to the general scheme outlined above. Here, the key question would be whether tax reduction is offered for electricity suppliers or for electricity consumers. As was discussed above, there is quite a high probability that such tax differentiation would not qualify as a subsidy, because it will not constitute government revenue foregone in the first instance. Also, the probability of adverse effects, e.g. negative effects on green electricity imports from the EU Member States or on its prices in Switzerland or third countries is very low.

b. Option D

Although concrete modalities to implement the suggested limit under Option D are crucial to assess WTO-compatibility issues, a preliminary analysis based on the general features of this design option can be made. In fact, it could be argued that the placing of a limit on foreign RE GOs for the purposes of tax differentiation so that it is detached from actual physical flow of green electricity into Switzerland would basically operate as a restriction on GOs themselves. Thus, such a system will give GOs life of their own as if they were tradable financial assets. This scenario may then entail additional WTO implications under the GATS (see section 4.2.3.d).

That being said, it is also possible to envisage some additional GATT-relevant implications arising out of Option D. To the extent that the placing of a limit on the number of GOs qualifying for the tax exemption/reduction is imposed on foreign RE GOs only, the supply or consumption of imported green electricity would be discouraged. In this respect, a NT violation may be found under Art. III:4, as the imposition of a quota on the number of foreign RE GOs qualifying for tax exemption/reduction would ultimately result into green electricity of foreign origin being discriminated against in favour of green electricity of domestic origin by adversely modifying the conditions of competition in Switzerland between imported and domestic green electricity (*Thailand – Cigarettes (Philippines)*; *China – Publications and Audiovisual Products*; *China – Auto Parts*; *Dominican Republic – Cigarettes*; *India – Autos*).

¹⁹¹ For a thorough discussion on the “policy space” left to Switzerland under Art. XX GATT to differentiate electricity taxation depending on its green or grey source, while still non-discriminatorily leaving out nuclear power and/or big dams from tax exemption/reduction, see section 5.3.

The placing of a limit on the number of RE GOs issued in any country other than Switzerland envisaged in Option D for the purposes of tax differentiation may also impinge on Art. XI:1 GATT. Art. XI:1 GATT, labelled “General Elimination of Quantitative Restrictions”, outlaws both import “prohibitions” and import “restrictions ... whether made effective through quotas, import ... licenses or other measures”. WTO dispute settlement bodies have consistently interpreted the expression “other measures” in connection to the term “restriction” as to significantly expand the scope of Art. XI:1, including not solely a category of measures that may be considered formal quantitative restrictions such as quotas but also a whole variety of means insofar as they can have a restricting effect on trade, i.e. the effect of reducing the volume of imports (or exports). Hence, the fact that the quota is formally imposed on foreign GOs and not on imported green electricity in itself does not per se exclude Art. XI:1 implications. The question is whether the exclusion of foreign RE GOs from the tax exemption/reduction when they exceed a certain fixed threshold could potentially be considered as a “measure” ultimately amounting to a “restriction...on importation” of green electricity within the meaning of Art. XI:1. On the basis of previous case law on Art. XI:1, this scenario cannot be excluded.

First, past case law has considered the notion of “other measures” as a “broad residual category” and accordingly construed this formulation as to suggest that “the terms of the provision [...] are all-encompassing”¹⁹². Accordingly, a network of non-binding incentive measures has been considered to constitute “measures” and a restriction within the meaning of Art. XI:1 GATT. In the case at issue, it could be argued that a limit imposed on the RE GOs for the purposes of tax differentiation could be considered as an “incentive measure” aimed at privileging domestic production of green electricity over importation of green electricity. Electricity suppliers or consumers would in fact not be prohibited from importing green electricity, but rather encouraged to either locally produce green electricity or to buy domestically produced green electricity with a view to being sure of benefiting from the tax exemption/reduction. Hence, the limitation of the number of RE GOs for the purposes of tax differentiation could fall within the residual category of “other measures” that may be challenged under Art. XI:1 GATT.

WTO panels have also clarified that the concept of a restriction “on importation” covers “any form of limitation imposed on, or in relation to importation”. In *India – Autos*, in particular, the panel stated that Art. XI:1 is not limited to explicit “border measures”, or measures relating to the actual “process” of importation. It held that the “nature of the measure as a restriction in relation to importation which is the key factor to consider in determining whether a measure may properly fall within the scope of Art. XI:1”.¹⁹³ In the case of Option D, although it is not the process of importation of green electricity that is to be limited, the nature of the measure inherently reveals the purpose of affecting the volume of imports of green electricity by denying tax exemption/reduction to foreign RE GOs either altogether (as in the proposed 0% quota) or when they exceed a fixed quota (as in the proposed example of a 10% quota).

Moreover, a consistent body of case law has interpreted the term “restrictions” under Art. XI in a broad manner. In *India – Quantitative Restrictions*, the panel concluded that the term “restriction” refers to

¹⁹² 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.

¹⁹³ *Ibid.*, para. 7.261.

“a limitation on action, a limiting condition or regulation”.¹⁹⁴ In *India – Autos*, the panel endorsed this interpretation and further suggested that the term “restrictions” encompasses all measures imposing a condition having a limiting effect. Based on such interpretation, in *Colombia – Ports of Entry* the panel considered that Art. XI:1 would then also cover “measures which create uncertainties and affect investment plans, restrict market access for imports or make importation prohibitively costly”¹⁹⁵ as measures having a limiting effect on importation by negatively affecting the competitive opportunities of an importer. Significantly, in *China – Raw Materials* the panel further added that any measure having “the very potential to limit trade... constitute[s] a ‘restriction’ within the meaning of Art. XI:1 of the GATT 1994”.¹⁹⁶ In light of such extensive interpretation, the imposition of a limit on the number of foreign GOs eligible for the tax exemption/reduction could relatively easily be claimed to have the “very potential to limit trade” within the meaning of Art. XI:1 by creating uncertainties negatively affecting the competitive opportunities of an importer: in other words, as foreign RE GOs may or may not be eligible for tax exemption/reduction depending on whether they fall within the fixed quota or not, domestic RE GOs would thus be preferred over foreign RE GOs for the purpose of making it certain to benefit from the tax exemption/reduction.

This conclusion is even more likely if one considers that the panels made clear that the limiting effect on importation would not need to be proved based on the specific trade effects of a measure (i.e. in our case, the reduced volume of imports of green electricity determined by the preference for domestic over foreign RE GOs to qualify for tax exemption/reduction), given that “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”.¹⁹⁷

Furthermore, for the purposes of Art. XI GATT compliance, Option D would entail a “restriction...made effective through...other measures” irrespective of level of stringency of the cap, be it a total exclusion of foreign RE GOs or a limitation of the number of foreign RE GOs qualifying for the exemption/reduction up to a certain percentage of the overall electricity consumption.

From the perspective of the ASCM disciplines on subsidies, Option D will raise questions foremost on the adverse effects, as it most probably will have an effect on imports of green electricity from the EU countries and on their prices to the extent that it will be found to constitute serious prejudice to the interests of the EU renewable energy producers.

5.2 **Differentiated Taxation Based on Guarantees of Origin Linked to Physical Flows (Options B and C)**

In the second set of options, the tax exemption/reduction is granted through submission of RE GOs that are linked to actual physical flows of green electricity. In Option B, the requirement is that RE

¹⁹⁴ Panel Report, *India – Quantitative Restrictions on Imports of Agricultural, Textile and Industrial Products*, WT/DS90/R, circulated on 22 September 1999, para. 5.128.

¹⁹⁵ Panel Report, *Colombia - Indicative Prices and Restrictions on Ports of Entry*, adopted on 20 May 2009, WT/DS366/R, para. 7.240.

¹⁹⁶ 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.

¹⁹⁷ Panel Report, *Colombia – Ports of Entry*, *supra*, para. 7.254.

GOs correspond to proven physical flows (e.g. GOs issued in the UK would be eligible for tax exemption/reduction so long as they correspond to the amount of electricity which was generated in the UK and then imported through France to Switzerland). In Option C, however, RE GOs corresponding to physical flows would qualify for the tax exemption/reduction only for the amount covering *net* physical flows of green electricity (i.e. the amount of green electricity imported into Switzerland which exceeds green electricity exports from Switzerland). Moreover, in Option C, there is an additional country-specific requirement. It limits the granting of the tax exemption/reduction only to those RE GOs that are linked to net physical flows originating from neighbouring countries.

5.2.1 The 1972 Free Trade Agreement Switzerland – EEC

a. Option B

Option B is defensible from the viewpoint of the FTA Switzerland – EEC largely for the same reasons as Option A, which has been discussed above.

b. Option B+1 (tax benefit conditional on proof of physical flows and limited to imports from neighbouring countries)

Option B+1 option seems justifiable from the viewpoint of the FTA Switzerland – EEC and EU law. There are good reasons to argue that granting a tax benefit for GOs, which are not linked to actual physical flows, does not further the objective of increasing the consumption of renewables in Switzerland. It is crucial to ensure that the criteria for excluding such GOs are made public in a transparent manner.

We understand that in principle there will be no difference between domestic and imported green electricity, insofar as proof of a physical flow is required in both scenarios. To the extent that equal treatment exists there is therefore no risk of a finding of unlawful discrimination within the meaning of Art. 18 (1) or unlawful state aid pursuant to Art. 23 (1) (iii) FTA Switzerland – EEC.

To limit the tax advantage to green electricity originating in Switzerland and from neighbouring countries would, however, be highly problematic from the perspective of the non-discrimination principle pursuant to Art. 18 (1) of the 1972 Free Trade Agreement. One could possibly envisage making the granting of the tax advantage conditional on the conclusion of a prior bilateral agreement with individual countries within the EEA. There is a certain risk that such a “conditional Most-Favoured-Nation clause” could be considered incompatible with the FTA Switzerland – EEC at least for the following reasons:

- The non-discrimination principle in Art. 18 (1) FTA overrides bilateral agreements with individual EU Member States.
- Under the FTA Switzerland – EEC, the EU is considered one single trading entity. Local carve-outs would seem inconsistent with this approach.
- Furthermore, such an additional requirement is only practical if individual EU Member States are indeed entitled to conclude individual agreements. This clashes with the ambition of the European Commission to claim for the Union the exclusive power to conclude energy agreements with non-EU countries.

- This issue is also subject to legal uncertainty in an EU context. The Union currently tolerates the creation of groups by EU Member States (see Art. 1 (k) RES Directive 2009/28/EC)¹⁹⁸ and the conclusion of partnerships between Member States and between Member States and third countries (see Art. 3 (3) (b) RES Directive 2009/28/EC)¹⁹⁹. Whether such bilateral partnerships are compatible with the EU's fundamental freedoms is being questioned in the aforementioned Ålands Vindkraft case before the ECJ.²⁰⁰ To date, only Sweden and Norway have concluded such a cooperation agreement.²⁰¹

c. Option B+2 (physical flow measured on a producer rather than a country level)

From the viewpoint of the FTA Switzerland – EEC, discrimination on grounds of nationality is problematic. If the physical flow is measured on a producer level, rather than a country level, the producer is less likely to be ruled out simply because he/she has a certain nationality. If this is correct, then such an approach is less likely to result in discrimination on grounds of nationality. However, if this requirement means that importers of green electricity must make an extra effort to provide additional information on the existence of a physical flow, this could potentially give rise to concerns.

Irrespective of what has been stated above, the feasibility of this approach needs to be verified. It should be ensured that each country which could be potentially concerned issues GOs which specify the identity of the producer²⁰² or whether the producer has other means at his disposal to mark “his/her” electricity transfer accordingly. Whether or not this is the case must be assessed before the implementation of the new tax regime.

¹⁹⁸ “... support scheme’ means any instrument, scheme or mechanism applied by a Member State or a group of Member States ...”.

¹⁹⁹ “... measures of cooperation between different Member States and with third countries for achieving their national over-all targets ...”.

²⁰⁰ See the critical remarks of Advocate-General Yves Bot in his opinion of 28 January 2014, C-573/12, Ålands Vindkraft AB/Energimyndigheten, paras. 99 seq.: « Le deuxième argument est pris de ce que les échanges transfrontaliers d’électricité verte exigeraient la conclusion préalable d’un accord de coopération entre les États membres concernés afin de régler diverses questions relatives, notamment, aux conditions d’émission des certificats verts, à la coordination des informations et à la désignation des autorités chargées d’agréer les installations. Cet argument ne nous convainc pas davantage »...

²⁰¹ See also Opinion of Advocate-General Yves Bot of 28 January 2014, C-573/12, Ålands Vindkraft AB/Energimyndigheten, para. 102.

²⁰² See Art. 15 (6) of RES Directive 2009/28/EC: “A guarantee of origin shall specify at least:

- (a) the energy source from which the energy was produced and the start and end dates of production;
- (b) whether it relates to: (i) electricity; or
- (ii) heating or cooling;
- (c) the identity, location, type and capacity of the installation where the energy was produced;
- (d) whether and to what extent the installation has benefited from investment support, whether and to what extent the unit of energy has benefited in any other way from a national support scheme, and the type of support scheme;
- (e) the date on which the installation became operational; and
- (f) the date and country of issue and a unique identification number.”

d. Option C

From the viewpoint of the FTA Switzerland – EEC, Option C gives rise to concerns for the following reasons.

The application of a “net physical flow” rule could result in situations where a physical import of green electricity is not tax exempt, merely because there is an excess of exports. Discrimination based on nationality is the unavoidable consequence if the trade balance is measured on a country basis. In order to be justified on the basis of Art. 20 FTA Switzerland – EEC the restriction would have to contribute to protecting “life and health of humans, animals and plants”. There is no obvious way in which one could argue that this criterion is met by a scheme whereby companies originating from a country with a relative trade deficit are potentially disadvantaged.

5.2.2 EU Law

a. Scenario 1: status quo

From a general EU law perspective, similar considerations apply to those applying in the context of Option A mentioned above. Energy taxes are subject to a minimal harmonisation within the EU, but unless the possible future bilateral electricity agreement were to include this part of the “acquis communautaire”, this would only become relevant to Switzerland in case of an accession.

Furthermore, there is a certain risk that the EU could initiate an anti-subsidy investigation.²⁰³ However, this risk seems manageable.

b. Scenario 2: possible future Electricity Agreement

i. Option B

Option B will very likely be compatible with the possible future Electricity Agreement largely for the same reasons as Option A, which has been discussed above.

ii. Option B+1 (tax benefit conditional on proof of physical flows and limited to imports from neighbouring countries)

There seem to be good objective reasons for making a tax benefit conditional on proof of physical flows. However, to limit the scope to imports from neighbouring countries appears problematic. As explained above, the RES Directive 2009/28/EC seems in principle to provide a framework for inter-state partnerships, but their doubt is currently being cast upon their legality. Furthermore, it is doubtful that the Directive is capable of overriding Art. 110 TFEU in relation to discriminatory taxation. In any event, the conditions governing such cooperation would have to be coordinated with the possible future supervisory authority, which will perhaps be established as a result of the Electricity Agreement. To sum up, there is limited legal certainty with regard to Switzerland’s ability to limit a tax benefit to imports from neighbouring countries.

iii. Option B+2 (physical flow measured on a producer rather than a country level)

The same arguments apply as in the case of the FTA Switzerland – EEC.²⁰⁴ If the physical flow is measured on a producer level, rather than a country level, this might be more acceptable from the

²⁰³ Council Regulation (EC) 597/2009 of 11/06/2009 on protection against subsidised imports from countries not members of the European Community, L 188 of 18/07/2009, p. 93.

viewpoint of the non-discrimination principle. However, if importers must make an additional effort to demonstrate the existence of a physical flow, this could be considered as a restriction.

iv. Option C

An assessment of Option C from the viewpoint of a possible future electricity agreement is likely to yield similar results. The Swiss Confederation would have an interest in arguing that the fact of excluding net importers of green electricity serves an objective reason, such as the protection of the environment. While we do not exclude the possibility that such an objective reason may exist, this is not obvious and it may require a particular effort to develop an adequate reasoning. Therefore, there is a risk that Option C could be deemed to be incompatible with the prohibition on discriminatory taxation within the meaning of Art. 110 TFEU for lack of an objective justification, or lack of proportionality. There is also a significant risk of incompatibility with the state aid provisions.

5.2.3 WTO Law

For the purposes of WTO-compatibility analysis, it is important to note at the outset that under these options RE GOs would represent (and consistently be treated as) an instrument of implementation of tax rate differentiation on electricity (i.e. a sort of electricity passport). In this perspective, these options raise no GATS-related issues: GOs would in fact be linked to actual physical flows of electricity, and thus serve as labels for the traded product. In other words, under these Options Switzerland would be using GOs not only in their traditional function (i.e. to fulfil the purpose of electricity disclosure) but as a direct instrument to certify the green origin of electricity with a view to implementing a differentiated electricity tax. In this scenario, GOs would be attributed the same role that is currently given to the Renewables Levy Exemption Certificates (LECs) in the UK energy tax system. The only difference consists in the fact that, in the UK regime, a new additional certificate was created with the aim of serving that sole purpose of tax exemption for green electricity. The creation of an additional certificate for the purposes of tax differentiation, as an alternative to implementing such a system through GOs, could also be a possibility for Switzerland under these two design options.

It is noteworthy that both solutions entail pros and cons with respect to WTO compatibility. The creation of a new certificate, distinct from GOs, and serving the sole purpose of implementing the tax differential scheme would, on the one hand, be straightforward and transparent but, on the other hand, may carry the risk that it would generate additional discrimination problems with respect to the treatment of imported electricity, depending on the red tape which would be required to have it recognised as deserving the green ‘label’ and thus the tax benefit. The use of GOs themselves offers the possibility to rely on an already established and harmonised system of tracing green electricity at the EU level, but at the same time could generate confusion among operators given that, depending on whether they accompany green electricity or not, and on what country they originate from, GOs would no longer solely perform their traditional function but could also be used to qualify for tax exemption and/or reduction.

Any restriction imposed under these options on foreign RE GOs would ultimately restrict imported physical flows of green electricity. The relevance of issues falling under the scope of GATT, discussed for options A and D in sub-section 5.1.4, is thus clear-cut. Moreover, insofar as GOs are used for tax

²⁰⁴ See Section 5.2.1.c.

reductions and as a ‘label’ linked to physical electricity flows, this certification system also falls under the TBT Agreement and has to be shaped accordingly.²⁰⁵

a. Option B

Among the two options proposed, Option B carries the least trade restrictive potential. In fact, Option B introduces a “proven physical flows” requirement. This requirement is a guiding criterion to exclude foreign RE GOs from the tax exemption/reduction when they originate from countries whose green electricity does not physically enter Switzerland. Although this criterion can be considered to be formally objective, the additional question is whether it could result in *de facto* discrimination against imported green electricity.

For the purposes of GATT compliance, it should first be noted that the introduction of the “proven physical flows” requirement in Option B would not affect the importation of green electricity as such, as green electricity would be able to flow into Switzerland without any limitation. Under this Option, any amount of green electricity entering Switzerland and disclosed by means of GOs would qualify for the tax exemption/reduction irrespective of origin, insofar as there is a direct link between the country where the foreign RE GOs originated and Switzerland (e.g. by means of aggregate statistics on Swiss electricity imports). In this respect, green electricity imported into Switzerland would be accorded the same tax treatment as is accorded to domestic green electricity.

What would be excluded from tax exemption/reduction under Option B would only be RE GOs not linked to the importation of green electricity, e.g. RE GOs when treated as pure tradable financial assets. This aspect seems to be coherent with the basic underlying conception informing Option B (i.e. the fact that electricity tax differentiation is based on GOs for the sole purpose of proving the existence of physical inflows directed to Switzerland): all countries importing green electricity into Switzerland would in fact be accorded the same tax treatment as is accorded to Swiss green electricity. The denial of preferential tax treatment would only apply to countries merely importing RE GOs. The exclusion of such foreign RE GOs (i.e. GOs not corresponding to actual physical inflows) from the tax exemption and/or reduction under Option B, moreover, seems a suitable means to facilitate the implementation of the proposed differential taxation as a scheme which we understood as being conceived to apply to the “good” electricity. In other words, the “proven physical flows” is a formally objective, country-neutral criterion, which permits the use of GOs as a tool to extend a domestic tax regime to imports in such a way as to treat domestic and foreign green *electricity* alike. Hence, the proposed idea of conditioning preferential tax treatment on “proven physical flows” of green electricity does not seem to entail a *de facto* discrimination against imported green electricity nor MFN-related compatibility issues as it does not appear country-specific in essence. On the basis of the elements in our possession, Option B does not therefore raise any additional GATT hurdles above and beyond the potential issues inherent in any tax rate differentiation based on a distinction between grey and green electricity (see discussion of the benchmark Option A in section 5.1.3.a).

²⁰⁵ For an overview of TBT rules applied to environmental label schemes, see: *Gutachten zu den ökologischen Anforderungen an das Inverkehrbringen von Produkten erstattet dem Bundesamt für Umwelt BAFU* (WTI, 2013) <http://www.bafu.admin.ch/recht/01748/index.html?lang=de> (last visited 25 February 2014). See also S. Rousseaux, *L’emprise de la logique marchande sur la promotion des énergies renouvelables au niveau communautaire*, *Revue Internationale de Droit Economique*, 2005/3, p. 245, footnote 45 and references therein cited.

Option B, similarly to Option A, would with a high probability not be found to constitute a subsidy. Even if this were the case, it would not lead to adverse effects on the foreign renewable energy industry.

Although Option B in its pure version seems to be more easily defensible under WTO rules, its two proposed variants (B+1 and B+2) may entail additional hurdles.

b. Option B+1

Option B+1 may run afoul of the MFN rule under Art. I:1 GATT to the extent that it conditions the granting of tax exemption and/or reduction to foreign RE GOs only to countries which conclude a bilateral agreement with Switzerland. Even though Switzerland could declare itself open to signing such an agreement with any country, it is not clear to what extent WTO Members can rely on the application of a conditional MFN. The conditional MFN was put in practice in the GATT era through the conclusion of several “Codes” (e.g. the Standards Code).²⁰⁶ However, it no longer seems to be acceptable in the WTO except under Art. VII:2 of GATS. WTO case law has consistently clarified that derogations from the MFN principle cannot be conditioned on the origin of products (e.g. *Indonesia-Autos*)²⁰⁷, although the conclusions are less categorical with respect to PPM-based conditions that apply irrespective of origin (e.g. *Canada-Autos*).²⁰⁸ The conditionality on the basis of signing an agreement is also unlikely to be justified under Art. XX GATT, since discrimination between countries would not have a link to the objectives reflected by the exceptions clauses of Art. XX GATT. This option may also run a higher risk of causing adverse effects to the renewable energy industry of countries that have not concluded a bilateral agreement with Switzerland.

c. Option B+2

As to Option B+2, the requirement that the proof of the actual electricity flows be submitted at the producer/supplier level rather than at the country level may also entail additional WTO compatibility issues to the extent that it would amount to an additional burden on Swiss suppliers for the portion of green electricity that they import from abroad. While the concrete impact of such a requirement is likely to depend on the specific level of detail required as a proof of “physical flows” on the part of the producer/supplier (e.g. the mere existence of a contractual arrangement was not specifically mentioned as being sufficient by itself),²⁰⁹ in addition to the technicalities inherent in the functioning of the elec-

²⁰⁶ Akiko Yanai, *The Function of the MFN clause in the Global Trading System*, IDE APEC STUDY CENTER Working Paper Series 01/02 – No. 3. Viewed at: http://www.ide.go.jp/English/Publish/Download/Apec/pdf/2001_15.pdf (last visited 25 February 2014).

²⁰⁷ In *Indonesia – Autos*, the panel, citing with approval the *Belgian Family Allowances* panel report, stated that “under Art. I:1 of the GATT 1994, any advantage cannot be made conditional on any criteria that is not related to the imported product itself”. Panel Report, *Indonesia – Certain Measures Affecting the Automobile Industry*, adopted on 23 July 1998, WT/DS54/R, WT/DS55/R, WT/DS59/R & WT/DS64/R, para. 14.143.

²⁰⁸ After referring extensively to *Indonesia – Autos* and *Belgian Family Allowances*, the panel in *Canada – Autos* wrote that: “[a] review of these reports shows that they were concerned with measures that were found to be inconsistent with Art. I:1 not because they involved the application of conditions that were not related to the imported product but because they involved conditions that entailed different treatment of imported products depending upon their origin”. Panel Report, *Canada – Certain Measures Affecting the Automobile Industry* adopted on 11 February 2000, WT/DS139/R and WT/DS142/R, para. 10.25. See C. Benoit, ‘Picking Tariff Winners: Non-product-related PPMs and DSB Interpretations of “Unconditionally” within Art. I:1’ (2011) 42(2) *Georgetown Journal of International Law* 583.

²⁰⁹ We believe that an importer may incur in an additional burden because under Option B GOs are used for tax differentiation purposes only insofar as they correspond to proven physical flows. In this respect, RE GOs submitted at the producer/supplier level may not be not sufficient to qualify for tax exemption because it

tricity markets, we recall that existing case law has broadly interpreted the obligation to eliminate any form of “restriction” on the importation under Art. XI:1 GATT (see section 5.1.3.b). In particular, in *Colombia–Ports of Entry*, the panel held that a measure would have violated Art. XI if it had affected in some way the costs of transportation of products from the port of their origin to the place of sale.²¹⁰ Thus, it could be argued that importation would be restricted for those imports whose producers or importers might find it difficult to prove that the taxed electricity was really produced by them, thus violating Art. XI:1 GATT.

d. Option C

Option C also entails additional WTO-compatibility issues. It takes inspiration from the same underlying conception as Option B (i.e. the attempt to use GOs for the purposes of tax differentiation only when they are linked to actual physical flows of electricity), but it implements it through the combination of two eligibility criteria: a “net physical flows” requirement and a country-specific requirement aimed at excluding from preferential tax treatment the green electricity imported from non-neighbouring countries. The key question to be addressed under the GATT would thus be whether such a design reveals the intention of limiting at the outset the volume of imported green electricity benefiting from the tax exemption/reduction. This would entail discrimination with respect to domestic green electricity, which by contrast is not subject to any condition.

Several elements may be relevant for the purposes of assessing potential GATT violations. First, the “net physical flows” requirement implies that imported green electricity and domestic green electricity will no longer be treated consistently: imported green electricity would benefit from the same preferential tax treatment accorded to domestic green electricity only insofar as it originates from a country that exports more green electricity into Switzerland than it imports from it on a yearly basis. In other words, there could be countries whose green electricity does not benefit from the preferential tax treatment at all or just in a very limited way depending on their net flows of electricity into Switzerland. Such a criterion would likely entail a national treatment violation under the GATT, as the imported green electricity being “cancelled out” by the corresponding equivalent flows of exports for the purposes of tax differentiation would thus be accorded less favourable treatment than that accorded to domestic green electricity.

Secondly, the explicit country-specific requirement excluding non-neighbouring countries from tax differentiation irrespective of their net flows of electricity would indisputably amount to an MFN violation as interpreted by a consistent case law. In *Indonesia – Autos*, in particular, the Panel stated that to establish a violation of Art. I:1 GATT, three requirements must be met: (1) there must be an “advantage”, (2) which is not accorded to all “like products” (3) “unconditionally”.²¹¹ In *Canada – Autos*, the Appellate Body concluded that Canada acted inconsistently with the MFN obligation by granting an “advantage” to some products originating from some Members that was not “immediately and un-

would also have to be proved that they correspond to actual physical flows. In other words, RE GOs could indicate that green electricity comes from a country from which Switzerland does import electricity at an aggregate level, but the single supplier in possession of such an RE GO would also have to prove that it had indeed bought the green electricity corresponding to that RE GO.

²¹⁰ Panel Report, *Colombia - Indicative Prices and Restrictions on Ports of Entry* adopted on 20 May 2009, WT/DS366/R, paras. 7.299-7.241.

²¹¹ Panel Report, *Indonesia – Autos*, *supra*, paras. 14.123-148.

conditionally” extended to like products of other WTO Members.²¹² A whole range of measures subjecting imports from certain Members to higher tariffs and/or taxes than applied to imports from other Members or to import duty exemption not extended to all other Members have been considered to be granting an “advantage” within the meaning of Art. I:1 GATT.²¹³ Accordingly, the granting of a tax exemption and/or reduction upon the submission of RE GOs seems likely to constitute an “advantage” under Art. I:1 GATT which, being limited to neighbouring countries only, would run counter to the “unconditionality” requirement.²¹⁴ The exclusion of non-neighbouring countries from the tax benefit would thus result in a violation of the MFN obligation. In this respect, it should be noted that the same outcome would most likely be generated in any case just by linking the eligibility of RE GOs for preferential tax differentiation to physical flows of green electricity, as in the proposed Option B.²¹⁵ The “proven physical flows” criterion would however provide a formally objective, country-neutral criterion not limiting the granting of the tax benefit to inflows from neighbouring countries as such, but generally to physical imports of green electricity.²¹⁶

Finally, the “net flows” requirement artificially limits the number of GOs (i.e. in the case of Option C, the amount of green electricity) qualifying for the tax exemption/reduction when green electricity is imported. In other words, RE GOs originating in neighbouring countries could be submitted for the purposes of tax differentiation only up to the amount necessary to cover the amount of imported green electricity exceeding export volumes. To the extent that such limitation would apply to foreign GOs only, this option may fall under the scope of Art. XI GATT as amounting to a “restriction... on the importation” of green electricity. As already mentioned, in fact a substantial body of WTO case law has made clear that any measure having the effect of reducing the volume of imports or even the very potential to limit trade could potentially fall under the scope of Art. XI:1 (see section 5.1.3.b). This case is no exception since a net flows requirement would ultimately discourage the importation of green electricity. This is because foreign RE GOs may or may not be eligible for tax exemption/reduction depending on the yearly net flows of electricity, originating from each neighbouring country, into Switzerland, thereby making domestic RE GOs preferable to foreign RE GOs for the purpose of definitely benefiting from the tax exemption/reduction.

The compatibility of Options B and C with the ASCM disciplines again mainly depends on whether the supplier or the consumer is granted income tax reduction. The case where a supplier is granted an income tax reduction, similarly to Option A, would depend predominantly on the analysis of adverse

²¹² Appellate Body Report, *Canada - Certain Measures Affecting the Automotive Industry* adopted on 19 June 2000, WT/DS139/AB/R and WT/DS142/AB/R, paras 64-86.

²¹³ See, e.g., Panel Report, *Indonesia – Autos, supra*; Appellate Body, *Canada- Autos, supra*; Appellate Body Report, *European Communities - Regime for the Importation, Sale and Distribution of Bananas*, adopted on 25 September 1997, WT/DS27/AB/R.

²¹⁴ For a thorough discussion of the third criterion, i.e. the likeness requirement, with respect to green and grey electricity see section 4.2.3.b.

²¹⁵ It should in any case be stressed that, under Option C, the MFN violation would add to the NT violation inherent in the “net” physical flows requirement as explained above. Hence, even if the country-specific requirement was to be withdrawn from the design of Option C, Option B would still be preferable in terms of WTO compliance as the “proven physical flows” requirement seems less risky to defend in light of GATT non-discrimination rules (see above).

²¹⁶ Although non-neighbouring countries would not be excluded, it is – at least at the present stage – reasonable to assume that a major part of imported electricity would in any case come from Switzerland’s neighbouring countries.

effect. An adverse effect for Option B is unlikely to be found. As there will be no country-based discrimination, the projected fiscal measures should not lead to significant sales losses or significant price suppression of green electricity imported to Switzerland; or to displacement or impedance of imports of such electricity. For Option C the analysis on subsidies disciplines would be the same as under Options A or B. The results of this analysis would, however, lead to a different conclusion. While the results of the financial contribution, benefit and specificity elements would largely be the same as for Options A and B, the likelihood of adverse effects, especially suppression of green electricity imported to Switzerland, is very high. However, again the exact answer would depend on the specific modalities of the measure.

5.3 The Possibility of Justification of the Proposed Tax Design Options under the General Exceptions of Art. XX GATT

As discussed in section 4.2.3.c, the possibility of justification under Art. XX GATT depends on every detail of the design of a measure, as well as the manner in which a measure is implemented. The problem may lie in specificities, which cannot all be identified and considered in the present analysis. In what follows, we give our rough estimation of the chances that the above-discussed tax design options can be defended under the general exceptions of Art. XX.

Under Options A and B, violations of GATT non-discrimination rules have a good chance of being justified under the general exceptions clauses of Art. XX GATT. Justification can be sought under two exceptions clauses of Art. XX: (paragraph (g)) as measures relating to the conservation of exhaustible natural resources and also (paragraph (b)) as measures necessary to protect human, animal or plant life or health. It is important to note that the tax rates have to be differentiated consistently with the environmental and/or health impacts of different types of electricity. For instance, fossil fuel (coal) electricity, with arguably the most negative environmental (climate change) impacts, would have to be taxed the heaviest, whereas solar electricity, with arguably the least or no negative environmental impacts, would have to be taxed the lightest or fully exempted from a tax. Tax rates for nuclear electricity can be fixed somewhere in between. As already noted in section 4.2.3.c, tax rates for nuclear electricity that are higher than for solar and wind electricity could be defended under both paragraph (b) and paragraph (g) of Art. XX GATT.

Hydropower electricity (particularly electricity generated by large-scale hydropower plants) could also be taxed higher than solar or other renewable types of electricity, as this is likely to be justifiable under paragraph (g) of Art. XX in light of the environmental impacts of hydropower dams (negative consequences for ecosystems, climate, migration etc.).²¹⁷

Under Options A and B there seem to be no inconsistencies with the requirements of the chapeau of Art. XX. A condition, which may strengthen the argument in favour of justification under Art. XX of a differentiated electricity tax designed as ‘origin-neutral’ options A and B, is the way in which tax revenues will be recycled (used). The use of tax revenues primarily to support climate change mitigation and adaptation programmes can serve as evidence of the environmental rationale of the tax.

²¹⁷ See e.g. *IPCC Special Report on Renewable Energy Sources and Climate Change Mitigation* prepared by Working Group III of the Intergovernmental Panel on Climate Change [O. Edenhofer, R. Pichs-Madruga, Y. Sokona, K. Seyboth, P. Matschoss, S. Kadner, T. Zwickel, P. Eickemeier, G. Hansen, S. Schlömer, C. von Stechow (eds)]. Cambridge University Press, 2011, Chapter 5.

By contrast, justification of Options C and D under Art. XX GATT will be problematic. Under these options, a limit on the access of foreign (imported) green electricity to more favourable tax rates is set either through the countries of origin eligibility ('only for neighbouring countries') or through eligibility based on the amount of acceptable GOs (the 'net exports' criterion and the 'percentage of GOs' criterion). Such discrimination between countries does not have a link to the policy objectives reflected in paragraphs (b) and (g) of Art. XX GATT and therefore is likely to be viewed as arbitrary, which is contrary to the requirements of the chapeau of Art. XX.²¹⁸ Options C and D give tax advantages primarily to the Swiss green electricity sector and not to both Swiss and foreign green electricity sectors as must be the case if a measure were taken to promote climate change mitigation and environmental and public health goals. A protectionist purpose and a protectionist effect of the tax are thus clearly discernible in design options C and D. These options are therefore not justifiable under Art. XX GATT.

5.4 Carve-Out of Subsidised Green Electricity Imports

a. *The 1972 Free Trade Agreement Switzerland – EEC*

We note the request for an assessment as to whether it is possible to carve out green electricity imports, which have already benefited from state support in the country of origin.

The practical preconditions for implementing such a carve-out are in principle met. In the following we shall first describe the German example, before we elaborate more generally on the EU legal framework.

- In Germany, green electricity is supported by way of a feed-in tariff. Once one MWh of green electricity has been fed into the grid and the feed-in tariff has been granted, the corresponding guarantee of origin is cancelled. This means, German green electricity that has benefited from a feed-in tariff, no longer has a guarantee of origin. When the corresponding electricity is subsequently exported to Switzerland, it no longer fulfils the conditions for an advantageous tax treatment. This is because the granting of the tax benefit in Switzerland will be conditional on the presentation of a guarantee of origin.
- However, it seems that Germany is the exception rather than the rule in this regard. Within the territory of the European Economic Area (EEA), guarantees of origin should not normally be used in connection with national support schemes. This role is in principle reserved for green certificates.²¹⁹ That being said, the dividing line between GOs and green certificates is not always clear in practice.
- Notwithstanding, it should be fairly straightforward to identify those imports of green electricity that have already benefited from state support in their country of origin, at least as far as electricity originating in the countries of the EEA is concerned. This is because Art. 15 (6) (d) of the above- mentioned RES Directive 2009/28/EC requires a GO to specify,

²¹⁸ Appellate Body Report, *Brazil – Measures Affecting Imports of Retreaded Tyres*, adopted 20 August 2009, WT/DS332/AB/R, para. 227.

²¹⁹ See last sentence of recital 52 of the preamble to the RES Directive 2009/28/EC: "It is important to distinguish between green certificates used for support schemes and guarantees of origin."

“whether and to what extent the installation has benefited from investment support, whether and to what extent the unit of energy has benefited in any other way from a national support scheme, and the type of support scheme”,

it being understood that a support scheme means any kind of supporting instrument including the following:

“investment aid, tax exemptions or reductions, tax refunds, renewable energy obligation support schemes including those using green certificates, and direct price support schemes including feed-in tariffs and premium payments” (see Art. 2 (k) of the Directive).

It is a separate issue whether or not a carve-out of subsidised green electricity imports would be legally compatible with the FTA Switzerland – EEC. There are large differences between countries as to how and to what extent they subsidise energy. Furthermore, the way in which Switzerland defines electricity worthy of state support may differ from the definitions that are applied by other countries, and there may also be differences between energy sources (solar, wind, hydroelectric, biomass, etc.). This means that it is difficult, if not impossible, to determine whether the subsidisation operated by another country is equivalent.

To conclude, there is a risk that a carve-out of imported green electricity, which has already benefited from state support, could be considered controversial, if measured against Art. 18 (1) FTA Switzerland – EEC. On a practical level, this risk seems manageable, at least in the foreseeable future. The current debate in the EU suggests that the principal desire to avoid a duplication of subsidies is not unreasonable and therefore does not constitute a manifest violation of the FTA. However, this issue is under consideration within the EU, as shall be explained below, and therefore, the balance of interests could change in the future.

b. EU Law

i. Scenario 1: status quo

Switzerland not being a member of the EU, is in principle not legally obliged to comply with EU law, in the absence of a specific agreement.

ii. Scenario 2: possible future Electricity Agreement Switzerland – EU

A carve-out of subsidised imports of green electricity is likely to be more problematic than under the FTA Switzerland – EEC. Whether or not a country is entitled to treat imported green electricity differently depending on whether or not it has been subsidised in the country of origin is also an unresolved matter within the EU. In the on-going state aid investigation, which is being carried out by the European Commission against the German Renewable Energy Act, the German Federal Republic is trying to use this argument in its defence.²²⁰ In another proceeding which is currently pending before the ECJ and which concerns Swedish feed-in tariffs, Advocate-General Yves Bot has expressed doubts as to

²²⁰ European Commission, decision to initiate proceedings of 18 December 2013, C(2013) 4424 final State aid SA.33995 (2013/C) (ex 2013/NN) - Germany - Support for renewable electricity and reduced EEG - surcharge for energy-intensive users, para. 251: “Germany has also argued that an analysis of § 39 of the EEG - Act 2012 under Art. 30/110 TFEU would put into question the right to decide, in accordance with Arts. 3, 5 to 11 of the RES Directive, to which extent it supports energy from renewable sources which is produced in a different Member State.”

the compatibility of this reasoning with EU law.²²¹ It is very difficult to predict how the ECJ will ultimately decide in this case, as shall be explained in greater detail below.

The ability to carve out subsidised green electricity imports is therefore affected by a considerable lack of legal certainty. Whether or not this risk is likely to materialise also depends on how stringent the institutional arrangements in the possible future electricity agreement will be.

c. WTO Law

A carve-out of subsidised imports of green electricity seems to entail additional WTO hurdles when applied to any of the four proposed options. The commissioner put forward that a smaller reduction could be granted on the basis of the information regarding subsidisation contained in foreign GOs; on the basis of the information in our possession, in particular, the proposed option should be aimed particularly at addressing Germany's subsidies, although possibly drafted in country-neutral terms so as to potentially include all foreign GOs coming from countries applying production support schemes to renewable sources of electricity.

As shown above in section 2, however, national practices concerning the level of detail of the information on support schemes contained in foreign RE GOs is quite inconsistent at present. Moreover, in the precise case of Germany the granting of a feed-in tariff is conditional upon the submission of GOs so that subsidised forms of green electricity are no longer accompanied by GOs (see section 5.4.a). Accordingly, the Swiss authorities would have two different options:

- (i) they could set a flat rate of tax reduction applicable to all those foreign RE GOs coming from a country where the corresponding green source benefits from a support scheme. Such a flat rate may vary depending on the source of green electricity but it is reasonable to assume, based on the declared rationale of the measure, that it would in any case be inferior to the one granted to Swiss green sources of electricity;
- (ii) they could differentiate the tax treatment of foreign GOs on a case-by-case basis, depending on the country of origin and the specific amount of support granted to each specific RE technology.

In the former case, clear problems of discrimination against imported electricity in favour of domestic electricity may arise, as a flat rate of tax reduction would risk exceeding the level required to “offset” the support scheme in place in another country. In this respect, the carve-out of subsidised imports of green electricity would ultimately have the effect of imposing a higher tax on imported green electricity compared to the treatment accorded to domestic green electricity, thus running afoul of Art. III:2

²²¹ Opinion of Advocate-General Yves Bot of 28 January 2014, C-573/12, Ålands Vindkraft AB/Energimyndigheten, para. 91 to 93 « ... nous souscrivons sans réserve à la proposition selon laquelle l'utilisation des énergies vertes, que vise à promouvoir les régimes d'aide nationaux, contribue à la protection de l'environnement, notamment en réduisant les émissions de gaz à effet de serre.

Nous restons, néanmoins, plus dubitatif devant l'affirmation selon laquelle la possibilité pour un producteur d'électricité verte installé dans un État membre de bénéficier du régime d'aide appliqué par un autre État membre irait nécessairement à l'encontre de cet objectif. À cet égard, il nous semble qu'une certaine confusion est entretenue entre les finalités des régimes d'aide en général et celles des restrictions territoriales en particulier.

Cette question mérite un examen attentif, parce que, s'il est aisé d'admettre que les régimes de certificats verts contribuent à la protection de l'environnement en stimulant la production d'énergie verte, il y a, en revanche, un certain paradoxe à considérer que l'encouragement à l'importation d'électricité verte en provenance d'un autre État membre pourrait nuire à la protection de l'environnement.»

GATT. The latter scenario seems realistically very difficult to administer and not immune from possible *de facto* discrimination effects. In both cases, however, it is not clear to what extent Art. XX may apply in this context, as the granting of smaller tax reductions to imported green electricity, be it already subsidised or not, would in any case contradict the very same environmental/climate change goal which the differential taxation scheme is intended to respond to. From the subsidy perspective such a carve-out might have effects in terms of determination of whether there are any adverse effects. As serious price suppression and other elements of serious prejudice require precise calculations, no conclusive answer can be given from the perspective of subsidies disciplines in the WTO.

For all the above, it seems that a carve-out of subsidised imports of green electricity would add to the complexity of proving the compliance of less WTO-problematic options, such as Option A and Option B, while rendering it more difficult to defend them under Art. XX GATT.

5.5 Differentiation at a Consumer Level and Tax Recycling Issues

- a. *A uniform electricity tax with a further reduction of income tax basis for corporate and individual electricity consumers or tax revenue recycling through checks to consumers*

Having analysed four design options for an electricity tax imposed on electricity suppliers, we now turn to the analysis of a measure, which, albeit consisting of a uniform tax, could create the effect of a differentiated tax on electricity. Such a measure could be designed through the reduction in the tax basis of Swiss federal income taxes for the amount of annual costs spent on green electricity or direct payment through checks to consumers for consumption of green electricity.

As the consumption of both domestic and imported green electricity is eligible for the reduction in income tax basis or repayment through checks, this option is *prima facie* not discriminatory with respect to electricity imports. It is not very likely that this would give rise to concerns from the viewpoint of the non-discrimination rules according to the FTA Switzerland – EEC or the possible future Electricity Agreement.

From the viewpoint of WTO law, a reduction in income taxes or redistribution of tax revenues through checks could qualify as a domestic regulation “affecting ... internal sale” of imported electricity falling under Art. III:4 GATT. As noted in section 4.2.3.b, a less favourable treatment of imported electricity can be found if imported electricity is disproportionately disadvantaged over domestic electricity. This may be the case so long as income tax relief or repayments through checks would encourage the consumption of green electricity (e.g. solar) and discourage the consumption (and thereby sale) of grey electricity (e.g. nuclear).²²² Provided ‘green’ and ‘grey’ electricity qualify as like or directly competitive or substitutable products, a violation of the NT obligation regarding imported electricity could be found. Yet, in this case, justification of the measure under Art. XX GATT will be available following a pattern similar to Options A and B.

From the viewpoint of the state aid prohibition according to the FTA Switzerland – EEC, granting the benefit to the consumer does not rule out possible state aid issues. As has been explained above, the EU institutions tend to consider that the state aid prohibition in the FTA is equivalent to its counterpart

²²² Note that in the 1958 *Tractor* case, a credit to Italian consumers, which was not available to the purchasers of imported tractors, was found to be inconsistent with the national treatment obligation under Art. III:4 GATT. See GATT report, *Italian Discrimination Against Imported Agricultural Machinery* adopted on 23 October 1958, L/833 - 7S/60.

in Art. 107 TFEU. Therefore, it is noteworthy that according to the practice of the EU institutions, state support granted to a consumer may constitute state aid, if the consumer were to use this advantage in order to purchase services or goods from a specific company or industry sector.²²³ Thereby, the companies or industries concerned become the indirect recipients of the state aid. In the case at hand, the consumer will use the tax benefit to purchase electricity from certain providers of “green” electricity. To the extent that this is a specific category which is being treated favourably in comparison with other electricity providers which are in a comparable situation, one could argue that the state grants aid to a certain category of companies, via the consumers, who to a certain extent act as intermediaries.

Similar considerations would apply to a state aid prohibition in a possible future Electricity Agreement with the EU.

In the context of possible subsidy allegations under the ASCM, our estimation is as follows. First, this subsidy is not a prohibited subsidy, as it would not be linked to exportation or import substitution. Second, this subsidy is not specific, as it would be given to all consumers and therefore not actionable. Thirdly, similarly to the EU law, even if the recipients of financial contribution would be consumers, the benefit itself could be passed on to a specific industry (in our case green electricity suppliers).

Irrespective of the legal qualification of the measure, one may also wonder whether it would be effective. It is important to note that the European Commission generally favours an “off-budget” financing of state support for renewables, which also has the advantage of being compatible with the “polluter pays” principle.²²⁴ The Commission’s approach is motivated by the concern that decisions on the use of budget resources are usually volatile, they depend on the state of the economy, and what has been decided by a certain government risks being undone when the next government comes into power. It is interesting to note in this context that among the EU Member States only the Netherlands and Luxembourg are financing the main part of their national support schemes for renewables out of their budget.²²⁵ One might also wonder whether it is cost-efficient to finance the promotion of green electricity via subsidies to consumers.

b. Ways of recycling of electricity tax revenues (payment per head, reduction of taxes or social security contributions, or support to the domestic electricity production from renewable energy)

If the income is redistributed to the general population, this should normally not be an issue from the viewpoint of the FTA Switzerland – EEC or EU law. Also, if the income is used to support the domestic production of “green” electricity, one could argue that this is perfectly acceptable even under EU law, given that the above-mentioned RES Directive 2009/28/EC does not in principle oblige the Member States to provide financial support for the increase of the renewables production share in other

²²³ GC, Case T-177/07, *Mediaset*, ECR 2010 II-2341, paras. 55-68.

²²⁴ See Commission Staff Working Document of 05/11/2013, European Commission guidance for the design of renewables support schemes, SWD(2013) 439 final, in particular page 5:

“Best practice to manage the reform process constitutes: ...

Stable scheme financing in line with the EU-acquis linked to consumption and off-budget financing to avoid fiscal impacts and uncertainty ...”.

²²⁵ At least this assumption is suggested by Commission Staff Working Document of 05/11/2013, European Commission guidance for the design of renewables support schemes, SWD(2013) 439 final, Table 3 on page 25 seq.

Member States. However, the legality of this approach is currently under review as explained above. Moreover, EU state aid rules dictate that the support granted to electricity producers must be well targeted. If the tax revenues are redistributed to other economic sectors, for example, to the export industry or energy-intensive industries, this could give rise to other state aid implications. Although the corresponding EU practice seems to be quite permissive in principle, the compatibility of state aid in favour of export-oriented companies is never a foregone conclusion but rather requires a detailed assessment, as illustrated by recent European Commission investigations into various national support measures of certain EU Member States.

The choice as to what use to make of the income gained through the levy on the tax of electricity, either differentiated at the outset or by means of reducing the income tax base for corporate and individual electricity consumers, may also entail additional WTO hurdles.

A first tax revenue recycling option is to spend such revenues for environmental purposes (i.e. so-called ‘earmarking’). As already explained above (see section 5.3), this option may strengthen the argument in favour of justification under Art. XX GATT, as the use of tax revenues primarily to support climate change mitigation and adaptation programmes, including those realised in developing countries, could serve as evidence of the environmental rationale of the tax.

A second option would be to redistribute revenues through a national tax reform. The Swiss government may for instance decide to use revenues to lower corporate taxes and income taxes. In this case as well, no further WTO hurdle arises as each Member has a sovereign right to decide on the type, rate and basis of taxes levied in its national jurisdiction (see section 4.1.3).

A third option would consist in giving back the revenues gained through the tax to certain enterprises or sectors only, e.g. those producing and/or supplying green electricity or also to the energy-intensive industries most likely to be greatly affected by a tax differentiation scheme. This scenario, however, could raise issues under the ASCM to the extent that the revenue recycling system may be considered to constitute a subsidy. As we have already explained above (see section 4.3.3), in order to be considered a subsidy under the ASCM, a measure must qualify as a financial contribution in one of the forms recognised under Art. 1.1 (a) ASCM and confer a benefit according to Art. 1.1 (b) ASCM. As to the first element, the concrete chances that such a revenue system falls under the ASCM disciplines will depend on the specific design of the system. Based on well-established case law, it seems that it would qualify as “direct transfer of funds” and in some modalities possibly as “government revenue foregone”.²²⁶ The fulfilment of the benefit requirement will depend on the relevant market benchmark (depending in turn on the recipients of this financial contribution) (see section 4.3.3). However, in light of existing case law the possibility that such redistribution of revenue from electricity tax to certain industries will constitute a benefit is quite high.²²⁷ In this scenario, and considering that a revenue scheme deliberately implemented in favour of certain enterprises or sectors would be likely to be considered specific within the meaning of Art. 2 ASCM, this option would thus amount to an actionable subsidy and the adverse effect test would need to be applied. As recalled above, the panel would have to assess evidence on negative price effects and market impact in the form of injury, nullification of

²²⁶ N. Shariff, *Enhancing Competitiveness and Addressing Carbon Leakage - A Value Added Based Approach to Emissions Pricing System Design*, Master’s Thesis University of Bern, pp. 36-39.

²²⁷ *Ibid.*, pp. 39-42.

benefits or serious prejudice, as well as the goal, design and magnitude of the measure.²²⁸ Depending on the recipients of the revenues (e.g. green industries or energy-intensive industries, green producers only or green suppliers in general also importing electricity) as well as on specific modalities of the system, the outcome of the adverse effect test may vary significantly.

To sum up, while the first two options seems not to entail any additional WTO hurdles, the option of redistributing the revenues gained through the levy on electricity may entail further WTO compatibility issues under the ASCM.

6 Legal Conclusions

We have been asked to evaluate the compatibility of different design options for the introduction of a differentiated electricity tax in Switzerland with the 1972 Free Trade Agreement between Switzerland and the European Economic Community (EEC), as well as EU law and WTO law. In the course of the EU law analysis, we have also assessed the likely implications of a possible future Electricity Agreement with the EU. The negotiations concerning this agreement are currently on hold and their precise content is not known. Bearing these circumstances in mind, we have proceeded on the basis of a “worst case scenario” whereby the EU will impose its likely negotiation objectives, to the extent that these can be determined from an outside perspective. An assessment of the Energy Charter Treaty (ECT), which may also have certain, yet to be determined, consequences for the introduction of an electricity tax, has not been part of our mandate.

As explained in the introductory paragraphs of this study, we have proceeded by way of a risk assessment, rather than by carrying out an abstract legal analysis, also bearing in mind that the specific design of the electricity tax is still subject to ongoing discussions and, moreover, the applicable legal standards sometimes lack precision and leave room for interpretation.

With these framework conditions in mind, our analysis of the legal implications under the FTA Switzerland–EEC, EU law and WTO law leads us to the following conclusions:

1. According to **Option A**, all green electricity benefits either from an energy tax exemption or a reduction, irrespective of its geographical origin. The tax reduction is conditional on guarantees of origin (GOs), which certify that the electricity is generated from renewable energy sources. These GOs are tradable.

Option A is compatible with the prohibition of discriminatory taxation pursuant to Art. 18 of the existing 1972 Free Trade Agreement with the EU (FTA Switzerland – EEC). Although Switzerland is not part of the EU, the fact that similar models are being developed in the EU is helpful in this context. This is not least because the Swiss Federal Tribunal tends to consider that Art. 18 FTA Switzerland – EEC and its EU counterpart Art. 110 TFEU are equivalent and, furthermore, it would be surprising if the EU took issue with a measure that is broadly compatible with EU legal standards.

²²⁸ Panel Report, *US – Large Civil Aircraft (2nd Complaint)*, *supra*, para. 7.1709.

Differentiation between non-renewable and renewable sources can be justified in light of environmental and climate change objectives, even though it is debatable whether Art. 20 FTA is applicable to tax measures. The same is true for WTO law. To the extent that the differentiation does violate the principle of national treatment based on the finding of likeness or substitutability between green and grey electricity, the measure can basically be justified under Art. XX GATT.

Option A runs no risk, or at least a very low risk, of being found incompatible with the state aid rules of the FTA Switzerland – EEC. Although strictly speaking not legally required under the FTA, it could be helpful to incorporate certain features of EU state aid policy, for example by adjusting the level of the tax advantage, in order to pre-empt a potential challenge by the EU based on the FTA Switzerland – EEC.

It is not very likely that the tax differentiation will give rise to concerns from the viewpoint of the Agreement on Subsidies and Countervailing Measures (ASCM). The probability is high that there will be no adverse effects and no distorting benefits granted to ‘green’ electricity producers in exporting countries within the meaning of the ASCM.

It could also be defensible to exclude electricity from hydroelectric power stations from advantageous tax treatment. There is no reason for concerns if the distinction is operated in conformity with the underlying environmental policy objectives and it applies indiscriminately to domestic and imported hydroelectricity.

Finally, it cannot be ruled out that treating imports of green electricity differently depending on whether or not they have benefited from state support in the country of origin could result in a finding of discrimination, selective state aid or subsidisation. However, this depends on the precise design of the measure.

2. **Option B** is largely identical with Option A, with the difference that a favourable tax treatment is conditional on the proof of (*gross*) physical flow of green electricity between the country concerned and Switzerland. For this reason, Option B is assessed similarly to Option A under the FTA Switzerland – EEC and WTO law. Compatibility with EU law is not an issue because Switzerland is not an EU member.

We note additionally, however, that under this Option, Switzerland would be using GOs not only in their traditional function (i.e. to fulfil the purpose of electricity disclosure), but as a direct instrument to certify the green origin of electricity with a view to implementing a differentiated electricity tax. In this scenario, GOs would be attributed the same role that is currently given to the Renewables Levy Exemption Certificates (LECs) in the UK energy tax system. These LECs differ from GOs insofar as they have been specifically created to certify green electricity which qualifies for a tax exemption. Finally, it also has to be noted that to the extent that GOs are used for tax reductions in the function of certificates linked to physical electricity flows, they would need to be shaped in compliance with the rules of WTO’s TBT Agreement.

Similarly to Option A, a risk of incompatibility with the state aid rules in the FTA Switzerland – EEC cannot fully be ruled out, although this risk is manageable if the appropriate safeguards are put in place. From an ASCM perspective, Option B should not face any constraints, as the probability is high that it would not even constitute a subsidy and in any case it would not lead to any adverse effects.

Additional legal issues, however, arise in relation to the two sub-options submitted under Option B.

- According to the first alternative (**B+1**), only physical flows of green electricity from countries having concluded a corresponding bilateral governmental agreement would qualify for a favourable tax treatment. The compatibility of such a “conditional most-favoured nation clause” with the FTA Switzerland – EEC and the GATT is subject to considerable legal uncertainty. A risk of a negative finding cannot be ruled out. This option would also raise more hurdles for compatibility with the ASCM, and specifically under the adverse effect element.
 - According to the second alternative (**B+2**), the existence of a physical flow must be demonstrated on the level of the producer rather than the country. The compatibility of such an approach with the FTA Switzerland – EEC and WTO law much depends on whether domestic producers and importers are treated in a non-discriminatory manner in terms of proving the existence of physical flows. Further research is necessary to determine whether such an approach could come into conflict with the rules relating to technical barriers to trade.
3. **Option C** is largely identical with Option B, with the fundamental difference that (i) only GOs from neighbouring countries are being considered and (ii) there must be a *net* physical inflow from an individual exporting country (imports to Switzerland exceed Swiss exports to the country concerned).

There is a tangible risk that this option would be considered incompatible with the FTA Switzerland – EEC, EU law and WTO law. This is because the exclusion of countries with a negative trade balance inevitably results in discrimination on grounds of the origin of the electricity. There is also a high probability that this option would violate the state aid provisions of the FTA Switzerland – EEC. Justification under the environmental and health exceptions of the GATT will most likely fail as discrimination between countries does not have a link to the policy objectives reflected in paragraphs (b) and (g) of Art. XX GATT and thereby is arbitrary and contrary to the requirements of the chapeau of Art. XX.

Also from the perspective of WTO subsidies disciplines, Option C bears a higher risk of incompatibility with WTO law, as adverse effects on renewable energy producers in net importing countries will be created.

4. According to **Option D**, the quantities of imported green electricity which are eligible for a tax exemption or reduction are limited and may even be reduced to 0. This option therefore implies a quantitative restriction under Art. 13 FTA Switzerland – EEC and Art. XI GATT, discrimination under Art. 18(1) FTA and Art. III:4 GATT and possibly results in selective state aid under

the FTA Switzerland – EEC and the ASCM. Measures would need to be defended under Art. 20 FTA and Art. XX GATT, but a defence is likely to fail because the measures explicitly protect the Swiss renewable energy sector from foreign competition.

Switzerland, not being a member of the EU, cannot directly invoke justifications stemming from EU law. Therefore, the fact that the RES Directive 2009/28/EC seems to authorise individual EU Member States to operate their own national support schemes, is only of limited relevance. In any event, the wording of the Directive is misleading in this regard or at least its interpretation is unclear. Even in the EU context, rules of primary EU law, in particular the non-discrimination rules and the state aid prohibition, ultimately take precedence over a divergent provision in a Directive.

5. Moreover, we have reviewed an additional option whereby the electricity tax is in principle uniform, but the consumer may claim certain financial benefits either through a reduction of the income tax or a grant. While there is a fairly good chance that this model is compatible with WTO law, its compatibility with EU law and the FTA Switzerland – EEC raises concerns. This is because the mere fact of granting a subsidy to a consumer rather than to a company does not exclude a finding of state aid according to the state aid rules of the FTA.
6. Finally, the conclusion of a bilateral Electricity Agreement with the EU would lead to a step change for the following reasons. Firstly, the planning of support measures for renewables would have to comply with the requirements of the RES Directive 2009/28/EC. The implementation of the measures and their success would be monitored by a possible future supervisory authority, according to the provisions of the Directive. Secondly, the design of the tax risks coming under a more intense scrutiny from a state aid control viewpoint, both with regard to its adequacy and proportionality. A tax reduction, rather than a complete exemption stands a better chance of being compatible. Based on what is currently being debated within the EU, the level of the tax should not be reduced below a certain percentage (perhaps around 20%), although the current discussion in the EU relates to a tax levied on energy products used for electricity generation, rather than the electricity itself. In order to ensure compatibility with the Agreement, it is also advisable to limit the duration of the tax differentiation to a certain, yet to be determined, time period. If one considers the current debate in the EU, then a maximum of 10 years should in all probability be defensible. Furthermore, the implementation of the tax and its effects are likely to be monitored by whatever supervisory authority is instituted under the possible future Agreement. Should, for example, Switzerland decide to re-introduce new subsidies, this would have to be discussed within the institutional framework that will accompany the new Agreement.

To sum up, we submit that Options A and B provide less intrusive methods to meet the objectives pursued by Switzerland in the least restrictive and distorting manner. The compatibility with the FTA Switzerland – EEC and WTO law will ultimately depend on the detailed modalities of the measure. Yet, as a matter of principle, we do not see an obstacle to further Options A and B. Option C implies that only electricity imports from countries with a net trade of physical electricity flows would benefit from a tax exemption or reduction. There is a tangible risk that this Option is neither compatible with

the FTA nor WTO law. Option D is equally problematic because it involves quantitative restrictions on imports.

7 Political Risk Assessment

In order to complete our risk assessment, we submit the following considerations for the purposes of an analysis of the political interests at stake, i.e. as to whether the EU or third parties may have political reasons to challenge a chosen option, irrespective of the legal merits of such a challenge:

1. Differential taxation of electricity is primarily relevant and of interest to neighbouring countries of Switzerland, all of which are Members of the European Union. A number of Member States operate comparable systems, and the EU seeks to phase out feed-in tariffs and other national support instruments and to replace them by incentives based upon taxation. Therefore there is no fundamental inconsistency to be observed between the EU and Switzerland.
2. Under the FTA Switzerland – EEC, differential taxation based upon processes and production methods may cause political problems if imports of non-renewable energy, in particular nuclear generated, are substantially impaired and reduced, or if the differentiated tax results in cheap exports of green electricity to the EU. This may give rise to discussions in the Joint Committee.
3. Subject to the details of a particular tax design based upon Options A or B, the likelihood of the EU bringing a challenge under WTO law is minimal as the Union has been reluctant to engage in dispute settlement against Switzerland on the basis of WTO law, both in terms of discriminatory taxation and subsidies. It is not possible to predict whether or not third countries connected to the European electricity grid may be less reluctant to trigger a dispute settlement. However, it is difficult to envisage a scenario where this may become relevant. It is noteworthy that Feed in Tariffs and thus a main instrument for the promotion of renewable energy have been challenged on grounds only that they entailed local content requirements, but not as a matter of principle. In any event, WTO law will also inform discussions before the Joint Committee of the FTA Switzerland – EEC and may also inform negotiations on a possible future Electricity Agreement working towards the endorsement of measures based upon options A and B.
4. To the extent that EU law imposes standards that are different from the FTA or WTO law, these are in principle not binding on Switzerland, as long as no specific Electricity Agreement has been concluded with the EU. Yet, Switzerland may decide to unilaterally follow certain aspects of EU legislation if this appears interesting from a Swiss perspective.
5. Should an Electricity Agreement be concluded, this may change the dynamics because the pressure on Switzerland to align its policy in the renewables field with its EU neighbours will be increased, and Swiss policy will possibly be exposed to more stringent supervision, depending on the future institutional arrangements with the EU. The substantive assessment will largely depend upon legal developments within the EU in respect of the RES Directive 2009/28 EC, whose compatibility with primary EU law is currently being put into doubt.
6. In conclusion, differential taxation of electricity drafted on the basis of options A and B can be implemented in accordance with obligations under international law and the risk of challenges

remains manageable for the Federal Government. Measures adopted on the basis of Options C and D will be more open to a legal challenge, because they include elements of differential treatment according to the geographical origin of electricity and quantitative restrictions. Whether or not the EU, an EU Member State or another state may have political cause to file a legal complaint essentially depends on the effect the electricity tax will have on electricity imports into and exports from Switzerland. Should for example the introduction of the tax trigger a decline of imports of electricity produced from nuclear energy in neighbouring countries, in particular France, then this could be a political issue with potentially legal repercussions.

ANNEXES

ANNEX 1: Support instruments for energy from renewable sources in EU Member States

• Austria	FiT, Subsidy
• Belgium	Net-metering, Quota, Subsidy
• Bulgaria	FiT, loan, Subsidy
• Croatia	FiT, Loan
• Cyprus	Premium, Subsidy
• Czech Rep.	FiT, Loan, Premium tariff, Subsidy
• Denmark	Loan, Net-metering, Premium tariff, Subsidy
• Estonia	Premium tariff, Subsidy
• Finland	Premium tariff, Subsidy
• France	FiT, Tax regulation mechanisms
• Germany	FiT, Loan, Premium tariff
• Greece	FiT, Subsidy (soft loan), Tax regulation mechanism
• Hungary	FiT, Subsidy
• Ireland	FiT, Tax regulation mechanisms
• Italy	FiT, Quota system, Premium tariff, Net-Metering, Tax regulation mechanism
• Latvia	FiT
• Lithuania	FiT, loan, Subsidy, Tax regulation mechanism
• Luxembourg	FiT, Subsidy, Regulation mechanism
• Malta	FiT
• Netherlands	Loan, Net-metering, Premium tariff, Subsidy, Tax regulation
• Poland	Quota system, Tax regulation mechanism
• Portugal	FiT
• Romania	Quota System, Subsidy
• Slovakia	FiT, Subsidy, Tax regulation mechanism
• Slovenia	FiT, Loan, Premium tariff, Subsidy
• Spain	FiT, Premium tariff, Tax regulation mechanisms
• Sweden	Quota system, Subsidy, tax regulation mechanisms
• UK	FiT, Quota system, Tax regulation mechanism

Source: European Commission Staff Working Document of 05/11/2013, SWD(2013) 439 final, European Commission guidance for the design of renewables support schemes, accompanying the document: Communication from the Commission - Delivering the internal market in electricity and making the most of public Intervention, Table 2: Support instruments for RES-E

ANNEX 2: Tables on Compatibility of Electricity Tax Differentiation with FTA Switzerland – EEC, EU Law and WTO Law

Please note that the following tables reflect a summary and ultimately, compatibility depends on the specific design of the tax scheme under consideration. For a detailed assessment please refer to the main text of our opinion above.

Table 1: Compatibility of electricity tax differentiation with bilateral Free Trade Agreement Switzerland – EEC

	Prohibition of discriminatory taxation	Prohibition of state aid
Option A	Discrimination according to the geographic origin ✘ Differentiation according to source ± Measure applying indiscriminately to imports and domestic sales ± Objective justification ±	Selective benefit ? Is not selective if all green electricity is taxed equally, irrespective of the technology of production
Option B	Discrimination according to the geographic origin ✘ Differentiation according to source ± Measure applying indiscriminately to imports and domestic sales ± Objective justification ±	Selective benefit ? Is not selective if all green electricity is taxed equally, irrespective of the technology of production
Option C	Discrimination according to the geographic origin ± Objective justification for environmental reasons ± Proportionality ✘	Selective benefit ± Objective justification for environmental reasons ± Proportionality ✘
Option D	Prohibition to introduce new quantitative restrictions ± Objective justification for environmental reasons ± Proportionality ✘	Selective benefit ± Objective justification for environmental reasons ± Proportionality ✘

Table 2: Compatibility of electricity tax differentiation with EU law

	Prohibition of discriminatory taxation	Prohibition of state aid
Option A	Discrimination according to the geographic origin ✘ Differentiation according to source ± Measure applying indiscriminately to imports and domestic sales ± Objective justification ±	Selective benefit ? Is not selective if all green electricity is taxed equally, irrespective of the technology of production Exemption conditional on specific design of the tax
Option B	Discrimination according to the geographic origin ✘ Differentiation according to source ± Measure applying indiscriminately to imports and domestic sales ± Objective justification ± GOs should be compatible with RES Directive	Selective benefit ? Is not selective if all green electricity is taxed equally, irrespective of the technology of production Need to ensure that differentiation is transparent, identification of physical flows according to objective criteria and no discrimination GOs should be compatible with RES Directive
Option C	Discrimination according to the geographic origin ± Objective justification for environmental reasons ± Proportionality ✘	Selective benefit ± Objective justification for environmental reasons ± Proportionality ✘
Option D	Prohibition of quantitative restrictions ± Discrimination on grounds of geographic origin ± Objective justification for environmental reasons ± Proportionality ✘	Selective benefit ± Objective justification for environmental reasons ± Proportionality ✘

**Table 3 Compatibility of electricity tax differentiation
with WTO law**

	General Agreement on Tariffs and Trade (GATT)	Agreement on Subsidies and Countervailing Measures (ASCM)
Option A	Art. III:2 → Art. XX	Government revenue foregone ± Specificity ✘ Benefit ±
Option B	Art. III:2 → Art. XX	Government revenue foregone ± Specificity ✘ Benefit ±
Option C	Art. III:2 Art. I:1 → Art. XX ✘ Art. XI:1	Government revenue foregone ± Specificity ✘ Benefit ± Adverse effect ✘
Option D	Art. III:2 Art. III:4 → Art. XX ✘ Art. XI:1	Government revenue foregone ± Specificity ✘ Benefit ± Adverse effect ✘

ANNEX 3: Excerpts from Relevant Legal Texts

GENERAL AGREEMENT ON TARIFFS AND TRADE

ANNEX 1A TO THE MARRAKESH AGREEMENT: MULTILATERAL AGREEMENTS ON TRADE IN GOODS

Article I: General Most-Favoured-Nation Treatment

1. With respect to customs duties and charges of any kind imposed on or in connection with importation or exportation or imposed on the international transfer of payments for imports or exports, and with respect to the method of levying such duties and charges, and with respect to all rules and formalities in connection with importation and exportation, and with respect to all matters referred to in paragraphs 2 and 4 of Article III,* any advantage, favour, privilege or immunity granted by any contracting party to any product originating in or destined for any other country shall be accorded immediately and unconditionally to the like product originating in or destined for the territories of all other contracting parties.

2. The provisions of paragraph 1 of this Article shall not require the elimination of any preferences in respect of import duties or charges which do not exceed the levels provided for in paragraph 4 of this Article and which fall within the following descriptions:

(a) Preferences in force exclusively between two or more of the territories listed in Annex A, subject to the conditions set forth therein;

(b) Preferences in force exclusively between two or more territories which on July 1, 1939, were connected by common sovereignty or relations of protection or suzerainty and which are listed in Annexes B, C and D, subject to the conditions set forth therein;

(c) Preferences in force exclusively between the United States of America and the Republic of Cuba;

(d) Preferences in force exclusively between neighbouring countries listed in Annexes E and F.

3. The provisions of paragraph 1 shall not apply to preferences between the countries formerly a part of the Ottoman Empire and detached from it on July 24, 1923, provided such preferences are approved under paragraph 5(1) of Article XXV which shall be applied in this respect in the light of paragraph 1 of Article XXIX.

(footnote original) 1 The authentic text erroneously reads "subparagraph 5 (a)".

4. The margin of preference* on any product in respect of which a preference is permitted under paragraph 2 of this Article but is not specifically set forth as a maximum margin of preference in the appropriate Schedule annexed to this Agreement shall not exceed:

(a) in respect of duties or charges on any product described in such Schedule, the difference between the most-favoured-nation and preferential rates provided for therein; if no preferential rate is provided for, the preferential rate shall for the purposes of this paragraph be taken to be that in force on April 10,

1947, and, if no most-favoured-nation rate is provided for, the margin shall not exceed the difference between the most-favoured-nation and preferential rates existing on April 10, 1947;

(b) in respect of duties or charges on any product not described in the appropriate Schedule, the difference between the most-favoured-nation and preferential rates existing on April 10, 1947.

In the case of the contracting parties named in Annex G, the date of April 10, 1947, referred to in subparagraph (a) and (b) of this paragraph shall be replaced by the respective dates set forth in that Annex.

Article III*: National Treatment on Internal Taxation and Regulation

1. The contracting parties recognize that internal taxes and other internal charges, and laws, regulations and requirements affecting the internal sale, offering for sale, purchase, transportation, distribution or use of products, and internal quantitative regulations requiring the mixture, processing or use of products in specified amounts or proportions, should not be applied to imported or domestic products so as to afford protection to domestic production.*

2. The products of the territory of any contracting party imported into the territory of any other contracting party shall not be subject, directly or indirectly, to internal taxes or other internal charges of any kind in excess of those applied, directly or indirectly, to like domestic products. Moreover, no contracting party shall otherwise apply internal taxes or other internal charges to imported or domestic products in a manner contrary to the principles set forth in paragraph 1.*

3. With respect to any existing internal tax which is inconsistent with the provisions of paragraph 2, but which is specifically authorized under a trade agreement, in force on April 10, 1947, in which the import duty on the taxed product is bound against increase, the contracting party imposing the tax shall be free to postpone the application of the provisions of paragraph 2 to such tax until such time as it can obtain release from the obligations of such trade agreement in order to permit the increase of such duty to the extent necessary to compensate for the elimination of the protective element of the tax.

4. The products of the territory of any contracting party imported into the territory of any other contracting party shall be accorded treatment no less favourable than that accorded to like products of national origin in respect of all laws, regulations and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution or use. The provisions of this paragraph shall not prevent the application of differential internal transportation charges which are based exclusively on the economic operation of the means of transport and not on the nationality of the product.

5. No contracting party shall establish or maintain any internal quantitative regulation relating to the mixture, processing or use of products in specified amounts or proportions which requires, directly or indirectly, that any specified amount or proportion of any product which is the subject of the regulation must be supplied from domestic sources. Moreover, no contracting party shall otherwise apply internal quantitative regulations in a manner contrary to the principles set forth in paragraph 1.*

6. The provisions of paragraph 5 shall not apply to any internal quantitative regulation in force in the territory of any contracting party on July 1, 1939, April 10, 1947, or March 24, 1948, at the option of that contracting party; Provided that any such regulation which is contrary to the provisions of para-

graph 5 shall not be modified to the detriment of imports and shall be treated as a customs duty for the purpose of negotiation.

7. No internal quantitative regulation relating to the mixture, processing or use of products in specified amounts or proportions shall be applied in such a manner as to allocate any such amount or proportion among external sources of supply.

8. (a) The provisions of this Article shall not apply to laws, regulations or requirements governing the procurement by governmental agencies of products purchased for governmental purposes and not with a view to commercial resale or with a view to use in the production of goods for commercial sale.

(b) The provisions of this Article shall not prevent the payment of subsidies exclusively to domestic producers, including payments to domestic producers derived from the proceeds of internal taxes or charges applied consistently with the provisions of this Article and subsidies effected through governmental purchases of domestic products.

9. The contracting parties recognize that internal maximum price control measures, even though conforming to the other provisions of this Article, can have effects prejudicial to the interests of contracting parties supplying imported products. Accordingly, contracting parties applying such measures shall take account of the interests of exporting contracting parties with a view to avoiding to the fullest practicable extent such prejudicial effects.

10. The provisions of this Article shall not prevent any contracting party from establishing or maintaining internal quantitative regulations relating to exposed cinematograph films and meeting the requirements of Article IV.

Ad Article III

Any internal tax or other internal charge, or any law, regulation or requirement of the kind referred to in paragraph 1 which applies to an imported product and to the like domestic product and is collected or enforced in the case of the imported product at the time or point of importation, is nevertheless to be regarded as an internal tax or other internal charge, or a law, regulation or requirement of the kind referred to in paragraph 1, and is accordingly subject to the provisions of Article III.

Article XI*: General Elimination of Quantitative Restrictions

1. No prohibitions or restrictions other than duties, taxes or other charges, whether made effective through quotas, import or export licences or other measures, shall be instituted or maintained by any contracting party on the importation of any product of the territory of any other contracting party or on the exportation or sale for export of any product destined for the territory of any other contracting party.

2. The provisions of paragraph 1 of this Article shall not extend to the following:

(a) Export prohibitions or restrictions temporarily applied to prevent or relieve critical shortages of foodstuffs or other products essential to the exporting contracting party;

- (b) Import and export prohibitions or restrictions necessary to the application of standards or regulations for the classification, grading or marketing of commodities in international trade;
- (c) Import restrictions on any agricultural or fisheries product, imported in any form,* necessary to the enforcement of governmental measures which operate:
 - (i) to restrict the quantities of the like domestic product permitted to be marketed or produced, or, if there is no substantial domestic production of the like product, of a domestic product for which the imported product can be directly substituted; or
 - (ii) to remove a temporary surplus of the like domestic product, or, if there is no substantial domestic production of the like product, of a domestic product for which the imported product can be directly substituted, by making the surplus available to certain groups of domestic consumers free of charge or at prices below the current market level; or
 - (iii) to restrict the quantities permitted to be produced of any animal product the production of which is directly dependent, wholly or mainly, on the imported commodity, if the domestic production of that commodity is relatively negligible.

Any contracting party applying restrictions on the importation of any product pursuant to subparagraph (c) of this paragraph shall give public notice of the total quantity or value of the product permitted to be imported during a specified future period and of any change in such quantity or value. Moreover, any restrictions applied under (i) above shall not be such as will reduce the total of imports relative to the total of domestic production, as compared with the proportion which might reasonably be expected to rule between the two in the absence of restrictions. In determining this proportion, the contracting party shall pay due regard to the proportion prevailing during a previous representative period and to any special factors* which may have affected or may be affecting the trade in the product concerned.

Article XX: General Exceptions

Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures:

- (a) necessary to protect public morals;
- (b) necessary to protect human, animal or plant life or health;
- (c) relating to the importations or exportations of gold or silver;
- (d) necessary to secure compliance with laws or regulations which are not inconsistent with the provisions of this Agreement, including those relating to customs enforcement, the enforcement of monopolies operated under paragraph 4 of Article II and Article XVII, the protection of patents, trademarks and copyrights, and the prevention of deceptive practices;

- (e) relating to the products of prison labour;
- (f) imposed for the protection of national treasures of artistic, historic or archaeological value;
- (g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption;
- (h) undertaken in pursuance of obligations under any intergovernmental commodity agreement which conforms to criteria submitted to the CONTRACTING PARTIES and not disapproved by them or which is itself so submitted and not so disapproved;*
- (i) involving restrictions on exports of domestic materials necessary to ensure essential quantities of such materials to a domestic processing industry during periods when the domestic price of such materials is held below the world price as part of a governmental stabilization plan; Provided that such restrictions shall not operate to increase the exports of or the protection afforded to such domestic industry, and shall not depart from the provisions of this Agreement relating to non-discrimination;
- (j) essential to the acquisition or distribution of products in general or local short supply; Provided that any such measures shall be consistent with the principle that all contracting parties are entitled to an equitable share of the international supply of such products, and that any such measures, which are inconsistent with the other provisions of the Agreement shall be discontinued as soon as the conditions giving rise to them have ceased to exist. The CONTRACTING PARTIES shall review the need for this sub-paragraph not later than 30 June 1960.

AGREEMENT ON SUBSIDIES AND COUNTERVAILING MEASURES

ANNEX 1A TO THE MARRAKESH AGREEMENT: MULTILATERAL AGREEMENTS ON TRADE IN GOODS

Article 1: Definition of a Subsidy

1.1 For the purpose of this Agreement, a subsidy shall be deemed to exist if:

- (a)(1) there is a financial contribution by a government or any public body within the territory of a Member (referred to in this Agreement as “government”), i.e. where:
 - (i) a government practice involves a direct transfer of funds (e.g. grants, loans, and equity infusion), potential direct transfers of funds or liabilities (e.g. loan guarantees);
 - (ii) government revenue that is otherwise due is foregone or not collected (e.g. fiscal incentives such as tax credits)(1);

(footnote original) 1 In accordance with the provisions of Article XVI of GATT 1994 (Note to Article XVI) and the provisions of Annexes I through III of this Agreement, the exemption of an exported product from duties or taxes borne by the like product when destined for domestic consumption, or the remission of such duties or taxes in amounts not in excess of those which have accrued, shall not be deemed to be a subsidy.

- (iii) a government provides goods or services other than general infrastructure, or purchases goods;
 - (iv) a government makes payments to a funding mechanism, or entrusts or directs a private body to carry out one or more of the type of functions illustrated in (i) to (iii) above which would normally be vested in the government and the practice, in no real sense, differs from practices normally followed by governments;
- or
- (a) (2) there is any form of income or price support in the sense of Article XVI of GATT 1994;
- and
- (b) a benefit is thereby conferred.

1.2 A subsidy as defined in paragraph 1 shall be subject to the provisions of Part II or shall be subject to the provisions of Part III or V only if such a subsidy is specific in accordance with the provisions of Article 2.

Article 2: Specificity

2.1 In order to determine whether a subsidy, as defined in paragraph 1 of Article 1, is specific to an enterprise or industry or group of enterprises or industries (referred to in this Agreement as “certain enterprises”) within the jurisdiction of the granting authority, the following principles shall apply:

- (a) Where the granting authority, or the legislation pursuant to which the granting authority operates, explicitly limits access to a subsidy to certain enterprises, such subsidy shall be specific.
- (b) Where the granting authority, or the legislation pursuant to which the granting authority operates, establishes objective criteria or conditions⁽²⁾ governing the eligibility for, and the amount of, a subsidy, specificity shall not exist, provided that the eligibility is automatic and that such criteria and conditions are strictly adhered to. The criteria or conditions must be clearly spelled out in law, regulation, or other official document, so as to be capable of verification.

(footnote original) 2 Objective criteria or conditions, as used herein, mean criteria or conditions which are neutral, which do not favour certain enterprises over others, and which are economic in nature and horizontal in application, such as number of employees or size of enterprise.

- (c) If, notwithstanding any appearance of non-specificity resulting from the application of the principles laid down in subparagraphs (a) and (b), there are reasons to believe that the subsidy may in fact be specific, other factors may be considered. Such factors are: use of a subsidy programme by a limited number of certain enterprises, predominant use by certain enterprises, the granting of disproportionately large amounts of subsidy to certain enterprises, and the manner in which discretion has been exercised by the granting authority in the decision to grant a subsidy.⁽³⁾ In applying this subparagraph, account shall be taken of the extent of diversification of economic activities within the jurisdiction of the granting authority, as well as of the length of time during which the subsidy programme has been in operation.

(footnote original) 3 In this regard, in particular, information on the frequency with which applications for a subsidy are refused or approved and the reasons for such decisions shall be considered.

2.2 A subsidy which is limited to certain enterprises located within a designated geographical region within the jurisdiction of the granting authority shall be specific. It is understood that the setting or change of generally applicable tax rates by all levels of government entitled to do so shall not be deemed to be a specific subsidy for the purposes of this Agreement.

2.3 Any subsidy falling under the provisions of Article 3 shall be deemed to be specific.

2.4 Any determination of specificity under the provisions of this Article shall be clearly substantiated on the basis of positive evidence.

Article 14: Calculation of the Amount of a Subsidy in Terms of the Benefit to the Recipient

For the purpose of Part V, any method used by the investigating authority to calculate the benefit to the recipient conferred pursuant to paragraph 1 of Article 1 shall be provided for in the national legislation or implementing regulations of the Member concerned and its application to each particular case shall be transparent and adequately explained. Furthermore, any such method shall be consistent with the following guidelines:

- (a) government provision of equity capital shall not be considered as conferring a benefit, unless the investment decision can be regarded as inconsistent with the usual investment practice (including for the provision of risk capital) of private investors in the territory of that Member;
- (b) a loan by a government shall not be considered as conferring a benefit, unless there is a difference between the amount that the firm receiving the loan pays on the government loan and the amount the firm would pay on a comparable commercial loan which the firm could actually obtain on the market. In this case the benefit shall be the difference between these two amounts;
- (c) a loan guarantee by a government shall not be considered as conferring a benefit, unless there is a difference between the amount that the firm receiving the guarantee pays on a loan guaranteed by the government and the amount that the firm would pay on a comparable commercial loan absent the government guarantee. In this case the benefit shall be the difference between these two amounts adjusted for any differences in fees;
- (d) the provision of goods or services or purchase of goods by a government shall not be considered as conferring a benefit unless the provision is made for less than adequate remuneration, or the purchase is made for more than adequate remuneration. The adequacy of remuneration shall be determined in relation to prevailing market conditions for the good or service in question in the country of provision or purchase (including price, quality, availability, marketability, transportation and other conditions of purchase or sale).

GENERAL AGREEMENT ON TRADE IN SERVICES

ANNEX 1B TO THE MARRAKESH AGREEMENT: MULTILATERAL AGREEMENTS ON TRADE IN GOODS

Article I: Scope and Definition

1. This Agreement applies to measures by Members affecting trade in services.
2. For the purposes of this Agreement, trade in services is defined as the supply of a service:
 - (a) from the territory of one Member into the territory of any other Member;
 - (b) in the territory of one Member to the service consumer of any other Member;
 - (c) by a service supplier of one Member, through commercial presence in the territory of any other Member;
 - (d) by a service supplier of one Member, through presence of natural persons of a Member in the territory of any other Member.
3. For the purposes of this Agreement:
 - (a) “measures by Members” means measures taken by:
 - (i) central, regional or local governments and authorities; and
 - (ii) non-governmental bodies in the exercise of powers delegated by central, regional or local governments or authorities;

In fulfilling its obligations and commitments under the Agreement, each Member shall take such reasonable measures as may be available to it to ensure their observance by regional and local governments and authorities and non-governmental bodies within its territory;

- (b) “services” includes any service in any sector except services supplied in the exercise of governmental authority;
- (c) “a service supplied in the exercise of governmental authority” means any service which is supplied neither on a commercial basis, nor in competition with one or more service suppliers.

Article VII: Recognition

1. For the purposes of the fulfilment, in whole or in part, of its standards or criteria for the authorization, licensing or certification of services suppliers, and subject to the requirements of paragraph 3, a Member may recognize the education or experience obtained, requirements met, or licenses or certifications granted in a particular country. Such recognition, which may be achieved through harmonization or otherwise, may be based upon an agreement or arrangement with the country concerned or may be accorded autonomously.
2. A Member that is a party to an agreement or arrangement of the type referred to in paragraph 1, whether existing or future, shall afford adequate opportunity for other interested Members to negotiate their accession to such an agreement or arrangement or to negotiate comparable ones with it. Where a Member accords recognition autonomously, it shall afford adequate opportunity for any other Member

to demonstrate that education, experience, licenses, or certifications obtained or requirements met in that other Member's territory should be recognized.

3. A Member shall not accord recognition in a manner which would constitute a means of discrimination between countries in the application of its standards or criteria for the authorization, licensing or certification of services suppliers, or a disguised restriction on trade in services.

4. Each Member shall:

(a) within 12 months from the date on which the WTO Agreement takes effect for it, inform the Council for Trade in Services of its existing recognition measures and state whether such measures are based on agreements or arrangements of the type referred to in paragraph 1;

(b) promptly inform the Council for Trade in Services as far in advance as possible of the opening of negotiations on an agreement or arrangement of the type referred to in paragraph 1 in order to provide adequate opportunity to any other Member to indicate their interest in participating in the negotiations before they enter a substantive phase;

(c) promptly inform the Council for Trade in Services when it adopts new recognition measures or significantly modifies existing ones and state whether the measures are based on an agreement or arrangement of the type referred to in paragraph 1.

5. Wherever appropriate, recognition should be based on multilaterally agreed criteria. In appropriate cases, Members shall work in cooperation with relevant intergovernmental and non-governmental organizations towards the establishment and adoption of common international standards and criteria for recognition and common international standards for the practice of relevant services trades and professions.⁽⁸⁴⁾

Article XV: Subsidies

1. Members recognize that, in certain circumstances, subsidies may have distortive effects on trade in services. Members shall enter into negotiations with a view to developing the necessary multilateral disciplines to avoid such trade-distortive effects.⁽⁷⁾ The negotiations shall also address the appropriateness of countervailing procedures. Such negotiations shall recognize the role of subsidies in relation to the development programmes of developing countries and take into account the needs of Members, particularly developing country Members, for flexibility in this area. For the purpose of such negotiations, Members shall exchange information concerning all subsidies related to trade in services that they provide to their domestic service suppliers.

(footnote original) 7 A future work programme shall determine how, and in what time-frame, negotiations on such multilateral disciplines will be conducted.

2. Any Member which considers that it is adversely affected by a subsidy of another Member may request consultations with that Member on such matters. Such requests shall be accorded sympathetic consideration.

SWITZERLAND – EEC FREE TRADE AGREEMENT OF 1972

22 July 1972, SR 0.631.242.05

Official Journal of the European Union, L 300, 31/12/1972, p. 189

Article 13

1. No new quantitative restriction on imports or measures having equivalent effect shall be introduced in trade between the Community Switzerland.
2. Quantitative restrictions on imports shall be abolished on 1 January 1973 and any measures having an effect equivalent to quantitative restrictions on imports shall be abolished not later than 1 January 1975.

Article 18

The contracting parties shall refrain from any measure or practice of an internal fiscal nature establishing, whether directly or indirectly, discrimination between the products of one contracting party and like products originating in the territory of the other contracting party.

Products exported to the territory of one of the contracting parties may not benefit from repayment of internal taxation in excess of the amount of direct or indirect taxation imposed on them.

Article 20

The agreement shall not preclude prohibitions or restrictions on imports, exports or goods in transit justified on grounds of public morality, law and order or public security, the protection of life and health of humans, animals or plants, the protection of national treasures of artistic, historic or archaeological value, the protection of industrial and commercial property, or rules relating to gold or silver. Such prohibitions or restrictions must not, however, constitute a means of arbitrary discrimination or a disguised restriction on trade between the contracting parties.

Article 23

1. The following are incompatible with the proper functioning of the agreement in so far as they may affect trade between the Community and Switzerland:
 - i. all agreements between undertakings, decisions by associations of undertakings and concerted practices between undertakings which have as their object or effect the prevention, restriction or distortion of competition as regards the production of or trade in goods;
 - ii. abuse by one or more undertakings of a dominant position in the territories of the contracting parties as a whole or in a substantial part thereof;
 - iii. any public aid which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods.
2. Should a contracting party consider that a given practice is incompatible with this article, it may take appropriate measures under the conditions and in accordance with the procedures laid down in article 27.

Article 27

1. In the event of a contracting party subjecting imports of products liable to give rise to the difficulties referred to in articles 24 and 26 to an administrative procedure, the purpose of which is to provide rapid information on the trend of trade flows, it shall inform the other contracting party.
 2. In the cases specified in articles 22 to 26, before taking the measures provided for therein or, in cases to which paragraph 3 (d) applies, as soon as possible the contracting party in question shall supply the joint committee with all relevant information required for a thorough examination of the situation with a view to seeking a solution acceptable to the contracting parties.
- In the selection of measures, priority must be given to those which least disturb the functioning of the

agreement. The safeguard measures shall be notified immediately to the Joint Committee and shall be the subject of periodical consultations within the committee, particularly with a view to their abolition as soon as circumstances permit.

3. For the implementation of paragraph 2, the following provisions shall apply:

(a) as regards article 23, either contracting party may refer the matter to the joint committee if it considers that a given practice is incompatible with the proper functioning of the agreement within the meaning of article 23 (1).

The contracting parties shall provide the joint committee with all relevant information and shall give it the assistance it requires in order to examine the case and, where appropriate, to eliminate the practice objected to.

If the contracting party in question fails to put an end to the practice objected to within the period fixed by the joint committee, or in the absence of agreement in the joint committee within three months of the matter being referred to it, the contracting party concerned may adopt any safeguard measures it considers necessary to deal with the serious difficulties resulting from the practices in question; in particular it may withdraw tariff concessions.

(b) as regards article 24, the difficulties arising from the situation referred to in that article shall be referred for examination to the joint committee, which may take any decision needed to put an end to such difficulties.

If the joint committee or the exporting contracting party has not taken a decision putting an end to the difficulties within thirty days of the matter being referred, the importing contracting party authorised to levy a compensatory charge on the product imported.

The compensatory charge shall be calculated according to the incidence on the value of the goods in question of the tariff disparities in respect of the raw materials or intermediate products incorporated therein.

(c) as regards article 25, consultation in the joint committee shall take place before the contracting party concerned takes the appropriate measures.

(d) where exceptional circumstances requiring immediate action make prior examination impossible, the contracting party concerned may, in the situations specified in articles 24, 25 and 26 and also in the case of export aids having a direct and immediate incidence on trade, apply forthwith the precautionary measures strictly necessary to remedy the situation.

CONSOLIDATED VERSION OF THE TREATY ON THE FUNCTIONING OF THE EUROPEAN UNION

Official Journal of the European Union C 115/49 of 9/5/2008

Article 34

(ex Article 28 TEC)

Quantitative restrictions on imports and all measures having equivalent effect shall be prohibited between Member States.

Article 107

(ex Article 87 TEC)

1. Save as otherwise provided in the Treaties, any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the internal market.

2. The following shall be compatible with the internal market:

- (a) aid having a social character, granted to individual consumers, provided that such aid is granted without discrimination related to the origin of the products concerned;
- (b) aid to make good the damage caused by natural disasters or exceptional occurrences;
- (c) aid granted to the economy of certain areas of the Federal Republic of Germany affected by the division of Germany, in so far as such aid is required in order to compensate for the economic disadvantages caused by that division. Five years after the entry into force of the Treaty of Lisbon, the Council, acting on a proposal from the Commission, may adopt a decision repealing this point.

3. The following may be considered to be compatible with the internal market:

- (a) aid to promote the economic development of areas where the standard of living is abnormally low or where there is serious underemployment, and of the regions referred to in Article 349, in view of their structural, economic and social situation;
- (b) aid to promote the execution of an important project of common European interest or to remedy a serious disturbance in the economy of a Member State;
- (c) aid to facilitate the development of certain economic activities or of certain economic areas, where such aid does not adversely affect trading conditions to an extent contrary to the common interest;
- (d) aid to promote culture and heritage conservation where such aid does not affect trading conditions and competition in the Union to an extent that is contrary to the common interest;
- (e) such other categories of aid as may be specified by decision of the Council on a proposal from the Commission.

Article 108

(ex Article 88 TEC)

1. The Commission shall, in cooperation with Member States, keep under constant review all systems of aid existing in those States. It shall propose to the latter any appropriate measures required by the progressive development or by the functioning of the internal market.

2. If, after giving notice to the parties concerned to submit their comments, the Commission finds that aid granted by a State or through State resources is not compatible with the internal market having regard to Article 107, or that such aid is being misused, it shall decide that the State concerned shall abolish or alter such aid within a period of time to be determined by the Commission.

If the State concerned does not comply with this decision within the prescribed time, the Commission or any other interested State may, in derogation from the provisions of Articles 258 and 259, refer the matter to the Court of Justice of the European Union direct.

On application by a Member State, the Council may, acting unanimously, decide that aid which that State is granting or intends to grant shall be considered to be compatible with the internal market, in derogation from the provisions of Article 107 or from the regulations provided for in Article 109, if such a decision is justified by exceptional circumstances. If, as regards the aid in question, the Commission has already initiated the procedure provided for in the first subparagraph of this paragraph, the fact that the State concerned has made its application to the Council shall have the effect of suspending that procedure until the Council has made its attitude known.

If, however, the Council has not made its attitude known within three months of the said application being made, the Commission shall give its decision on the case.

3. The Commission shall be informed, in sufficient time to enable it to submit its comments, of any plans to grant or alter aid. If it considers that any such plan is not compatible with the internal market having regard to Article 107, it shall without delay initiate the procedure provided for in paragraph 2. The Member State concerned shall not put its proposed measures into effect until this procedure has resulted in a final decision.

4. The Commission may adopt regulations relating to the categories of State aid that the Council has, pursuant to Article 109, determined may be exempted from the procedure provided for by paragraph 3 of this Article.

Article 110

(ex Article 90 TEC)

No Member State shall impose, directly or indirectly, on the products of other Member States any internal taxation of any kind in excess of that imposed directly or indirectly on similar domestic products.

Furthermore, no Member State shall impose on the products of other Member States any internal taxation of such a nature as to afford indirect protection to other products.

DIRECTIVE 2009/28/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF 23 APRIL 2009 ON THE PROMOTION OF THE USE OF ENERGY FROM RENEWABLE SOURCES AND AMENDING AND SUBSEQUENTLY REPEALING DIRECTIVES 2001/77/EC AND 2003/30/EC

Official Journal of the European Union, L 140 of 5/6/2009, p. 16

Article 2

Definitions

For the purposes of this Directive, the definitions in Directive 2003/54/EC apply.

The following definitions also apply:

[...]

(j) 'guarantee of origin' means an electronic document which has the sole function of providing proof to a final customer that a given share or quantity of energy was produced from renewable sources as required by Article 3(6) of Directive 2003/54/EC;

(k) 'support scheme' means any instrument, scheme or mechanism applied by a Member State or a group of Member States, that promotes the use of energy from renewable sources by reducing the cost of that energy, increasing the price at which it can be sold, or increasing, by means of a renewable energy obligation or otherwise, the volume of such energy purchased. This includes, but is not restricted to, investment aid, tax exemptions or reductions, tax refunds, renewable energy obligation support schemes including those using green certificates, and direct price support schemes including feed-in tariffs and premium payments;

(l) 'renewable energy obligation' means a national support scheme requiring energy producers to include a given proportion of energy from renewable sources in their production, requiring energy suppliers to include a given proportion of energy from renewable sources in their supply, or requiring energy consumers to include a given proportion of energy from renewable sources in their consumption. This includes schemes under which such requirements may be fulfilled by using green certificates;

[...]

Article 3

Mandatory national overall targets and measures for the use of energy from renewable sources

1. Each Member State shall ensure that the share of energy from renewable sources, calculated in accordance with Articles 5 to 11, in gross final consumption of energy in 2020 is at least its national overall target for the share of energy from renewable sources in that year, as set out in the third column of the table in part A of Annex I. Such mandatory national overall targets are consistent with a target of at least a 20 % share of energy from renewable sources in the Community's gross final consumption of energy in 2020. In order to achieve the targets laid down in this Article more easily, each Member State shall promote and encourage energy efficiency and energy saving.

2. Member States shall introduce measures effectively designed to ensure that the share of energy from renewable sources equals or exceeds that shown in the indicative trajectory set out in part B of Annex I.

3. In order to reach the targets set in paragraphs 1 and 2 of this Article Member States may, inter alia, apply the following measures:

(a) support schemes;

(b) measures of cooperation between different Member States and with third countries for achieving their national overall targets in accordance with Articles 5 to 11.

Without prejudice to Articles 87 and 88 of the Treaty, Member States shall have the right to decide, in accordance with Articles 5 to 11 of this Directive, to which extent they support energy from renewable sources which is produced in a different Member State.

4. Each Member State shall ensure that the share of energy from renewable sources in all forms of transport in 2020 is at least 10 % of the final consumption of energy in transport in that Member State. For the purposes of this paragraph, the following provisions shall apply:

(a) for the calculation of the denominator, that is the total amount of energy consumed in transport for the purposes of the first subparagraph, only petrol, diesel, biofuels consumed in road and rail transport, and electricity shall be taken into account;

(b) for the calculation of the numerator, that is the amount of energy from renewable sources consumed in transport for the purposes of the first subparagraph, all types of energy from renewable sources consumed in all forms of transport shall be taken into account;

(c) for the calculation of the contribution from electricity produced from renewable sources and consumed in all types of electric vehicles for the purpose of points (a) and (b), Member States may choose to use either the average share of electricity from renewable energy sources in the Community or the share of electricity from renewable energy sources in their own country as measured two years before the year in question. Furthermore, for the calculation of the electricity from renewable energy sources consumed by electric road vehicles, that consumption shall be considered to be 2,5 times the energy content of the input of electricity from renewable energy sources.

By 31 December 2011, the Commission shall present, if appropriate, a proposal permitting, subject to certain conditions, the whole amount of the electricity originating from renewable sources used to power all types of electric vehicles to be considered.

By 31 December 2011, the Commission shall also present, if appropriate, a proposal for a methodology for calculating the contribution of hydrogen originating from renewable sources in the total fuel mix.

Article 15

Guarantees of origin of electricity, heating and cooling produced from renewable energy sources

1. For the purposes of proving to final customers the share or quantity of energy from renewable sources in an energy supplier's energy mix in accordance with Article 3(6) of Directive 2003/54/EC, Member States shall ensure that the origin of electricity produced from renewable energy sources can

be guaranteed as such within the meaning of this Directive, in accordance with objective, transparent and non-discriminatory criteria.

2. To that end, Member States shall ensure that a guarantee of origin is issued in response to a request from a producer of electricity from renewable energy sources. Member States may arrange for guarantees of origin to be issued in response to a request from producers of heating and cooling from renewable energy sources. Such an arrangement may be made subject to a minimum capacity limit. A guarantee of origin shall be of the standard size of 1 MWh. No more than one guarantee of origin shall be issued in respect of each unit of energy produced.

Member States shall ensure that the same unit of energy from renewable sources is taken into account only once.

Member States may provide that no support be granted to a producer when that producer receives a guarantee of origin for the same production of energy from renewable sources.

The guarantee of origin shall have no function in terms of a Member State's compliance with Article 3. Transfers of guarantees of origin, separately or together with the physical transfer of energy, shall have no effect on the decision of Member States to use statistical transfers, joint projects or joint support schemes for target compliance or on the calculation of the gross final consumption of energy from renewable sources in accordance with Article 5.

3. Any use of a guarantee of origin shall take place within 12 months of production of the corresponding energy unit. A guarantee of origin shall be cancelled once it has been used.

4. Member States or designated competent bodies shall supervise the issuance, transfer and cancellation of guarantees of origin. The designated competent bodies shall have non-overlapping geographical responsibilities, and be independent of production, trade and supply activities.

5. Member States or the designated competent bodies shall put in place appropriate mechanisms to ensure that guarantees of origin shall be issued, transferred and cancelled electronically and are accurate, reliable and fraud-resistant.

6. A guarantee of origin shall specify at least:

(a) the energy source from which the energy was produced and the start and end dates of production;

(b) whether it relates to:

(i) electricity; or

(ii) heating or cooling;

(c) the identity, location, type and capacity of the installation where the energy was produced;

(d) whether and to what extent the installation has benefited from investment support, whether and to what extent the unit of energy has benefited in any other way from a national support scheme, and the type of support scheme;

(e) the date on which the installation became operational; and

(f) the date and country of issue and a unique identification number.

7. Where an electricity supplier is required to prove the share or quantity of energy from renewable sources in its energy mix for the purposes of Article 3(6) of Directive 2003/54/EC, it may do so by using its guarantees of origin.

8. The amount of energy from renewable sources corresponding to guarantees of origin transferred by an electricity supplier to a third party shall be deducted from the share of energy from renewable sources in its energy mix for the purposes of Article 3(6) of Directive 2003/54/EC.

9. Member States shall recognise guarantees of origin issued by other Member States in accordance with this Directive exclusively as proof of the elements referred to in paragraph 1 and paragraph 6(a) to (f). A Member State may refuse to recognise a guarantee of origin only when it has well-founded

doubts about its accuracy, reliability or veracity. The Member State shall notify the Commission of such a refusal and its justification.

10. If the Commission finds that a refusal to recognise a guarantee of origin is unfounded, the Commission may adopt a decision requiring the Member State in question to recognise it.

11. A Member State may introduce, in conformity with Community law, objective, transparent and non-discriminatory criteria for the use of guarantees of origin in complying with the obligations laid down in Article 3(6) of Directive 2003/54/EC.

12. Where energy suppliers market energy from renewable sources to consumers with a reference to environmental or other benefits of energy from renewable sources, Member States may require those energy suppliers to make available, in summary form, information on the amount or share of energy from renewable sources that comes from installations or increased capacity that became operational after 25 June 2009.

COUNCIL DIRECTIVE 2003/96/EC OF 27 OCTOBER 2003 RESTRUCTURING THE COMMUNITY FRAMEWORK FOR THE TAXATION OF ENERGY PRODUCTS AND ELECTRICITY

Official Journal of the European Union L 283 of, 31/10/2003 p. 51-70

Article 15

1. Without prejudice to other Community provisions, Member States may apply under fiscal control total or partial exemptions or reductions in the level of taxation to:

(a) taxable products used under fiscal control in the field of pilot projects for the technological development of more environmentally-friendly products or in relation to fuels from renewable resources;

(b) electricity:

- of solar, wind, wave, tidal or geothermal origin;
- of hydraulic origin produced in hydroelectric installations;
- generated from biomass or from products produced from biomass;
- generated from methane emitted by abandoned coalmines;
- generated from fuel cells;

(c) energy products and electricity used for combined heat and power generation;

(d) electricity produced from combined heat and power generation, provided that the combined generators are environmentally friendly. Member States may apply national definitions of "environmentally-friendly" (or high efficiency) cogeneration production until the Council, on the basis of a report and a proposal from the Commission, unanimously adopts a common definition;

(e) energy products and electricity used for the carriage of goods and passengers by rail, metro, tram and trolley bus;

(f) energy products supplied for use as fuel for navigation on inland waterways (including fishing) other than in private pleasure craft, and electricity produced on board a craft;

(g) natural gas in Member States in which the share of natural gas in final energy consumption was less than 15 % in 2000;

The total or partial exemptions or reductions may apply for a maximum period of ten years after the entry into force of this Directive or until the national share of natural gas in final energy consumption reaches 25 %, whichever is the sooner. However, as soon as the national share of natural gas in final energy consumption reaches 20 %, the Member States concerned shall apply a strictly positive level of taxation, which shall increase on a yearly basis in order to reach at least the minimum rate at the end of the period referred to above.

The United Kingdom of Great Britain and Northern Ireland may apply the total or partial exemptions or reductions for natural gas separately for Northern Ireland;

(h) electricity, natural gas, coal and solid fuels used by households and/or by organisations recognised as charitable by the Member State concerned. In the case of such charitable organisations, Member States may confine the exemption or reduction to use for the purpose of non-business activities.

Where mixed use takes place, taxation shall apply in proportion to each type of use. If a use is insignificant, it may be treated as nil;

(i) natural gas and LPG used as propellants;

(j) motor fuels used in the field of the manufacture, development, testing and maintenance of aircraft and ships;

(k) motor fuels used for dredging operations in navigable waterways and in ports;

(l) products falling within CN code 2705 used for heating purposes.

2. Member States may also refund to the producer some or all of the amount of tax paid by the consumer on electricity produced from products specified in paragraph 1(b).

3. Member States may apply a level of taxation down to zero to energy products and electricity used for agricultural, horticultural or piscicultural works, and in forestry.

On the basis of a proposal from the Commission, the Council shall before 1 January 2008 examine if the possibility of applying a level of taxation down to zero shall be repealed.