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CERTAIN LEGAL ASPECTS OF THE MULTILATERAL
TRADE SYSTEM AND THE PROMOTION OF
RENEWABLE ENERGY

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ABSTRACT: *The multilateral trade system aims at the eventual total liberalization of cross-border trade through the removal of as many trade barriers – such as tariffs, quantitative restrictions, and trade-distortive practices – as may be politically acceptable to the economic areas involved. For their part, the governing structures of the economic areas concerned – for the most part, the governments of sovereign States – are faced with the task of addressing a much broader set of interests than those pertaining to trade. However, the accession of sovereign actors and regional economic unions (such as the European Union) to international treaty-based organizations, such as the World Trade Organization (WTO), and their acceptance of the relevant international obligations, often commensurately condition their policy-making. In that respect, it is not uncommon for, say, certain measures that WTO members take in order to address some subjective policy objective that is, on the face of it, extraneous to cross-border trade, to infringe upon their international obligations – for instance, such measures may infringe upon obligations owed by WTO members under their WTO membership in a manner that is not in line with WTO rules.*

On the occasion of recent WTO cases that contain findings against Canada in relation to a regional measure aimed at the promotion of renewable energy, it may be pertinent to examine the degree to which the existing WTO normative framework may permit its members policy space to take measures aimed at promoting renewable energy. To that end, we provide a tour d’horizon of the WTO rules that are likely to be engaged by such policies. As part of this, we examine the GATT/WTO system’s evolved responsiveness towards environmental objectives. Finally, we highlight whatever perceived systemic obstacles might exist to the meaningful bridging of the WTO’s environmental objectives with its core trade liberalization objectives.

In conclusion, we find the stronger view to be that the relevant WTO jurisprudence appears to suggest that the WTO system is being fully and effectively used on the part of members in relation to their environmental objectives, and that members’ bona fide environmentally-focused measures that, incidentally, distort or otherwise restrict cross-border trade are ultimately upheld by the WTO system so long as they are bona fide, applied evenhandedly, and not unduly restrictive. That said, while the system, as it stands, is considerably flexible towards ‘externalities’ such as environmental protection objectives, further trade liberalization remains the system’s principle objective. This however, does not happen in a policy-value vacuum, given that the cause of trade liberalization is increasingly conditioned by environmental protection objectives.

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I. Introduction

Environmental degradation occurs due to a variety of reasons, including processes that are entirely inherent to nature.¹ However, in recent history, the rate

¹ For further explanation, see Leal-Arcas, R. *Climate Change and International Trade*, Cheltenham: Edward Elgar, chapter 2, 2013.

of environmental degradation has been ostensibly more rapid than during the previous millennia of organized human society.² What is more, we are fast approaching the tipping point after which environmental degradation may become irreversible.³ This excessiveness in ‘climate change’ has largely been anthropogenic in that it flows from the effects of human activity. Moreover, environmental degradation operates dynamically in that the anthropogenic effects on the environment may themselves cause or contribute to further environmental degradation.

To illustrate this point, let us take the example of atmospheric greenhouse gases (GHGs),⁴ which are almost entirely human-caused.⁵ The concentration of GHGs in the atmosphere not only degrades the atmosphere, but also creates the ‘greenhouse effect,’ thus trapping a significant part of the Earth’s energy and heat that would otherwise be reflected back into space. The effect of this phenomenon is the rise of the Earth’s temperature, which, in turn, has far-reaching consequences – including severe weather events, desertification and the melting of polar water-bodies and territories – for ecosystems and the human, animal, and plant populations they sustain.

² See the executive summary to the IEA 2013 ‘*Redrawing the Energy-Climate Map*’ World Energy Outlook Special report, at p. 1.

³ See the Intergovernmental Panel on Climate Change report “Climate Change 2007: Synthesis Report,” 2007, where it is stated that: “*Anthropogenic warming could lead to some impacts that are abrupt or irreversible, depending upon the rate and magnitude of the climate change.*” (at p. 53).

⁴ Article 1 of the UN Framework Convention on Climate Change (UNFCCC) defines greenhouse gases as “*those gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and re-emit infrared radiation.*”

⁵ During 2004, the breakdown of global GHG emissions was the following: 26% regarding the energy supply, 19% regarding industry, 17% regarding gases released from land-use change and forestry, 14% from agriculture, 13% regarding transport, 8% regarding residential, commercial, and service sectors, and 3% regarding waste. See IPCC, 2007: *Climate Change 2007: Mitigation. Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [B. Metz, O.R. Davidson, P.R. Bosch, R. Dave, L.A. Meyer (eds.)], Cambridge, United Kingdom and New York, NY, USA: Cambridge University Press (at pp. 27 & 104). Nota bene: This appears to be the latest illustrative compilation of global GHG emission figures. It is worth noting that the breakdown of GHG indicates that the overwhelming majority of GHG emissions relates to CO₂. The breakdown is: 57% from CO₂ (produced due to fossil-fuel use), 17% from CO₂ (related to biomass and deforestation), 14% from methane, 8% from nitrous oxide, and 8% from various fluorinated gases. These figures have been calculated by the US Environmental Protection Agency (EPA) based on data in the IPCC, 2007: *Climate Change 2007: Mitigation. Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [B. Metz, O.R. Davidson, P.R. Bosch, R. Dave, L.A. Meyer (eds.)], Cambridge University Press, Cambridge: United Kingdom and New York, NY: USA, report. (See <http://www.epa.gov/climatechange/ghgemissions/global.html> for the EPA’s calculations).

In light of the above, it is unsurprising that climate change is a concern to many a State and inter-State actor. What is surprising, however, are the underwhelming efforts on the part of the international ‘community’ to meaningfully address climate change⁶. While a *gathering* – for lack of a better word – of State actors indeed exists, in our view, this does not possess the characteristics of a community with equal interests. References to an *international community* often disguise the fact that what we are dealing with is, essentially, a collection of sovereign entities that, while formally enjoying the legal equality flowing from their sovereign status, in reality, are as highly disparate amongst themselves as their interests. How this may translate at the inter-State cooperation level is that meaningful efforts to address climate change might founder on the fact that certain States – including those with significant hydrocarbon/fossil fuel⁷ endowments and those whose privately- and/or State-owned enterprises have considerable interests in the conventional energy sector, along with highly polluting States with heavy industries – do not share the same sense of urgency as those States who seek to spearhead collective inter-State efforts aimed at climate change mitigation (e.g., such as the group of small island developing States⁸ that face existential threats by rising sea levels).⁹ In this respect, we shall be avoiding the term *international community* and shall be utilizing references to *inter-State cooperation*.

⁶ The 1992 UNFCCC and its 1997 Kyoto Protocol may have laid the foundations for a nigh-universal climate change mitigation regime that is predicated, amongst others, on the principle of *equity* (see Article 3.1 UNFCCC) that differentiates the climate change mitigation duties owed by the industrialized States from those owed by less- and least-developed States, according to their emitting history and their current capabilities. The UNFCCC and its Kyoto Protocol are significant multilateral steps for the cause of environmental protection; however, in the grander scheme of things, they may have been of little consequence. We say this as we are astonished to note that, while the strength of the Kyoto Protocol lies in the fact that 191 out of 192 of its parties have ratified it (with the notable exception of the US), its Clean Development Mechanism (CDM) (pursuant to Article 12 of the Kyoto Protocol) has only resulted in a 1% containment of global CO₂ levels. See Goldthau, A. and Witte, J.M. (eds.) *Global Energy Governance: The New Rules of the Game*, (Brookings Institution Press, 2010, at p. 146).

⁷ We shall be referring to fossil fuel/hydrocarbon-based fuel as ‘conventional’ energy sources throughout the present chapter.

⁸ See www.un.org/special-rep/ohrls/sid/list.htm.

⁹ For a call to change the current approach to climate change mitigation and to suggest that major economies be more active in the fight against climate change, see Leal-Arcas, R. “Top-down versus Bottom-up Approaches for Climate Change Negotiations: An Analysis,” *The IUP Journal of Governance and Public Policy*, Vol. 6, No. 4, pp. 7-52, December 2011; Leal-Arcas, R. “The BRICS and Climate Change,” *International Affairs Forum*, pp. 1-5, 2013.

We see some instances of unilateralism with respect to measures taken on the basis of the need to address climate change; however, these are not enough. The European Union's (EU) emissions trading system (ETS) is a case in point, where an economic area – namely the EU – that is also a WTO member in its own right had unilaterally, and much to the ire of several other States and WTO peers,¹⁰ sought to include within its ETS all commercial aviation industry actors whose flight operations engaged EU territory. The EU finally suspended this policy under the pressure of the reaction that ensued, which could be seen as EU deference towards multilateralism¹¹. Unsurprisingly, the EU had argued that such instances of unilateralism were necessary, if not justified, given the urgency that climate change caused and given the rather inadequate efforts of the international 'community' through its various relevant organizations, including the International Civil Aviation Organization¹².

Having accepted that the threat of irreversible environmental degradation is real rather than imagined, and having understood that the political realities of inter-State cooperation – namely, the disparity of interests at play – are, to say the least, partly to blame for the lack of meaningful inter-State action, it seems reasonable to expect that measures – be they unilateral or collective – aimed at climate change mitigation and adaptation ought to be systemically encouraged and supported. Such measures may be schemes at the domestic, regional, and/or inter-State levels aimed at promoting the development and use of energy sources that

¹⁰ See "India Joins China in EU Aviation Emissions Scheme Boycott," *Bridges Trade BioRes*, Vol. 12, No. 6, 22 March 2012, International Center for Trade and Sustainable Development, where it is stated that 20 countries met in Moscow, Russia, in February 2012 to discuss the possible adoption of counter-measures (available at <http://ictsd.org/i/news/biores/129175/>).

¹¹ The inclusion of the aviation industry in the EU's ETS was suspended on 30 April 2013 on the basis that multilateral negotiations on aviation industry emission containment are currently taking place in other organizations (see: <http://ictsd.org/i/news/bridgesweekly/158472/>). For information regarding this temporary suspension, see European Parliament, "CO2: MEPs want ETS exception for intercontinental flights and progress in ICAO," Press release, 26 February 2013, available at <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-%2F%2fEP%2f%2fTEXT%2bIM-PRESS%2b20130225IPR06039%2b0%2bDOC%2bXML%2bV0%2f%2fEN&language=EN>. For an analysis of the inclusion of aviation in the EU's ETS, see Leal-Arcas, R. "Unilateral Trade-related Climate Change Measures," *The Journal of World Investment and Trade*, Vol. 13, No. 6, pp. 875-927, 2012.

¹² On this issue, see http://ec.europa.eu/clima/policies/transport/aviation/index_en.htm, where it is stated that the EU had been pressing ICAO for more than 15 years to take meaningful action in relation to GHG emissions. Also at the same link, read the official EU narrative on this issue. The EU holds to the view, further to a December 2011 Court of Justice of the European Union case brought by some US airlines, that the inclusion of aviation in the EU ETS is compatible with the EU's international obligations (see case C-366/10).

are less polluting¹³. We have seen how the lion's share of GHG emissions derives from CO₂ emissions that, in turn, are caused by, or linked to, the energy supply through the combustion of fossil fuels. Energy-related CO₂ emissions reached 31.6 Gigatons (Gts) in 2012 – that is 31.6 billion tons of CO₂¹⁴.

Diversifying the global energy supply mix in a manner that increasingly draws from renewable sources could have far-reaching geo-economic and geo-strategic implications,¹⁵ including: the containment of GHG emissions to levels that would avert more costly future redress; the conservation of ecosystems and safeguarding the human, animal, and plant populations they sustain; more enhanced energy security for those States and groups of States that are net energy importers; and foreign relations that are less skewed by energy considerations. The scope of this chapter relates to the implications of renewable energy for the environment, and how, therefore, measures taken to promote the development and

¹³ We shall be referring throughout this chapter to such sources as: renewable energy/renewables/renewable energy sources. In terms of what this term includes, we draw from how this concept is handled by the International Energy Agency (IEA) in its publications and periodical reports. See the FAQ page of the IEA, where it is stated that renewable energy is “Energy derived from natural processes (e.g. sunlight and wind) that are replenished at a faster rate than they are consumed. Solar, wind, geothermal, hydro, and some forms of biomass are common sources of renewable energy” (available at <http://www.iea.org/aboutus/faqs/renewableenergy/>). See also the 2012 IEA report, where the sort of energy sources that, for the purposes of this chapter, we could aggregate together as ‘renewable energy’ are those that yield energy through the processing of: ‘biofuels & waste’, ‘hydro’, ‘geothermal’, ‘solar’, ‘wind’, and ‘heat’. See International Energy Agency, 2012 Key World Energy Statistics, OECD/IEA, 2012 (at 6, at the legend to the 2010 pie-chart). Moreover, Article III of the International Renewable Energy Agency (IRENA) statute defines renewables to be: “... all forms of energy produced from renewable sources in a sustainable manner, which include, inter alia: bioenergy; geothermal energy; hydropower; ocean energy, including inter alia tidal, wave and ocean thermal energy; solar energy; and wind energy”. In our view, certain energy sources that are more environmentally friendly due to their lower CO₂ emissions when compared with fossil fuels – namely, biomass/biofuels – are rightly considered non-conventional energy sources. That said, given that they are produced by processing mainly plants that need to be replanted, strictly speaking, these sources are not *renewable* in the way that wind, solar, hydro, and geothermal are renewable. Despite this, we have also followed the practice of the IEA and IRENA to aggregate these too as *renewables*.

¹⁴ See the executive summary to the IEA 2013 ‘Redrawing the Energy-Climate Map’ World Energy Outlook Special report (at p. 1).

¹⁵ See IPCC, 2011: Summary for Policymakers, in IPCC Special Report on Renewable Energy Sources and Climate Change Mitigation [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, Cambridge: United Kingdom and New York, NY: USA (at pp. 4-26) for an exposition of the potential benefits of increasing the proportion of renewables in the global supply energy mix. See also A. Ghosh, and H. Gangania, (2012) “Governing Clean Energy Subsidies: What, Why and How Legal?” International Centre for Trade and Sustainable Development (pp. 11-18) for an exposition of the various arguments for the promotion of renewable energy.

take-up of renewable energy may engage the rules of the multilateral trade system.¹⁶

This chapter is principally concerned with how the existing multilateral trade system, based on the World Trade Organization (WTO), countenances the promotion of renewables. We carry out this examination by discussing certain WTO norms that have, or may, come to bear on measures that WTO members take which have a distortive or restrictive effect on cross-border intra-WTO trade and which have been argued in connection with environmental protection and/or with renewable energy¹⁷, and by reviewing the relevant WTO jurisprudence.

This contribution is therefore part of the so-called “trade and ...” debate, which relates to concerns surrounding the fragmentation of the international legal system, and of international law, along thematic or other lines that lead to artifacts such as ‘international’ ‘economic’ law and international ‘energy’ law. The International Law Commission set up a Study Group on fragmentation which issued its report to the United Nations General Assembly in 2006. In that report, the Study Group referred to the reasons that fragmentation of the international legal system has arisen, identified the advent of special regimes – including not only legal orders, but also fields of law such as ‘international’ ‘trade’ law – that reinforced perceptions that these were ‘self-contained’, itself a fallacy when, among other things, any special legal regime set up further to inter-State contracting is predicated upon general international law to function.¹⁸ Starting

¹⁶ A similar line of thought is to be found in Leal-Arcas, R. “Climate Change Mitigation from the Bottom Up: Using Preferential Trade Agreements to Promote Climate Change Mitigation,” *Carbon and Climate Law Rev*, Vol. 7(1), pp. 34-42, 2013 (discussing how to promote climate change mitigation by using preferential trade agreements).

¹⁷ While the WTO and its norms apply to intra-WTO trade, they may also have implications for trade flows involving a nexus between States where at least one party is a WTO member. For instance, the requirement under Article I GATT (regarding the principle that WTO members ought to treat all their WTO peers as they would their ‘most-favored nation’) makes clear that any trade privilege that a WTO member affords to any other State must, in effect, be unconditionally extended to all of its WTO peers. Naturally, this does not create obligations for non-WTO members.

¹⁸ See the International Law Commission, Report of the Study Group, Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law (A/CN.4/L.682) (13 April 2006) (§15, at p. 14), where it is stated that: “The rationale for the Commission’s treatment of fragmentation is that the emergence of new and special types of law, “self-contained regimes” and geographically or functionally limited treaty-systems creates problems of coherence in international law. New types of specialized law do not emerge accidentally but seek to respond to new technical and functional requirements. The emergence of “environmental law” is a response to growing concern over the state of the international environment. “Trade law” develops as an instrument to regulate international economic relations. “Human rights law” aims to protect the interests of individuals and “international criminal law”

from the premise that the world's ecosystems, their preservation, and climate change mitigation are global public goods, there is a nexus between energy and climate change, which encompasses a range of issues such as clean energy subsidies, and emission-related levies (e.g., carbon taxes, and border adjustment taxes for carbon emissions). International law is threatened by incoherence due to its fragmentation, and there is a need to bring greater coherence not least for the promotion of environmental protection through the entire normative context that is international law.¹⁹ One would need to look at various special regimes (such as the World Trade Organization (WTO), the European Union (EU), the North American Free Trade Agreement (NAFTA)) and institutions (such as civil society and markets) for resolving disputes that pitch environmental objectives against other (say, investment protection, market liberalization) objectives in a manner that sufficiently promotes environmental objectives so that we come closer to achieving more coherent global environmental governance.

After the introduction, for context purposes, we shall briefly refer to some general global energy data and to some data that are more specific to renewable energy in Section II. In Section III, we shall sum up arguments in relation to the suitability of the existing multilateral system to sufficiently balance the inter-State environmental objectives with those relating to inter-State trade liberalization objectives. Section IV concludes the chapter.

II. Facts and figures on renewable energy and its governance

The latest readily available global data compiled by the International Energy Agency (IEA) indicate that renewable energy sources made up 13.2% of the global energy supply mix in 2010, while conventional energy sources (oil,

gives legal expression to the “fight against impunity”. Each rule-complex or “regime” comes with its own principles, its own form of expertise and its own “ethos”, not necessarily identical to the ethos of neighbouring specialization. “Trade law” and “environmental law”, for example, have highly specific objectives and rely on principles that may often point in different directions. In order for the new law to be efficient, it often includes new types of treaty clauses or practices that may not be compatible with old general law or the law of some other specialized branch. Very often new rules or regimes develop precisely in order to deviate from what was earlier provided by the general law. When such deviations or become general and frequent, the unity of the law suffers.”

¹⁹ On the fragmentation of international law, see the work of the International Law Commission, 58th session, Final Report of the study group on fragmentation, UN Doc. A/CN.4/L.682, and the conclusions of the study group on fragmentation, UN Doc. A/CN.4/L.702, available at http://untreaty.un.org/ilc/guide/1_9.htm. On the specific case of international trade law, see also Leal-Arcas, R. “The Fragmentation of International Trade Law: Is Now the Time for Variable Geometry?” *The Journal of World Investment and Trade*, Vol. 12, No. 2, 2011, pp. 145-195.

natural gas, and coal) made up 81.1% of the mix.²⁰ The figures for 1973 – the year used in successive IEA reports as a basis for comparison – were 12.4% and 86.7%, respectively.²¹ In almost 40 years, the composition of the global primary energy supply has changed very little. Any reduction in the proportion of conventional energy sources has largely been replaced by the rise in the proportion of nuclear energy from 0.9% in 1973 to 5.7% by 2010.²² While nuclear energy is an alternative energy source, it is far from environmentally friendly. As the disasters at the nuclear power plants of Chernobyl (Ukraine) in 1986 and Fukushima Dai-ichi (Japan) in 2011 tragically testify, nuclear energy poses high-apocalyptic consequences for human safety and the environment.

We fleetingly alluded to political realities (i.e., the disparate interests of States in preserving the *status quo* in relation to the primacy of conventional energy sources) that, generally, seem to undermine meaningful action to protect the environment. In relation to the global energy mix, there are other factors that stack the odds against the proliferation of renewables, such as pervasive fuel subsidies,²³ which have implications for conventional energy demand and, consequently retard the move towards a more environmentally friendly global energy supply mix.²⁴ It should be noted that such conventional energy subsidies have been tolerated within the WTO system.²⁵

In recent years, there has been an increase in subsidies directed at the promotion of renewable energy. The global figures for subsidies in the renewable

²⁰ Figures calculated based on data as these appear in International Energy Agency, 2012 Key World Energy Statistics, OECD/IEA, 2012 (at p. 6). During 2010, the global primary energy supply was 12,717 Million tons of oil equivalent (Mtoe). During 1973, it stood at 6,107 Mtoe.

²¹ Ibid.

²² Ibid.

²³ According to the IEA 2012 World Energy Outlook factsheet, “[e]nergy subsidies – government measures that artificially lower the price of energy paid by consumers, raise the price received by producers or lower the cost of production – are large and pervasive. When they are well-designed, subsidies to renewables and low-carbon energy technologies can bring long-term economic and environmental benefits. However, when they are directed at fossil fuels, the costs generally outweigh the benefits” (at p. 6). (<http://www.worldenergyoutlook.org/media/weowebbsite/2012/factsheets.pdf>).

²⁴ Howse, R. (2009), “World Trade Law and Renewable Energy: The Case of Non-Tariff Barriers,” UNCTAD, (at p. 17); and J. Pershing and J. Mackenzie, “Removing Subsidies: Leveling the Playing Field for Renewable Energy Technologies,” 2004, available at <http://www.ren21.net/Portals/0/documents/irecs/renew2004/Removing%20subsidies.pdf>.

²⁵ See Thomas Cottier’s comments at the 2011 WTO public forum discussions on International Governance of Energy Trade: WTO and Energy Charter Treaty (available at http://www.wto.org/english/forums_e/public_forum11_e/programme_e.htm#session40).

energy sector increased from USD 39 billion in 2007 to USD 66 billion by 2010.²⁶ While this increase is laudable, the figures are eclipsed by the enormity of fossil-fuel-related subsidies that in 2010 stood at USD 409 billion.²⁷ The IEA projects that by 2035, a variety of positive developments could take place under its various policy scenarios, should renewables subsidies rise to USD 250 billion. For example, onshore wind could become competitive by 2020 in the EU and by 2030 in China,²⁸ and up to 3.4 gigatons – that is, 3.4 billion tons – of energy-related CO₂ could be contained.²⁹

At the inter-state level, there are various initiatives that concern renewable energy. There are several intergovernmental organizations (IGOs) and/or supranational organizations – including the IEA, the EU, and the United Nations (UN) – whose remits to varying degrees concern renewable energy. What is more, there are numerous instances of inter-state cooperation along the lines of transnational policy networks and discussions at summit meetings³⁰.

The most ostensibly renewables-related IGO is the International Renewable Energy Agency (IRENA),³¹ which counts 116 member states (plus the EU in its own right) and another 44 in accession talks³². The declared purpose of IRENA is to promote the adoption and sustainable use of all forms of renewables in a manner that takes into account ‘national priorities’³³. IRENA lacks the power

²⁶ IEA 2012 World Energy Outlook factsheet (at p. 6).

²⁷ Ibid.

²⁸ Ibid.

²⁹ Ibid.

³⁰ See B. Sovacool and A. Florini, ‘Examining the Complications of Global Energy Governance’ (2012) 30(3) *Journal of Energy and Natural Resources Law*, and A. Steiner, T. Wälde, A. Bradbrook and F. Schutyser, ‘International Institutional Arrangements in Support of Renewable Energy,’ in D. Abmann, U. Laumanns and D. Uh (eds.), *Renewable Energy: A Global Review of Technologies, Policies, and Markets* (London: Earthscan, 2006, at pp. 152–165) for a rundown of such organizations and instances concerning renewable energy at the inter-State governance/cooperation level. Some relevant examples are the Organización Latinoamericana de Energía, the World Council for Renewable Energies (the precursor to IRENA), the Inter-American Development Bank, the Organization of the Black Sea Economic Cooperation, the South Asian Association for Regional Cooperation, the Renewable Energy and Energy Efficiency Partnership, the Global Network on Energy for Sustainable Development, the International Institute for Energy Conservation, and the Global Energy Efficiency and Renewable Energy Fund (an EU associated scheme).

³¹ See <http://www.irena.org/menu/index.aspx?mnu=cat&PriMenuID=13&CatID=30>.

³² See <http://www.irena.org/Menu/Index.aspx?mnu=Cat&PriMenuID=46&CatID=67>.

³³ See Article II of the IRENA Statute, where the objectives are stated to be as follows: ‘*The Agency shall promote the widespread and increased adoption and the sustainable use of all forms of renewable energy, taking into account: a.) national and domestic priorities and benefits derived from a combined approach of renewable energy and energy efficiency measures, and b.) the contribution of renewable energy to environmental preservation, through limiting pressure on*

to make binding recommendations on its members and its members are under no obligation³⁴ to implement the advice they periodically receive from IRENA.

Having briefly referred to the instances of inter-state co-operation concerned with renewables, we turn to another instance of inter-state co-operation, albeit one with a very different mandate from those mentioned above, and with a much stronger normative effect – namely, the WTO. The WTO is the main component of the multilateral trade system since 1995. It evolved from the 1947 General Agreement on Tariffs and Trade (GATT), which it entirely incorporated. The WTO provides degrees of governance over the trade flows between its members to the extent that their policies and practices may engage WTO norms. We should also like to add that the WTO system is neither *expressly* concerned with energy trade in general, nor with renewables trade in particular. Unless expressly stated (for instance, there is a degree of divergence from standard WTO rules in the field of agricultural trade³⁵, trade in services³⁶ and, as had been the case, for clothing and textiles up to 2005³⁷), WTO norms could potentially apply, and habitually apply, evenhandedly to all cross-border trade involving WTO members, including energy-related trade³⁸. Consequently, cross-border trade in renewable energy goods and services that involve at least one WTO member is potentially within the WTO ambit.

natural resources and reducing deforestation, particularly tropical deforestation, desertification and biodiversity loss; to climate protection; to economic growth and social cohesion including poverty alleviation and sustainable development; to access to and security of energy supply; to regional development and to inter-generational responsibility”.

³⁴ See Article IV(1)(a) of the IRENA Statute.

³⁵ See http://www.wto.org/english/thewto_e/whatis_e/tif_e/agrm3_e.htm for a rundown of the issues.

³⁶ WTO members are under no obligation to liberalize their services sectors. However, they are obligated to provide the same treatment to all WTO peers indiscriminately in relation to those sectors which they have previously liberalized in their respective Schedules of Commitments (see Articles II and XVI of the General Agreement on Trade in Services (GATS). What is more, WTO members are obligated, in relation to those sectors previously liberalized, to not discriminate between domestic service providers and those of their WTO peers (see Article XVII of the GATS).

³⁷ The Agreement on Textiles and Clothing (ATC), which permitted departures from the general WTO rules, terminated on 1 January 2005. Its expiry means that trade in textile and clothing products is no longer subject to quotas under a special regime outside normal WTO rules, but is now governed by the general WTO rules and disciplines.

³⁸ See R. Leal-Arcas and A. Filis, ‘The Fragmented Governance of the Global Energy Economy: A Legal-Institutional Analysis, (2013) *Journal of World Energy Law and Business*, Vol. 6, Issue 4, pp. 1-58 (at pp. 21-22 and *passim*) and WTO, ‘World Trade Report 2010: Trade in Natural Resources’ (2010), for a more thorough exposition of the relationship between WTO and energy trade.

The following section provides a *tour d'horizon* of the sort of WTO norms that have been, and might be, engaged by measures linked to the promotion of renewables, and a commentary on how the WTO system may generally countenance the promotion of renewables.

III. The WTO and renewables

i. Initial remarks

The WTO system does not handle general energy trade, or particular renewables trade, any differently from any other trade sector that is within its scope. While there have been calls for an energy-specific multilateral agreement to be adopted within the WTO auspices³⁹, these have yet to result in a WTO agreement that is energy-specific. Arguably, the Energy Charter Treaty (ECT) – an international treaty relating to various aspects, including trade, investment, and environmental protection, of its parties' respective energy sectors – may fit that bill. The ECT could appropriately be regarded as an inter-state arrangement that arose out of the GATT/WTO system, given that the ECT was concluded as an alternative to previously unsuccessful efforts on the part of several developed net energy-importing WTO members to have an energy-specific agreement adopted within the WTO⁴⁰.

³⁹ See T. Cottier *et al.*, 'Energy in WTO Law and Policy' in T. Cottier and P. Delimatsis (eds.), *The Prospects of International Trade Regulation: From Fragmentation to Coherence*, Cambridge: Cambridge University Press, 2011 (at pp. 211-244); in relation to a speculative proposal for a Sustainable Energy Trade Agreement (SETA), see Kennedy, M. (2012), "Legal Options for a Sustainable Energy Trade Agreement," International Centre for Trade and Sustainable Development (ICTSD). Furthermore, see the following May 2013 ICTSD news-item: <http://ictsd.org/i/news/bridgesweekly/162166/>, reporting proceedings from a workshop held at the WTO Headquarters in Geneva, where several attendees commented on the need for the WTO system to better accommodate the promotion of renewables and energy particularities. We would add that such statements generally support the misperception that the current normative framework may be woefully inadequate. While we believe that guidelines based on the WTO rules and jurisprudence would be helpful to WTO members – imaginably, these could be drafted by the WTO legal division in cooperation with the WTO's Committee on Trade and the Environment, and any other relevant WTO organ – the rules and jurisprudence, as they currently stand, do not obstruct measures taken to promote renewable energy, so long as such measures are, generally, *bona fide*, not unduly discriminatory, and not unduly restrictive. It is therefore one thing to call for far-reaching – through, e.g., guidelines and clarifications – systemic encouragement of the scaling-up and taking-up of renewables, and quite another to attempt to do away with the existing safeguards in WTO rules and jurisprudence that seek to prevent abuse (e.g., discriminatory treatment and/or protectionism).

⁴⁰ See T. Wälde, *The Energy Charter Treaty: An East-West Gateway for Investment and Trade* (Kluwer Law International, 1996).

In the absence of a specific energy-trade agreement, the WTO system and its multilaterally covered agreements are the principal structures that provide governance in cross-border energy trade, including cross-border renewable energy trade, to the extent that such trade flows involve a WTO member.⁴¹ In addition, the multilateral trade rules that come to bear on such trade flows may further be enhanced by the rules contained in the WTO's *plurilateral* agreements so long as the WTO member(s) concerned have acceded to these and have, therefore, assumed that further layer of WTO obligation. An example of one such plurilateral agreement would be the Agreement on Government Procurement (GPA), to which a minority of WTO members are party,⁴² and which may be relevant in instances, say, where a WTO member which is a party to the GPA takes some trade-distortive measure connected to government procurement.

For their part, measures aimed at the promotion of renewable energy can be highly varied,⁴³ and, consequently, might each engage a variety of WTO norms; norms, however, that are not necessarily all applicable in every single case that involves a measure claiming to promote renewables. In that respect, any assessment of a measure's WTO compatibility would have to be performed on a case-by-case basis and in relation to the facts of each case.

For instance, certain measures may rely on the subsidization of the renewables generation industry by financial incentives for market actors, and, say, by subsidizing partly or entirely the cost of technologies for households to generate renewable electricity. Those examples alone could illustrate how different WTO norms might be engaged; while there is little in the WTO rules to

⁴¹ The Agreement Establishing the WTO, signed in Marrakesh on 15 April 1994, sets the WTO's terms of reference. Annexes to this Agreement specify which the covered agreements are. The GATT is the principal multilateral trade agreement under the WTO concerning tradable goods. See the Agreement Establishing the WTO's Annex 1A. Note that Annexes 1 & 4 to the Agreement Establishing the WTO distinguish between 'multilateral' and 'plurilateral' WTO agreements, with the former binding upon the entire WTO membership, while the normative effect of the latter set relies on WTO members having specifically acceded to this class of international agreements. The entire WTO system is predicated on the core principle of non-discrimination by prohibiting discrimination along the following two axes: among WTO peers (Article I of the GATT) and among domestic and imported tradables (Article III of the GATT). Certain trade-distortive measures argued to have been taken to promote renewables may, and often do, engage any, or both, of these twin aspects of the non-discrimination principle.

⁴² Currently there are 41 parties to the GPA, including all 28 EU members (with the Netherlands in its own right and on account of Aruba). Note that the EU is not a party in its own right to the GPA. (See http://www.wto.org/english/tratop_e/gproc_e/memobs_e.htm#parties).

⁴³ In terms of the diverse typology of policy tools to promote renewables, see Ghosh, Arunabha and Gangania, Himani (2012) "Governing Clean Energy Subsidies: What, Why and How Legal?" International Centre for Trade and Sustainable Development (at pp. 20-26).

obstruct a government from assuming or otherwise supporting, say, the cost of renewable technologies for *households* to generate their own electricity, this is, generally, not the case, were a government to subsidize a specific sector in a manner that, by conferring a benefit to that sector, consequently, injures the domestic industry of another WTO member. Again, it would be necessary to examine all relevant aspects of a measure and its effect to establish whether imports are indeed injured and whether this may be justified under WTO rules. The Agreement on Subsidies and Countervailing Measures (SCM Agreement) defines what may be a subsidy, provides a typology of subsidies to list those that are *prohibited*, *actionable*, and *non-actionable*, and lists the available remedies.⁴⁴

Building on the previous example involving households, another brief example of WTO incompatibility would be where a government financially supports only such households that install, say, domestically manufactured and/or assembled renewable energy technologies, given that, amongst other things, such a measure would clearly favor domestic producers/market actors, and thus disadvantage identical or substitutable imported goods vis-à-vis domestically produced goods. Such a measure would, on its face, be offending a principal tenet of the WTO system that *like* products, once over the border, be treated in a non-discriminatory manner, irrespective of whether they are imports or domestically-produced.⁴⁵ Such measures are unlikely to be permitted under the general exceptions (cf., Article XX of the GATT), given that, should imported goods do as good a job as those domestically sourced, the consequent discrimination may actually be mercantilist protectionism veiled by environmental protection pretexts.⁴⁶

⁴⁴ The SCM Agreement is also a covered agreement listed in Annex 1A of the Agreement Establishing the WTO. Article 1 defines subsidies; Article 3 defines which subsidies are prohibited; Article 4 relates to remedies for prohibited subsidies; Article 5 relates to actionable subsidies; Article 7 to remedies for actionable subsidies; and Article 8 defines what type of subsidies may be non-actionable. For further details on how WTO subsidies provisions apply to renewable energy, see Leal-Arcas, R. *Climate Change and International Trade*, Edward Elgar, 2013, pp. 136-150.

⁴⁵ See Article III of the GATT.

⁴⁶ The Article XX general exceptions, if applicable, could allow WTO members to derogate from their core obligations under the GATT and potentially other covered agreements. Articles XX(b) and (g) are the exceptions evidently related to the ecosystem. Article XX(b) contemplates that trade-restrictive measures necessary to protect human, animal, or plant health or life could potentially be justified, and Article XX(g) contemplates that trade-restrictive measures taken to conserve exhaustible natural resources could potentially be justified. There is a wealth of WTO jurisprudence that further articulates the application of these two grounds. We shall refer to the

What is more, what often defines the outcome of a dispute before the WTO Dispute Settlement Body's (DSB) adjudicative organs – namely, at first instance, the Panel, and, on final appeal, the Appellate Body – are the issues that parties choose to raise along with how they choose to argue these, thus somewhat restricting the ability of the adjudicative bodies concerned to approaching the dispute in a more autonomously coherent manner.⁴⁷

ii. Environmental protection objectives and the WTO

Throughout Section III, we shall be looking at the specific WTO norms that have been, and are likely to be, engaged by trade-distortive measures that WTO members may seek to argue have been taken to promote renewables. Before doing so, it may be helpful to briefly consider how environmental concerns have been handled within the GATT/WTO system since the beginning. Essentially, the GATT/WTO system is concerned with trade liberalization. Its advent was shortly after the end of World War II as part of broader efforts to formalize inter-state cooperation along pro-market development lines during the Cold War. The GATT was agreed within the context of the 1944 United Nations Monetary and Financial Conference, at Bretton Woods, New Hampshire (United States), along with the other 'Bretton Woods' institutions – namely, the International Monetary Fund and the International Bank of Reconstruction and Development (commonly known as the World Bank). In that sense, its pro-market/pro-trade liberalization bias is inherent and systemic.⁴⁸ For the purposes of the GATT, all other policy objectives, while not unimportant, were relegated as systemically *external* considerations.

Within the GATT regime, the principal vehicle to accommodate other policy objectives – including environmental protection – has been Article XX of the GATT. This provision contains *general exceptions* to GATT/WTO obligations that, if applicable, may justify derogation on the part of WTO members. The grounds of derogation pertinent to the ecosystem are: Article XX (b), concerning

relevant cases elsewhere in this chapter. What is more, it is worth noting that the *chapeau* to Article XX conditions the application of the general exceptions to ensure that it is not used to offer protection to domestic industry or to discriminate between trade partners. Thus, the *chapeau* reiterates the non-discriminatory dual principle upon which the WTO system is predicated, namely Article I (most-favored nation treatment) and Article III (national treatment) of the GATT.

⁴⁷ See the Understanding on Rules and Procedures Governing the Settlement of Disputes (being Annex 2 of the Agreement Establishing the WTO), where Articles 7 & 17.6 suggest that the terms of reference of the Panel and Appellate Body, respectively, unless otherwise agreed by the parties in dispute, ought to follow the issues and pleadings of the parties.

⁴⁸ See the preamble to the GATT 1947.

measures *necessary* for the protection of human, animal and plant life or health; and Article XX (g), regarding measures *in relation* to the conservation of exhaustible natural resources.⁴⁹ During the GATT era (i.e., in the pre-WTO era, before the conclusion of the Uruguay Round of trade negotiations, which resulted in the Agreement on the Establishment of the WTO in 1994), interpretations of Article XX had been very scarce.⁵⁰ This, however, changed with the advent of the WTO system.

The advent of the WTO system in 1995 also saw the inclusion of the notion of ‘sustainable development’ in the preamble of the Agreement Establishing the WTO (to which the GATT 1994 and all other covered agreements are annexed). Furthermore, in 2001, WTO members issued the Doha Ministerial statement, in which they affirmed the importance of ‘sustainable development’⁵¹ to the multilateral trade system. This is not an inconsiderable addition for the purposes of interpreting treaty obligations; the principle of effective treaty interpretation presumes that all relevant textual elements ought to be afforded what may be their appropriate weight in the circumstances.

a. US - Shrimp

The WTO’s Appellate Body, in its determination of the *US-Shrimp* case,⁵² expressly referred to the need to utilize the addition of ‘sustainable development’ in its determinations.⁵³ Gabrielle Marceau goes further to refer to this interpretative development, which has paid heed to the ‘sustainable development’ objective, as the: “*consecration of WTO Members’ fundamental right to take measures to protect the environment...at a level they consider appropriate*” (emphasis added).⁵⁴

⁴⁹ For an analysis, see Abu-Gosh, E. and Leal-Arcas, R. “The Conservation of Exhaustible Natural Resources in the GATT and WTO: Implications for the Conservation of Oil Resources,” *The Journal of World Investment and Trade* Vol. 14, No. 3, pp. 480-531, 2013.

⁵⁰ See G. Marceau, The WTO’s Efforts to Balance Economic Development and Environmental Protection: A Short Review of Appellate Body Jurisprudence, *Latin American Journal of International Trade Law*, Vol. 1, Issue 1, 2013 (at p. 293).

⁵¹ WT/MIN(01)/DEC/1, (20 November 2001), at point 6 of the Declaration. See http://www.wto.org/english/thewto_e/minist_e/min01_e/mindecl_e.htm.

⁵² *United States — Import Prohibition of Certain Shrimp and Shrimp Products* (12 October 1998) (WT/DS58/AB/R).

⁵³ See the Appellate Body report, at § 153-155.

⁵⁴ G. Marceau, “The WTO’s Efforts to Balance Economic Development and Environmental Protection: A Short Review of Appellate Body Jurisprudence,” *Latin American Journal of International Trade Law*, Vol. 1, Issue 1, 2013 (at p. 294).

A further development during the WTO years has been the establishment of the Committee on Trade and Environment (CTE)⁵⁵ – a deliberative and advisory body set up to examine the interplay between trade and the environment – created under the 1994 Ministerial Decision on Trade and Environment.⁵⁶

In fact, in the WTO era, there have also been disputes resolved by the WTO's DSB adjudicative bodies that, in effect, have extended the level of environmental protection acceptable within the WTO. In the *US – Shrimp Turtle* case, it was confirmed that the meaning of GATT Article XX(g) notion of *exhaustible natural resources* had evolved to contain living beings (in that specific case, these being sea turtle populations). The Appellate Body did this by taking an evolutionary-teleological take on interpreting that notion. What is more, the interpretation of this notion was, to an extent, colored by extraneous considerations, given that the Appellate Body examined other international agreements to which not all WTO members had been parties. This allowed the Appellate Body, in interpreting the obligations of WTO members, to take into account contemporary concerns expressed at the level of inter-state cooperation.⁵⁷

It is worth stating that the WTO adjudicative agencies have, on balance, adhered to the general international law rules on interpretation in a manner that has been consistent with general international law so as to give appropriate weight to agreements that are outside the WTO's scope. The Appellate Body has corrected interpretative errors at the lower adjudicative level,⁵⁸ thus not ceasing to regard treaty-based systems – such as the WTO – as being operative against the backdrop

⁵⁵ See http://www.wto.org/english/tratop_e/envir_e/wrk_committee_e.htm for background information on the CTE.

⁵⁶ Accessible at http://www.wto.org/english/docs_e/legal_e/56-dtenv.pdf.

⁵⁷ See the Appellate Body report in the *US-Shrimp* dispute, where it is stated that: “contemporary concerns of the community of nations about the protection and conservation of the environment” (at §129). This is a fine example of *systemic integration*, where the entire international law edifice is approached cohesively and its elements sympathetically to one another. This systemically integrative approach had previously been confirmed by the Appellate Body in *United States – Standards for Reformulated and Conventional Gasoline*, 29 April 1996 (WT/DS2/AB/R), where the Appellate Body had stated that the GATT ought not be considered “*in clinical isolation of public international law*” (see p. 17 of the *US-Gasoline* Appellate Body report).

⁵⁸ See M. Fitzmaurice & P. Merkouris, “Canons of Treaty Interpretation: Selected Case Studies from the World Trade Organization and the North American Free Trade Agreement,” in M. Fitzmaurice *et al* (eds.) *Treaty Interpretation and the Vienna Convention on the Law of Treaties: 30 Years On*, Leiden: Martinus Nijhoff Publishers 2010, Leiden (at pp. 234-237).

of general international law, and, might we add, thus not ceasing to regard the treaties themselves as anything other than *creatures*⁵⁹ of public international law.

b. US – Gasoline

The *US – Gasoline* case⁶⁰ is another seminal case illustrating the extent to which the WTO system may be amenable to environmental protection. While the case was resolved against the party who sought to rely on an Article XX(g) ground to derogate – namely, the US⁶¹ – the case has important implications for environmental protection, given that the Panel in that case held that ‘clean air’, may, for the purposes of Article XX(g) be considered an *exhaustible natural resource*;⁶² a finding subsequently upheld by the Appellate Body on appeal. It is an important development for environmental protection within the WTO system and jurisprudence. In fact, the Panel had drawn from previous (GATT era) jurisprudence, where resources capable of renewal –such as air and living organisms – had been considered *exhaustible natural resources* within the meaning of Article XX(g) of the GATT and, thus, that trade-restrictive measures in relation to their conservation or in order to protect the life or health of human, animal, or plant populations may be justified under Article XX(g).⁶³

What is more, in the *US-Gasoline* case, in finding against the US measure and thus disallowing its justification under Article XX(g), the Appellate Body clearly felt the need to reiterate that the specific finding does not compromise in any way the *autonomy* of WTO members to take environmental protection

⁵⁹ See C. McLachlan ‘The Principle of Systemic Integration and Article 31(3)(C) of the Vienna Convention, *ICLQ* Vol. 54, April 2005 [279-320], (at p. 280).

⁶⁰ *United States – Standards for Reformulated and Conventional Gasoline* (WT/DS2/AB/R).

⁶¹ The Appellate Body found that the measure in question discriminated unjustifiably against imports and therefore did not satisfy the non-discrimination requirements of the chapeau of Article XX and of the remaining part of Article XX(g).

⁶² See Panel Report, §. 6.37.

⁶³ In *US-Gasoline*, the Panel stated that: “the fact that a resource was renewable could not be an objection. A past panel had accepted that renewable stocks of salmon could constitute an exhaustible natural resource” (see §6.37, at p. 44 of the Panel report). The case cited by the Panel had been a GATT-era dispute, namely, the *Canada - Measures Affecting Exports of Unprocessed Herring and Salmon* (BISD 35S/98) (adopted on 22 March 1988), dispute in which herring and salmon were considered exhaustible natural resources for the purposes of Article XX(g). In that case, however, Canada could not cite Article XX given that it applied the measure in question discriminatorily in favor of the domestic fisheries processing industry. Note also that dolphins were considered exhaustible natural resources for the purposes of Article XX(g) as per the Panel report (not adopted) in the *United States - Restrictions on Imports of Tuna* dispute (DS29/R) (see §5.13).

measures that may be trade-restrictive/distortive so long as they are WTO consistent, which largely means they are *bona fide* and non-discriminatory.⁶⁴

It is worth noting at this point that, while, undoubtedly, there is a preference within the WTO system for multilateralism⁶⁵ in trade-restrictive measures taken in pursuit of legitimate objectives – including environmental protection – as the Appellate Body’s comments in *US-Gasoline* suggest, this does not negate WTO members’ right to autonomously – i.e., unilaterally – take such measures.⁶⁶

c. The SPS Agreement

The Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement⁶⁷) further contemplates the relationship between WTO trade obligations and environmental protection. It acknowledges that it may be appropriate for WTO members to take such trade-restrictive measures that seek to

⁶⁴ In *US-Gasoline*, the Appellate Body stated that: “*It is of some importance that the Appellate Body point out what this does not mean. It does not mean, or imply, that the ability of any WTO Member to take measures to control air pollution or, more generally, to protect the environment, is at issue. That would be to ignore the fact that Article XX of the General Agreement contains provisions designed to permit important state interests – including the protection of human health, as well as the conservation of exhaustible natural resources – to find expression. The provisions of Article XX were not changed as a result of the Uruguay Round of Multilateral Trade Negotiations. Indeed, in the preamble to the WTO Agreement and in the [1994 Ministerial] Decision on Trade and Environment there is specific acknowledgement to be found about the importance of coordinating policies on trade and the environment. WTO Members have a large measure of autonomy to determine their own policies on the environment (including its relationship with trade), their environmental objectives and the environmental legislation they enact and implement. So far as concerns the WTO, that autonomy is circumscribed only by the need to respect the requirements of the General Agreement and the other covered agreements*” (emphasis added) (WT/DS2/AB/R, at pp. 29-30).

⁶⁵ See Articles 1.1 & 2.4 of the Agreement on Technical Barriers to Trade (TBT Agreement). The TBT Agreement is also in the Annex 1A to the Agreement Establishing the WTO and, therefore, binding on all WTO members. See also the 1994 Ministerial Decision on Trade and Environment, where it is stated that there should be: “...adherence to effective multilateral disciplines to ensure responsiveness of the multilateral trading system to environmental objectives set forth in Agenda 21 and the Rio Declaration, in particular Principle 12.” In relation to Principle 12 of the Rio Declaration, it relates to the 1992 UN Conference on Environment and Development, where participants declared their commitment: “*Unilateral actions to deal with environmental challenges outside the jurisdiction of the importing country should be avoided. Environmental measures addressing transboundary or global problems should, as far as possible, be based on an international consensus.*”

⁶⁶ Comments as appear in the above footnote. What is more, in the *US-Shrimp* case, the Appellate Body, while citing a list of WTO documents and other agreements in which a preference for multilateralism is articulated, stated that: “WTO Members are free to adopt their own policies aimed at protecting the environment as long as, in so doing, they fulfill their obligations and respect the rights of other Members under the *WTO Agreement*...” (at p. 71, Appellate Body report).

⁶⁷ The SPS Agreement is an Annex 1A (to the Agreement Establishing the WTO) multilateral WTO covered agreement, binding on the entire WTO membership.

protect the life or health of human, animal, and plant populations within their territory (Article 2.1). The SPS Agreement tightly conditions recourse to justificatory grounds in order to prohibit its discriminatory application (Article 2.3), and to ensure that there is *some* scientific basis to such trade-restrictive measures (Articles 3.2 and 3.3). That said, it affords discretion to members to take measures that seek to offer a higher degree of protection than what may be possible, say, under international standards.⁶⁸ In other words, it is for members to determine the level of risk they are willing to assume. In the *European Communities – Measures Affecting Asbestos and Asbestos-containing Products* case,⁶⁹ the Appellate Body reiterated the prerogative of WTO members to determine the level of risk⁷⁰ so long as this exercise, predictably, is *bona fide* and not unjustifiably discriminatory in relation to the treatment of trade partners and of imports vis-à-vis domestic products.

d. The TBT Agreement

Another relevant aspect of the WTO system and measures taken in relation to a wide range of policy objectives is the Agreement on Technical Barriers to Trade (TBT Agreement). The general obligation under the TBT Agreement is that technical regulations taken on the part of members in pursuit of certain legitimate policy objectives not be unduly restrictive, discriminatorily applied, or otherwise improperly used. The TBT Agreement does not provide derogation grounds *per se* in the sense that Article XX of the GATT does. What it does is allude to a non-exhaustive list of legitimate objectives that may be behind a WTO member's technical regulation.⁷¹ That said, in one recital in the preamble, it is made clear that WTO members preserve their rights in relation to, amongst other things, environmental protection.⁷² What is more, the TBT Agreement systemically defers to the SPS Agreement for measures that may more appropriately fall within the

⁶⁸ See Article 3.3 SPS Agreement.

⁶⁹ WT/DS135/AB/R.

⁷⁰ *Ibid.*, at §168.

⁷¹ Article 2.2 TBT Agreement.

⁷² “Recognizing that no country should be prevented from taking measures necessary to ensure the quality of its exports, or for the protection of human, animal or plant life or health, of the environment, or for the prevention of deceptive practices, at the levels it considers appropriate, subject to the requirement that they 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, and are otherwise in accordance with the provisions of this Agreement” (emphasis added).

scope of the latter.⁷³ Gabrielle Marceau considers that the TBT Agreement could potentially be more accommodative than Article XX of the GATT.⁷⁴

e. The SCM Agreement

A further pro-environment aspect of the WTO system is contained in the SCM Agreement, which permits, as non-actionable, such subsidies that are directly related to making existing industrial facilities more environmentally friendly.⁷⁵ Furthermore, under Article 8 of the SCM Agreement, government subsidies for, say, renewables research could potentially be acceptable so long as certain conditions are met to ensure it is not protectionism under the veneer of environmentalism.⁷⁶ Article 8, however, expired in 1999⁷⁷ and no new list of non-actionable subsidies appears to have been agreed upon.⁷⁸

f. Discussion

All the above developments point towards a multilateral trade system that has evolved to its current WTO form to better and more meaningfully integrate non-core objectives – e.g., environmental protection – with its core trade liberalization objectives. And towards a system that affords, if not preserves, the necessary policy space for WTO members to continue to pursue a wider range of policy objectives, including those linked to environmental protection.

⁷³ See Article 1.5 TBT Agreement.

⁷⁴ Marceau persuasively argues that: “TBT Article 2.2 “provides a non-exhaustive, open list of legitimate objectives” and the complaining Member bears the burden of proving that the responding Member’s objective is not legitimate. The practical effect of this difference is that some policy objectives that would not be permissible to justify a *prima facie* GATT breach through GATT Article XX will be admitted under TBT Article 2.2 as legitimate objectives capable of justifying technical regulations that create obstacles to trade. Already in the US – COOL dispute [i.e., *United States – Certain Country of Origin Labelling (COOL) Requirements*, (WT/DS384/DS386)], an objective that would most probably not have come within any of the subparagraphs of GATT Article XX the US objective of providing consumers with information on the countries in which the livestock from which the meat they purchase is produced were born, raised, and slaughtered, was considered legitimate for the purposes of TBT Article 2.2.” G. Marceau, “The WTO’s Efforts to Balance Economic Development and Environmental Protection: A Short Review of Appellate Body Jurisprudence,” *Latin American Journal of International Trade Law*, Vol. 1, Issue 1, 2013 (at p. 311).

⁷⁵ See Article 8.2(c) of the SCM Agreement, which lays down the conditions for non-actionable subsidies, including that the environmental protection levels an existing facility seeks to meet be prescribed by law and that the subsidy not exceed 20% of the total cost of adaptation.

⁷⁶ See Article 8.2(a) of the SCM Agreement in relation to the conditions that emphasize the need for the benefit of any such subsidy to accrue to the beneficiary during the pre-competitive stage.

⁷⁷ See Article 31 of the SCM Agreement, which states that the provisions of Article 8 of the SCM Agreement, amongst others, shall apply not more than five years after the date that the Agreement on the Establishment of the WTO comes into force.

⁷⁸ See Ghosh, Arunabha and Gangania, Himani (2012) “Governing Clean Energy Subsidies: What, Why and How Legal?” *International Centre for Trade and Sustainable Development*, (at p. 39).

While it is evident from the above that the multilateral trade system has evolved to better accommodate environmental protection objectives, we have also witnessed a significant development in WTO jurisprudence to strengthen the safeguards against abuse.⁷⁹ This has happened to ensure that trade restrictive measures remain *bona fide* and that the multilateral trade system remains credible. There is a raft of cases relating to Article XX of the GATT derogatory grounds, where recourse to it has been disciplined to ensure that it is not abused. The adjudicative bodies of the WTO have sought to articulate what ought to be the relationship between a trade restrictive measure at issue and the GATT Article XX derogatory grounds cited. While such an exercise would depend on the actual Article XX paragraph(s) that a WTO member chooses to cite,⁸⁰ the chapeau to Article XX makes clear that such measures that are arbitrary and unjustifiable discrimination between WTO peers and/or disguised restriction on international trade may not be justified under Article XX.

While the purpose of the present chapter is to discuss pro-renewable energy measures and their relationship to WTO rules, we have provided Section III about environmental protection in relation to WTO rules,⁸¹ as these are issues that we see frequently arising in disputes involving such measures.

⁷⁹ There is a wealth of cases that contain findings that, in effect, regulate reliance on Article XX. For the purposes of this chapter, however, we are not drilling down to such level in this subsection, as we are mainly concerned with presenting aspects of the WTO system that are amenable to environmental protection objectives. Such cases are aspects of the *US-Gasoline*, which articulates the relationship between the measure and the policy objective it seeks to advance (the *means and ends* relationship); *Brazil — Measures Affecting Imports of Retreaded Tyres* (WT/DS332) and *Korea - Measures Affecting Imports of Fresh, Chilled and Frozen Beef* (WT/DS161/WT/DS169), which are concerned, amongst other things, with the necessary degree of proximity between the means and ends; and *China – Measures Related to the Exportation of Various Raw Materials* (WT/DS394/WT/DS 395/WT/DS398) in relation to analyzing the relationship between the means and ends to also examine when the measure in question was likely to have any positive impact for the objective cited by a State defending its trade-restrictive measure. See G. Marceau, “The WTO’s Efforts to Balance Economic Development and Environmental Protection: A Short Review of Appellate Body Jurisprudence,” *Latin American Journal of International Trade Law*, Vol. 1, Issue 1, 2013 (pp. 297-300) for a recent rundown of the relevant cases.

⁸⁰ Note that the wording between groups of Article XX grounds (namely, the use of “necessary” in paragraphs (a), (b) and (d); “relating to” in paragraphs (c), (e) and (g); “in pursuance of” in paragraph (h); “essential” in paragraph (j); “for the protection of” in paragraph (f); and “involving” in paragraph (i)) varies, which suggests that its effect on the required degree of relationship between the objective behind the trade-restrictive measure and the measure taken may vary. See the Appellate Body’s comments in the *US-Gasoline* dispute, where it refers to the significance of textual nuances (at pp. 17-19).

⁸¹ See http://www.wto.org/english/tratop_e/envir_e/climate_change_e.pdf for a WTO take on the intersection between the WTO system and climate change. For a more general discussion on the link between trade and climate change, see Leal-Arcas, R. *Climate Change and International Trade*, Edward Elgar, 2013.

iii. The promotion of renewables and the WTO

This section makes reference to disputes at the WTO over subsidies for renewable energy.⁸²

a. The Canada Renewables cases

As we have briefly alluded to earlier, government measures connected to the promotion of renewables may be highly divergent. In the recent WTO disputes in which Canada responded to complaints raised by the EU⁸³ and Japan,⁸⁴ the pro-renewables measures that could be teased out of the facts of these cases were: the offer on the part of the provincial government of Ontario of financial support for those who fed into the electricity grid energy that was derived from renewable sources, and the favoring of local renewables technology manufacturing and/or assembling industries. In relation to the latter, we say this because the offer of financial support⁸⁵ to those generating electricity through renewable sources (wind and solar means, in these particular cases) was contingent upon their drawing a substantial part (50-60%)⁸⁶ of the technological components from domestic manufacturers or assemblers. In that sense, these two distinct, yet linked, measures engage different aspects of the WTO. While the former measure may immediately call into question the consistency of a subsidy-like measure with WTO rules and, more broadly, of appropriate levels of government support and market intervention, the latter, most crucially, engages several WTO rules that relate to local content requirements (LCR).

The pleadings and findings in the *Canada-Renewable Energy* and *Canada-Feed-In Tariff Program* disputes brought to the fore a catalogue of matters

⁸² On renewable energy and the WTO, see Rubini, L. “Ain’t Wastin’ Time no More: Subsidies for Renewable Energy, The SCM Agreement, Policy Space, and Law Reform,” *Journal of International Economic Law*, advance access published 25 April 2012; Howse, R. (2009), “World Trade Law and Renewable Energy: The Case of Non-Tariff Barriers,” UNCTAD/DITC/TED/2008/5; Howse, R. and Eliason, A. “Domestic and International Strategies to Address Climate Change: An Overview of the WTO Legal Issues,” in Cottier, T. *et al.*, (eds.) *International Trade Regulation and the Mitigation of Climate Change*, Cambridge: Cambridge University Press, 2009, pp. 48-93.

⁸³ *Canada — Measures Relating to the Feed-in Tariff Program*, (WT/DS426/AB/R). The Appellate Body report published in tandem with *Canada — Certain Measures Affecting the Renewable Energy Generation Sector* (*Canada — Renewable Energy*) (WT/DS412/AB/R).

⁸⁴ *Canada — Certain Measures Affecting the Renewable Energy Generation Sector*, (WT/DS412/AB/R). Appellate Body report published in tandem with *Canada — Measures Relating to the Feed-in Tariff Program*, (WT/DS426/AB/R).

⁸⁵ Let us refer to this as the feed-in tariff and micro feed-in tariff contracts, as well as by the shorter ‘FITs and micro-FITs contracts.’

⁸⁶ There are various figures ranging from 25% to 60%. However, from 2012, the range has been 50%-60%. See joint Appellate Report (at p. 18).

engaged, including the WTO's core non-discrimination provisions (Articles I and III of the GATT), as well as provisions in the SCM Agreement, the GPA,⁸⁷ and in the Agreement on Trade-Related Investment Measures (TRIMs Agreement).⁸⁸

The production of electricity through renewable means is less regular than through the combustion of hydrocarbons or through nuclear fission. Energy production through the harnessing of, say, solar and wind power is contingent upon weather conditions. There can be no steady production outside the vagaries of the weather. What is more, the cost of the necessary infrastructure makes this field of the renewables industry uncompetitive when compared with conventional energy production.⁸⁹ The short of it in relation to these cases is that the Appellate Body – having upheld some and having nullified other earlier findings by the Panel – ended up recommending that Canada abandon the LCR component of its measure as it found this to be, amongst other things, an unjustifiable breach of Article III of the GATT in relation to the non-discrimination principle that imported products be treated similarly to *like* domestic products (i.e., the ‘national treatment’ aspect of the non-discrimination principle that underpins the multilateral trade system).

The complainants had sought to have the measure examined primarily under the specific provisions in the SCM and TRIMs Agreements as they considered these to be the *lex specialis* applicable to the measure in question. Article 3.1(b) of the SCM Agreement expressly places subsidies contingent on LCRs in the prohibited category⁹⁰ and paragraph 1(a) in the Annex to the TRIMs Agreement makes clear that trade-related investment measures requiring the use or purchase of domestic products are inconsistent with Article III of the GATT. In that sense, both Agreements condemn LCRs. While no loophole exists in the SCM Agreement for measures containing LCRs, the TRIMs Agreement admits some departure by its reference to Article III of the GATT. We say this because, while Article III of the GATT prohibits discriminatory treatment of imports vis-à-vis

⁸⁷ As stated earlier, the GPA is a plurilateral agreement annexed to the Agreement Establishing the WTO. Canada and Japan are parties to the GPA. The EU is listed as a party “*with respect to its 28 member states*”, which suggests it is not a party in its own right. See http://www.wto.org/english/tratop_e/gproc_e/memobs_e.htm. In any event, the GPA has been cited in the Appellate Body report in side comments (pp. 50 & 58).

⁸⁸ The TRIMs Agreement is also an Annex 1A (to the Agreement Establishing the WTO) covered multilateral agreement and, therefore, binding on all WTO members.

⁸⁹ See §5.174 (at p. 124) of the Appellate Body joint report.

⁹⁰ Readily we see the prohibition of any subsidy that seeks to boost exports or substitute imports.

domestic products⁹¹ and prohibits the use of LCRs,⁹² it permits derogation in relation to government procurement⁹³ so long as there is no subsequent commercial dimension to this procurement.⁹⁴ The Appellate Body rejected the argument that both of these instruments were somehow more specific to the measure and considered that the measure could appropriately be examined under Article III of the GATT. Also, the Appellate Body rejected the view that, when confronted with claims engaging all three instruments (namely the GATT, the SCM and TRIMs Agreements), it ought take into consideration and examine these in a sequence that promoted the last two.⁹⁵

As one may expect, the Appellate Body report contains several nuanced interpretations over various matters, including terms from the GATT, the SCM and TRIMs Agreements and their respective jurisprudence.⁹⁶ It is outside the immediate scope of this chapter to review these here. However, what we want to emphasize is that this report *does not* condemn pro-renewables policies or measures *per se*. What it does condemn are unnecessarily discriminatory practices that favor domestic commercial production. The measure was ultimately found to be inconsistent because it unjustifiably discriminated between domestic and imported products (under Article III of the GATT and, as a trade-related investment measure, also under Article 2.1 of the TRIMs Agreement); and not because preferential rates were paid to Ontario's renewable energy producers under their FIT and micro-FIT contracts.⁹⁷

The Panel and the Appellate Body attempted to carry out an analysis under the SCM Agreement. The Appellate Body upheld the Panel's earlier finding that the payment of higher rates for renewables-derived electricity under the FIT and micro-FIT contracts had been a 'purchase of goods' for the purposes of Article

⁹¹ Article III:4 GATT.

⁹² Article III:1 GATT.

⁹³ Article III:8 GATT.

⁹⁴ The precise wording in Article III:8 GATT: "*(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*" (emphasis added).

⁹⁵ See §5.5, p. 84, of the Appellate Body joint report.

⁹⁶ Issues examined were, amongst others, the extent to which the measure amounted to government purchases, whether it had been for government purposes (nota bene: there was recourse to the French and Spanish version of the text of GATT 1994 to establish the meaning of 'purposes'), and what the conditions were which governed the government procurement.

⁹⁷ See §5.84, at p. 103, of the Appellate Body joint report.

1.1(a)(1)(iii) of the SCM Agreement. However, in relation to satisfying the other aspect that a subsidy exists – namely, that there is a ‘benefit’ that may accrue to another (as per Article 1.1(b) of the SCM Agreement) – the Appellate Body was unable to carry out an assessment of ‘benefit,’ given, in this case, the complexities of establishing what is the likely market benchmark that ought to be used to assess what the ‘benefit’ had been in that particular case. Also, in assessing what may have been the ‘subsidy’ and its ‘benefit,’ the parties were concerned with those who benefited from the higher tariffs under the FIT and micro-FIT contracts – that is to say, the renewable energy producers – rather than the domestic producers and/or assemblers of the renewables’ technology who, despite their being third parties, clearly benefited under the LCRs of the FIT and micro-FIT contracts vis-à-vis foreign producers and/or assemblers of such technologies. Eventually, there were sufficient grounds to find against Canada under Article III of the GATT.

Finally, the political reasons behind Canada’s insistence to defend the LCR aspect of its measure – namely, regional job-creation – is a trade-restrictive ‘externality’ for the purposes of WTO rules that cannot be accommodated when it exceeds the limits afforded to WTO members under, amongst others, Article XX of the GATT, Article III:8 of the GATT, and Article 8 of the SCM Agreement. However, the objectives of job creation and of environmental protection are inherently different and, while the multilateral trade system has evolved to better accommodate environmental protection, this is not so in relation to job creation.

b. Other WTO cases connected to renewable energy⁹⁸

1) China — Wind Power⁹⁹

In December 2010, the US requested consultations with China concerning certain measures it alleged benefited wind-power technology manufacturers in China.¹⁰⁰ The US contended, amongst other things, that such measures appeared to be contingent upon the use of domestically produced goods and, therefore,

⁹⁸ This section refers to other renewable energy-related complaints that have engaged the WTO dispute settlement processes; however, not all cases necessarily resulted in determinations.

⁹⁹ WT/DS419.

¹⁰⁰ *China – Measures Concerning Wind Power Equipment*, Request for Consultations by the United States, January 6, 2011, WT/DS419/1; See also Office of the United States Trade Representative, “United States Requests WTO Dispute Settlement Consultations on China’s Subsidies for Wind Power Equipment Manufacturers,” Press Release, December 2010, available at <http://www.ustr.gov/about-us/press-office/press-releases/2010/december/united-states-requests-wto-dispute-settlement-con>.

inconsistent with Article 3 of the SCM Agreement. The US argued that, as these measures appear to be subsidies that had not been notified to the WTO, they also breached, amongst others, Article XVI of the GATT regarding subsidies and Article 25 of the SCM Agreement regarding the duty to notify.¹⁰¹

A recountal of the case¹⁰²

Although *China—Measures Concerning Wind Power Equipment* was amicably settled between the U.S. and China,¹⁰³ it is nevertheless relevant to discuss the merits of this case. In December 2010, the U.S. filed a complaint against China before the WTO regarding certain measures providing public funds, grants, or awards to enterprises that manufacture wind power equipment. The U.S. argued that certain measures undertaken by the Chinese government in support of its wind power industry are contrary to Article 3 of the SCM Agreement. The U.S. complaint was based on a petition that was filed with the Office of the U.S. Trade Representative by the Steelworkers Union in September 2010 pursuant to Section 301 of the Trade Act of 1974.¹⁰⁴ In that petition, the Steelworkers Union complained of a wide range of policies undertaken by China to “stimulate and protect its domestic producers of green technology, from wind and solar energy products to advanced batteries and energy-efficient vehicles.”¹⁰⁵ Their petition argued that these policies have permitted China to become the dominant global supplier of green technology, and have “drained manufacturing investment from the U.S. to China, transferred valuable technology and research and development activities to China, cost American workers the high-skilled green jobs of the future, and increased the U.S. trade deficit.”¹⁰⁶

The Steelworkers petition identified 5 categories of China’s policies that, in their view, are contrary to WTO rules:

¹⁰¹ See http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds419_e.htm.

¹⁰² This section draws from Leal-Arcas, R. *Climate Change and International Trade*, Edward Elgar, 2013, pp. 147-150.

¹⁰³ See Office of the United States Trade Representative, “China Ends Wind Power Equipment Subsidies Challenged by the United States in WTO Dispute,” Press Release (June 2011), available at <http://www.ustr.gov/about-us/press-office/press-releases/2011/june/china-ends-wind-power-equipment-subsidies-challenged>.

¹⁰⁴ Petition for Relief under Section 301 of the Trade Act of 1974, as Amended: China’s Policies Affecting Trade and Investment in Green Technology, September 9, 2010, available at <http://www.ustr.gov/sites/default/files/09-09-2010%20Petition.pdf>.

¹⁰⁵ Ibid., p. 1.

¹⁰⁶ Ibid., pp. 1-2.

1) restrictions on access by foreign nations and firms to critical materials necessary for the manufacture of green technologies.¹⁰⁷ These include solar panels, wind turbines, advanced batteries, and energy efficient lighting. According to the petition, “China produces more than 90 percent of the world’s supply of these minerals”¹⁰⁸ necessary for the production of these technologies, and “uses a variety of means to restrict exports of these materials to users in the U.S. and other countries;”¹⁰⁹

2) the use of subsidies contingent on export or domestic content, such as subsidies for the manufacture and development of green technology that are conditioned on the use of domestic over imported inputs;¹¹⁰

3) discrimination against foreign firms and goods in bidding out the construction of wind farms and solar power plants;¹¹¹

4) requirements for foreign companies to transfer technology, even if, when China joined the WTO in 2001, it committed not to ask foreign firms to transfer technology as a condition of investment agreements with Chinese state-owned enterprises or financial institutions, grant technology licenses to Chinese partners;¹¹² and

5) the provision of domestic subsidies alleged to be trade-distorting, “including in the solar, wind, biomass, geothermal, hydropower, nuclear, advanced battery, alternative vehicle, and energy-efficient consumer product, sectors.”¹¹³

The U.S. complaint addressed only category number 2, that is, the provision of subsidies contingent on export or domestic content.¹¹⁴ It targeted measures which appear in regulations¹¹⁵ that establish a special fund to support the wind power equipment manufacturing sector in China.¹¹⁶ This fund is stated to be for the purpose of “encouraging corporate R&D activities on market demanded

¹⁰⁷ Ibid., p. 2.

¹⁰⁸ Ibid.

¹⁰⁹ Ibid., pp. 2-3.

¹¹⁰ Ibid., p. 3.

¹¹¹ Ibid., pp. 3-4.

¹¹² Ibid., p. 4.

¹¹³ Ibid., p. 5.

¹¹⁴ USTR, “United States Requests WTO Dispute Settlement Consultations on China’s Subsidies for Wind Power Equipment Manufacturers,” available at <http://www.ustr.gov/about-us/press-office/press-releases/2010/december/united-states-requests-wto-dispute-settlement-con>.

¹¹⁵ Ministry of Finance Document [2008] No. 476, “Management Regulations on Special Fund for Wind Power Manufacturing Sector in China,” available at http://www.cresp.org.cn/uploadfiles/2/981/mof_476_eng.pdf.

¹¹⁶ Ibid., Appendix, Article 1.

products,”¹¹⁷ and it is purported that it will be allocated as “incentives instead of subsidies.”¹¹⁸ The U.S. complaint appears to focus, in particular, on the qualifications of wind power manufacturing companies applying for a grant from the fund, which are set out in Article 6(4) of the Appendix of the Management Regulations on Special Fund for Wind Power Manufacturing Sector in China, which requires that “the wind turbine component of blades, gearboxes and generators must be manufactured by Chinese companies or Chinese controlled stock companies. Converters and bearings manufacturing are encouraged.”

The U.S. complaint alleged that the subsidies appear to be “prohibited subsidies” according to Article 3 of the SCM Agreement.¹¹⁹ The complaint also alleged breaches of a number of provisions of the SCM Agreement (namely Articles 25.1, 25.2, 25.3, and 25.4) as well as Article XVI.1 of the GATT 1994 requiring the notification of subsidies.¹²⁰ Moreover, the U.S. also argued that China has breached the terms on which it acceded to the WTO which required translation of measures into one or more of the official languages of the WTO, thereby failing to comply with its obligation under Part I, paragraph 1.2 of its Protocol of Accession.¹²¹

The U.S.-China consultations took place in February 2011, when the Chinese government agreed to put an end to the special fund.¹²² The dispute therefore concluded amicably. It is reasonable to say that the U.S. complaint seems relatively narrow, given that it dealt only with one of the many policies that the Steelworkers Union brought forward in its petition.

2) US — Countervailing Measures (China)¹²³

In May 2012, China requested consultations with the US concerning countervailing duties that the US was levying on certain Chinese products, including renewable energy technologies, on the basis that they are state-owned enterprise products with subsidized inputs on the part of the Chinese government. China also challenged the US Department of Commerce’s presumption that

¹¹⁷ Ibid., Appendix, Article 2.

¹¹⁸ Idem.

¹¹⁹ *China—Measures Concerning Wind Power Equipment*, WT/DS419/1, p. 1.

¹²⁰ Ibid.

¹²¹ Ibid.

¹²² Drajem, M. “China Agrees to End Wind-Power Subsidies After WTO Case, Trade Office Says,” *Bloomberg News*, 7 June 2011, available at <http://www.bloomberg.com/news/2011-06-07/china-agrees-to-end-wind-power-subsidies-after-wto-case-trade-office-says.html>.

¹²³ WT/DS437.

enterprises with majority government ownership ought to be treated as *public bodies* for the purposes of WTO rules.¹²⁴ China claimed that the measures in question infringed upon the following provisions: Article VI of the GATT; Articles 1, 2, 11, 12, and 14 of the SCM Agreement; and Article 15 of the Protocol of Accession of China to the WTO. A Panel was established in September 2012 and its composition was determined in November 2012. At the time of writing this chapter, the Panel was expected to issue its report by January 2014.¹²⁵

3) *EU and a Member State – Importation of Biodiesels*¹²⁶

In August 2012, Argentina requested consultations with the EU and Spain concerning certain measures affecting biofuel imports into the EU and how related data collection practices discriminated against certain biofuels imports. Argentina claimed the measure was inconsistent with, amongst others, Articles III and XI of the GATT as well as Article 2 of the TRIMs Agreement. In December 2012, Argentina requested a panel be established, which was then deferred by the DSB. No further progress has been published so far.¹²⁷

4) *US – Countervailing and Anti-Dumping Measures (China)*¹²⁸

In September 2012, China requested consultations with the US in relation to US measures that affected, amongst other Chinese exports, wind-power technologies. These measures related to the following: US legislation that permitted the application of countervailing measures (i.e., a type of trade-balancing remedy permissible, subject to conditions, under WTO law) to tradables from ‘non-market’ economies; the countervailing duties pursuant to that legislation; and to countermeasures taken by the US in relation to its subjective findings of dumping practices on the part of China. China claimed that the measures in question are inconsistent with the following provisions: Articles 10, 15, 19, 21 and 32 of the SCM Agreement; Articles VI, and X of the GATT; and

¹²⁴ This is despite an earlier (nota bene: the report was circulated in March 2011) Appellate Body determination in a case brought by China against the US, where the Appellate Body reversed the Panel's interpretation of the term "public body" in Article 1.1(a)(1) of the SCM Agreement and found that a public body is an entity that possesses, exercises, or is vested with, governmental authority, and where it found that the US had acted inconsistently with Articles 1.1(a)(1), 10, and 32.1 of the SCM Agreement, in finding that certain State-owned enterprises constituted public bodies. See *United States — Definitive Anti-Dumping and Countervailing Duties on Certain Products from China* (WT/DS379).

¹²⁵ See https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds437_e.htm.

¹²⁶ WT/DS443.

¹²⁷ See http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds443_e.htm.

¹²⁸ WT/DS449.

Article 9 of the Anti-Dumping Agreement (ADA).¹²⁹ The DSB established a Panel in December 2012, which the WTO Director-General composed in March 2013. The panel expects to issue its final report in December 2013. No further progress has been publicized.¹³⁰

5) EU and Certain Member States – Renewable Energy Measures¹³¹

In November 2012, China requested consultations with the EU, Greece and Italy in relation to certain measures, including domestic content restrictions that affect the renewable energy generation sector relating to the feed-in tariff (FIT) programs of EU Member States, including Italy and Greece. China cited ten separate pieces of EU and Member State legislation that it claimed affected its trade interests. Amongst the WTO rules cited by China are the following: Articles I and III of the GATT; Article 3 of the SCM Agreement; and Article 2 of the TRIMs Agreement. There has been no reported progress since November 2012.¹³²

6) India – Solar Cells Measures¹³³

In February 2013, the US requested consultations with India in relation to certain measures linked to renewable energy generation in India that contained a local content requirement for solar energy technologies. On the face of it, this measure would injure *like* imports as it encouraged use of domestic components. The US claims that this is inconsistent with: Article III of the GATT; Article 2 of the TRIMs Agreement; Articles 3, 6, and 25 of the SCM Agreement, and that it directly or indirectly nullifies or impairs the benefits that accrue to the US due to India's and its own WTO membership. There has been no publicized progress to date.

7) EU and Certain Member States – Importation and Marketing of Biodiesel and Measures Supporting the Biodiesel Industry¹³⁴

In May 2013, Argentina requested consultations with the EU and its Member States regarding certain measures that it claimed affected Argentinian biofuels imports and their marketing within the EU. Argentina's request relates to

¹²⁹ The ADA is officially listed as the *Agreement on Implementation of Article VI of the GATT 1994* and is an Annex 1A (to the Agreement Establishing the WTO) multilateral agreement binding on all WTO members.

¹³⁰ See http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds449_e.htm.

¹³¹ WT/DS452.

¹³² See http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds452_e.htm.

¹³³ WT/DS456.

¹³⁴ WT/DS459.

two types of EU and Member State measures: (a) measures to promote the use of renewable energy and to introduce a mechanism to control and reduce GHG emissions; and (b) measures to establish support schemes for the biodiesel sector. Argentina considers that the measures in question are inconsistent with, amongst others: Articles I and III of the GATT; Articles 1, 2, 3, 5, and 6 of the SCM Agreement; Article 2 of the TRIMs Agreement; and Articles 2 and 5 of the TBT Agreement. Argentina referred to the TBT Agreement, which clearly expresses a preference for multilateralism¹³⁵ in that any technical barriers to trade – in this case, arguably, the EU’s definition of ‘*sustainable*’ – be based on international standards and not be more restrictive than necessary in addressing some legitimate objective(s) contemplated by the TBT Agreement.¹³⁶

Argentina contests EU measures, and Member State implementation legislation pertinent to these, that define as ‘*sustainable*’ such energy sources that reduce GHG emissions by at least 35% when compared to fossil fuels. Its soya-related biofuels products reduce emissions by no more than 31%, thus not qualifying under the EU definition. What is more, Argentina further challenges an EU measure requiring that certain fossil-fuel distributors also make available *sustainable* fuel through their distribution operations, given that its biofuels would be excluded. Argentina contends that this results in treatment less favorable for its own products. No further progress has been published.¹³⁷

8) *Recurring issues in renewables-related WTO cases*

An overview of the above complaints suggests that the commonest issue complainants raise is that some LCR aspect of a measure has been harmful to their industries and is unjustified under WTO rules. Other issues appear to be whether countermeasures taken to address dumping concerns have been justified in the circumstances, and whether some technical barrier exists – such as a definition employed by a WTO member – that leads to less favorable treatment for imports. As we have stated, the above listed disputes, for the most part, are at the early stages of the dispute resolution process. However, there is WTO jurisprudence that, although not directly concerned with renewables, has implications for renewables within the WTO.

¹³⁵ See the interplay of Articles 1.1 and 2.4 of the TBT Agreement, discussed earlier in this chapter.

¹³⁶ Article 2.2 of the TBT Agreement.

¹³⁷ http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds459_e.htm.

The issues that arise in the list of complaints above often hinge on whether *like* products are treated even-handedly. Articles III:2 and III:4 of the GATT refer to the obligation to treat *like* products in a non-discriminatory manner. Therefore, the first step in assessing whether less favorable treatment indeed exists is itself complicated by the need to establish that there is sufficient *likeness* between the products for an allegation to be legally relevant. What establishes *likeness* is determined on a case-by-case basis. While the competitive relationship between the products in question is clearly material to a determination of *likeness*, it is not the sole determinant, nor are all products in a strong competitive relationship with one another necessarily *like* products under the WTO rules.¹³⁸

Likeness could potentially depend on a wide range of issues, including the physical characteristics of the products, end uses, consumer habits and sensibilities,¹³⁹ with the possibility that other factors may, in certain cases, also be relevant for establishing whether there is *likeness*. Once likeness has been established, the question is to then establish whether imports have been treated less favorably than domestic products.¹⁴⁰ In that sense, Article III of the GATT is aimed at preventing against protectionism¹⁴¹ and, therefore, determinations of *likeness* cannot be restricted to an inflexible array of issues to be taken into consideration. *Likeness* considerations could be relevant to, say, complaints alleging that electricity produced through renewable means is treated more favorably than other products that exist in a competitive relationship and, on a number of parameters – including substitutability, physical likeness, and others – are sufficiently *alike*.

Potentially, an importer of electricity may argue that the higher tariffs paid to, or preferential price levels set by government for, renewable-energy domestic producers breach Article III of the GATT. Here there is a series of questions that would have to be addressed. For instance, are the electricity imports, which are alleged to be treated less favorably, *like* products for the purposes of Article III of

¹³⁸ See §99 (at p. 37) of the Appellate Body Report, *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products*, WT/DS135/AB/R, adopted 5 April 2001.

¹³⁹ For instance, consumer sensibilities around the use of asbestos were held to be sufficiently material in establishing likeness in *EC-Asbestos* (WT/DS135/AB/R).

¹⁴⁰ See the report by the United Nations Conference on Trade and Development, *World Trade Law and Renewable Energy: The Case of Non-Tariff Barriers*, New York and Geneva, 2009, for a fuller analysis on this two-step test in the relevant WTO jurisprudence (at pp. 5-7, and *passim*).

¹⁴¹ See Appellate Body report, *Japan – Taxation on Alcoholic Beverages*, (WT/DS8/AB/R), at p. 16.

the GATT? A determination of *likeness* could foreseeably focus on how this electricity has been produced. While a single unit of electricity is identical to any other unit of electricity – and, therefore, while the physical aspects of electricity may make electricity derived from different energy sources (e.g., conventional (fossil fuel), nuclear, or renewables) a *like* product – their production method may well make these sufficiently *unlike*.¹⁴²

It is worth noting that, in the Canada cases, the Appellate Body – albeit for the purposes of assessing what might be the appropriate market benchmark for an assessment of ‘benefit’ under Article 1.1(b) of the SCM Agreement – contemplated the differences between the electricity generation industries drawing from conventional sources and those drawing from renewables as being rather distinct.¹⁴³ In that respect, less favorable treatment towards electricity produced by conventional or nuclear means and that of electricity produced by renewables may be entirely justified under WTO rules if they are determined to be *unlike*, *so long as* domestically produced electricity derived by conventional or nuclear means is also treated in an even-handed manner. Otherwise, the complaint by foreign electricity producers could be structured on the less favorable treatment accorded to those *like* products – namely, imported electricity produced by conventional or nuclear means *vis-à-vis* domestically produced electricity produced by conventional or nuclear means, given that discriminatory treatment could then be said to exist between *like* products.

Other issues that appear repeatedly in the renewables-related complaints we have listed earlier relate to whether a particular measure actually amounts to a prohibited or otherwise actionable subsidy within the context of the SCM Agreement. Again, making such a determination relies on a thorough review of all relevant aspects of a measure. Does the measure involve some sort of material support on the part of a government to its domestic industry in a manner that is trade-distortive? In that sense, ‘government’ or ‘public body’ (or even a ‘private body’ where it is clear or imputed that it exercises some government-like functions¹⁴⁴) and ‘subsidy’ have a specific meaning within the SCM Agreement;

¹⁴² Howse, R. (2009), World Trade Law and Renewable Energy: The Case of Non-Tariff Barriers, 2009, UNCTAD, at p. 3.

¹⁴³ See Appellate Body joint report, §5.174, at p. 124.

¹⁴⁴ See Article 1.1(a)(1)(i) & (iii) of the SCM Agreement.

there must be some sort of ‘financial contribution’¹⁴⁵ or price or income support;¹⁴⁶ it must confer a ‘benefit’ on the recipient;¹⁴⁷ and, unless it involves a subsidy that on its face is prohibited,¹⁴⁸ in order for it to be actionable, it would be necessary to establish that the subsidy is ‘specific,’¹⁴⁹ that it has ‘adverse effects’¹⁵⁰ on the trade interests of another WTO member, and that the level of support is above the permissible limits of Article 8 of the SCM Agreement.

Findings as to whether the above elements are present in a measure that is the subject of a complaint are not without their complexities. There would be little doubt that a measure aimed at the development of the renewables industries – e.g., by providing interest-free or low-interest loans to the domestic renewable energy technology industry – would be a clear case of a financial contribution that confers a benefit and that is specific to a particular industry. It is less clear on first inspection whether it would be inconsistent with WTO rules. While such a measure would appear less likely, on the face of it, to amount to a prohibited subsidy aimed at export stimulation or import substitution *per se*, it is likely to be actionable under Article 5 of the SCM Agreement, should it have adverse effects on the trade interests of other WTO members; and should the level of support conferred by it be outside the permissible limits stipulated in Article 8 of the SCM Agreement.

We acknowledge that there may be various measures connected to the promotion of renewables that may infringe upon WTO rules; not only those measures that are linked to feed-in tariff renewables schemes. However, the relationship between FIT schemes and WTO rules seems to have attracted a fair amount of scholarly attention and scrutiny.¹⁵¹ The purpose of this chapter has been

¹⁴⁵ Article 1.1(a)(1) of the SCM Agreement.

¹⁴⁶ Article 1.1(a)(2) of the SCM Agreement. In relation to findings as to whether a financial contribution exists, it is not necessary for a State to be financially burdened or forego, say, tax income, given that the material support it gives may be indirect and, at the same time, fulfill the requirement of Article 1 of the SCM Agreement. See A. Jerjian, “The Feed-in Tariff Controversy: Renewable Energy Challenges in WTO Law,” for a review of the relevant WTO jurisprudence relating to Article 1 of the SCM Agreement (at pp. 5-8), available at <http://www.sielnet.org/Resources/Documents/SEL%20CUP%202012%20highly%20commended%20%20-%20article%20by%20Jerjian.doc>.

¹⁴⁷ Article 1.1(b) of the SCM Agreement.

¹⁴⁸ E.g. such subsidies designed to boost export performance or import substitution as per Article 3 of the SCM Agreement.

¹⁴⁹ Article 2 of the SCM Agreement.

¹⁵⁰ Article 5 of the SCM Agreement.

¹⁵¹ See, amongst others, A. Jerjian, ‘The Feed-in Tariff Controversy: Renewable Energy Challenges in WTO Law.’ Jerjian carries out an extensive analysis of how FIT schemes for

to present sufficient high-level background in relation to environmental protection and the WTO system in which to then situate the relationship between renewables promotion and the WTO system. The rules and jurisprudence appear to suggest that *bona fide* non-discriminatory measures linked to environmental protection objectives – including the promotion of renewable energy – are not actually blocked or otherwise discouraged within the multilateral trade system, particularly since the advent of the WTO.

IV. Conclusion

The main barriers to the scaling-up and proliferation of renewables relate to the infrastructural costs that make energy production uncompetitive when compared with energy production based on conventional energy sources. This is a barrier that is certainly compounded by the long-standing subsidization of conventional energy sources. What is more, conventional energy source-related subsidies – amounting to up to 90% of energy subsidies – which, incidentally, negatively impact the ecosystem, are actually tolerated within the WTO system. Predictably, these are unlikely to be addressed in WTO litigation, given that these are popular measures among States, but also because demand for conventional energy sources exists to a large extent due to the distortive effects of such subsidization. For instance, if there were fewer conventional energy subsidies, at best, renewable energy may have been more competitive and therefore more viable; however, at worst, perhaps a larger part of the human population would have been denied access to affordable energy and would have been condemned to pre-modern standards of life.¹⁵²

Our conclusion is that the main obstacles to the scale-up and take-up of renewable energy are not normative/institutional *per se*. Rather, they are economic. The only systemic ‘obstacle’ that the WTO presents is its requirement

renewables engage WTO rules. See also M. Wilke (2011) “Feed-in Tariffs for Renewable Energy and WTO Subsidy Rules: An Initial Legal Review,” Trade and Sustainable Energy Series, Issue Paper No. 4, International Centre for Trade and Sustainable Development.

¹⁵² Almost two billion people currently live without modern forms of energy such as electricity. That is nearly more than 1 in 4 people globally. See the World Bank Report ‘*Meeting the Challenge for Rural Energy and Development for Two Billion People*’ at cover page 3, available at http://siteresources.worldbank.org/INTENERGY/Resources/Rural_Energy_Development_Paper_I_mproving_Energy_Supplies.pdf. Note that this report draws from a previous World Bank report (No. 16002, published on 30 September 1996) entitled ‘*Rural energy and development: improving energy supplies for two billion people, Volume 1*’ available at <http://go.worldbank.org/G6ZXYV3ER0>.

that measures not be disguised mercantilism and that they be applied even-handedly. The WTO system, as it stands, could, and does, accommodate *bona fide* non-discriminatory measures that promote the scale-up and take-up of renewable energy. After all, we see that it tolerates conventional energy subsidies, which certainly are not predicated on the general exceptions to WTO rules or other dispensations, as these appear in the covered agreements.

Having said that, we acknowledge that confusion about how the WTO system may accommodate measures aimed at the promotion of renewable energy could strengthen the case for a separate specific agreement. However, such an agreement is likely to contain clarifications of, or even replicate the policy space that we believe currently exists within, the existing normative framework. As such, we believe it may be an unnecessary legislative step when its objectives (e.g., legal certainty) could be addressed by the adoption of an explanatory note containing clarificatory guidelines issued by the WTO Ministerial Conference¹⁵³ under its existing mandate and powers.¹⁵⁴ Such a note could contain an illustrative index/table with a series of examples of pro-renewables measures and their classification as *WTO-consistent* or *-inconsistent*, according to the policy motivation behind these (given that there may be a variety of policy objectives hidden behind these), their adverse effects, and the specific WTO rules that are engaged.¹⁵⁵

As we have attempted to outline in this chapter, the policy space appears to be preserved for WTO members to take measures to support environmental goals, including the promotion of renewables. This is particularly the case in the WTO era. Rather than finding fault with the existing normative framework of the multilateral trade system in relation to the further development and proliferation of renewables, we believe the obstacles to the promotion of renewables do not flow from some normative failure, but from the economics that underlie energy.

¹⁵³ Article IV.1 of the Agreement Establishing the WTO.

¹⁵⁴ See Articles III, IV, IX, and X of the Agreement Establishing the WTO, which relate to the competences of the Ministerial Conference. The Ministerial Conference may either consensually or on the basis of a three-fourths majority - whichever may be required under the specific requirements of these provisions - adopt amendments to the agreements or interpretations of terms within the agreements.

¹⁵⁵ In fact, an excellent example, albeit one that considers these from a subsidies point of view, appears in Ghosh, A. and Gangania, H. (2012) "Governing Clean Energy Subsidies: What, Why and How Legal?" International Centre for Trade and Sustainable Development (at p. 41).