Options for Disciplining the Use of Trade Remedies in Clean Energy Technologies

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International Centre for Trade and Sustainable Development

Issue Paper

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LIST OF ABBREVIATIONS

AB	Appellate Body
ADA	Anti-dumping Agreement
ADD	anti-dumping duty
APEC	Asia Pacific Economic Cooperation
CET	clean energy technology
CTE	Committee on Trade and Environment
CVD	countervailing duty
DDA	Doha Development Agenda
DSB	Dispute Settlement Body
DSU	Dispute Settlement Understanding
EGA	Environmental Goods Agreement
EU	European Union
FTA	free trade agreement
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariffs and Trade
GW	gigawatts
LDR	lesser duty rule
MW	megawatts
PV	photovoltaic
RTA	regional trade agreement
SCMA	Subsidies and Countervailing Measures Agreement
SDG	Sustainable Development Goal
SETA	Sustainable Energy Trade Agreement
TRIPS	Trade-Related Aspects of Intellectual Property Rights
UNFCCC	United Nations Framework Convention on Climate Change
WTO	World Trade Organization

FOREWORD

Fossil fuel based energy use is the biggest contributor to anthropogenic greenhouse gas emissions. Therefore, a rapid scale-up and deployment of renewable or sustainable energy sources will be critical to the pursuit of countries' pledges under the Paris Agreement of the UNFCCC to address climate change. A scale-up of sustainable energy will also enhance energy access for millions of people throughout the developing world, as well as power economic growth. It will also boost energy security by reducing the reliance of countries on fossil fuel imports.

Scaling up the expansion of renewable energy and improving energy efficiency will entail addressing impediments to the global diffusion of clean energy and energy efficient goods and services. Trade policy can contribute in this regard by lowering barriers to market access for sustainable energy goods and services.

Clean energy goods and services critical for climate change mitigation are increasingly being delivered through globally dispersed supply chains. Such supply chains involve raw material, components, capital equipment, and services that are traded across borders, assembled or processed in one or more countries, and re-exported to a third country where the final renewable electricity generation takes place.

The increasing use of trade remedies in the clean energy sector can raise costs along clean energy supply chains and discourage investments in clean energy projects, as developers face a rise in input costs. Trade remedy measures such as anti-dumping and countervailing duties have already disrupted trade worth billions of dollars in solar photovoltaic modules and have led to high-profile disputes at the WTO, involving major panel producers, notably China, and importing countries such as the United States and the European Union. From a climate change mitigation perspective, such measures can slow efforts to check global warming and meet countries' emission goals as enshrined in the Paris Agreement. While ensuring fair trade is no doubt important, there is concern that trade remedy measures are sometimes abused for protectionist purposes. Given the particular urgency of climate mitigation, there is a need to rethink and reform rules governing the use of trade remedy measures specifically for the clean energy sector.

Authored by Kim Kampel, a South African lawyer and former trade negotiator specialised in trade and competition law and policy, this paper explores, maps, and evaluates different options for disciplining or eliminating the use of trade remedies in the renewable energy sector, both within and outside the WTO framework. It proposes a shortlist of options that could be taken forward based on efficiency as well as legal and political feasibility.

This paper was conceived by ICTSD and developed by their Climate and Energy programme. As a valuable piece of research, it has the potential to inform innovative policy responses on governance of trade remedy measures in the context of sustainable energy trade initiatives. It will be particularly useful for trade policy makers as well as trade negotiators. We hope that you will find the paper to be a thought-provoking, stimulating, and informative piece of reading material, and that it proves useful for your work.

Ricardo Meléndez-Ortiz
Chief Executive, ICTSD

EXECUTIVE SUMMARY

Background

Trade in clean energy technologies (CETs) has grown significantly over the past decade, and trade remedy activity restricting imports, particularly anti-dumping and countervailing duties with respect to clean energy products, has similarly increased. Members of the World Trade Organization (WTO) have reported rising numbers of anti-dumping and countervailing disputes initiated in the area of renewable energy over the last eight years, particularly with respect to solar energy. Over the period from 2006 to 2015, 45 trade remedy cases in the clean energy sector have been notified to the WTO, with almost half related to solar technology.

One study has estimated that trade remedies in the clean energy sector affected about US$32 billion worth of trade in green products between 2008 and 2012, which resulted in an estimated total annual reduction in trade of US$14 billion—accounting for four percent of the global trade in the targeted products.

Trade remedy investigations are launched and, in relevant cases, anti-dumping and countervailing measures are introduced, with the rationale of preventing what is alleged to be unfair competition from harming domestic industries. However, in the case of clean energy technology, prior research has suggested that the spread of anti-dumping protection cannot be solely explained by an increase in unfair trade practices, but by the strategic behaviour of petitioning firms. The surge in trade remedies may therefore be motivated more by the protectionist inclinations of importing countries pursuant to the quest for enhanced competitiveness in clean technologies. In this sense, anti-dumping and countervailing remedies, if abusively and indiscriminately applied, have the potential to prevent the kind of rapid decreases in cost and price that are necessary to make solar energy, and other CETs, viable competitors to fossil fuels.

The aforementioned observed developments are at odds with national and international climate ambitions. The United Nations Framework Convention on Climate Change (UNFCCC), the Paris Agreement, concluded at the 2015 United Nations Climate Change Conference (COP21) and entering into force in November 2016, emphasised the need to enhance climate action to hold the global average temperature rise well below 2°C above pre-industrial levels. Similarly, Goal 7.2 of the United Nations Sustainable Development Goals (SDGs) aims at a substantial increase in the share of renewable energy in the global energy mix by 2030.

The mere initiation of national investigations has a chilling effect on trade and investment because of its implications for the predictability and stability of the market. Therefore, in light of the current global imperatives to rapidly scale up renewable energy to address climate change, trade rules and their enforcement should be harnessed to play a positive role by enhancing access to the best technologies at competitive prices.

This paper, therefore, explores and evaluates different options for disciplining or eliminating the use of trade remedies in the renewable energy sector, to facilitate trade, contributing to a scale-up of clean energy supply for climate mitigation and a transition away from reliance on fossil fuel alternatives.

Policy Options

Recent research has explored ways to discipline the use of anti-dumping and countervailing measures so that such measures target legitimately anti-competitive behaviour rather than facilitating protectionist aims. Suggestions for addressing the issue range from a better enforcement of existing

rules within WTO trade remedy agreements to more systemic reform of these rules, whether universally, across sectors, or by carving out CETs as a special sector. They further include agreeing to a moratorium or self-restraint among like-minded countries in the use of trade remedies in the clean energy sector. Options for reform have also been proposed to be pursued in fora other than the WTO, including sectoral/plurilateral and regional arrangements (Meléndez-Ortiz 2016).

This paper organises these options into three groups:

- Category I focuses on strengthening or improving existing WTO trade rules to apply in an environmental context
- Category II covers unilateral options for authorities to rethink, ameliorate, or mitigate the impact of trade remedy measures
- Category III involves more far-reaching reform to reduce or eliminate trade remedy use, including WTO-plus provisions

The paper goes on to evaluate all the options to come up with a shortlist to be taken forward according to criteria of efficiency as well as legal and political feasibility. Potential means to implement the selected options, both within and outside of the WTO framework, are then discussed with a view to improving their viability and effectiveness.

Analysis and Conclusions

The paper highlights the challenges of bringing about hard-law rule changes to existing specific provisions in the current trade remedy agreements, whether applied on a cross-sectoral, generic basis, or more specifically to the clean energy sector. The individual problems identified with regard to the application of trade remedies are not unique to the clean energy sector, but apply generally across all sectors, which complicates the case for rule change within the WTO with regard to one specific sector..

There are practical and political challenges in including environment-specific provisions in trade remedy agreements, or in establishing a designated category of climate or clean energy products in the multilateral forum, for which certain trade remedy provisions would provide differential treatment. On a practical level, it would be difficult to identify and justify which clean energy products should benefit from preferential treatment. Furthermore, such a sectoral focus would generate strong political opposition for fear that it would lead to fragmentation and undermine a comprehensive set of WTO trade remedy disciplines, merely in order to further the liberalisation aims of one sector. Consequently, any rule-based amendments in the WTO would only be viable if effected on a generic basis.

In the medium to long term, renewed WTO negotiations might be able to implement some limited reforms to the trade remedy agreements to enhance transparency and due process. Alternatively, soft law approaches can be explored within the WTO to address many of the category I options in the short to medium term. This could happen either through more detailed notification formats, through committee work programmes or existing transparency mechanisms.

Though substantive reforms might not be feasible within the WTO context in the immediate time-frame, this does not preclude some options from being taken forward and disciplined in other fora, or by way of alternative means of implementation. Indeed, sectoral and regional initiatives present possible fora in which to circumscribe or advance the wholesale elimination of use of trade remedy instruments, either on a temporary basis, subject to further review, or permanently. Within a sectoral

initiative either within the WTO framework, such as the Environmental Goods Agreement (EGA), or beyond, such as the SETA (Sustainable Energy Trade Agreement), members would need to abide by the most-favoured-nation requirement and ensure coherence with existing WTO-covered agreements. They would also need to be alert to possible institutional challenges. The effectiveness and impact of such initiatives would depend on political will, and on achieving enough critical mass to ensure that the major players are incorporated, avoiding free-riding.

Regional trade agreements (RTAs), including the current trend towards mega-regional arrangements, provide a permissive legal framework for eliminating the use of trade remedy measures, as well as for testing innovative approaches to disciplining their use. The advantage of a regional solution is that the MFN problem does not arise and members are generally free to redefine the conditions of use of the trade remedy agreements between themselves—subject to compliance with General Agreement on Tariffs and Trade (GATT) rules on the constitution of such regional arrangements, including meeting the "substantially all trade" requirement. These arrangements present an opportunity for far-reaching reform and compromise with respect to how trade remedies are dealt with in this context, but also present challenges.

In both sectoral and regional arrangements, securing the agreement of as wide a range of parties as possible to curtail or abolish their use of trade remedies within an enabling environmental framework would guarantee the most positive impact by allowing the free flow of trade and dissemination of clean, energy efficient technologies. However, such an achievement would be difficult, given that trade remedies are typically employed as a safety net to facilitate hard fought trade concessions and satisfy domestic constituencies. The ultimate result would depend on trade-offs in other areas, concerted political commitment, as well as parties managing the constraints of their domestic political economies within their respective jurisdictions.

1. INTRODUCTION

The purpose of this paper is to explore ways in which the use of trade remedies, specifically in the clean energy sector, can be disciplined to reduce their unjustified and indiscriminate use and allow trade to contribute to a scale-up of clean energy supply and use for climate mitigation purposes. This paper will evaluate, through a neutral and pragmatic lens, previously proposed options[1] to ultimately come up with a set of realistic and viable options, both within the WTO context and beyond, for disciplining trade remedies to facilitate trade in CET for climate mitigation purposes. It is intended to stimulate action-oriented policy dialogue by proposing a menu of possible ways forward for policy makers to use as a basis for discussion, rather than to present recommendations or identify a definitive road-map.

For the purposes of this paper a reference to clean energy technology will, in line with previous similar studies, include only clean electricity generation technologies related to wind, solar, hydro, and biomass power, as well as cleaner fuels such as ethanol and biofuels.[2]

Most of the proposals or policy options have counterpart provisions in the Anti-dumping Agreement (ADA) and Subsidies and Countervailing Measures Agreement (SCMA)—hence their applicability with respect to each trade remedy agreement will be canvassed at the same time.[3]

With regard to the SCMA agreement, there have been substantive and comprehensive proposals for modifying the agreement to create more space to permit and shelter from challenge policies supporting the development and scale-up of clean energy for climate change mitigation. This is beyond the terms of reference of this paper. Suggestions to amend specific provisions of the SCMA involve changing core concepts that underpin the entire architecture of the SCMA. It is not possible to amend certain countervailing duty (CVD) rules on a piecemeal basis in the absence of substantive changes to existing rules on subsidies in the SCMA that would define the contours of permissible types of subsidies in the climate mitigation and clean energy space.[4] Only those proposals that straddle both the SCMA and ADA with a view to disciplining the use of both AD and CVD measures will be evaluated. The only exception, where some attention is devoted to reform of the SCMA specifically, is the proposal to revive its non-actionable subsidy category. This is considered insofar as it would also encompass disciplining the use of countervailing measures in the context of that agreement.[5]

With regard to the practical impact of the implementation of specific trade remedy proposals in a regional context, this paper does not examine the empirical economic effect, either because there is a dearth of data (in the case of implementation of certain RTA provisions), or because not enough time has elapsed to evaluate the long-term effects. In any event, this is beyond the scope of this study. Where it has been possible to describe evidence of impact, it is anecdotal.

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1 Such options are summarised in Meléndez-Ortiz (2016).

2 Nuclear fuel and its generation technologies are excluded due to associated environmental and safety risks, notwithstanding that such technologies produce no carbon emissions (Sugathan 2013).

3 Safeguards are not directly addressed in this paper. This is because safeguard measures have not yet been an issue for environmental or clean energy goods (Cato Institute 2013; Rolland 2014; WTO 2016). Nevertheless, they are addressed tangentially to illustrate the use of certain similar provisions appearing in other trade remedy agreements or within FTAs.

4 Howse (2013) notes that experience with attempts at one-off amendments suggests it would be politically difficult to detach a particular project for amending the SCMA to deal with clean energy from the thorny issue of rules reform more generally.

5 Even though this would not affect the use of AD action on its own, at least it has some value with regard to disciplining the use of the CVD measure.

In section III, this paper will provide an overview of the global policy objectives related to climate and energy within the context of the UNFCCC and SDG climate outcomes—more recently cemented with the entry into force of the Paris Agreement. Next, section IV will explore trends in clean energy over time, including an evaluation of developments in installed capacity, investment, and recent cost developments. Section V will delve into trends in trade remedy use, with a focus on recent statistics of cases notified to the WTO, updated to 2015. It will also provide a brief overview of prominent domestic trade remedy dispute settlement cases, especially in light of their impact on impeding the free flow of trade in CETs. Section VI will provide an overview of solutions proposed in the literature to date, building in particular on the policy options identified under the ICTSD's E15 Initiative—but also more broadly covering options explored in non-ICTSD literature. It will culminate in a summary of the overall assessment thereof, evaluated through the lens of the specific criteria of effectiveness and political/legal feasibility. Annex A captures the more detailed assessment of those selected options, illustrating the rationale behind the proposals, as well as the ways in which concerns about anti-competitive practices related to dumping and subsidies, linked to proposed options, have been dealt with outside the WTO arena (such as within members' national jurisdictions and in regional or free trade agreements). Section VII will evaluate the shortlist of several options judged to be the most viable, and discuss ways of implementing them that will enhance their viability and effectiveness, both in the short and long term. Potential avenues of trade policymaking to pursue these options (such as the regional/mega-regional frameworks, plurilateral/sectoral initiatives, and as a freestanding agreement in parallel to the WTO framework) will then be assessed. The specific manner in which the selected options are addressed in provisions under various RTAs are illustrated in Annex B.

2. GLOBAL POLICY OBJECTIVES RELATED TO CLIMATE AND ENERGY

2.1 Paris Agreement of the UNFCCC and the 1.5-2 Degree Target

In December 2015 a historic universal treaty was reached on climate change in Paris and adopted by 195 countries. It entered into force on 4 November 2016. The UNFCCC's Paris Agreement sets a global action plan to limit greenhouse gas emissions to ensure that the increase in global warming is contained well below 2°C, and to pursue efforts to limit the temperature increase to 1.5°C.[6] To reach this target, countries have unilaterally committed to increasingly contribute to mitigation action, and have voluntarily registered their pledges—the so-called "intended nationally determined contributions."

Effectively implementing the goals of the agreement will require much more investment in research and development on CETs, and reaching mitigation targets will in large part depend on the success of CETs (Meléndez-Ortiz 2016). To achieve these mitigation efforts, most national plans envisage a large-scale transition to a low-emissions, climate-resilient economy by deploying clean energy on a significant and unprecedented scale. Furthermore, given that 83 percent of greenhouse gas emissions have been estimated to be associated with use of fossil fuel energy, it is recognised that the development and supply of clean energy will need to be dramatically increased to close the gap between conventional and green energy (IEA 2015).

This climate imperative will affect how and to what extent all countries, including developing economies, choose to incorporate the use of CETs into their national sector development strategies to enable them to meet and progressively scale up their national action plans and mitigation commitments.

2.2 The Sustainable Development Goals: Goal 7

On 1 January 2016, the 17 SDGs of the 2030 Agenda for Sustainable Development officially came into force (UN 2016). Having been universally adopted by global leaders at a United Nations Summit in September 2015, they were designed to address many of the challenges afflicting the planet over the next 15 years—from ending poverty, to alleviating inequality, and to addressing climate change.

While the SDGs are not legally binding, governments are expected to take ownership over them and establish national frameworks for their achievement. The Addis Ababa Action Agenda, emanating from the Third International Conference on Financing for Development, provided concrete policies and actions to support the implementation of the new agenda.[7] It envisages that countries' own sustainable development policies, plans, and programmes will drive implementation, with contributions from all stakeholders—from governments, to civil society, to the private sector. Furthermore, it is recognised that a global partnership at the international level will be required to support these national efforts.

Goal 7 of the SDGs aims to ensure access to affordable, reliable, sustainable, and modern energy for all. Specifically, Goal 7.2 targets a substantial increase in the share of renewable energy in the global energy mix by 2030. These current global climate and sustainable development imperatives will motivate countries to rethink their national trajectories for the next decades. As governments establish enabling environments and implement policy support to expand clean energy, countries will be

6 Article 2.1(a) of the Paris Agreement: "Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C..."

7 Ibid.

incentivised to transition away from traditional dirty energy, such as fossil fuels—and the importance of and demand for CET will increase.

Tackling climate change and fostering sustainable development are thus two mutually reinforcing policy imperatives: sustainable development cannot be achieved without climate action, and climate action is not possible without a clear strategic view of national sustainable development needs. From now on, actions on each will be intertwined with progress and outcomes in the other as countries gear up to develop national action plans and strategic policies and programmes to meet global objectives on both fronts.

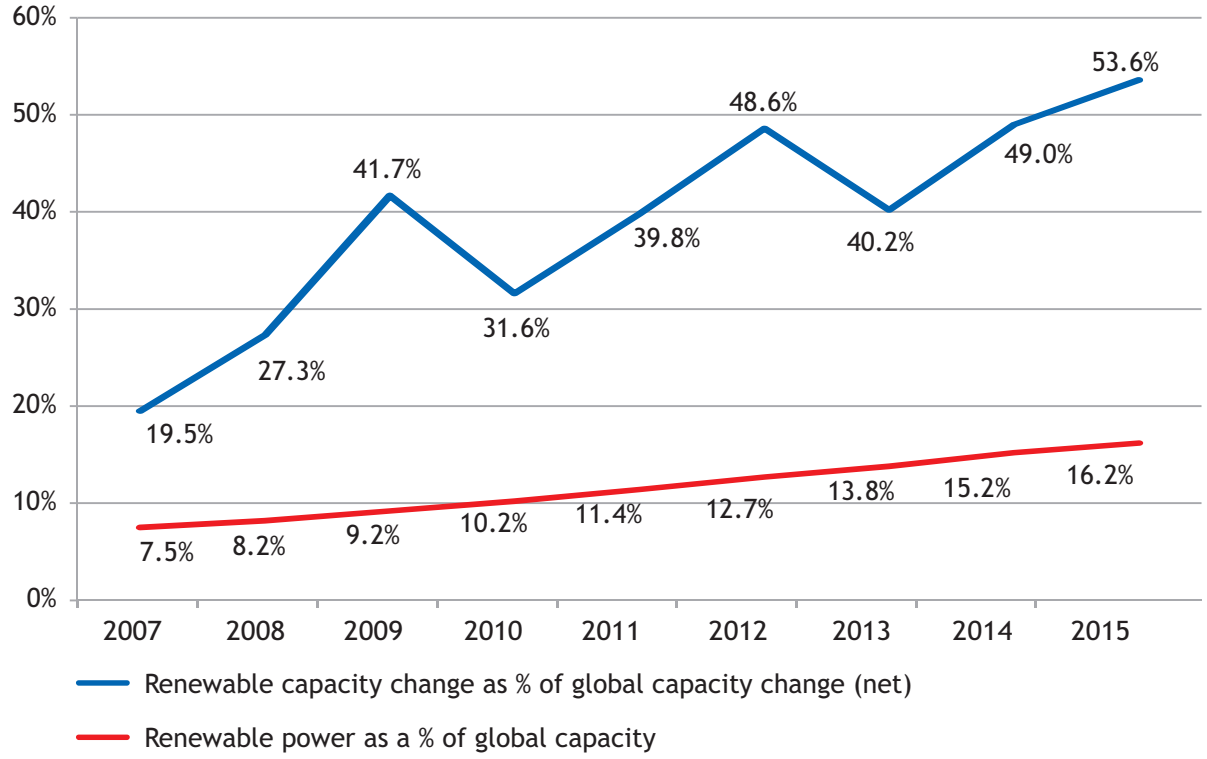
3. TRENDS IN CLEAN ENERGY

3.1 Installed Capacity and Investment Flows

Over the past two years, renewable energy has expanded significantly in terms of capacity installed and energy produced. Some technologies experienced more rapid growth in deployment in 2014 than they have averaged over the past five years. The bulk of new capacity and investment has centred around solar, wind, and hydro power. These developments were driven largely by governmental policy as many countries ramped up their renewable energy targets and policies in 2014—focusing attention on these power sectors (REN21 2015).

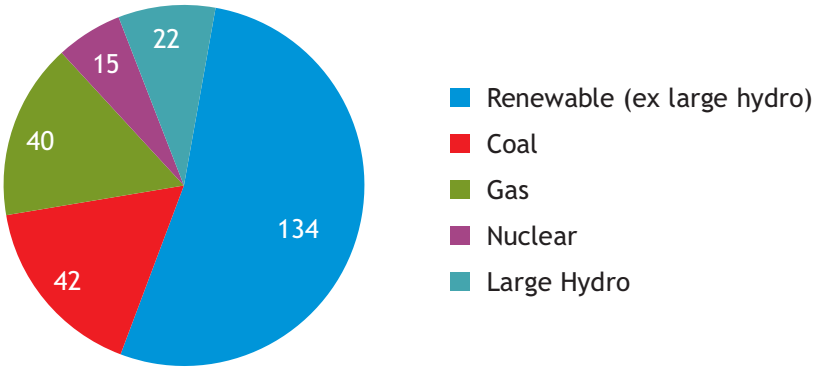
In 2015, record levels of installed capacity in terms of gigawatts (GW) were added by renewable energy, excluding large hydro (UNEP 2016). For the first time ever, in 2015, renewables accounted for the majority of GW of capacity installed. It is estimated that some 134GW of renewables (excluding large hydro) were commissioned, equivalent to some 53.6 percent of all power generation capacity completed in that year—the first time renewables have represented a majority. This compares to earlier figures of 49 percent in 2014 and 40.2 percent in 2013. However, in terms of capacity installed, renewable power represented only 16 percent of total global power capacity in 2015 (UNEP 2016). As reflected in Figure 1, the dominance of existing fossil fuel capacity already installed meant that the additions of wind, solar, and other renewable energy technologies in 2015 made a much smaller impact on the mix of electricity generated worldwide last year (UNEP 2016).

Figure 1. Renewable power generation and capacity as a share of global capacity 2007-2015 (%)



Source: UNEP (2016) based on Bloomberg New Energy Finance

Figure 2. Net power generating capacity added in 2015 by primary technology (GW)

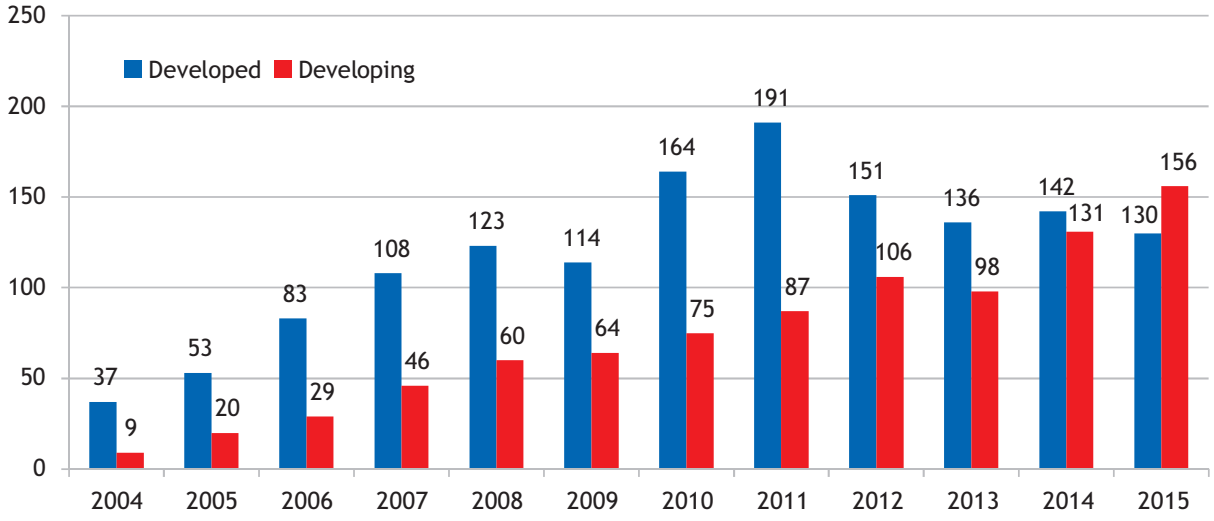


Source: UNEP (2016)

Of the total of renewables, wind accounted for 62GW installed and solar photovoltaics 56GW, sharply up from their 2014 additions of 49GW and 45GW respectively (UNEP 2016). Over the period 2004-15, the United Nations Environment Programme (UNEP) estimated that new investment in renewable energy multiplied nearly six fold; in the case of wind, cumulative installed GW capacity increased more than seven fold (to 426GW). In the case of solar—from almost zero to nearly 240GW (UNEP 2016).

The renewable energy sector attracted US$285.7 billion in global investment in 2015. UNEP notes that in 2015, for the first time ever, investment in renewables excluding large hydro was higher in developing economies than in developed countries. Commitments by developing countries amounted to US$155.9 billion, up 19 percent to a new record, while those by developed countries slipped 8 percent to US$130.1 billion (UNEP 2016).

Figure 3. Global new investment in renewables: developed vs. developing world 2004-2015 (US$ bn)

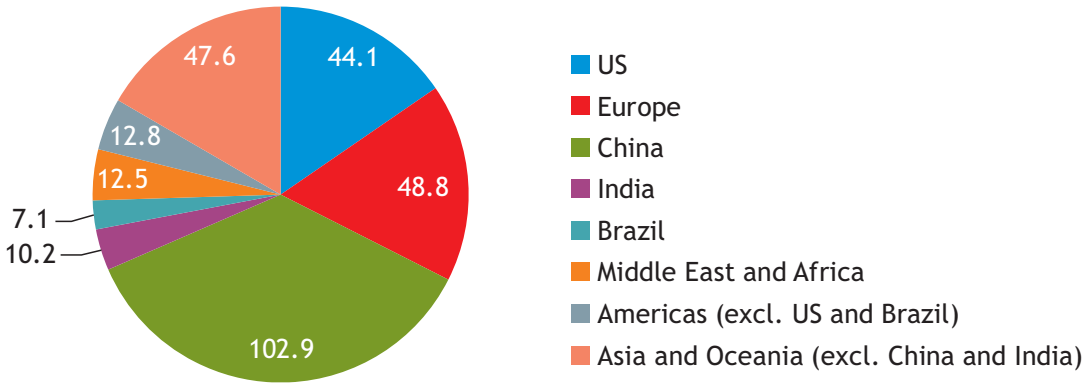


Source: UNEP (2016) based on Bloomberg New Energy Finance

Note: New New investment volume adjusts for re-invested equity. Total values include estimates for disclosed deals. Developed volumes are based on OECD countries excluding Mexico, Chile and Turkey.

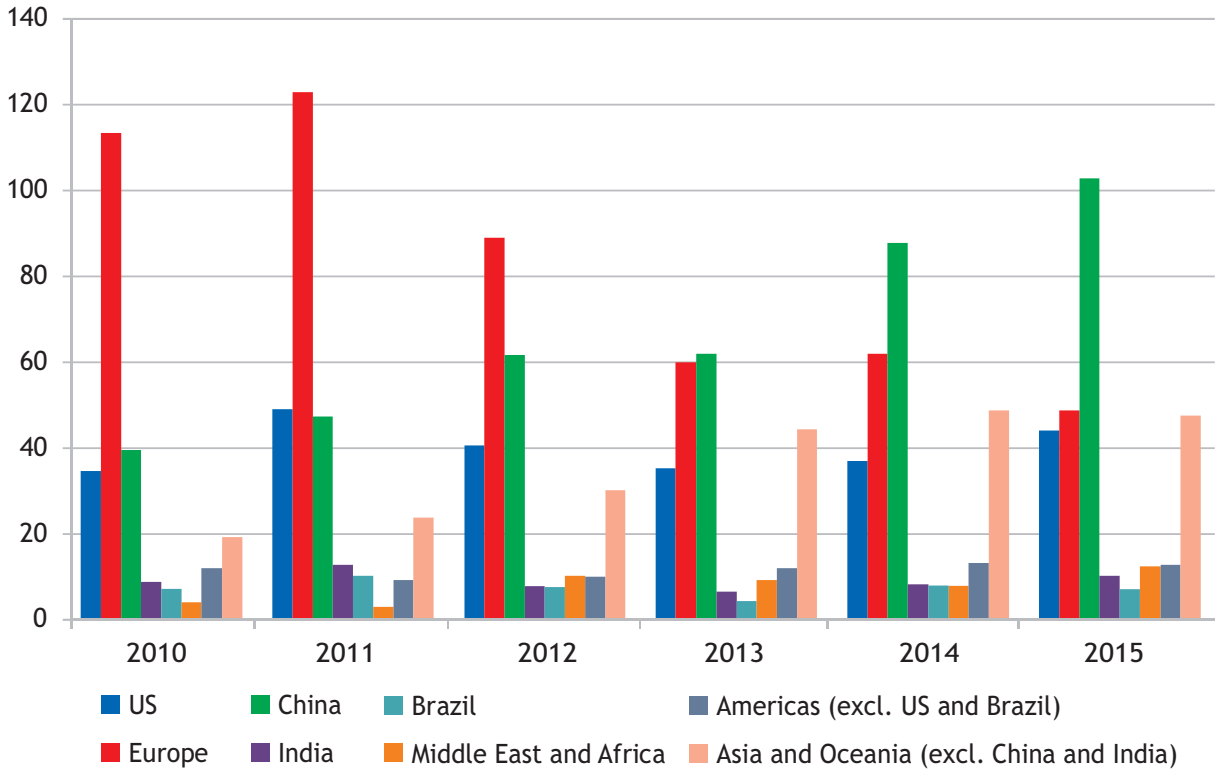
It is clear that developing countries have accelerated activity in both wind and solar, the latter including photovoltaic (PV) and to some extent solar thermal (or concentrated solar power) deployment.[8] This is attributable to the much reduced cost of solar and wind technology which has made projects viable in resource-rich emerging economies to compete with fossil fuels. In contrast, the wealthier countries have in many cases scaled back on subsidy support for renewables. On the other hand, developed countries still dominated investment in biofuels and biomass technologies in 2015 (UNEP 2016). The leading countries for investment, by dollars spent, were China, the US, Japan, the United Kingdom, and Germany (UNEP 2016).

Figure 4. Global new investment in renewables by region, 2015 (US$ bn)



Source: UNEP (2016)

Figure 5. Global new investment in renewables by region, 2010-2015 (US$ bn)



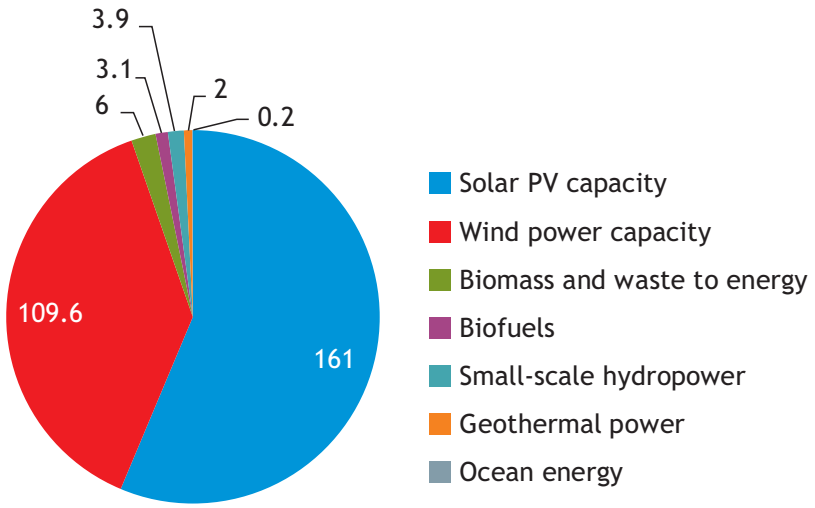
Source: UNEP (2016)

8 There was also developing country dominance in hydro-projects of less than 50 megawatts (MW).

China took the lead in renewable energy power installations in 2014, and Brazil, India, and South Africa also accounted for a large share of the capacity added in their respective regions (REN21 2015). There was also expansion in other developing countries across Latin America, Asia, and Africa in terms of the manufacture and deployment of renewable energy.

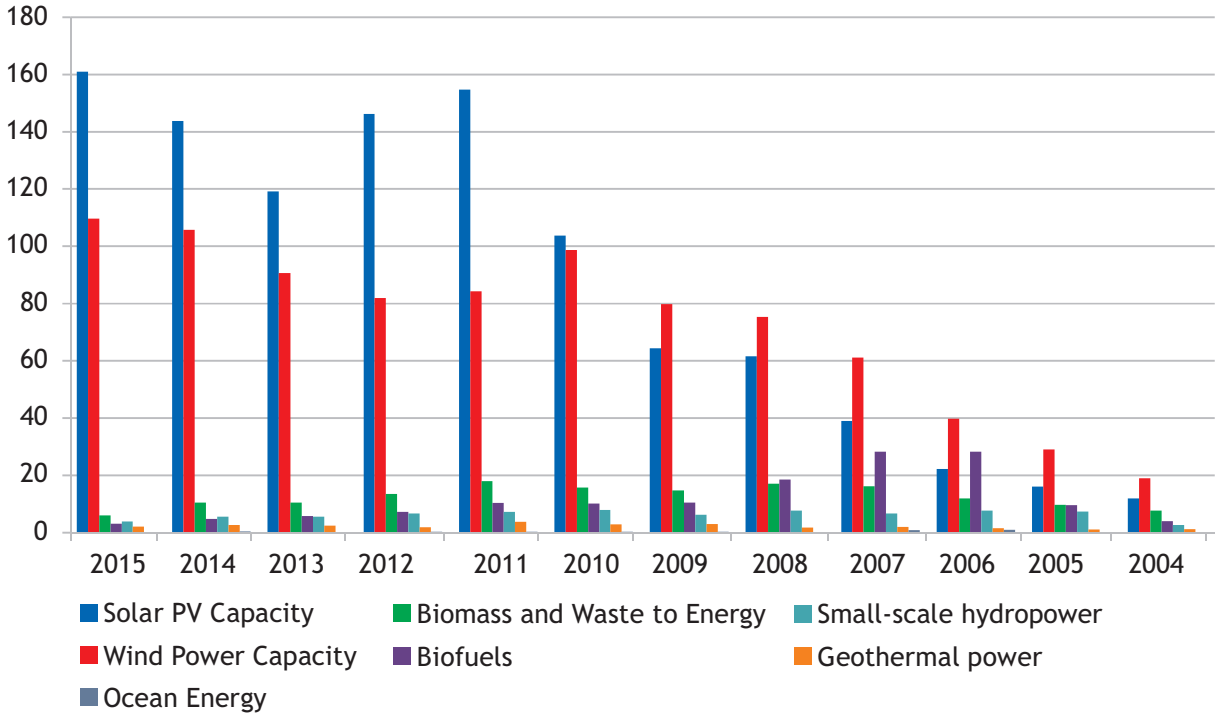
The sectors attracting investment in developing countries were mirrored in the rest of the world, with solar and wind attracting the majority of investment. These record levels of investment are all the more significant given the plunge in coal, oil, and natural gas prices, showing the increasing cost competitiveness of wind and solar energy. Solar accounted for more than 55 percent of new investment in renewable power and fuels (excluding hydro of less than 50MW), with wind power attracting 36.8 percent (UNEP 2016).

Figure 6. Investment in renewables by sector, 2015 (US$ bn)



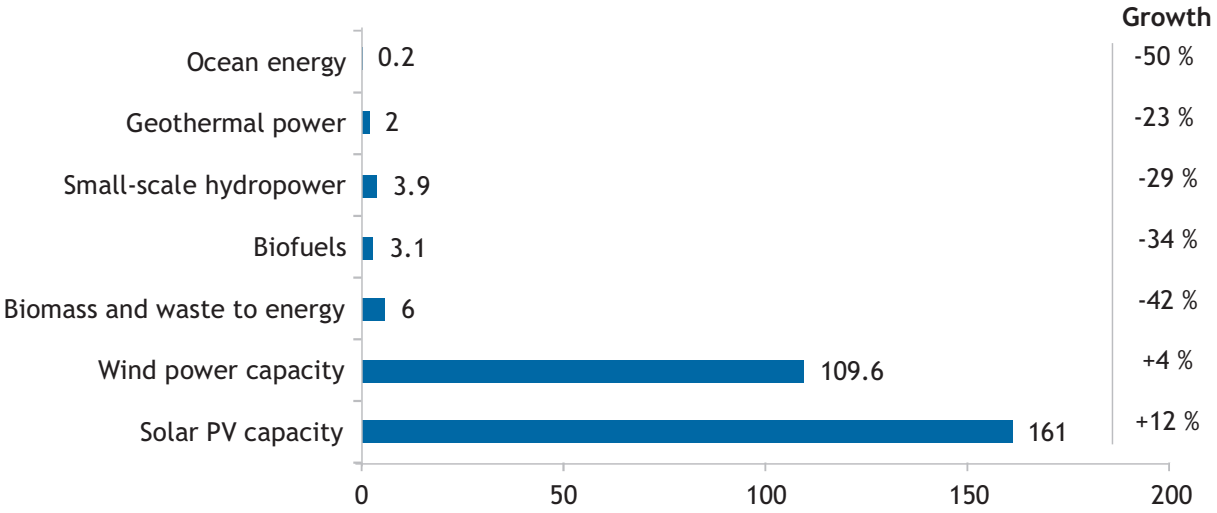
Source: UNEP (2016) and REN 21 (2015)

Figure 7. Investment trends in renewables, 2004-2015



Source: UNEP (2016) and REN 21 (2015)

Figure 8. Global new investment in renewables by sector, 2015, and growth compared to 2014 (US$ bn)



Source: UNEP (2016) and REN 21 (2015)

3.2 Cost Developments over Time

Another driver of growth is the increasing cost competitiveness of renewable energy—with costs continuing to decline in 2014 and 2015—making renewables more competitive with conventional energy sources. The cost imperative has resulted in greater geographical diversification of markets. With fossil fuel and oil prices rapidly falling over the past two years and China's coal consumption decreasing, these commodities should have been more economically viable. But at the same time, renewables appear to be increasing rather than decreasing in competitiveness as costs decline.[9] The steady fall in renewable generation costs is particularly evident in solar PV.[10]

The technology evolution that reduced the cost of solar modules by around 75 percent between 2009 and 2014 is now being followed by political and financial initiatives that are driving costs down further.[11] Innovative financing models, such as online investment platforms, have attracted new classes of capital providers and serve to reduce the cost of capital for financing renewable energy projects, improving the competitiveness of renewable energy (UNEP 2016). Another key factor driving down costs is government policies, regulations, and incentives. Many governments in developed and developing countries are moving towards auctions as a way of awarding capacity, thus forcing renewable

9 Over recent years, the capital costs of wind power have declined as a result of competition and as technological advances, including in blades and turbine design, have increased capacity, reliability, and efficiency (REN21 2015). Since 2014, with respect to onshore wind, major manufacturers have outsourced extensively to remain profitable, and have developed valued-added, innovative products and services to reduce levelised energy costs to compete with fossil fuel energy sources.

10 In the second half of 2015, the global average levelised cost of electricity for crystalline silicon PV was US$122 per MWh, down from US$143 in the second half of 2014. Similarly, between 2009 and 2014, it was reported that the global levelised costs per MWh of onshore wind fell about 15 percent. UNEP reports even lower cost levels reflected in projects taking place in particular countries, such as the installation by ACWA Power International in Dubai and auctions in India in late 2015 and early 2016 that have seen solar projects win capacity with competitive bids.

11 In solar, other factors accounting for lower costs over the past two years have included incremental module production cost reduction; lower regional price levels and weaker than expected demand, especially in China; and technological innovations making solar products more efficient and adaptable to a broader range of conditions as their use expands to differing environments. Though China has dominated module production, there has also been expansion around the world. China has built factories in other markets, too, (such as Malaysia) specifically to avoid anti-dumping duties imposed in the US on Chinese-produced goods. In turn, US manufacturers have invested in automation and efficiency to increase volume in the US to compete with China. There has also been much consolidation in the industry due to the formation of strategic partnerships to expand both capacity and scale (REN21 2015).

energy developers to compete on price.[12] Notably, the all-in cost of debt for renewable energy projects in developed economies remained historically low in 2015, thus helping to safeguard the competitiveness of wind and solar—technologies where most of the costs are incurred upfront rather than during operation (UNEP 2016).[13] Although costs of CETs have been reducing significantly in recent years, cost comparisons indicate the distance renewable energy must go to compete with fossil fuels (IEA 2013).

12 Brazil, China, India, and South Africa have developed new policy approaches for auctioning off power concessions (UNEP 2016).

13 Renewable energy and conventional sources of energy have differing cost profiles. Renewable sources such as wind and solar primarily (but also geothermal and small hydro) display heavily concentrated costs at the development and construction stage, with lesser costs during the operating stage, accounted for by the nil cost of the feedstock and modest ongoing maintenance and monitoring costs. By contrast, conventional energy sources generated from fossil fuels account for more evenly spread cost profiles throughout the duration of the project's life, with lower upfront costs compared to feedstock, transport, and handling costs (UNEP 2016).

4. TRADE REMEDIES IN CLEAN ENERGY

4.1 Trade Law Framework and Policy Rationale for Trade Remedies

Dumping occurs when goods are exported at a price below their normal value; that is, they are exported at prices for less than they are sold in the exporter's domestic market. WTO rules allow anti-dumping duties to be imposed on goods at the border that are deemed to be dumped and causing injury to producers of competing products in the importing country. As a general rule, these duties are equal to the difference between the goods' export price and their normal value if dumping causes injury.[14]

Similarly, WTO rules allow for countervailing measures—actions taken by the importing country at the border, in the form of increased duties, to offset subsidies given to producers or exporters in the exporting country where they cause injury to the domestic industry of the importing country. Such anti-dumping and countervailing duties will remain in place for a maximum of five years unless they are extended by an expiry review.[15]

The WTO refined the disciplines and rules governing the use of AD and CVD remedies in the Uruguay Round. Anti-dumping measures are governed by Article VI of GATT, elaborated in more detail in the Agreement on Implementation of Article VI of GATT 1994 (or Anti-dumping Agreement). Subsidies and countervailing measures were both regulated under Article XVI of GATT, and detailed in the SCMA after the Uruguay Round.

Since subsidies constitute financial support provided to the private sector by the government, the SCMA at once delineates and disciplines the employment of prohibited, and actionable, categories of subsidies by the government, on the one hand, and regulates how governments react to them in terms of countervailing action, on the other. By contrast, the ADA only regulates anti-dumping action by the government since it cannot discipline dumping which is pricing behaviour by private firms. The aim of trade remedies is to reduce dumped or subsidised imports by raising their prices in the importing country, thereby offsetting injury to the domestic industry producing that particular product. Their underlying motive, or raison d'être, is objectively reasonable—to compensate for unfair trade and restore a level playing field for the domestic industry, thus providing an opportunity to build a manufacturing base, create employment, and enable fledgling industries to grow.

Politically, trade remedies in general are a more preferable means of unfair trade redress than proceeding via the multilateral WTO dispute settlement system as they offer a much faster, more direct and targeted response to unfair industrial policies.

4.2 Rationale for Disciplining the Use of Trade Remedies in Light of Global Climate Policy Objectives

As noted in the previous section, the policy rationale for the employment of trade remedies is not objectionable per se, and even sanctioned by the trade remedy agreements. However, variations and distortions in applying and implementing trade remedies can lead to abuse of these instruments such that they may become a protectionist weapon in order to counteract competitiveness. As both AD and CVD measures are typically targeted against particular exporters, their unrestrained use can result in trade-distortive and restrictive effects. These include significant chilling effects on trade and investment, caused by the mere initiation of

14 Unless an investigating authority imposes the LDR—more fully explained in subsequent sections.

15 WTO members may further take a "safeguard" action (i.e. restrict imports of a product temporarily) to protect a specific domestic industry from a sudden and unforeseen influx of imports of any product which causes or which is threatening to cause serious injury to the domestic industry. In this case the duty is imposed on a MFN basis, on all imports of that product coming into the country, subject to an obligation to negotiate compensation to affected members.

a trade remedy investigation, let alone by the imposition of a measure, due to its implications for the predictability and stability of the market. Other observed effects include trade diversion as imports from the country targeted by the investigation decline and are deflected to other markets, as well as the suppression of trade for downstream industries that rely on the imported intermediate inputs.

At a time when it is imperative to reduce costs of clean energy as part of the fight against climate change, the indiscriminate use of trade remedies can potentially raise costs of CETs frequently traded across global supply chains. Fair and equitable global trade rules are necessary to safeguard against trade distortion and protectionism, particularly with respect to the scale-up and dissemination of CETs—which are likely to be more actively traded in light of current global climate change mitigation imperatives.

Recent studies have documented the trade-restrictive effects of the application of excessively high and punitive trade remedy duties in the clean energy sector in recent years (Hufbauer and Cimino 2014). Within the clean energy market, some have noted the scope for protectionist lobbies to impose excessive duties, as demonstrated by the very high countervailing duties imposed in the case of solar panels (Horlick 2013). The maintenance of trade remedies for five years or longer, depending on the findings of an expiry review, is particularly harmful in solar and wind technologies as they are industries subject to rapid technological changes.[16] In addition, once a duty is found to be excessive or unjustified, there is no requirement in the trade remedy agreements for recovery of past duties paid (Brewster, Brunel, and Mayda 2015). Since CET components are traded across global supply chains, the application of trade remedies raises the cost of the ultimate product—making renewable energy more expensive both for domestic producers purchasing the intermediate goods as well as for the final consumers of the particular clean energy technology in the form of electricity (Kasteng 2013; Dhanania 2014).[17] By reducing the attractiveness and certainty of the future market for these goods, and by stifling investment and competition, trade remedies and their perpetuation potentially slow the convergence between renewable and conventional electricity costs.[18] Furthermore, the indiscriminate initiation of trade remedies in recent years has been cited for triggering a momentum towards retaliatory (tit-for-tat) patterns of use of these measures, notably in the CET space (Brunel, Brewster, and Mayda 2015).

Given the UNFCCC and SDG policy imperatives to mitigate the effects of climate change and switch to cleaner forms of energy, governments globally are more likely to opt for various types of policy to support clean industries. As such goods become even more actively traded globally, the deployment of countervailable subsidies and anti-dumping duties is likely to become more prevalent.

4.3. Overview of Recent Domestic Trade Remedy Cases

An evaluation of studies in the CET sector over the period 2006–2015 shows that 45 cases on clean energy products in total (17 CVD initiations and 28 AD initiations) were notified.[19] Twenty-

16 For instance, with respect to the European Commission's final definitive AD and CVD duties against the US on biodiesel in July 2009, the initial period of imposition on biodiesel was for a period of five years. In 2011, this was extended to Canada after circumvention was determined. In September 2015, after a year-long expiry review, the measures were re-instated for a further five years. This was motivated by the US's 2015 extension of its biodiesel tax credit. This means that this duty could potentially stay in place for 11 years or more.

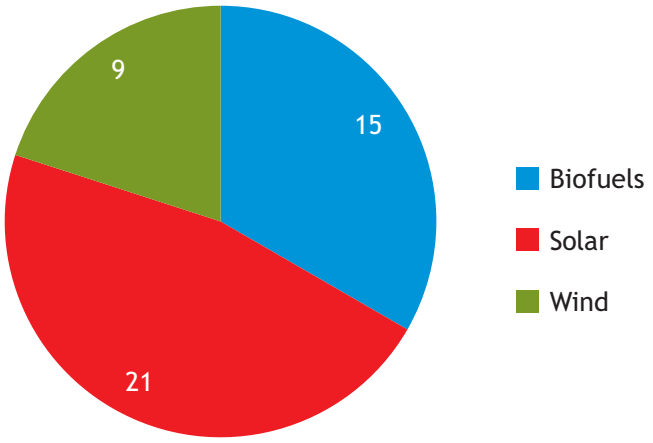
17 This phenomenon has been clearly observed with respect to trade remedies on polysilicon or solar glass in the production of solar panels, and glass fibre filaments in the production of wind turbine blades.

18 Clean and renewable energy is rendered more expensive and uncompetitive, hampering the transition away from fossil fuels (Hufbauer and Cimino 2014).

19 Data is collected on initiations of trade remedies, as these have been shown to have chilling effects on trade and investment (WTO 2016).

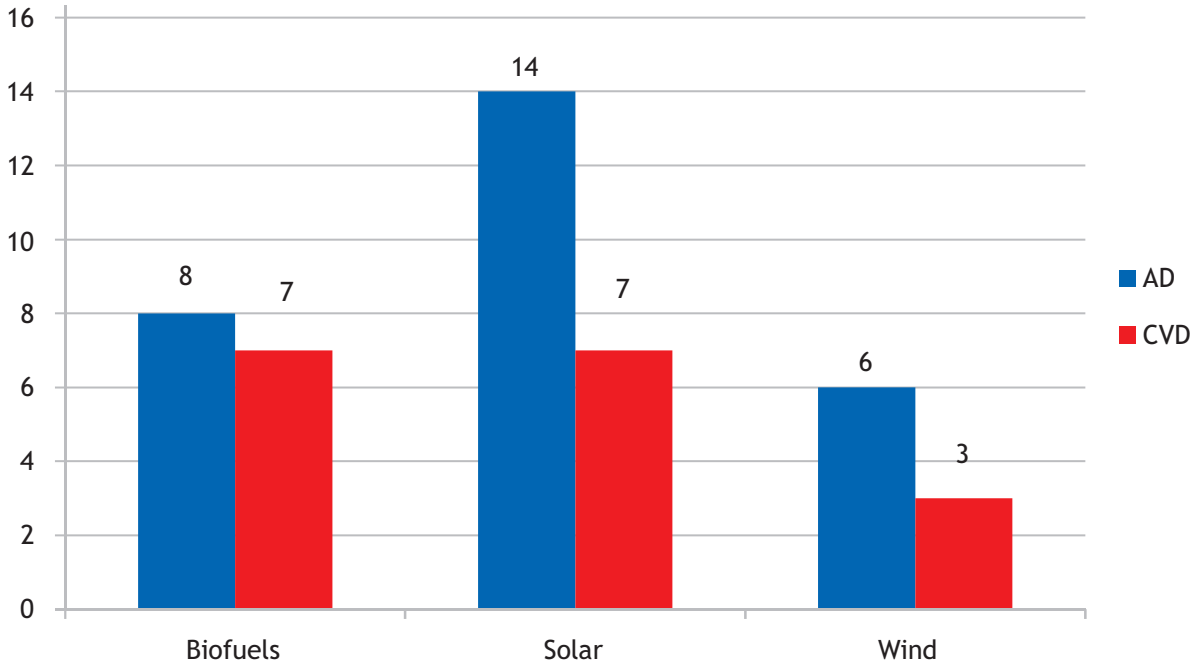
one of those measures targeted solar energy products (14 on solar cells and modules, five on solar grade polysilicon and two on solar glass). Fifteen cases targeted biofuels (biodiesel and bioethanol) and nine cases targeted wind energy products (three actions involving products used in wind turbine blades and six actions involving wind towers).[20] The data confirms that the incidence of AD initiations over CVD continues to dominate in CET, and that solar energy remains the clean technology sector most targeted by trade remedy measures.[21]

Figure 9. Total trade remedy WTO notifications by clean energy technology, 2006-2015



Source: WTO Notification Statistics

Figure 10. AD and CVD notifications by clean energy technology, 2006-2015

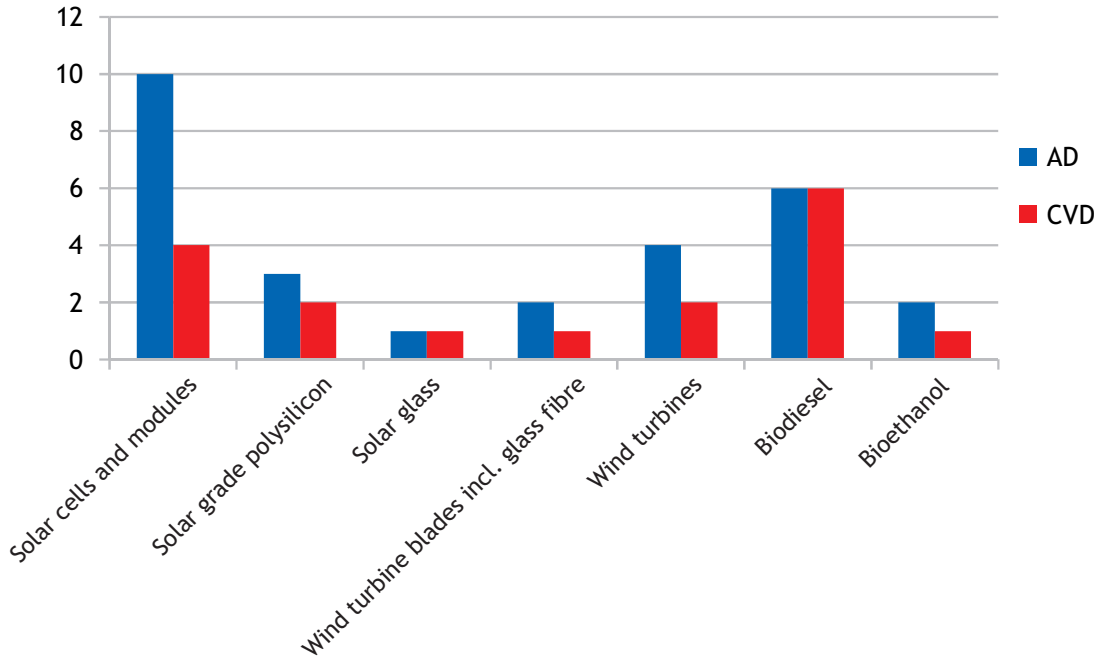


Source: WTO Notification Statistics

20 Cases that target multiple countries but concern the same product are counted separately.

21 A previous study on the incidence of trade remedies in the CET sector found that some 41 AD and CVD cases over the period of 2008-2014 were initiated on biofuels, solar energy, and wind energy products. It found that almost half of these measures (18 in all) targeted solar energy products (11 involved solar cells and modules, five solar grade polysilicon, and two solar glass), with 16 targeting biofuels, namely biodiesel and bioethanol, and seven cases targeting wind energy products (two involved glass fibre products used in wind turbine blades and five involved wind towers). This figure included 26 anti-dumping cases and 15 parallel subsidy investigations (Meléndez-Ortiz 2106; Hufbauer and Cimino 2014).

Figure 11. Total trade remedy actions by sub-technology, 2006-2015



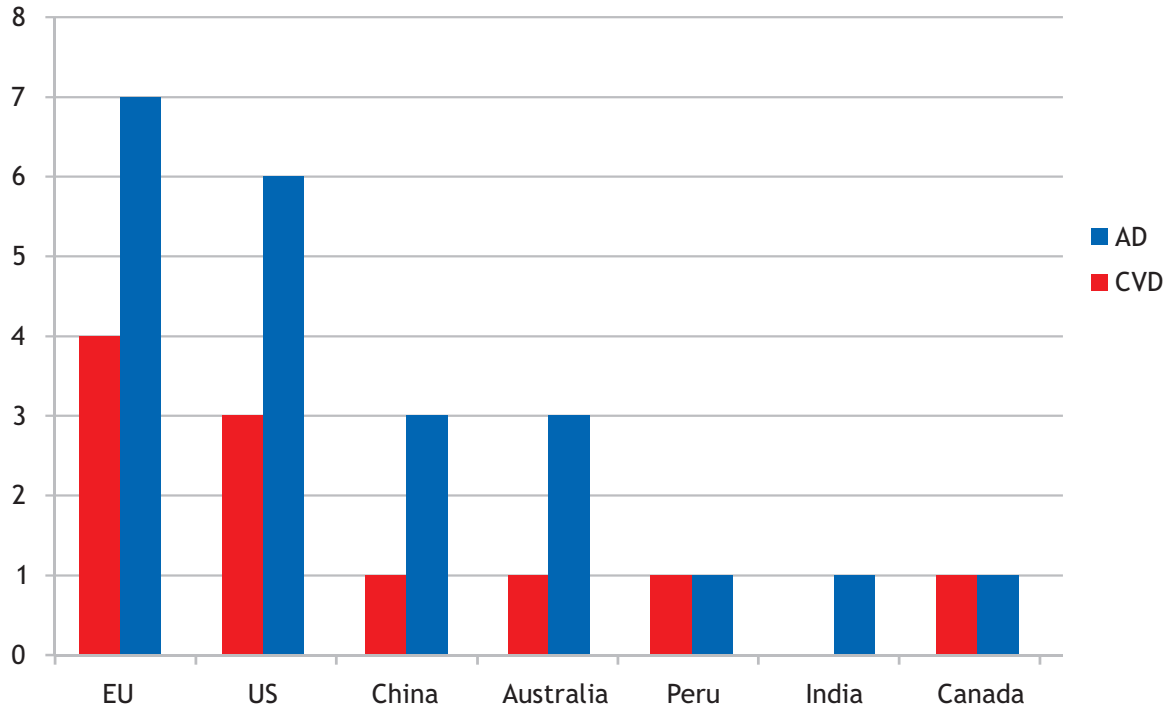
Source: WTO Notification Statistics

Figures 12 and 13 set out the major users of trade remedies in the clean energy space. In the imposition of final measures, China, the EU, and the US still dominate as the main players. Over the last three years Australia has also become a major trade remedy user in this area.[22] Canada, India and Peru have also been active in initiating both AD and CVD trade remedies overall. Peru has initiated four actions over the relevant period with respect to biodiesel. Australia's investigation against modules and cells from China was terminated without duty in October 2015, as were India's four AD investigations on solar panels against China, Malaysia, Taiwan, and the US in August 2014. Notwithstanding terminations of investigations, the initial restrictive effect on trade caused by initiation will already have occurred. In June 2015, Canada announced that it would impose final anti-dumping measures on imports of Chinese solar panels.[23]

22 Data on initiations include investigations ultimately terminated and those pending implementation of a final measure. Data on final measures exclude terminated investigations.

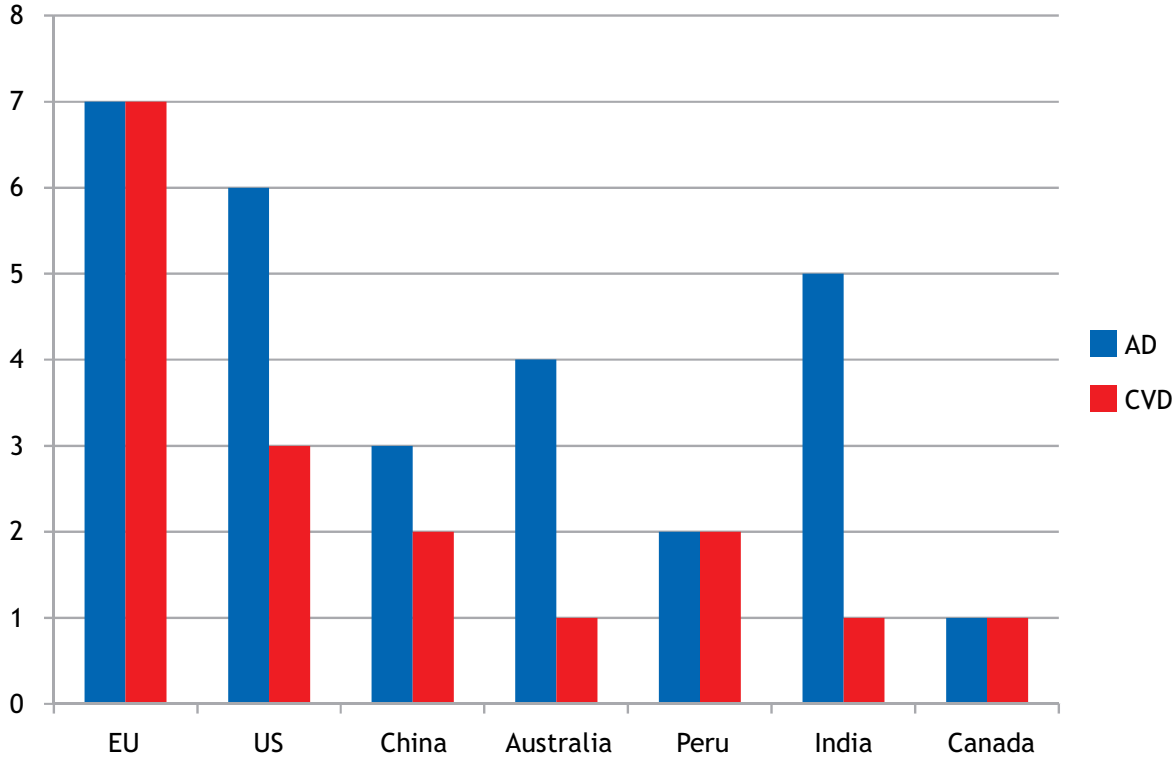
23 Data updated to December 2015. No safeguard measure was notified in the energy sector over the relevant period.

Figure 12. Measures by country, 2006-2015



Source: WTO Notification Statistics

Figure 13. Notifications (initiations) by country, 2006-2015



Source: WTO Notification Statistics

Comparatively speaking, CVD initiations rank far fewer among WTO notifications than AD cases.[24] There appears to be no significant difference between trade remedy patterns observed in the energy sector and the use of trade remedies more generally (Rolland 2015). Similarly, there are no discernible trends or patterns with regard to CET trade remedy notifications over time, save that there was an obvious spurt in trade remedy action among the major CET players in 2012–13. The magnitude of trade remedy initiations in the CET sector in relation to total CVD and AD cases filed per annum is reflected in Table 1.

Table 1. Total CET trade remedy cases as a percentage of total trade remedy cases filed each year

Year	All	CET	CET %
2006	211	0	0.00%
2007	176	1	0.57%
2008	234	2	0.85%
2009	245	3	1.22%
2010	182	3	1.65%
2011	190	4	2.11%
2012	231	18	7.79%
2013	320	5	1.56%
2014	281	8	2.85%
Total	**2070**	**44**	**2.13%**

Source: WTO (2014)

Furthermore, some trade remedy cases are pursued within the WTO's dispute settlement process, wherein complainants can challenge the implementing country's compliance with the ADA and SCMA in the conduct of trade remedy enquiries. This further delays effective relief, even once a violation of the trade remedy agreements is found. For example, in a US CVD case targeting China comprising 17 countervailing duty investigations conducted by the US Department of Commerce from 2007 through 2012, China challenged several initiation decisions as well as preliminary and final determinations. Two of the products were in clean energy (solar panels and wind turbines). In December 2014, the WTO Appellate Body found US duties to be inconsistent with WTO law. Almost a year and a half later, on 13 May 2016, China requested consultations pursuant to instituting compliance proceedings in the WTO, alleging that the US had failed to implement the recommendations and rulings of the Dispute Settlement Body (DSB) in this dispute.[25]

In October 2016, the WTO Appellate Body confirmed a panel report finding that the EU had acted inconsistently with the ADA in applying its 2013 anti-dumping duties on biodiesel from Argentina and requested it to bring its measures into conformity with the agreement.[26]

24 According to the WTO online statistics database, there were 3,058 anti-dumping measures in place, and 202 CVD measures as of December 2014—as opposed to 155 safeguard measures as of 31 December 2015.

25 United States-Countervailing Duty Measures on Certain Products from China, DS437.

26 The AB confirmed the panel finding that the reason stated by the EU authorities for disregarding producers' costs (i.e. because the prices for the input were artificially lower than international prices due to an alleged distortion) does not constitute a legally sufficient basis under Article 2.2.1.1 for concluding that the producers' records do not reasonably reflect the costs associated with the production and sale of biodiesel.

4.4 Impact on Trade

Over the period 2008–2012, it is estimated that trade remedies affected some US$32 billion worth of trade in CETs. This entailed an annual reduction in trade in renewable energy of about US$14 billion—estimated to account for about 4 percent of trade in global renewable energy products. As AD and CVD penalties are effective for a minimum of five years, and subject to further prolongation by a sunset review, the annual figure translates into a global trade loss of approximately US$68 billion over five years. Though this estimated trade reduction figure was concentrated in a few clean technology products, the impact is still sizeable (Hufbauer and Cimino 2014).[27]

WTO notifications do not include specific data on the comparative value of these measures, or the proportion of trade affected for clean energy and conventional energy products for individual measures. Anecdotally however, the evidence would seem to suggest that the trade impacts are felt more acutely in those markets where CETs are more actively traded. This is notably so with regard to the EU's application of anti-dumping measures on solar panels and solar glass from China since 2013 (Kasteng 2013). One study by the Swedish National Board of Trade (2013) estimates that trade remedies on renewable energy affect an import value of €14 billion in the EU alone—representing about 75 percent of the total import value for all the EU's trade remedy cases currently in force (Kasteng 2013). Out of this €14 billion, the value of imports affected by trade remedies for solar panels from China alone amounted to €11.5 billion (Kasteng 2013; 2014; National Board of Trade Sweden 2013a).[28]

Even though the incidence of trade remedy use in the CET sector has been small in terms of official case notifications to the WTO (given the climate mitigation imperatives arising from COP21 and SDG 7 at the end of 2015), it is not unrealistic to expect that it could continue to increase substantially. This is especially true as CETs are likely to be more actively developed and traded as countries race to enhance competitiveness and export their technologies. Therefore, the scale of the problem is projected to multiply as the imperatives to develop and distribute clean energy increase up to and beyond 2020. Furthermore, the expiration in December 2016 of the non-market economy status of China, a critical player in the CET space, is another key factor that will potentially have implications for trade remedy action.

27 Note these figures were estimates up to 2012, based on 41 trade remedy cases. Four years later, with 45 trade remedy cases notified to the WTO, these figures have no doubt increased.

28 Other prominent and high-value trade remedies cases targeting CETs include China's imposition of anti-dumping and anti-subsidy measures on polysilicon from the EU, South Korea and the US since 2013; and the use by the US of measures on wind towers and solar panels from China since 2012.

5. POSSIBLE OPTIONS FOR DISCIPLINING THE USE OF TRADE REMEDIES IN CET

Several authors have made recommendations regarding how to discipline the use of trade remedies in the context of clean energy. These options have been consolidated under the ICTSD and the World Economic Forum's E15 Initiative (Meléndez-Ortiz 2016). In addition, other authors have also suggested areas for possible discipline of the use of trade remedy agreements beyond the E15 Initiative.

All the proposed options are categorised and described below. In Annex A, only those suggestions for disciplining the use of trade remedies selected as the most feasible and potentially effective, together with their rationale and legal framework, is explained in detail, and a broad overview is given of how they are applied in practice. They are evaluated on the basis of key criteria, related to legal and political feasibility as well as effectiveness—explained in more detail below. This subset of options is then considered as a viable means to discipline the use of trade remedies, whether within or outside the WTO, on a short, medium-term, or long-term basis.

5.1 Categorisation

The options can be divided into three categories: category I for proposals seeking to amend and strengthen existing provisions of the WTO; category II for proposals dealing with unilateral behavioural reforms which may have no legal basis in any of the existing WTO agreements, and which can be affected independently of any rule reform or amendment; and finally, category III for proposals that do not necessarily amend existing provisions but contain fundamental reform recommendations to reduce or eliminate the use of trade remedies. Each category addresses both trade remedy agreements across the board, listing recommendations made in the context of the ADA and SCMA. The impact of implementing some of these rules outside the WTO via regional agreements or plurilaterals will be dealt with in the next section.

5.1.1 Category I: Enforcing or strengthening existing rules

Included in this category are options that have a basis in existing provisions of the WTO trade remedy agreements. They focus on strengthening or improving existing rules to apply in an environmental context. The aim is to mitigate or soften the impact of the imposition of a trade remedy measure once investigations are initiated.[29] The options encompass what some authors would characterise as "procedural weaknesses" in AD or CVD investigations (product definition and identification of injury factors). They seek to revise trade remedy rules to target specifically anti-competitive behaviour rather than mere price discrimination. Box 1 below lists the various options that have been proposed under Category I.[30]

29 This is a loose categorisation, and some of its borders are quite fluid, so that several options could well fall within one or more categories, but we find this classification useful for the analysis. Category I proposals would not stop the initiation of trade remedy investigations: the idea is to temper and discipline the use of trade remedy instruments once they are invoked. Proposals in categories II and III (with the odd exception), whilst not requiring members to disarm, or relinquish their use of trade remedies, are inclined towards halting the use of trade remedy investigations in their tracks before they are initiated.

30 The options as originally proposed by various proponents are merely listed here, and a full analysis of each of these is set out in Annex A.

Box 1. Category I Options

Enforcing Moore's Law

Requires a proper enforcement of the applicable ADA provision, with dumping calculations taking into account costs spread over the entire product cycle, as well as the "start-up" situation of new products and new factories to appropriately take into account product and business cycles rather than all the high initial capital or development costs being included in an investigated party's cost of production.[31] Ignoring cost data provided by exporters of CET or an improper allocation of costs in trade remedy investigations result in higher cost benchmarks in calculations of normal value and ultimately higher dumping margins (Horlick 2013).

Applying the lesser duty rule on a mandatory basis to environmental products

Places an upper binding on the size of the additional tariff that may be imposed in trade remedy cases against CET. It would limit the level of duty imposed, ensuring that trade remedies are not higher than necessary to remove the injury inflicted on the domestic industry (Kasteng 2013).

Public interest test with climate/environment criterion

Introducing a climate change criterion in national *ex ante* public interest tests to force governments to assess the environmental consequences of their trade remedy actions as well as the impact of higher prices on a variety of economic actors and stakeholders, including industrial users of the imports, importers, and consumers. For the clean energy sector, this is said to ensure the imposition of trade remedies that are balanced against the cost of social and economic benefits of cheaper renewable energy products (Hufbauer and Cimino 2014; Kasteng 2013).

Limiting the duration of trade remedies

Sets a strict time limit on how long trade remedies may be maintained for environmental goods (Wu and Salzman 2014).

Limiting the scope of trade remedy action

Limits the total number of trade remedies that may be applied simultaneously against environmental goods. Trade remedies could be limited in scope by permitting measures only on a certain number of clean energy products, or a certain import value, at the same time. WTO members would need to agree on a decision that limits simultaneous trade remedy measures in respect of environmental goods at a particular number (or value) (Hufbauer and Cimino 2014; Kasteng 2013; Wu and Salzman 2014). Curtailing the number of trade remedies permitted against environmental goods involves trade-offs between different eligible

31 Moore's Law is a computing term which originated around 1970. Named after Intel co-founder Gordon Moore, the simplified version of this law states that processor speeds or overall processing power for computers will double every two years. It is an observation or projection, not a natural law. In the same way, this law has been applied to other technologies—postulating that learning curves cause rapid cost reductions over the life cycle of a technological product. Renewable sources have lifetime costs that are heavily concentrated at the development and construction stage, but modest during the operating stage (zero-cost feedstock) (Investopedia 2017).

Box 1. *Continued*

investigations for the imposition of a duty. As deemed appropriate, governments would use allotted credits to choose between taking action against dumping or unfair subsidisation—avoiding a spurious array of trade remedy measures to protect their domestic renewable energy industries, thus restricting the current trend of retaliatory trade remedy measures, and bringing finality to long-standing measures (Wu and Salzman 2014, 471).

Raising the level of de minimis

Raising the de minimis level below which trade remedy duties are not levied (Horlick 2013).

Price undertakings

Acceptance of price undertakings by exporters to satisfy authorities of the elimination of injurious effects of dumping. Upon provision of price undertakings, authorities would terminate or suspend proceedings (Dhanania 2014).

Causation

Advocates for a more robust causation and non-attribution analysis with respect to AD, CVD, and safeguard investigations. New rules would clarify procedures and definitions involving proof of causality and make the anti-dumping and anti-subsidy investigations more objective, transparent, and predictable. Suggests raising the standard of proof required to show that trade remedies are a legitimate response to specific, harmful trade practices (e.g. using robust statistical tools to identify causal relationships and non-attribution more clearly, such as regression analysis) (Barthelemy and Peat 2015; Kasteng 2013).

Injury

Introduces new rules to clarify procedures involving proof of injury. Specifically, proposes to make anti-dumping and anti-subsidy investigations more objective, transparent and predictable when it comes to the definition of injury, (Kasteng 2013).

Product definition

Delineates the scope of an investigation to avoid AD or CVD duties being applied to the entire value of the final product (separating assembly from majority of cost of production). In clean energy, as in other sectors, final technology products are manufactured and assembled across global value chains, with components often manufactured in one country and finally assembled in another (Meléndez-Ortiz 2016).

5.1.2 Category II: Unilateral measures and behavioural reforms

This set of policy options includes measures that governments can implement unilaterally. They might cause authorities to rethink, ameliorate, or mitigate the impact of trade remedy measures. Since governments can implement these independently, or by negotiating specific provisions in trade agreements, they would have no legal basis in any of the existing WTO agreements and can be effected independently of any rules reform or amendment. Some could be considered WTO-plus, in that they would go beyond what WTO rules require. Box 2 below lists the various options that have been proposed under Category II.

Box 2. Category II Options

Consultations prior to trade remedy action

Willing WTO members would undertake to engage in consultations when they become aware that practices in another member country might give rise to trade remedy action in their jurisdiction ("early warning" approach) (Meléndez-Ortiz 2016).[32]

Objective study of cost/benefits of trade remedy action

A commitment would be made to publish an objective study of the costs and benefits of both the measures being responded to by trade remedy action, as well as the remedies themselves. As far as possible, this would include costs and benefits for both the importing and exporting countries, as well as global costs and benefits including environmental costs and benefits (Meléndez-Ortiz 2016; Howse 2013).

Revenue to consumer fund

Governments would designate a portion of the additional tariff revenue collected from trade remedy duties for payment into a fund providing rebates to consumers of the particular CET product. The rebate would be based on an economic analysis of the estimated additional revenue to be generated by the proposed measure. It is suggested that negotiators could decide on how to calculate the proportion and precise allocation of the revenue to go into the consumer fund. The aim is to cushion consumer and downstream industries from the higher costs of the ultimate measure imposed on CET, which is inevitably passed on as a result of the imposition of the duty. The solution would ensure that (1) rebates would trigger more installation jobs and greater adoption of CETs; (2) consumers would not be forced to bear the escalated cost of the final product; (3) foreign producers would lose their cost advantage over domestic producers; and (4) the concerns of domestic and downstream suppliers about unfair trade would be addressed (Wu and Salzman 2014).

5.1.3 Category III: Reduction or elimination of trade remedy use

This category addresses more ambitious options where there are currently no corresponding provisions in any of the WTO agreements. They would involve more far-reaching (perhaps even systemic reforms, including WTO-plus provisions), relative to what currently exists within the WTO framework. This group of options typically seeks to halt the initiation of a trade remedy action in the first place rather than merely ameliorating the effects of a trade remedy measure (Horlick 2013; Meléndez-Ortiz 2016). Box 3 below lists the various options that have been proposed under Category III.

32 Initially suggested by Howse 2013, 5.

Box 3. Category III Options

Temporary peace clause or ceasefire on use of trade remedies

Envisages a self-imposed restraint or temporary ceasefire on the use of unilateral trade remedies against each other in the context of CET (Wu and Salzman 2014; Cato Institute 2013).[33] A likely scenario is for a group of like-minded countries—the primary users of trade remedies in clean energy—to agree on a peace clause in the CET sector in new regional trade agreements (RTAs) and/or the EGA (Meléndez-Ortiz 2016). Listed environmental or clean energy goods would be completely exempted from trade remedy actions (Cato Institute 2013; Cimino and Hufbauer 2014).

Non-actionable environmental subsidies[34]

In the context of multilateral negotiations, this proposes reviving the category of non-actionable subsidies under the SCMA to provide flexibility for environmental or clean energy subsidies—exempting them from challenge at the WTO under the SCMA and GATT 1994, thus implying that environmental subsidies would not be targeted during a transition period (Cosbey and Rubini 2013; Kennedy 2012; Horlick 2013; Kasteng 2013). At the same time, non-actionable status would prevent the initiation or imposition of countervailing duties with respect to subsidies for sustainable energy equipment. As a slight variation, some authors propose that provisions on non-actionable subsidies might be revised to better target clean energy and/or to eliminate the bilateral use of trade remedies on clean energy (maintaining the possibility of bringing environmental subsidies to the DSB) (Kasteng 2013; Voon 2010; Horlick 2013).

Provision on non-use of trade remedies in a future WTO agreement on environmental goods

The proposal is to eliminate all trade remedy measures under the WTO environment negotiations under the 2001 Doha Ministerial Declaration, paragraph 31(iii), which instructs members to negotiate on the reduction, or, as appropriate, elimination of tariff and non-tariff barriers on environmental goods and services. This is cited as a longer term option (Meléndez-Ortiz 2016).

Eliminate the trade remedy tool in RTAs

A total elimination of the trade remedy tool in free trade agreements (Meléndez-Ortiz 2016).

33 A peace clause in this context is distinct from the traditional peace clause as envisaged in Article 13 of the Agreement on Agriculture. The latter allowed agricultural subsidies legal cover from challenge multilaterally before the dispute settlement system, or simply committed members to exercise due restraint in having recourse to the DSU regarding certain types of measures.

34 Article 8 SCMA. This would constitute the "green box" of the SCMA, in contrast to prohibited (red) and actionable (amber) subsidy categories. Insofar as this provision is coupled with policy space for clean energy subsidies, it is partially beyond the ambit of this paper; we nevertheless address the merits of this proposal, since it would also encompass non-actionability with regard to CVD action. Even though it would not, on its own, impact on the use of AD action, it at least has some value in disciplining the use of the CVD measure.

5.2 Selection Criteria

5.2.1 Effectiveness

The criterion of effectiveness considers how likely the option is to succeed from the perspective of how far it would address climate mitigation and liberalisation of trade in CETs. This is a foundation requirement for whether a particular option should be taken forward. Consideration is given to whether the problems or challenges faced in light of the provisions in the trade remedy agreements are unique and material to the CET sector. If a problem is generic across all sectors, the difficulty and complexity of amending such provisions through multilateral reform, or carving out specific rules for CET products, might outweigh their utility. The question would be whether that particular option would materially discipline the use of trade remedies in the CET sector. In most cases where there is likely to be a clearly effective outcome which enhances the cost-effective flow of trade in CETs, this proposal, provided it is legally feasible, will generally be recommended to be taken forward—even though it may meet significant political resistance.

5.2.2 Feasibility

This criterion takes into account whether the option is workable from a legal perspective in terms of consistency with existing WTO law (in terms of WTO agreements and jurisprudence). Any hard law changes would need to be affected within the context of the existing WTO framework agreements (legal feasibility). Secondly, this criterion evaluates how far a particular option is viable in the sense of its prospects for political acceptance—both in the multilateral rule-making negotiating framework (WTO context), and from the national perspective of countries' domestic political economy (political feasibility).

As a realistic barometer to test the level of political acceptance for rule changes within the WTO framework, consideration is given to the nuances arising from the WTO Doha Round negotiations of some of the proposed issues earmarked for rules reform. During the Doha Round rules negotiations, WTO Members were mandated to strengthen the WTO Anti-dumping Agreement and SCMA disciplines to increase certainty and predictability for exporters as well as to diminish the discretion of AD authorities to impose AD and CVD duties. Detailed and extensive proposals for changes to the ADA, in particular, were tabled between 2001 and 2011, and substantial discussions were held in the intervening period. While some members favoured strengthening or disciplining the provisions of the trade remedy agreements to curtail their use, other WTO members wanted to avoid any amendments to the agreements that would require changes to their existing trade remedy practices, or hamper the ability of their authorities to use the trade remedy instruments. The tug of war between these competing policy orientations resulted in little multilateral progress in reaching consensus on any substantive provisions of the ADA or SCMA.[35]

5.3 Summary of Assessment of Options

5.3.1 Reform by multilateral negotiations

Many of the options proposed have described problems with the application of the ADA or SCMA provisions which apply generically to many industrial sectors, rather than exclusively to the clean energy sector (Rolland 2015).[36] A wholesale amendment of those most problematic provisions of the trade remedy agreements would therefore be called for. Many proposals were very controversial during the rules negotiations in the WTO Doha Development Agenda (DDA),

35 The inertia in making progress in the rules negotiations could also be seen as related to the general stand-off in the Doha Round negotiations in general—as members dug their heels in around entrenched political positions, hoping to trade-off broader sectoral issues (such as agriculture or non-agricultural market access).

36 Rolland (2015) also notes that anti-dumping measures, whether on renewable energy product inputs (such as solar panels and wind turbine components) or on conventional energy input goods, do not appear to raise any particular issue that is unique to the energy sector.

without any substantial outcome. All of the provisions in category I deal with existing WTO provisions, many of which have been heavily litigated and the ambit of their use dictated by jurisprudence. The disinclination of WTO dispute settlement bodies to intervene in members' substantive application of the trade remedy rules reflects a deferential approach. This indicates a sensitivity to the delicate balance struck in the trade remedy agreements—between disciplining the use of trade remedies to prevent abuse via instilling greater precision in the agreements, versus impinging on national sovereignty space to design and apply the most effective measures to address unfair competition.[37] Accordingly, how far the proposals in this section can be taken forward through wholesale rule changes to the trade remedy agreements as a whole has been informed by what is legally, politically, and practically feasible in the overall multilateral context, in addition to the likely effectiveness of such proposals for the CET sector.

The difficulties of achieving consensus in protracted WTO negotiations have been recognised bymany proponents of the suggested options, so that including specific environmental provisions in the trade remedy agreements has been suggested by them as perhaps more acceptable than general rule changes given their limited scope and the environmental concerns in general. Accordingly they envisage a designated category of climate or clean energy products in respect of which certain trade remedy provisions would offer differential treatment.[38]

One practical challenge with this approach would be determining or justifying which environmental or clean energy products should benefit from specific treatment. Would a list of products be created, and if so, in what forum? Drawing lines between specific sectors is difficult. Determining which products should be counted as an "environmental good" has proven very difficult in the past.[39]

Another challenge would be political. If the clean energy sector is singled out for preferential treatment, this would need to be justified. There would be calls for other sectors to be granted similar treatment. This would potentially result in an ultimate diminution of multilateral trade remedy disciplines across differing sectors—entailing widespread fragmentation, and even more uncertainty and predictability for all exporters including those of clean energy products. Further, member governments would need to explain to their domestic constituencies why favourable treatment on trade remedies was being afforded to the clean energy sector but not to others. These issues have been canvassed in full in a more detailed analysis.

5.3.2 Other means of reform

Beyond rule changes via negotiation, other means of implementation have been proposed.

5.3.3 Affecting these reforms via an amendment procedure

It has been proposed that some category 1 options, short of being implemented through multilateral negotiations, can be pursued by way of amendment.[40] However, the WTO amendment procedure is controversial, politicised, and time-consuming. Article X contains far-reaching and complex procedures for amendments to WTO agreements.[41] Given the political sensitivity of these issues, and given the existing rules negotiations under the ongoing Doha mandate, it is doubtful that this would garner sufficient support to pass. Moreover, if the amendment is judged

37 This deferential approach is incorporated in article 17.6 of the Anti-dumping Agreement.

38 They suggest that this could also address the imperfect functioning of the markets when it comes to clean energy—as well as create positive external effects on the environment (Kasteng 2013).

39 The WTO Trade and Environment negotiations in special session grappled with the problem of the definition of an environmental good for some 10 years or more; the lack of consensus on this was one of the key reasons the negotiations faltered.

40 For example, suggestions to limit the level/scope/duration of trade remedy measures (Wu and Salzman 2014).

41 Article X: 4 of the WTO Agreement.

to affect the rights and obligations of members, it would create a two-tier system leading to fragmentation and a differential application across member jurisdictions—detracting from predictability and effectiveness. Even if, as in the trade-related aspects of intellectual property rights (TRIPS) amendment process, consensus approval of a waiver of the right to comply with the trade remedy agreements is sought in the interim, as a package with the amendment, the underlying rationale (climate mitigation) is unlikely to garner sufficient universal consensus for its passage.[42] Furthermore, the amendment process would take many years whilst climate imperatives would persist, thus undermining the requisite legal security for the CET industry in disciplining the use of trade remedies and guaranteeing certainty and predictability for CET trade.[43]

5.3.4 Committee decisions as a subsequent agreement holding interpretative weight[44]

Some authors propose that an informal interpretive understanding in the form of a committee decision could be promulgated by consensus at the committee level of the WTO—thus carrying considerable interpretative weight in dispute settlement (Howse 2013; Porges and Brewer 2013; Meléndez-Ortiz 2016). Though this suggestion has primarily been made to create more policy space for climate-related subsidies, it has also been suggested in the context of trade remedies.[45] Such an option would not amend trade remedy disciplines, but could affect dispute settlement outcomes. Committee decisions have been viewed as subsequent agreements and used in the past to interpret WTO law.[46] However, like more formal authoritative interpretations, the scope of such subsequent agreements is limited. The extent to which interpretations may modify or amend WTO law is controversial; the decision cannot be used to circumvent the multilateral amendment provisions,[47] and it should bear specifically on the interpretation of the respective provisions. Non-binding decisions or decisions which go beyond concept clarification and modify any rights or obligations of the members are likely to come under increased membership scrutiny.[48] Furthermore, the potential of committee decisions to have interpretative weight is a sensitive one within the WTO at this juncture.[49] Therefore, trying to achieve consensus on issues that fall within the existing rules mandate to elevate the status of decisions of lower ranking WTO bodies that could ultimately end up restricting the use of trade remedies in a climate change context would be contentious and less politically feasible.

42 The TRIPS amendment decision taken in 2005 was designed to amend the TRIPS agreement to cater to a very specific situation: to make it easier for poorer countries to obtain generic versions of patented medicines though compulsory licensing of patents.

43 The TRIPS paragraph 6 2005 Protocol is the first amendment of any WTO Agreement to be agreed to by WTO members. As of the date of writing, 11 years later, it has still not entered into force.

44 In the context of the E15 there have been suggestions to adopt a formal authoritative interpretative understanding under article IX:2 of the Marrakesh Agreement, in certain circumstances, such as in the context of clarifying the link between SCMA and XX, or to clarify the concepts of "benefit," "financial contribution," and "specificity" in the ASCM. As these issues fall beyond the scope of this paper, we have not addressed this suggestion directly.

45 Proposed is an interpretative understanding that positive environmental and other impacts in the importing country of the policies and practices being responded to by trade remedies be netted out when injury is determined; and that a fair price comparison under Article 2.4 of the ADA take into account distortions in domestic and global energy markets that make it difficult or impossible to properly compare prices using any of the methodologies in the ADA (Howse 2013).

46 In *US—Tuna II*, the Appellate Body accepted a decision of the Technical Barriers to Trade Committee, a body ranked lower hierarchically than the General Council or Ministerial Council, qualifying as a subsequent agreement.

47 Article X Marrakesh Agreement.

48 Appellate Body Report, *United States—Measures Affecting the Cross-Border Supply of Gambling and Betting Services (US—Gambling)*, WT/DS285/AB/R, at 193. Also, as noted by AB in compliance proceedings in EC-Bananas III.

49 There has been recent heavy resistance from members to adopting certain decisions relating to Guidelines on Best Practices in the context of the Technical Barriers to Trade committee.

5.3.5 Evaluating specific options

In terms of effectiveness, though some proposals would result in beneficial outcomes for the CET sector—whether in the form of reduction of the incidence of use of trade remedy measures, reduced level of duties, or even total elimination thereof—others are evaluated as not being effective for the CET sector overall and are not pursued.[50] Some proposals, if effected, would not materially alter the status quo, enhance the cost-effective flow of trade in CETs, nor necessarily yield certainty and predictability for CET exports. This is elucidated below with respect to those options not pursued.

5.3.6 Category 1 options

The proposal for a public interest test with a climate/environment criterion has had limited application in some domestic jurisdictions as well as RTAs.[51] However, insofar as it is invoked post-initiation, the chilling trade effect caused by initiation of a trade remedy investigation in the CET sector is not prevented. Further, an explicit mandatory public interest test is likely to be inconsequential to the final outcome in any event.[52] Most of the other options are not problematic enough in the CET sector to warrant specific differential treatment in the trade remedies agreements. For many of the so-called procedural proposals (causation and non-attribution; injury and product definition),[53] proposed higher standards, clearer procedures, or further delineation of such provisions in the trade remedies agreements would not necessarily result in the lower incidence of use of trade remedies in the CET sector, mitigate the effects of trade remedies ultimately imposed, nor ensure predictability for trade in clean energy products (price undertakings). Some may even incentivise the filing of spurious complaints (limiting the scope of trade remedy action). Instead, proposed changes would introduce greater complexity into the rules, requiring the additional martialling of resources and in some cases undermining authorities' responsibility to justify its findings (causation and non-attribution). Furthermore, such proposals do not find specific expression in practice in RTAs in a way that makes them clearer or specifically mandatory.

5.3.7 Category II options

Proposals are not pursued where they are unlikely to guarantee effective and predictable outcomes for the CET sector—either because the negative environmental impact is not removed altogether (revenue to consumer fund), or because in rapidly-evolving technological sectors (such as CET) the option would be cumbersome and slow (objective study of cost/benefits of trade remedy action). Furthermore, such options would be likely to raise significant political economy issues or even legal challenges. Finally, such options find no application in practice—either in domestic jurisdictions or RTAs.

5.3.8 Category III options

There is only one option under this category that is not being pursued: namely, inclusion of a provision on non-use of trade remedies in a future WTO agreement on environmental goods. Given the fact that the WTO environmental

50 All of the suggested options were evaluated elsewhere in detail on the basis of feasibility and effectiveness, but for efficiency reasons only those options selected as the most feasible and effective are included in this paper.

51 The EU and Canada make provision for a public interest test under their domestic regulations. Examples of FTAs containing a public interest provision are set out in Annex B.

52 Practice shows that such a test is unlikely to evade the systemic bias or alter a positive decision to impose a trade remedy duty (Dhanania 2014). Authorities tend to prioritise the industry petitioner even where such a test is explicitly mandated. On the other hand, even where they are not specifically mandated, authorities have nevertheless invoked discretion to consider the broader impacts of the imposition of a trade remedy duty, including its environmental impact.

53 Some authors label these being subject to procedural weaknesses, lending themselves to abuse by authorities which facilitates the imposition of trade remedies, including in the clean energy sector.

goods negotiations have been effectively stalled after ten plus years of deliberations (and are unlikely to resume in the short-to-medium term), this proposal would not assist exporters to rapidly disseminate clean energy products to meet existing international climate mitigation imperatives.[54]

The list of options in the following table are those that can potentially be taken forward, regardless of the most appropriate forum and means of implementation, because they are viewed as generally feasible and their enforcement/application is likely to have an effective outcome.

Table 2. Selected options for disciplining trade remedy use

CATEGORY I	CATEGORY II	CATEGORY III
1. Enforcing Moore's Law	1. Pre-initiation consultations on trade remedies	1. Temporary peace clause/ agreement to exercise self-restraint
2. Lesser duty rule		2. Total elimination of the trade remedy tool
3. Limiting the duration of duties		3. Reviving non-actionable subsidy category, Article 8 SCMA
5. Raising the de minimis margin		

54 In fact, these negotiations have been effectively replaced by the EGA negotiations, which have also encountered roadblocks.

6. SELECTION OF VIABLE OPTIONS AND DISCUSSION OF A WAY FORWARD

A few of the selected options could be pursued within the WTO, either through negotiating for hard law changes or aiming at changes to the rules via other modalities, such as soft law options. In addition, the same list is evaluated in the context of other, alternative fora in order to broaden the menu of options for consideration. Each of these paths is discussed in order to progress towards the implementation of viable options.[55]

6.1 Hard Law

6.1.1 Rules negotiations

As a medium-to-long-term option, should the rules negotiations gain traction, many of the proposals for controversial changes affecting trade remedy agreements in category I (and more systemic reform under category III), could potentially be reinvigorated in the WTO forum. However, for reasons already given, discussions could only be on a generic rather than a sector-specific level. Furthermore, as the reforms proposed to the trade remedy agreements during the negotiations between 2001 to 2011 were very controversial with positions entrenched, the prospects for success are remote—at least in the short term.

Having said that, momentum towards reviving the rules negotiations gathered speed in 2015 in the run-up to Nairobi and over the past year. Though there was no significant outcome in Nairobi, work within the rules negotiating group is continuing.[56] Members have made various proposals for improving transparency and due process across both the ADA and SCMA. Proposals include improving the content of notifications of CVD and AD actions; suggested mechanisms to monitor members' anti-dumping policies and practices; and a post-Nairobi process in the Anti-dumping Committee to develop guidelines on specific anti-dumping due process and transparency issues.[57] Insofar as the proposals seek to inject more dynamism into the existing transparency obligations, there could be scope in this context to progress some aspects of trade remedy provisions with a view to disciplining their use.

6.1.2 Category I: Proposals relating to the lesser duty rule and limiting the duration of measures

These proposals could be pursued as part of the review of members' anti-dumping practices. Where specific rule changes are sought, a member or members could table a proposal for discussion in the negotiating group on how this provision could be improved—coupled with specific textual suggestions for its reform in the context of the particular trade remedy agreement.

6.1.3 Category III: Reviving non-actionable category in SCMA

With regard to the subsidies negotiations, though no substantive proposals have been filed to date, it could be open for any member to file a proposal resurrecting the non-actionable provisions within the SCMA with specific reference to environmental and climate flexibilities. No doubt this would be the subject of intense debate and requests for trade-offs in other negotiating areas, but it would be important to at least table the issue. This would generate discussions and put it on the agenda, especially in light of the current climate realities and imperatives facing all countries in the context of the Rio and Paris outcomes. As the present text does not refer to sustainable energy, members would need to amend the

55 Such options are summarised in the attached Annex C, Mapping of Selected Options to Discipline the Use of Trade Remedies.

56 With a view to informing a work program for taking the rules discussion forward in the context of the next Ministerial Conference, under the WTO Rules negotiating mandate.

57 See proposals in TN/RL/W/262, TN/RL/W/265 and TN/RL/W/263.

existing wording of Article 8 of the SCMA, and specifically delineate a sub-category of clean technology goods.[58] The provision would have to include a clause stating expressly that the provisions of Part III of the SCMA (on actionable subsidies) and Part V (on countervailing measures) "shall not be invoked" regarding measures it considers non-actionable.[59] In any event, given the politics around this issue, this would probably be best negotiated as part of a broader process of reform and modernisation of the SCMA as a whole—which would establish what types of subsidies are and are not permitted in the clean energy sphere.

To induce acceptance, the non-invocation of both direct challenges at the WTO and countervailing measures with respect to—subsidies could be tied to a specific event.[60] If the new provision mirrored the drafting of Article 8, it could provide comfort by making it subject to prescribed conditions: ongoing surveillance and scrutiny within the subsidies committee, review by members as to whether conditions were being met, and, potentially, arbitration.[61] Furthermore, members might consider how far they would revive other categories as a shelter from challenge, namely regional development subsidies and those for research activities.[62] Though this may be politically sensitive for some members, and more complex to negotiate, it would help to garner consensus—notably among least developing country members. Appropriate qualifications and criteria could be built in, to curtail the extent and scope of such flexibilities.

6.2 Soft Law

6.2.1 Exploratory committee discussions: Trade remedy bodies: Options under categories I and III

A soft option within the WTO in the short-to-medium term to move towards future discipline of the use of trade remedy measures would be to create an enabling environment so that all members recognise and understand the impacts of barriers to trade in CET and similar high-tech sectors. The aim would be to create a discourse to induce behavioural change, or to ultimately agree upon the need to update or refresh aspects of the agreements vis-à-vis particular industrial sectors.

The most obvious forum for discussions on the use of trade remedy tools is within the WTO subsidiary bodies and working groups constituted for this purpose.[63] With regard to anti-dumping,

58 A category of new specific exceptions could be introduced, perhaps modelled on the language of Article XX of GATT or partially incorporating its relevant objectives in a reasoned set of newly drafted exceptions justifying subsidies that pursue global public goods. (Cosbey and Mavroidis 2014). It has also been proposed that non-actionable subsidies include appropriate policies aligned to the climate change agreements (Rolland 2015 citing Howse 2010b).

59 Rather than non-actionability applying only vis-à-vis bilateral trade remedy measures, whilst maintaining the ability to challenge trade-distorting subsidies via the multilateral track under the WTO dispute settlement system, as some authors suggest. Previously, non-actionability applied to both direct (multilateral) and unilateral challenges of members' subsidy programs.

60 Linking this to a timetable for further negotiations might not be viable, hence working towards defining a work program under the next Ministerial Conference might be more realistic.

61 These clauses accompanied the original article 8 of the SCMA, contained in articles 8.3 to 8.5.

62 Article 8 (a) and (b) of the lapsed provision in SCMA. During the Doha Ministerial, WTO members agreed to language stating they would treat measures implemented by developing countries with a view to achieving legitimate development goals such as regional growth, technology research and development funding, production diversification and development, and implementation of environmentally sound methods of production as non-actionable subsidies. During the course of negotiations, members would be urged to exercise due restraint with respect to challenging such measures. The decision also made provision for this to be addressed as an outstanding implementation issue. See WTO 2001.

63 The Working Group on Implementation was created by decision of the Committee on AD Practices (see G/ADP/M/7, paragraph e). It has a mandate to issue non-binding recommendations (see G/ADP/M/7, paragraph 53). At one time within the anti-dumping committee, consensus-based recommendations based on common practices with respect to implementation issues not addressed by the ADA were produced by the working group, though written in non-binding language. However, recommendations generated by this group gradually fell off because some members held concerns that they could potentially have legal value, rather than just recommending best practices.

the working group conducts its work informally and dedicates itself to merely exchanging information and sharing members' best practices rather than acting as a norm-creating body.[64] Informal discussion in these bodies over the years has proved it is possible to have a frank, open discussion free from political nuances and contentious negotiations.[65] In the context of the anti-dumping committee, it might be possible to move informal experience-sharing exchanges of best practices towards a dedicated discussion focusing on areas where the ADA could benefit from improvements in the long term. The focus of discussions need not be at a general level (which would raise concern about attempts to use the committee process to dismantle existing rules, or to circumvent rule-making across the board within the negotiations), or at the sector-specific level of clean energy products alone (raising the challenge of identifying clean energy products and justifying their need for special treatment). It could find its entry point in a focus on technological goods, or products which share similar attributes in terms of rapid cost decline and technological advancement. The purpose would be to raise awareness of how all members could benefit from discipline on the use of the trade remedy agreements through the lens of their impact on products sharing certain criteria in high-tech sectors. In this way, all members could stake their own flag of interest and find common ground in improving and clarifying certain issues in trade remedy investigations where it would be to their advantage for costs to be mitigated and the flow of trade increased.

One or more members could table a proposal with regard to any of the Category I proposals to generate a common discussion. Members, together with sector specialists from their respective capitals, could on the basis of such proposals, engage in honest and frank conversations about how to use these instruments responsibly with minimal disruption to markets—and whether there is a common appetite to apply these provisions to make it easier to trade. This might arouse enough interest for members to reflect on whether, over time, a "refreshed" or different approach was merited to trade remedy rules for markets characterised by dynamic technologies.

Such discussions would be a basis for members to select trade remedy issues that they collectively perceive could be progressed facilitate trade as well as the best method to progress such issues. Such discussions could eventually be scaled up for consultation in the regular, formal anti-dumping committee. This could persuade all WTO members of areas where the use of trade remedies could be disciplined without necessarily requiring them to make more concessions than they are comfortable with—with a view to longer-term reform.

As far as countervailing measures are concerned, as seen previously, it is not feasible to separate any discussion, including at the subsidies committee level, from the broader issue of reforming the SCMA more generally by identifying what type of clean energy policy space is required to give the right kind of support for these technologies. Ultimately, any discussions raised in the committees would serve to generate a shared understanding of areas where the trade remedy agreements could be improved for the benefit of all members and all sectors—creating an enabling environment for reform much later down the line.

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64 Probably due in part to the rules-negotiating mandate launched under the Doha Development Round in 2001. Though in principle it might be possible to use the working group to achieve legal outcomes that could ultimately serve to discipline the use of trade remedies in general, this is unlikely as long as the existing rules negotiating group is tasked to negotiate to clarify and improve the agreements under the Doha mandate.

65 Within a technical group convened under the auspices of the WTO Rules negotiations, the technical aspects of use of the anti-dumping measure have been under discussion for several years. The focus has been on technical aspects of the ADA provisions, with exchanges largely between officials from anti-dumping authorities, sharing experience of best practice—completely divorced from the political elements of the discussion.

6.3 Discussions within the Committee on Trade and Environment: Options under Categories I and III

The regular Committee on Trade and Environment has a broad mandate to examine the relationship between trade and the environment in order to promote sustainable development. Its agenda can accommodate a wide range of subjects. It has already held several discussions related to climate change mitigation and has ongoing engagement with relevant international environmental organisations, including the UNFCCC.[66]

Although the CTE has not recommended any changes to the rules of the multilateral trading system, its work has led to some trade and environment issues migrating to negotiations as key components of the Doha Round negotiations.[67] The advantage is that the CTE constitutes an existing informal body within the WTO to deal with a broad array of trade-related environmental issues—including addressing climate change mitigation and its interaction with trade rules.[68] An interested member or members could table written papers or agenda items to elicit discussion in the informal group. It would be important to include areas of interest to lesser developed and smaller economies to enlist their engagement in the discussion; such as how fledgling CET industries in these countries would be harmed by unjustified, spurious use of NTBs including trade remedies.

Whether or not this would eventually migrate to a type of sectoral WTO negotiation like fisheries subsidies, would depend on the will of members, the perceived importance of potential new trade rules to enhance climate mitigation, and the breadth of scope of the agenda. However, an initial discourse along these lines would be an important ice breaker to create consciousness and discourse around the key challenges facing dissemination and trade in clean technologies, as well as potential solutions, not only for large, but also smaller WTO members.

6.3.1 RTA committee monitoring of provisions in regional trade agreements

At the 10th Ministerial Conference in Nairobi, WTO members adopted a ministerial declaration instructing the Committee on Regional Trade Agreements to discuss the systemic implications of RTAs for the multilateral system and their relationship with WTO rules. Though adopted for all types of RTA provisions, this work program would enable monitoring and assessment of specific trade remedy provisions in RTAs and perhaps draw some inspiration and momentum from efforts to discipline the use of trade remedies in the CET context.

6.3.2 Sectoral discussion outside formal groupings

Should a discussion within an existing committee prove to be too politically charged and contentious, there is nothing to stop a group of like-minded members from holding sectoral discussions outside a formal WTO body. The WTO Agreement makes specific provision for the WTO as a permanent forum for negotiations among members concerning their multilateral trade relations.[69] Hence, it is not inconceivable for members to commence ad hoc negotiations in this way. The difficulty would be to incorporate such negotiations into the WTO framework and reach the balance of the membership.[70] This

66 The CTE work program commenced with a 10-point agenda on its establishment by the 1994 Marrakesh Ministerial Decision on Trade and Environment. The Doha mandate went further, and prescribes work under paragraphs 32, 33, and 51 to the regular Committee on Trade and Environment.

67 One area is fisheries subsidies, now addressed under the WTO Rules negotiations.

68 The CTE could probably not accommodate a committee discussion on trade remedies alone—this being the domain of the rules bodies.

69 Article III: 2 of the WTO Agreement

70 It would raise challenges as to whether to divorce this from current negotiations under the Doha Round and if so, whether this would make it part of a different balance of concessions.

is addressed more fully later in the context of current sectoral negotiations underway on the environment.

6.3.3 Notification of trade remedies in the clean energy sector

Another soft law method of raising awareness of the impediments caused by the wide-scale use of trade remedies in the clean energy sector is to require more detail in notifications of the initiation and application of trade remedy measures—disaggregated sufficiently to identify CETs.[71] Members could be required to submit information on initiations and measures taken in relation to specific CETs, including intermediate products as well as the percentage value of imports affected, in order that the trade impact of the measures can be assessed.[72] In the run-up to the Nairobi Ministerial in 2015, several WTO members proposed improving the content and format of notifications on CVD and AD, including in the semi-annual reports, to ensure greater transparency.[73] Accurate data collection would enable a closer assessment of the scale and trends of trade remedy use in the clean energy sector, indicating the size of the problem and hence the extent of further action required.[74]

Similarly, before Nairobi in 2015, several members proposed a transparency mechanism to review the anti-dumping policies and practices of the 20 members with the most anti-dumping measures in force as of the date of implementation of the DDA results.[75] In this review process, members could include a sectoral analysis of the anti-dumping practices of the largest users of the instrument, including with respect to the clean energy sector.[76] This information could also be used in the WTO's trade policy reviews of members so that the impact of specific trade remedy action on CET could be assessed in the more holistic perspective of each member's overall trade policy and with regard to its impact on climate mitigation efforts more generally.

6.4 Sectoral Agreements: The Environmental Goods Agreement

In July 2014, a group of members, including the primary users of trade remedies in clean energy, launched formal negotiations on the sectoral Environmental Goods Agreement (EGA) with the goal of reducing tariffs on a range of environmental goods.[77] One proposed category of environmental technologies consists of renewable and clean energy generation.[78] As average tariffs on the type of goods flagged for inclusion are currently quite low, critical to the intended project of liberalising trade is a means to limit the use of non-tariff barriers, including

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71 WTO data on trade remedy investigations are collected from members' official semi-annual reports and other notifications. For some periods and in some contexts, data are only notified at the level of broad HS sections. This limits the availability of disaggregated information on trade remedies in respect of CETs.

72 There is a provision for this information in the current semi-annual formats, but this is rarely completed by reporting members.

73 See Japan TN/RL/W/265 2015.

74 Notification templates could be discussed in the context of the trade remedy committees to ensure uniformity across all three trade remedy notification formats.

75 This is a resurrection of a key element of the Chair's 2007 original negotiating text.

76 Pursuant to Article 18.5 of the ADA.

77 To date participants have expanded to 17, and include Australia, Canada, China, Costa Rica, the European Union, Hong Kong, Iceland, Israel, Japan, Korea, New Zealand, Norway, Singapore, Switzerland, Chinese Taipei, Turkey, and the United States. Though negotiations seem to have encountered some obstacles in 2016, this initiative is not officially off the table.

78 The intention is for the EGA to become a "living agreement" which would allow the addition of new products over time. Long-term ambitions include extending the agreement to cover services related to exports of environmental goods (e.g. repair and maintenance of wind turbines) and to tackle non-tariff barriers, such as local content requirements or restrictions on investment.

trade remedies, which would otherwise negate any liberalisation gains achieved.[79]

The intention of the parties is ultimately to bring the agreement within the WTO framework and extend the benefits of the sectoral to all other WTO members on a non-discriminatory, MFN basis.

A key advantage of adopting a sectoral approach is that it potentially addresses various trade-related issues in one agreement rather than in different negotiating fora. Furthermore, once a list of environmental goods on which to reduce tariffs is agreed, it could be used to designate preferential trade remedy treatment or elimination. It is a viable solution as it would enable progress in areas where negotiations are currently stalled.[80] Further, it does not have to comply with the "substantially all the trade" requirement (as does an RTA), and members are generally free to define their own terms and conditions.[81]

Should the parties to the EGA wish to draft a separate legal agreement amongst themselves that is added to the list of plurilateral agreements in Annex 4 to the WTO Agreement, members are entitled to interpret and amend such a plurilateral as they see fit, including making revisions to the EGA to enable the agreement to keep abreast of technological developments in the area of clean energy.[82] However, an Annex 4 type of plurilateral would need to be acceptable to the rest of the membership which must approve it by consensus.[83] Though binding on those members that have accepted them, plurilateral agreements do not create either rights or obligations for other WTO members that have not accepted them.[84]

Under an alternative modality, the EGA is incorporated into the WTO framework by making endorsements or modifications to members' tariff schedules, as in the Information Technology Agreement. Unlike an Annex 4 agreement, the advantage of this approach is that a consensus of other WTO members is not required. Though modifications to members' schedules is the simplest way to affect tariff reductions, amending or incorporating rule changes via this methodology is a little more complex. It is not possible to diminish obligations in the schedules,only to yield or relinquish rights.[85]

The EGA agreement will only be finalised once a threshold of members is achieved, capturing as many of the biggest players in the environmental goods domain as possible, to reduce free-riding.[86] Under both legal forms, the MFN principle would apply, such that if any advantages or preferential treatment are extended to EGA parties, they must

79 Despite many commentaries noting the absence of true liberalisation if the right to invoke trade remedies is retained, it seems that EGA participants are not presently discussing any possibility to exempt environmental goods from trade remedies, or otherwise discourage recourse to them. To date, none of the draft agreements exempt environmental goods from domestic trade remedies (AD/CVDs/safeguards), which according to one estimate can have a much bigger impact than the MFN tariff rate on the retail prices of these goods (Brewster, Brunel, and Mayda 2015).

80 For instance, the GPA was negotiated in 1994 in parallel with the Uruguay Round, and entered into force on 1 January 1996.

81 GATT Article XXIV:8 (a) and (b)

82 Article IX:5 and X:10 of the Marrakesh Agreement

83 In terms of article X:9 of the Marrakesh Agreement

84 Similarly, any modifications of multilateral WTO rules in an Annex 4 agreement will be ineffective as regards non-parties. In accordance with article II:3 of the Marrakesh Agreement.

85 Appellate Body report in *EC—Sugar*, WT/DS283/AB/R, paragraph 220, and Appellate Body report in *EC—Bananas III*, WT/DS27/AB/R, paragraph 154

86 In 2012 ICTSD calculated the critical mass among the then 14 countries party to the EGA to be at 86 percent of global trade. However, this calculation inevitably also captures goods that may not have an environmental end-use. See Sugathan (2014).

similarly be extended to all WTO members. This means that non-parties would not only benefit from tariff reductions, but also from any preferential treatment provided to EGA parties, including restrictions on or the abolition of the use of trade remedies among participants (Porges and Brewer 2013). For example, if parties eliminated trade remedies among themselves, or applied the LDR on clean energy products, non-parties would be entitled to the same treatment should they export their products to one or more of the EGA parties. Should the agreement include those members with significant volumes of trade in the relevant products, the free-rider problem would necessarily be reduced. For non-parties that are significant traders of CET, creative ways could be explored to qualify which countries would be entitled to MFN treatment, such as making a situational distinction, or limiting the application of the LDR, described later.[87] However, in the dynamic clean energy market, players rapidly evolve, as do levels of competitiveness. Ultimately, the impact of disciplining the use of trade remedies in an EGA context would depend on the participants covered, or how efficiently it could be expanded to include the existing and potential major players in the clean energy space and those significant enough to be implicated by AD or CVD action. Finally, non-parties, or other WTO members would be free to take trade remedy action against EGA parties (Kennedy 2012).

6.4.1 How to progress towards implementation of viable options within a sectoral agreement

General provisions

- **Setting the scope:** The EGA should outline the context for large-scale liberalisation on CET products by inclusion of a preambular provision setting out the broad scope and intention of the agreement in light of the objectives in the preamble to the WTO Agreement.[88]

- **Identifying the CET products:** Once parties have agreed on the environmental goods on which tariffs will be reduced or eliminated, this could serve as a ready-made list for applying preferential rules with regard to trade remedies (including application of the LDR, a raised de minimis threshold, pre-initiation consultations, etc.), or indeed, the non-application of trade remedies.[89]

- **Agreeing on the administering framework:** A provision would be required, that once the sectoral is added to the WTO framework, a committee be established to administer the agreement.[90] Such a body, or indeed a sub-body, could be mandated to review the agreement within a specified time frame, in light of experience gained in its implementation. Alternatively, the existing WTO infrastructure of the Committee on

87 Subject to compliance with the MFN rule embodied in Article I of GATT.

88 This would provide a framework for including hortatory provisions that enhance trade in environmental or clean energy products. The objective of such a provision would be: to ensure wide-scale liberalisation of clean energy products and remove all barriers to their trade, including those arising through the unjustified use of trade remedies. The revised GPA also reinforces the scope provided by the original Agreement to promote the conservation of natural resources and to protect the environment through the application of appropriate technical specifications.

89 Negotiations in the EGA had finalised this list of products to be included for tariff elimination. As clean energy goods will be only one category among all goods subject to the EGA tariff elimination schedule, parties would need to decide how far they would feel comfortable with disciplining the use of trade remedy measures to be applied to other categories of products.

90 This would be an opportunity for parties to consult on any matters relating to the implementation and operation of the Agreement or the furtherance of its objectives, including developments in the sector, to determine whether amendments are required to ensure free and undistorted trade.

Trade and Environment could oversee the functioning of the agreement, including managing accessions to it, in line with its broad mandate.

- **Commitment to further negotiate towards changes to the agreement:** Parties could build into the EGA a commitment to further negotiations within a specified time frame, and periodically thereafter, to improve and update the agreement in light of developments in CETs. These could include extending the coverage of the agreement as well as eliminating discriminatory measures or measures hampering its efficient functioning.[91]

Table 3. Selected options under a sectoral approach

CATEGORY I	CATEGORY II	CATEGORY III
1. Enforcing Moore's Law	1. Pre-Initiation consultations on trade remedies	1. Temporary peace clause/ agreement to exercise self-restraint
2. Lesser duty rule		2. Total elimination of the trade remedy tool
3. Limiting the duration of duties		
4. Raising the de minimis margin		

Taking specific options forward: In the context of a sectoral agreement on environmental goods, it is possible to progress the options on the table in the short-to-medium term.

- **Enforcing or strengthening existing rules:** Once the EGA is part of the WTO institutional framework, EGA parties would need to agree on how trade remedies should be administered and applied to the list of environmental/clean energy products identified in the agreement. To this end, provisions could be made for amending the agreement later. In light of developments in CETs, the coverage of the agreement could be extended, and measures hampering the efficient functioning of the agreement could be eliminated or disciplined. Here the selected category 1 options could be incorporated.[92]

Enforcing Moore's Law would mean arriving at a methodology whereby parties agree among themselves to enforce the applicable provision of the ADA.[93] In the Agreement on Trade in Civil Aircraft a clause was included directing parties to consider pricing in the light of certain types of costs.[94] In the same way, provisions could be introduced into

91 The Agreement on Government Procurement (GPA) included a "built-in agenda" for improvement of the agreement, extension of coverage, and elimination of remaining discriminatory measures through further negotiations. See also articles 8.3 and 8.1 of the Agreement on Trade in Civil Aircraft. The 2001 protocol amending the annex to the TCA was agreed among the signatories to that agreement, without the involvement of the wider WTO membership. The 2012 protocol amending the GPA was approved by the parties to the GPA and adopted by the GPA Committee. Like the renegotiation of the GPA, these can be embodied in a political decision and then adopted later in a formal decision of the Committee.

92 As in the GPA, negotiations to revise the EGA could also result in the committee adopting a package of work programmes (e.g. relating to non-trade barriers), which would incentivise other perhaps smaller WTO members to consider joining the EGA.

93 Article 2.2.1.1 read with footnote 6.

94 Article 6.2: "Signatories agree that pricing of civil aircraft should be based on a reasonable expectation of recoupment of all costs, including non-recurring programme costs, identifiable and pro-rated costs of military research and development on aircraft, components, and systems that are subsequently applied to the production of such civil aircraft, average production costs, and financial costs."

the EGA to ensure that if trade remedies are utilised, the product cycle of CETs is considered in the cost methodologies used by authorities.

Similarly, provisions could make certain practices mandatory for parties' investigating authorities with respect to the identified list of products. Application of any preferential treatment (such as a mandatory LDR) could be conditioned, for example, as is typically specified by authorities, on cooperation by all parties in the investigation; or on other grounds consistent with national trade objectives.[95] At a minimum, provisions could require parties' best endeavours to enforce the LDR,[96] limit the duration of duties,[97] or raise the de minimis margin. These could be specified to apply to either anti-dumping or countervailing investigations, or both.

Fundamentally, since regulating dumping relates to the private pricing behaviour of firms, parties would need to engage with their relevant domestic industries to ensure they recognised the overall benefits of liberalising trade in CET and other political economy tensions would need to be managed.. In order to, provide comfort to other EGA parties, the plurilateral should oblige each party to amend and publish its relevant domestic trade remedy legislation or regulations in relation to the CETs of the other party.

- **Category I: Enforcing or strengthening existing rules:** Once the EGA is part of the WTO institutional framework, EGA parties would need to agree on how trade remedies should be administered and applied to the list of environmental/clean energy products identified in the agreement. To this end, provisions could be made for amending the agreement later. In light of developments in CETs, the coverage of the agreement could be extended, and measures hampering the efficient functioning of the agreement could be eliminated or disciplined. Here the selected category 1 options could be incorporated.[98]

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Similarly, provisions could make certain practices mandatory for parties' investigating authorities with respect to the identified list of products. Application of any preferential

95 For example, in its modernisation review of its trade defence instruments, the EU is considering limiting the LDR to cases where there are no structural market distortions, such as the provision of unfair subsidies in order to discourage trading partners from engaging in unfair trading practices. Such distortions could be targeted at renewable energy sources such as biofuels and solar panels.

96 The parties could set guidelines for how authorities should establish the non-injurious price on the basis of an appropriate methodology, to ensure the ultimate lesser duty imposed is fair.

97 To a specific maximum period. A rule providing for the lapse of the measure, with a requirement to initiate the procedure from scratch once the stipulated time period has elapsed would ensure that a duty is not imposed without proper investigation.

98 As in the GPA, negotiations to revise the EGA could also result in the committee adopting a package of work programmes (e.g. relating to non-trade barriers), which would incentivise other perhaps smaller WTO members to consider joining the EGA.

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treatment (such as a mandatory LDR) could be conditioned, for example, as is typically specified by authorities, on cooperation by all parties in the investigation; or on other grounds consistent with national trade objectives.[101] At a minimum, provisions could require parties' best endeavours to enforce the LDR,[102] limit the duration of duties,[103] or raise the de minimis margin. These could be specified to apply to either anti-dumping or countervailing investigations, or both.

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- **Category II: Unilateral measures: Behavioural reforms:** It is entirely feasible for EGA parties to agree to an opportunity to hold compulsory consultations within an agreed number of days before the initiation of a contemplated trade remedy action. The idea would be to seek a mutually acceptable solution, or determine the existence, degree, and effect of any alleged measure, in particular for trade in CETs. Parties could also specify that when it is not possible to hold consultations before the initiation of a trade remedy action, an internally constituted committee be notified immediately of the initiation of such procedures, and simultaneous consultations be mandated to seek a mutually-agreed upon solution that would obviate the need for anti-dumping or countervailing measures.[104] Once again, parties would have to manage engagement with their domestic industries with regard to any preferential treatment applied to clean energy products during the trade remedy investigations.[105]

- **Category III: Reduction or elimination of trade remedy use:** Agreeing to completely eliminate the use of trade remedies would be difficult, even in the context of a sectoral agreement among like-minded parties. Beyond leaving parties without a remedy to counter anti-competitive pricing or subsidisation behaviour among themselves, it would also leave them vulnerable vis-à-vis third parties (which were non-parties to the EGA), since the MFN requirement would require trade remedy action to be similarly eliminated.[106]

  Alternatively, short of a total blanket elimination of trade remedies within the EGA, parties could agree to enforce a temporary self-restraint on the use of trade remedies

101 For example, in its modernisation review of its trade defence instruments, the EU is considering limiting the LDR to cases where there are no structural market distortions, such as the provision of unfair subsidies in order to discourage trading partners from engaging in unfair trading practices. Such distortions could be targeted at renewable energy sources such as biofuels and solar panels.

102 The parties could set guidelines for how authorities should establish the non-injurious price on the basis of an appropriate methodology, to ensure the ultimate lesser duty imposed is fair.

103 To a specific maximum period. A rule providing for the lapse of the measure, with a requirement to initiate the procedure from scratch once the stipulated time period has elapsed would ensure that a duty is not imposed without proper investigation.

104 Such a provision exists in Articles 8.5 and 8.6 of the TCA.

105 The scope of the consultations could also include discussions around enforcing certain provisions of the ADA, such as Moore's Law, application of the LDR, the maximum duration of any measure applied and a raised de minimis threshold.

106 As countries which are non-parties become more competitive in trade in CET, the risk of free riding increases. This would accordingly decrease the likelihood that parties within the EGA would agree to relinquish their ability to resort to trade remedies.

vis-à-vis the listed goods. This option may be more attractive since it is time-bound and could be linked to a fixed period or to the next review of the EGA,subject to negotiations. A provision to review the need for the peace clause in light of market developments before the period of the temporary restraint clause expires could be incorporated.[107]

Even though the restraint on the use of trade remedies would be temporary, parties still might want the reassurance of being able to revert to trade remedy measures as other parties, or non-parties, become more competitive. Therefore, in the absence of an agreement to include a temporary restraint clause and its subsequent review, parties could agree to a "best endeavours clause," and "endeavour" to refrain from (or reduce) the use of trade remedies between them for a set duration—to be revised in a further round of negotiations or by an amendment.[108] While not the strongest option to guarantee a predictable outcome for trade in CET, it could be a last resort option. Once again, the engagement of member governments with their domestic industries would be crucial to securing the agreement of all parties, and guaranteeing an effective and politically palatable outcome.

Ultimately, how much discipline could be applied to the use or non-use of the trade remedy measures would depend on the negotiating dynamics as well as the degree of commitment of parties to this issue.

- **Peer review mechanism of CET policies:** In the absence of an agreement on disciplining trade remedies within the EGA, either on a binding or best endeavours basis, it might be useful to follow the approach of Asia-Pacific Economic Cooperation (APEC). APEC members hold a peer review in which they report progress towards achieving free and open trade and investment goals.[109] Translating this same approach to the EGA context, such a peer review could focus solely on trade remedy measures, or alternatively cover a broader range of trade-related issues, as in APEC. Though not disciplining trade remedies directly, it would focus attention on the incidence of the use of trade remedies and their impact on the objectives of the EGA in terms of advancing the liberalisation of trade in environmental goods

6.5 Regional Trade Agreements: Free Trade Agreements[110]

In Annex A, we evaluate some of the selected policy options in light of prevailing practice, referring where relevant to current provisions in RTAs and mega-regionals for context. Here we touch on the legal framework of RTAs, and the relationship with third party rights and obligations. We then go on to evaluate in detail how each option can be implemented in the

107 Parties would have to maintain their ability to challenge each others' subsidies multilaterally. If not, there would be a lack of coherence with existing WTO norms insofar as a non-actionability clause vis-à-vis plurilateral parties alone would dilute SCMA disciplines. Insofar as non-parties that are WTO members would remain free to challenge the subsidies of plurilateral parties multilaterally, it would lead to inequities and impracticalities. If a non-member successfully obtained a WTO order against a plurilateral party subsidy and there was an obligation to withdraw and remove adverse effects, the plurilateral party could not remove the offending subsidy only vis-à-vis WTO members and not with regard to other plurilateral parties (Kennedy 2012).

108 Potentially coupled with a provision reviewing ways to make this more enforceable.

109 Each year, several APEC member economies volunteer to have their Individual Action Plans (IAPs) peer reviewed. A formal review team considers each volunteer economy's IAP. As part of the process, experts conduct independent research and analysis and the APEC Business Advisory Council, an independent private sector body, is involved. To implement this, there is reporting on a record of actions through annual IAPs and Collective Action Plans submitted to APEC. APEC member economies set their own timelines and goals, and act on a voluntary and non-binding basis. Reporting is based on all issues, ranging from non-trade barriers to competition policy, to investment and WTO obligations (APEC 2010).

110 The terms are used interchangeably since modern free trade agreements need not necessarily be confined to agreements between partners in close regional proximity.

context of bilateral (including mega-regional) negotiations, including by exploring certain RTA trade remedy provisions, generally and specifically, which are set out in Annex B.

6.5.1 Legal framework and key features

The RTA is a legal exception to MFN, allowing preferential treatment.[111] It is governed by Article XXIV GATT and Article V of the General Agreement on Trade in Services (GATS). Similarly, the GATT decision with respect to the Enabling Clause[112] also provides, inter alia, for the possibility of establishing preferential trading regimes or RTAs, with the mutual reduction or elimination of tariffs among developing country members on products imported from one another.[113] Parties to RTAs are not exempt from fulfilment of their WTO obligations, however. Parties may grant each other greater rights than under WTO rules but only as long as they are consistent with WTO obligations.

The principal feature of an RTA is that it is an accepted departure from the obligation not to discriminate. No consensus is required from the rest of the WTO membership for two or more members to conclude an RTA, subject only to compliance with the GATT provisions governing its use,[114] and transparency and monitoring of the RTA under the provisional transparency mechanism of the WTO RTA Committee. The abolition of trade remedies among RTA parties is legally permitted in terms of the letter and spirit of the GATT (Voon 2010). Parties have more leeway with regard to the provisions they can include in RTAs, including to discipline the use of trade remedies, as long as they do not unduly raise trade barriers vis-à-vis third parties.

A further advantage of concluding RTAs is that they are a good barometer of what can realistically be achieved among committed parties sharing common goals through specific provisions to facilitate trade between them. In this sense, they can serve as a precedent for the rest of the membership where strident political positions hold members back from making progress at the multilateral level. They can therefore assist in creating awareness and momentum in achieving greater levels of ambition and market liberalisation than in the multilateral forum.

However, there is a drawback to RTAs as a vehicle to discipline the use of trade remedies. A primary condition to be fulfilled in becoming a fully-fledged RTA, and hence able to rely on justified derogation from the MFN principle, is that parties must eliminate customs duties and other restrictive regulations of commerce in substantially all the trade between them.[115] Accordingly, an RTA with a sectoral limitation in respect of trade in clean energy products alone would not qualify as an RTA in terms of WTO requirements. Such an agreement, disciplining the use of trade remedies and wanting to qualify as an RTA, would thus have to be incorporated as part of a broader, comprehensive trade agreement or agreements.

6.5.2 How to progress towards implementation of viable options within an FTA

General provisions

- **Trade remedies committee:** Where total elimination of one or more trade remedies is not feasible, parties could agree to establish a trade remedies committee in the context

111 Although with respect to trade remedies, a MFN issue would not arise, since action is exporter specific and does not apply on a MFN basis.

112 Decision of 28 November 1979 (L/4903)

113 Decision by the GATT Contracting Parties of 28 November 1979 entitled "Differential and More Favourable Treatment Reciprocity and Fuller Participation of Developing Countries": GATT Document L/4903. The conditions for FTAs concluded under the Enabling Clause are less stringent; there is no "substantially all the trade" requirement in respect of trade coverage, the possibility of reducing or eliminating duties is left up to the parties, and there is no clear obligation for the parties to an FTA to mutually reduce or eliminate non-tariff measures.

114 Article XXIV GATT 1947

115 Under GATT XXIV 8 (b) and under GATS article V.1 (a) the same condition applies, in respect of substantial sectoral coverage.

of the RTA, to meet as frequently as the parties decide. The aim would be, inter alia, to enhance each other's knowledge and understanding of the other party's trade remedy laws, policies, and practices, and to allow for information exchange.[116] Here it would be possible to ameliorate the impact of trade remedies on the clean energy sector by discussing the application of specific options or topics of mutual interest, such as the LDR, or limiting the duration of the duty, or practices by each authority. While it would not necessarily equate to pre-initiation, *ex ante* consultations, it could nevertheless serve as a general forum once an investigation is initiated for parties to discuss the impact of the trade remedy in the overall context of FTA's trade liberalisation and climate goals.

- **Conflicting rules and jurisdiction and choice-of-forum clause:** Insofar as provisions within the FTA could overlap and even conflict with the provisions of the WTO agreements, parties typically include a provision clarifying which dispute settlement forum would apply in the event of a dispute.[117] This would avoid simultaneous proceedings under regional and WTO dispute mechanisms, as parties use forum shopping to maximise their opportunities of a successful outcome. Where there is an overlap between trade remedy provisions in the FTA and the WTO-covered agreements, and in the absence of a clear choice-of-forum clause, by default the WTO Dispute Settlement Understanding (DSU) would be likely to have jurisdiction where a dispute arises relating to a covered agreement and the matter is brought to the WTO by one of the parties.[118] However, should parties negotiate a regional dispute mechanism within the FTA and prefer internal disputes to be addressed via this mechanism, they should include a clause in the FTA expressly relinquishing their right to take the matter to the DSU—either generally or in relation to the particular trade remedy chapter.[119] Similarly the FTA should make it clear how its provisions relate to the WTO agreements.[120] Parties can then go on to stipulate or designate specific preferential treatment with respect to the use of trade remedies.[121]

- **Environmental provisions:** Parties typically include a dedicated environmental or sustainable development chapter expressing broad, hortatory liberalisation goals vis-à-vis CET trade in light of developments in sustainable development and measures to mitigate climate change.[122] This would give context to the rationale of disciplining or eliminating the use of trade remedies within the FTA affecting clean energy.

116 Depending on the level of parties' engagement, it could include representatives of each party's investigating authority, industry officials, and clean energy experts.

117 In light of the increasing trend towards mega-regional arrangements, tension between regional and WTO dispute settlement mechanisms is likely to surface more regularly, especially with a wider variety of players and where the content of FTAs may overlap to a greater extent with WTO-covered agreements.

118 The DSU provides for exclusive WTO jurisdiction where members seek redress in disputes arising under the WTO-covered agreements in the DSU Article 23. When a case is brought before the WTO, panels are generally prevented from declining jurisdiction (See *Mexico—Soft Drinks*, WT/DS308/AB/R, paragraphs 44-54).

119 See *EC—Bananas III (Article 21.5—Ecuador II/Article 21.5—US), Peru—Additional Duty on Imports of Certain Agricultural Products*, DS457, Appellate Body report. It was examined whether the FTA participants had clearly stipulated the relinquishment of their right to have recourse to WTO dispute settlement by means of a "solution mutually acceptable to the parties," that is consistent with the covered agreements at paragraph 5.25. See examples in Annex B.

120 Specifically, should parties wish to retain the use of trade remedies within the FTA, it would be useful to stipulate that they reaffirm (or retain) their rights and obligations under Article XIX of GATT 1994, the WTO Safeguards Agreement, the Anti-dumping Agreement, and the Subsidies Agreement of the WTO. See FTA between EU and Peru/Colombia Article 37.

121 Examples of specific clauses relative to each of the options are provided in the table in Annex B.

122 See FTA between EFTA-European Fair Trade Association and Ukraine in Annex B.

- **Review provisions:** A provision could be incorporated stipulating parties' right to review the agreement, or any aspect thereof, in light of developments in the field of trade and sustainable development, and sustainable technologies.[123]

- **Transparency:** It would be useful to include a provision to inform and give feedback to the rest of the membership about liberalisation efforts in disciplining or eliminating the use of trade remedies within the FTA in relation to clean energy. The WTO RTA Committee's transparency mechanism offers an in-built process by mandating examination of all FTAs within the committee. Creating an awareness amongst all WTO members of the benefits of disciplining the use of trade remedies would serve as a model for what could be achieved to advance trade liberalisation, even in a FTA context. FTA parties should also try to file implementation reports so that the actual trade impact of the non-use of trade remedies can be assessed more accurately.[124]

- **Taking specific options forward:** It is possible to include provisions on trade remedies to facilitate trade in clean energy within RTAs even if they form part of a larger trade agreement. We now look at how to move towards enforcing particular options feasible in the short-to-medium term.

- **Categories I, II and III:** Presumably a RTA between members liberalising trade would seek (if not to eliminate trade remedies entirely) at least to reduce the incidence of their use. RTAs provide a viable forum for both options, by allowing a variety of the aforementioned selected options in the RTA, which, subject to agreement between the parties, could cover trade in clean energy products.

As reflected in the table in Annex B, parties can employ a variety of modalities, notwithstanding the initial elimination of trade remedy action, to delineate particular circumstances in which future trade remedies could be re-invoked—or alternatively, to review the ongoing need for continued suppression of the trade remedy measure. Practical examples of general and some specific provisions are reproduced in the table in Annex B to make the options more viable.[125] With additional language on disciplining the measures in a clean energy context, they serve as a starting point for parties to begin negotiations.[126] As mentioned, these options could be invoked without the need to provide the same preferential treatment to all WTO members, as the FTA is an accepted model for deviation from MFN.

Furthermore, to smooth over domestic concerns in a transparent manner and reassure other FTA parties, as in a sectoral context, the FTA should oblige each party to amend and publish its relevant domestic trade remedy legislation in relation to the CETs of the other parties to ensure that the objectives are achieved.

Safeguard measures are frequently a necessary compromise to appease domestic political constituents who may be opposed to liberalisation in the first place.[127] In the past, safeguard measures have not posed

123 See FTA between Korea and Australia in Annex B.

124 The Transparency Mechanism in Article 15 provides for the filing of implementation reports after the FTA has been put into action. In practice, very few members have filed such reports, hampering an assessment of the real impact of relevant FTA provisions, including on the multilateral trading system more generally.

125 The category I options can be implemented in a manner similar to that for the EGA.

126 Though disciplining trade remedies could undermine certainty compared to a total prohibition on their use of trade remedies, it would nevertheless provide the necessary comfort and appease domestic stakeholders, in light of concerns regarding future competitiveness of another party/or parties.

127 Safeguard measures provide a cushion to the domestic industry in the face of a flood of imports, giving the industry time to adjust—a necessary comfort measure to enable parties to a trade agreement to agree to large-scale trade liberalisation in the form of tariff concessions (Voon 2010).

a problem for the CET sector. Accordingly, retaining the use of safeguard measures for other sectors might act as an incentive for members to relinquish the use of other trade remedy tools—which would materially affect the CET sector.

Table 4. Selected options under a RTA approach

CATEGORY I	CATEGORY II	CATEGORY III
1. Enforcing Moore's Law	1. Pre-initiation consultations on trade remedies	1. Temporary peace clause/ agreement to exercise self-restraint
2. Lesser duty rule		2. Total elimination of the trade remedy tool
3. Limiting the duration of duties		
4. Raising the de minimis margin		

6.6 Stand-alone Agreement: The Sustainable Energy Trade Agreement (SETA)

Should there be no consensus to incorporate a sectoral agreement into the WTO framework, or if a purely environmental agreement addressing trade remedies would not pass the "substantially all trade" test to qualify as an RTA, another potential forum for negotiating an agreement to discipline trade remedy provisions could be outside the WTO as part of a freestanding, parallel agreement. Could a dedicated sectoral trade agreement such as SETA provide a viable forum for disciplining the use of trade remedies in a clean energy context?

In 2011, the ICTSD launched a debate around a new potential sustainable energy trade initiative, the Sustainable Energy Trade Agreement (Brewer 2012).[128] The SETA was intended to lower trade barriers to market access for sustainable energy goods and services for all members and speed up the transition to low-carbon transport fuels and technologies. It was conceived as a more comprehensive agreement than the EGA, going beyond tariffs and addressing a vast array of policies and non-tariff measures; it was also envisaged, as one among many options, as a stand-alone sectoral agreement. Though negotiated outside the WTO context, it was projected to extend concessions on a MFN basis to all WTO members, conditional on the accession of a critical mass of members based on various trade, climate, or energy-related criteria.

The advantage of such an agreement is that neither approval nor a consensus of other WTO members is required, as long as it is not added to the WTO framework of agreements. Participants are free to negotiate the agreement outside the WTO framework, unconstrained by political dynamics. This does, however, mean that such an agreement cannot avail itself of the institutional facilities afforded by the WTO.[129]

Nevertheless, a SETA-type agreement would meet similar obstacles as the EGA. Since it would only bind SETA parties, it would have limited effectiveness vis-à-vis other WTO members insofar as it contained provisions which overlapped with WTO-covered trade

128 This was envisaged initially as a global agreement, to be pursued as a sectoral option, either within or outside the WTO framework, perhaps under the UNFCCC. It was hoped that SETA could be a catalyst to bring together, within a global institutional framework, those countries interested in addressing climate change and longer-term energy security whilst maintaining open markets.

129 Institutional facilities afforded by the WTO include access to the secretariat and the dispute settlement system.

agreements. MFN would apply insofar as it would necessarily overlap with WTO trade remedy agreements.[130] Therefore, any trade advantages, including preferential treatment amongst SETA participants on the restriction or non-use of trade remedies, would have to be extended to all WTO members. Further, other WTO members would be free to take trade remedy action against SETA parties (Kennedy 2012). Moreover, being a trade agreement overlapping with WTO-covered agreements, any jurisdictional conflicts would be likely to be required to be resolved under the WTO DSU.[131]

Therefore, though a SETA agreement would be all-encompassing, specifically targeted towards policies enhancing clean energy, it would create institutional challenges vis-à-vis the WTO—which might nullify its prospective benefits. Insofar as it encouraged a broad scope of issues, it would also be very difficult and cumbersome to negotiate. Moreover, agreements negotiated completely separately from, and in parallel to WTO, do not have a good track record.[132] If a SETA implemented outside the WTO framework mandated higher thresholds of trade remedy enforcement against non-parties, which could complicate its conclusion.[133]

130 Unlike in GPA where MFN does not apply by virtue of the fact that the scope of Article I:1 of GATT 1994 includes "all matters referred to in paragraphs 2 and 4 of Article III" whereas government procurement is carved out of Article III by paragraph 8(a).

131 In terms of Article 23 of the DSU.

132 The ill-fated Anti-Counterfeiting Trade Agreement (ACTA) was attributed in large part to a lack of transparency which generated suspicion and resentment regarding its negotiation. Nevertheless, there was still a great degree of institutional bias against the agreement, incorporating WTO-plus provisions which were seen to undermine existing WTO agreements. Concerns were expressed at the time regarding ACTA's potential inconsistency with WTO intellectual property rules, raising the possibility of trade disputes if non-parties to ACTA ended up affected by the future agreement's provisions. The public perception was that the treaty was setting new international legal rules restricting domestic intellectual property laws through an undisclosed and secret process. See TRIPS Council Meeting, 28–29 February 2012 (WTO 2012a).

133 Concerns about systemic issues and fragmentation of the multilateral trading system are now being clearly articulated in the WTO context. See Appellate Body decision in the Peru—Guatemala case.

7. CONCLUSIONS

Governments the world over are grappling with how to balance liberalisation of climate-friendly goods, the urgent imperative for job creation and economic development, and the provision of a welcoming environment for much-needed investment. Expansion in clean energy deployment has the potential to diversify local manufacturing capacity and create employment. Balancing these competing policy imperatives can prove complex. Global trade rules serve to guide governments to ensure that their national policies are framed and implemented in such a way that fairness and coherence can prevail in order to guard against undue trade distortion and protectionism.

Current global imperatives to transition towards cleaner energy technologies instead of traditional carbon-based alternatives mean that government policies around the world will gradually adapt to create an enabling environment for their development and deployment. As costs for these technologies come down, they will offer attractive options for investment, job creation, and product diversification as countries seek to trade their competencies across global value chains. As CETs become even more actively traded in years to come, so too will the advent of increasing use of the trade remedy instruments to protect competitiveness—raising the potential for abuse thereof to pursue protectionist aims. Therefore, a global set of trade rules that can be implemented in ways that facilitate trade (rather than inhibit and raise the cost of the dissemination and trade of CETs) will be ever more necessary.

Where some of the suggested policy options have focused on disciplining the use of trade remedies only by means of multilateral reform, this paper has illustrated the difficulties of affecting hard law changes to the trade remedy agreements within the WTO framework—both on a general and sectoral basis. Trade remedies are generally part of a finely negotiated balance for offering trade concessions—indeed providing a safety net for liberalisation commitments, and regarded as a much faster, more direct and politically popular means of response to unfair industrial policies compared to the WTO dispute settlement mechanism. This explains the entrenched resistance to reforms that constrain their implementation. Members are understandably reluctant to give up their arsenal without being sure of some substantial gain elsewhere. Rules negotiations held between 2001 and 2011, under a mandate by ministers to clarify and improve the agreements, revealed the difficulty of getting members to strengthen disciplines in a multilateral setting, especially with respect to issues corresponding to some of the category I proposals.

World Trade Organization jurisprudence reveals the potential for abuse of trade remedy instruments across all sectors. In some cases, WTO case law has raised the bar that an investigating authority must comply with if it is not to violate its procedural obligations under the ADA and SCMA. However, in general, the legislated deference by panels and the Appellate Body to investigating authorities on technical issues and methodologies (subject only to the requirement of meaningful, adequate and reasoned explanations) reveals a respect for the delicate balance struck in the trade remedy agreements between disciplining the use of trade remedies to prevent abuse, and impinging on national sovereignty space to design and apply measures to address unfair competition.

In addition to political resistance, the overall effectiveness of disciplining by way of multilateral rule changes, the use of trade remedies solely in a CET context and incorporating these provisions into trade remedy agreements is not feasible. The extent and method of application of provisions for the CET sector uniquely or specifically, as distinct from other sectors, would need justification. Furthermore, there is the problem of drawing lines between products and determining which

should be counted as "environmental or clean energy goods"—a complex exercise.[134]

Notwithstanding these difficulties, time will tell whether (in a longer time frame, with renewed rules negotiations under the Doha negotiating mandate) there could be scope to advance certain issues particularly as WTO members reflect on which issues to take forward for a future work programme in the run-up to the 11th Ministerial Conference.

As an alternative to multilateral hard law reforms, the WTO committees (whether rules or environment) provide a forum for softer, gradual, and less invasive long-term discipline on the use of trade remedies. Ultimately, such a discourse in the committees would lead to a shared understanding, build awareness, and encourage the responsible use of the trade remedy instruments. As a carrot rather than a stick approach, it would ensure the buy-in of members and give them an incentive for potential future reforms in the use of trade remedy instruments—ultimately to the benefit of their own sectors.

The Rio and Paris outcomes have generated new momentum and redefined national imperatives to foster climate consciousness. WTO members would benefit from sensitisation to the issue to be able to find resonance with the trade challenges facing their clean energy sectors. Though there is dislike of sectoral approaches in the WTO generally, long-term discussions on disciplining subsidies in the fisheries sector within the CTE have evolved into a freestanding negotiation. Accordingly, over the long term, with the buy-in and engagement of all members, large and small, discussions in this forum could potentially lead to a comprehensive solution to tackle a host of trade barriers to clean energy trade, including allowing sufficient policy space for clean energy subsidies.

Improved notification and disclosure reforms could assist in understanding the scale of the problem more acutely. Improved monitoring of clean energy trade remedies and their impact on trade volumes through trade remedy biannual notification templates, as well as via the trade policy review and the RTA transparency mechanisms in the WTO, are potential solutions which could be pursued on a more immediate basis.

However, as we have seen, disciplining the use of trade remedies need not be pursued only in the WTO multilateral forum. Another way to eliminate the use of trade remedies completely would be through regional or sectoral initiatives. Clearly the most effective option for enhancing trade and dissemination of CET would be to arrest the initiation of any trade remedy investigation whatsoever through complete abolition of its use. In light of the fact that trade remedies are employed as a safety net to facilitate hard-won trade concessions and satisfy domestic constituencies (especially in the current economic and political climate), agreeing to relinquish them for the CET sector would depend on the overall package of concessions agreed and the degree of commitment to climate objectives.

A sectoral initiative like the EGA, likely to be integrated into the WTO framework, would potentially be able to reach more like-minded players (a coalition of the willing) and have the widest coverage in terms of types of trade issues. However, any advantages and benefits afforded to parties thereto would need to be extended to non-members on a MFN basis, unless specific criteria could be agreed limiting MFN treatment. Specific options could be implemented on the basis of custom-made terms and conditions agreed between the parties. However, once again, agreeing to a total elimination of trade remedies might

134 Though specific technologies in the clean energy sector are easier to identify since they are usually disaggregated at the 8- or 10-digit HTS product level, there remains the problem of ring-fencing intermediary products used across a variety of industry sectors, such as aluminium extrusions, rotor blades, motherboards, resistors, transistors, and turbines.

prove elusive depending on the degree of commitment and extent of concessions parties would be prepared to adopt. Institutional issues with regard to incorporating the EGA into the WTO framework would need to be thought through, including its relationship with other WTO rules—notably the trade remedy agreements. Ultimately, the impact of disciplining the use of trade remedies through a sectoral agreement would depend on whether its participants included the major players in the clean energy space, as well as those significant enough to be the implicated by AD or CVD action. It is also relevant to consider the terms of their scope and coverage, as well as the willingness of new entrants to accede.

A regional solution provides the most flexibility for both eliminating trade remedies and disciplining their use. There is precedent for this within existing RTAs. Therefore, most of the category I proposals could be addressed in this forum, as could the category II proposals on pre-initiation consultations. As for category III, abolition of trade remedies in RTAs would fit within the WTO legal framework. There would be no need to provide MFN with respect to RTA parties, and the free-rider problem would not arise. RTAs have great potential value as a template for reducing trade remedy measures on a broader scale—even with built-in safety nets. A consciousness that it is possible to live without trade remedies could spur multilateral changes further down the line with regard to clean energy. However, RTA parties would have to ensure that such provisions formed part of a comprehensive agreement, incorporating most of the trade in goods or services (or both), beyond CET alone. Furthermore, the impact of a regional solution might depend on how far the parties were collectively committed to relinquishing their arsenal of trade remedy tools to further the cause of liberalisation of trade in CET. Where the abolition of all three trade remedy measures cannot be agreed, retaining in the RTA the ability to resort to the safeguard measure is unlikely to raise concerns for trade in CET.

Members could also incorporate changes to trade remedy disciplines outside the WTO in a freestanding sectoral among a group of like-minded members which is all-encompassing, and with a focus on clean energy policies. It would have the advantage that no initial consensus of other members would strictly be required; the membership would be open to other WTO members, and the agreement could possibly be eventually incorporated into the WTO framework. However, if it was concluded outside the WTO, members would need to clarify the agreement's relationship with existing WTO rules and agreements—particularly the trade remedy agreements and any dispute settlement mechanisms. Insofar as the agreement had the same coverage as WTO-covered agreements, MFN would still apply—and could be challenged under the WTO dispute settlement procedures. In addition, institutional bias against such agreements in parallel to existing WTO agreements might make an agreement of this sort much more controversial if it is perceived to mandate higher thresholds of trade remedy enforcement against non-parties, or potentially fragment and undermine the multilateral trading system.

Accordingly, eliminating or disciplining the use of trade remedies is a complex issue and will never happen easily or without serious trade-offs. This topic is likely to continue to be controversial in all fora, especially given the current international trade landscape, including the decline of key industrialised sectors in major countries, a conservative and protectionist US administration, and the debates and legal challenges with respect to the termination of the non-market economy status of China in December 2016. However, markets evolve, and the history of the multilateral trade system has shown that, with commitment and political will, it is possible for global trade to provide a supportive and predictable framework for advances in many dynamic, rapidly evolving sectors. There is no reason why clean energy, critical to climate change mitigation, could not be one of them.

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ANNEX A: ANALYSIS OF SELECTED OPTIONS

Option	Rationale and Legal Framework	Practice	Effectiveness	Feasibility
CATEGORY I: STRENGTHENING EXISTING PROVISIONS				
Enforcing Moore's Law: - Proper enforcement of applicable ADA provision, such that dumping calculations should take into account costs spread over the entire product cycle, and the "start-up" situation of new products and new factories to appropriately take into account product and business cycles.[135] - Require companies show that their costs are lower than the costs of exporters, using identical methodologies.	- The ADA calls for an appropriate adjustment of cost allocations in certain circumstances.[136] - Ignoring cost data provided by exporters of CET or improper allocation of costs in trade remedy investigations, results in higher cost benchmarks in calculations of normal value, and ultimately, higher dumping margins.	No particular method of allocation is prescribed in the ADA. There is therefore wide discretion as to whether authorities apply cost methodologies to take Moore's law into consideration, in the context of rapidly evolving technologies.	- Limited effectiveness in curtailing *initiation* of trade remedy investigations, but could mitigate the outcome, by enforcing more accurate cost and normal value calculations, adapted to the cost profiles of CET products, ultimately resulting in lower duties, ensuring rapid cost and price decreases, necessary to make CETs competitive. - Non-enforcement of ADA provision not unique to CET products, arises in most high-tech industries and rapidly transforming technological sectors.[137] - Altering burden of proof to require complaining firms to show lower costs than exporters, would involve a specific change to the anti-dumping rules, which would be more complex, whilst its deterrent effect on complaining firms bringing such cases is unclear.	- Difficult in practice to multilaterally prescribe use of any particular cost allocation methodology, need to accommodate differing cost accounting methodologies to determine normal values. - WTO jurisprudence seemingly curtails arbitrary cost allocations and checks wayward discretion of authorities in this regard. - Currently, the burden of proof under the Anti-dumping Agreement is on the complainant (exporter), therefore changing this would require altering the rules, politically difficult.[138]
Assessment: Since effectiveness of this option would be ensured by enforcement, not by amending the rules, the best hope to take this forward is unilaterally, alternatively amongst a group of like-minded countries or those that see common benefits in rigidly enforcing this provision.				

135 Moore's Law is a computing term which originated around 1970 to avoid including all the high initial capital or development costs in an investigated party's cost of production. Named after Intel cofounder Gordon Moore, the simplified version of this law states that processor speeds, or overall processing power for computers, will double every two years. It is an observation or projection, not a natural law. In the same way, this law has been applied to other technologies, postulating that learning curves cause rapid cost reductions over a technological product's life cycle. Renewable sources have lifetime costs that are heavily concentrated at the development and construction stage, but modest during the operating stage (zero cost feedstock).

136 Article 2.2.1.1 ADA. Authorities must consider all evidence on the proper allocation of costs and adjust costs appropriately for non-recurring items of cost which benefit future and/or current production, or for circumstances in which costs during the period of investigation are affected by start-up operations. This last sentence is further clarified in footnote 6 as to how these costs should be accounted for in the investigation. European Communities—Anti-dumping Measure on Farmed Salmon from Norway DS 337. Panel Report.

137 That typically have high initial capital/development costs and where costs tend to decline rapidly, in line with learning curves.

138 Referring to EC—Hormones, the Panel in US—DRAMS noted that the burden of establishing a prima facie case of inconsistency with Article 2.2.1.1 was on the complaining party.

Option	Rationale and Legal Framework	Practice	Effectiveness	Feasibility
Applying LDR on mandatory basis to environmental products: - Placing upper binding on size of additional tariff that may be imposed in trade remedies cases against CET.	- ADA leaves to the discretion of authorities to use LDR (permissive), whether amount of anti-dumping duty to be imposed represents the full margin of dumping or less.[139] - Would limit the level of duty imposed, ensuring that trade remedies are not higher than necessary to remove the injury inflicted on the domestic industry.	- Many governments unilaterally invoke a discretion to consider whether the LDR would be applicable in a given case.[140] May be conditioned on certain circumstances. - EU applies a lesser duty than the dumping/subsidy margin, if this is sufficient to remove the injury caused to the EU industry. - FTAs: may modify WTO rules on AD (and CVD) by specifically mandating/ imposing the LDR: Australia-Singapore FTA 2003; South Korea and Peru;[141] Australia and South Korea[142] and EFTA and South Korea (Voon 2010). Other FTAs recognise the desirability of providing for the possibility of imposing antidumping duties that are less than the full margin of dumping in appropriate circumstances, thus echoing the language contained in the ADA.[143] Similarly in the FTA between EU and Colombia/Peru, there is specific provision for the application of the LDR, although it is not cast in mandatory language.[144]	- Eventual duty is more proportionate to harm caused by dumped imports. - Mitigates level and cost of ultimate trade remedy measure imposed such that costs of renewable energy do not exceed fossil fuel competitors. - Economically efficient, fosters fair competition: balance between invocation of applying competition policy considerations and protecting domestic industries from unfair competition.[145] - Anecdotal evidence: dramatically reduced levels of duties as a result of application of LDR: in EU proposal to scrap the LDR:[146] duties would double, substantially higher on solar panels.[147]	- Rule change required to make mandatory and apply specifically to environmental goods, complex and difficult in a multilateral negotiating context (WTO rules negotiations 2001-2011). - Domestic political economy constraints in current economic climate: termination of designated non-market economy status for China in December 2016; applying differing trade remedy rules on sectoral basis and possible domestic legal challenges in national courts. - However, no legal impediment on members to impose duties at levels below the stipulated thresholds in the trade remedies agreements, as long as they do not exceed the margin of dumping or subsidisation thresholds.
Assessment: Notwithstanding the political sensitivities, a legal framework exists in both the ADA and SCMA for permissive use of the LDR. Though a mandatory LDR can be described as WTO-plus, it is not too far out of the realm of possibility for this to be applied, given a common set of interests and policy objectives, as can be seen from the practical application of it in FTAs. Though political acceptance, especially on a sectoral basis, would not be feasible in a multilateral forum in the short-medium term, it could be politically palatable in the context of an agreement outside the WTO, or even in an FTA, where party interests are more aligned to total liberalisation of trade, free of barriers, and where the guidelines, conditions, or circumstances for use can be more easily defined and circumscribed between the parties.[148] Insofar as, given anecdotal evidence, application of the LDR could halve the rate of duty imposed, it would definitely ameliorate the plight of CET currently afflicted by trade remedies.				

139 Article 9.1 ADA provides for an anti-dumping duty levied only to the extent necessary to remove injury to the domestic industry, without imposing a duty at the level of the full margin of dumping. In the SCMA, the LDR is expressed in article 19.2. In SGA, article 5.1 provides for the SG measure to be applied only to the extent necessary to prevent or remedy serious injury and to facilitate adjustment.

140 When applying the LDR, national authorities impose duties at levels lower than the margin of dumping if the injury of the complaining domestic industry can be removed by the lower duty.

141 Article 8.9.3—shall endeavour to apply a duty which is less than the margin of dumping or subsidies, if such lesser duty would be adequate to remove the injury to the domestic industry.

142 Article 6.8 b

143 Canada-Costa Rica Article VII.1

144 Article 40

145 Implicitly aligns anti-dumping regimes with competition law, recognising that inflated dumping margins raise prices for consumers and downstream producers, being unduly punitive, rather than levelling the playing field.

146 The commission's stated intention being to impose higher duties on imports from countries which use unfair subsidies and create structural distortion in their raw material markets. If implemented, scrapping the LDR in the EU is forecast to be to the detriment of the EU's global climate policy and SDGs. The EU has faced member state opposition to the continued use of the LDR (National Board of Trade Sweden 2013a).

147 Duties estimated to be double the current rates, at a minimum if LDR abolished. On solar panels from China, the duties forecast to reach over 100 percent should the LDR be scrapped, compared to about 70 percent with the employment of the LDR.

148 Where willing countries seek to liberalise trade in CET, and share a commonality of policy objectives, it may make it easier to overcome domestic lobbies that resist the use of the LDR, certainly within countries where green lobbies are persuasive.

Option	Rationale and Legal Framework	Practice	Effectiveness	Feasibility
Limiting the duration of trade remedies: - Set a strict time limit on how long trade remedies may be maintained for environmental goods (Wu and Salzman 2014; Meléndez-Ortiz 2016).	- Rules set upper limit of five years for the duty, unless earlier review shows likelihood of continuation of dumping/subsidisation and injury.[149] - Thus, no limit on how long AD duties and CVD can be maintained, as long as they are reviewed every five years and the investigating authorities determine that injury would result from their termination.	- FTAS explicitly providing for limitation on the duration of the trade remedy (World Trade Organization 2012b): Taiwan and Nicaragua—limits duration of AD and CVD to four years from the date of imposition, with right of review.[150] Singapore and New Zealand and Singapore and Jordan—the period for review and/or termination of anti-dumping duties is mandatorily reduced from five years to three years.[151]	- Address endless perpetuation of duties, based on procedurally restrictive review procedures, relative to a full-blown investigation. - Ensure predictability—CET traders have advance knowledge of duration of duties, in rapidly evolving CET market, ameliorating trade-chilling effect, disincentivising complaints that mask inefficiency behind a long-standing protective tariff. - Pro-competitive: avoid protectionist function of trade remedy tariffs.	- In principle, nothing in the WTO rules to prevent members unilaterally reducing the duration of the life of a trade remedy measure. - Specific provision in the trade remedies agreements to include a limit on the duration of the trade remedy only with respect to certain environmental goods, is likely to be contentious and politically difficult in the context of multilateral negotiations.
Assessment: Despite political resistance, ending the revolving door phenomenon perpetuating AD duties dating back some three decades, has some merit. In the context of a dynamic CET market, the underlying basis for many anti-dumping duties evolve in line with market developments, placing the onus on complaining firms to prove otherwise in a well-documented full-blown application. Accordingly, this proposal can be taken forward.				
Raising the level of de minimis: - Raising the de minimis level below which trade remedy duties are not levied (Horlick 2013).	- Under the WTO agreements, an investigation to be terminated immediately where margin of dumping is de minimis, or the volume of dumped imports, negligible.[152]	- 3 FTAs impose more restriction on the application of trade remedies in the form of higher de minimis margins: Singapore and New Zealand and Singapore and Jordan—de minimis margin of 2 per cent is raised to 5 percent. Taiwan and Panama—anti-dumping margin is de minimis when it is less than 6 percent, expressed as a percentage of export price (World Trade Organization 2012b).[153]	- Targeting real injury: allows elimination of cases with little or no competitive effects on the domestic market. - Efficient use of resources of authorities. - Affords breathing space: to clean energy products before being targeted by measures.	- Political consensus difficult: providing special treatment to a sub-set of products, or designated group contentious in WTO multilateral context (WTO rules negotiations). - Proponents themselves have recognised that this proposal would be recognised as mainly empty political gestures and lacking in substance (Horlick 2013).
Assessment: Even though multilateral reform is not feasible, given its potentially effective outcome, taking this option forward in other fora is feasible.				

149 Article 11.3 of ADA and article 21.3 of SCMA

150 Article 7.5

151 Article 8.1(b)

152 Article 5.8 of the ADA and article 11.9 of the SCMA govern de minimis. In the case of the ADA, the margin of dumping is considered de minimis when the margin is less than 2 percent, expressed as a percentage of the export price, and 1 percent, in the case of the SCMA, where the subsidy is less than 1 percent ad valorem. Termination may also result when the volume of dumped imports is below a specified threshold (negligibility), but raising this threshold is not expressly envisaged in the proposals.

153 Data correct to 2012

Option	Rationale and Legal Framework	Practice	Effectiveness	Feasibility
CATEGORY II: BEHAVIOURAL REFORMS				
Consultations prior to Trade Remedy Action: - Undertaking by willing WTO Members to engage in consultations upon becoming aware that practices in another member may give rise to trade remedy action in their jurisdiction ("early warning" approach) (Meléndez-Ortiz 2016).[154]	- In context of anti-dumping measures, given limits on authorities prior to initiation, as well as certain confidentiality requirements, implementation of this proposal could be WTO-plus.[155] - Pre-initiation consultation is provided for in the SCMA, no similar provisions exist in the ADA.[156]	- Used in FTAs where parties retain right to use trade remedies. Provision for a general, non-specific discussion forum, for referral of any AD/CVD dispute to a "joint committee" to resolve within specified time: Croatia and EFTA (Art 20); Croatia and the EU (Art 24); EFTA and Ukraine (Art 2.13), and EFTA and Morocco (Art 21). - FTAs containing similar requirement for pre-initiation consultations between the governments before initiating an AD proceeding: India-Singapore (Art 2.7.1); Croatia-Macedonia (Art 25.3); EFTA-Korea (Art 2.10.1.a); EFTA-Mexico (Art 13.2). - FTAS that include binding WTO-plus provisions requiring prior notification: Japan's economic partnership agreement (EPA) with India (Art 24) and notification and consultations prior to initiating an antidumping investigation included in the US-South Korea FTA (Art 10.7.3), Canada-Korea Article 7.7.2 - Some FTAs require pre-initiation consultations to lead to reasonable consideration of price undertakings. Australia-Thailand (Art 206(2)). - Providing for less specific, more high level talks: FTA Australia and China (Art 7.9): enhanced dialogue and consultations to exchange information on issues raised including through the regular holding of a High Level Dialogue on Trade Remedies.	- Notwithstanding risk of politicisation, with the commitment of relevant parties with common objectives, referral to a joint committee might still allow certain cases to be addressed and disposed of before duties are applied. - The ability of government to influence the pricing behaviour of private firms (exporters) is low without their buy-in. - Consultations could facilitate discussion on potential impacts of likely trade remedy measures on CET sector, or endeavour to reach common ground with the goal of reigning in trade remedy measures before they escalate, forestalling tit-for-tat, or retaliatory actions. - Extent of effectiveness depends on which major players, both users and targets of trade remedy action, could be incorporated in the agreement.	- Feasible as a procedural remedy in line with due process and transparency. - Consultations pre-initiation to fend off trade remedy initiations should involve engagement with and buy-in of domestic constituencies, as authorities legally obliged to investigate all complaints lodged, on submission of prima facie case of dumping/ subsidisation, injury, and causation.
Assessment: Whilst likely to be an effective option, taking this forward in the context of agreeing multilateral rules within the WTO framework, is more remote in the short-medium term.[157] Accordingly, this option would be best taken forward in either a regional or plurilateral context.				

154 Initially suggested by Howse 2013, 5

155 Articles 5.5 and 6.5 ADA

156 Article 13.1 SCMA

157 During WTO rules negotiations, similar consultations were proposed but no headway was made.

Option	Rationale and Legal Framework	Practice	Effectiveness	Feasibility
CATEGORY III: REDUCTION OR ELIMINATION OF TRADE REMEDY USE				
Though the aforementioned categories of options proposed to ameliorate or offset the effects of an ADD or CVD measure, alternatively to instil some discipline and self-restraint in authorities before applying trade remedy measures, some commentators have noted they may not be enough to ensure open, competitive markets, yet may still be too much to appease political interests (Lester and Watson, Cato Institute, 2013). This category of proposed options are intended to address the initial protectionist effect of the trade remedy tariff, and the concomitant trade chilling effects. There are a cluster of suggestions with respect to eliminating the use of trade remedy instruments to enhance trade in CET goods. These range from a temporary peace clause on clean energy goods either unilaterally, or in a plurilateral agreement; to reviving non-actionability provisions in the SCMA to exclude the option to take CVD action; including a provision on non-use of trade remedies in WTO environmental negotiations; to a complete elimination of the trade remedy tool in FTAs.				
Temporary Peace Clause or Cease-fire on Use of Trade Remedies: - Envisages a self-imposed restraint, or a temporary ceasefire on the use of unilateral trade remedies against each other in the context of CET (Wu and Salzman 2014; Cato Institute 2013).[158] - A likely scenario being for a group of like-minded countries, the primary users of trade remedies in clean energy, to agree on a peace clause in the CET sector in new RTAS and/or the EGA (Meléndez-Ortiz 2016). - Listed environmental or clean energy goods would be completely exempted from trade remedy actions. (Cato Institute 2013; Cimino and Hufbauer 2014).			- Being temporary, would be a limited window within which to progress trade in CET, unless parties could agree a mutually specific time period depending on levels of competitiveness. - Enable reassurance amongst like-minded CET traders previously targeted by measures and relieve the pressure on the international trading system by reducing trade friction. - Would spur trade in these products, enhancing competition and reducing prices, thereby promoting the dissemination and adoption of these new technologies.	- In theory any arrangement can be agreed amongst like-minded, willing partners. - Asymmetry of interests could entail challenges in agreeing a mutually agreeable time frame for the life of the peace clause, (competitive CET traders versus less competitive traders still building capacity in CET), but not impossible. - Politically, domestic economy challenges and would require changes in domestic legislation, requiring assessment of extent of political leeway in national jurisdictions. - Political resistance amongst those WTO Members not in favour of a moratorium on trade remedies within an agreement amongst a smaller group of members, undermining integrity of the trade remedy agreements as well as systemic ramifications.
Assessment: An agreement to temporarily suspend trade remedies against each other in a sectoral context among like-minded countries, is certainly feasible. There is no legal obligation on members to take unilateral trade remedy action and any group of members could agree not to invoke their right to use trade remedies inter se, though this would bind only sectoral parties. Participants should, however, be prepared to extend any advantage given to sectoral parties, including to temporarily exclude the use of trade remedies intra-sectoral, on an MFN basis, to non-members.				

158 Proposed in this context, a peace clause refers to a temporary cease fire on the use of unilateral trade remedies against each other, limited to the clean energy space. This is distinct from the traditional peace clause as envisaged in article 13 of the Agreement on Agriculture. The latter allowed agricultural subsidies legal cover from challenge multilaterally before the dispute settlement system, or simply committed members to exercise due restraint in having recourse to the DSU regarding certain types of measures.

Option	Rationale and Legal Framework	Practice	Effectiveness	Feasibility
Non-Actionable Environmental Subsidies:[159] - In the context of multilateral negotiations, proposes revival of category of non-actionable subsidies under the SCMA that provides flexibility for environmental or clean energy subsidies, exempting such subsidies from challenge under the SCMA and GATT 1994 (Cosbey and Rubini 2013; Kennedy 2012; Horlick 2013; Kasteng 2013). - Alternatively authors propose provisions on non-actionable subsidies which might be revised to better target clean energy, for the moratorium to r be limited to the bilateral use of trade remedies on clean energy (and maintain the possibility of bringing environmental subsidies to the WTO's Dispute Settlement Body) (Kasteng 2013, Voon 2010, Horlick 2013).	- Envisages reviving the category of "non-actionable" environmental subsidies, including sub-category of subsidies to clean technology goods, to be shielded from complaints under the DSU, implying that the environmental subsidies would not be targeted during a transition period.[160] - At the same time, non-actionable status would prevent initiation or imposition of countervailing duties with respect to subsidies for sustainable-energy equipment.	- Inherent disinclination amongst members to relinquish the right to take CVD action: even with the option of a parallel multilateral track to challenge subsidies, a total of only 4 FTAs have succeeded in abolishing CVD measures (Voon 2010, 39).	- Though would not address the problem of the proliferation of AD remedies in the clean energy sector, any means to discipline at least the use of CV measures would provide some breathing space, boosting trade flows in CET.[161] - Non-actionable status would have a positive ex ante effect by encouraging parties to adopt or maintain measures promoting sustainable energy, thereby promoting the trade, dissemination, and adoption of these new technologies, free from protectionism. - Would avoid escalation in use of CVD on clean energy, enhancing competition and lower prices for CET. - Multilateral cover from WTO and unilateral challenge, bind all members, enhancing overall certainty, predictability, and effectiveness hereof for trade in CET.	- Non-actionability provision is built-in pre-existing model for environmental flexibility within the SCMA, could be good basis to proceed to provide cover for CET subsidies, with a corresponding non-countervailability provision. - However, reviving non-actionability only with respect to CVD would multilaterally limit members' rights to unilaterally challenge the government subsidies of other members perceived to be trade-distorting. Not practical or feasible. - Domestic political economy constraints: increasing political pressure on governments not to circumscribe their ability to bring CVD cases by agreeing to any form of a safe harbour. - If allowed direct challenges only, increased pressure on WTO dispute system: possible escalation of cases challenging prohibited and actionable subsidies directly before WTO, ultimately undermining the effectiveness of a moratorium.

159 Article 8 SCMA. This would constitute the "green box" of the SCM Agreement, in contrast to prohibited (red) and actionable (amber) subsidy categories. Insofar as this provision is coupled with policy space for clean energy subsidies, it is partially beyond the ambit of this paper. However, we nevertheless address the merits of this proposal, since it also would encompass non-actionability with regard to at least CVD action. Even though it would not, on its own, impact the use of AD action, it at least has some value with regard to disciplining the use of the CVD measure.

160 Lapsed article 8 SCMA. Also in line with the now lapsed provisions in Article 13 on "due restraint" of the WTO Agreement on Agriculture.

161 A total of 17 CVD actions on CET goods were taken between 2006 and 2015 in the CET sector.

Option	Rationale and Legal Framework	Practice	Effectiveness	Feasibility
				- Pay-off for disturbing inherent balance in SCMA: a carve-out from challenge would need to be balanced with corresponding concession, with a high price tag. - Not a complete blank check but would require monitoring and surveillance. - Inherent systemic bias and political sensitivities in WTO: introducing sector-specific exceptions to multilateral rules, concerns of erosion of the existing disciplines more generally.[162]
Assessment: Ultimately, therefore, the most feasible solution would be reinstate article 8 in its entirety, including providing legal cover both with respect to directly challenging prohibited and actionable subsidies under the dispute settlement system, as well as with respect to unilateral challenges. However, this would best be negotiated as part of a broader process of reform and modernisation of the SCMA as a whole, which would establish what type of subsidies are and are not permitted in the clean energy sphere. Though negotiations would no doubt be protracted and difficult, and require exchange of concessions, ultimately, most existing exporters as well as players coming into the clean energy space will face similar challenges at some point, hence an agreement of a multilaterally enforceable carve-out would provide the best form of certainty and predictability for traders of clean technology products. However, this option would have to be a more medium to long term one.				

162 Some have suggested taking this option forward in the context of a plurilateral amongst like-minded members, that is, including in the EGA a moratorium on direct and unilateral challenges. The former would create a lack of coherence with existing WTO norms insofar as a non-actionability clause within a plurilateral would dilute SCMA disciplines and lead to impracticalities in enforcement. In any event, if parties to such an agreement could agree to abolish the use of the trade remedy instruments only *inter se*, this would be a more effective tool, since both AD and CV remedies would be eliminated and they would not need to concern themselves with coherence with regard to the WTO SCMA, only with MFN. This is elaborated more, in the next section.

Option	Rationale and Legal Framework	Practice	Effectiveness	Feasibility
Eliminate the Trade Remedy Tool in RTAs: - A total elimination of the trade remedy tool in FTAs (Meléndez-Ortiz 2016).	- Negotiating an FTA or customs union is an accepted deviation from the MFN or non-discrimination rule.[163] - FTA parties are at least *permitted* to exclude the application of anti-dumping and countervailing measures among themselves, provided negative trade impacts on non-RTA WTO Members is limited.[164] - The abolition of AD and CVD remedies in an FTA would not raise barriers vis-à-vis third parties, or significantly alter the course of trade as are typically targeted measures, hence no MFN issue.[165] - Both the letter and spirit of GATT article XXIV seems to support further liberalisation within the FTA context, rather than the maintenance of protectionist measures.[166]	- Only the Treaty Establishing the European Communities has abolished all three forms of trade remedies among its members: anti-dumping, countervailing, and safeguard measures (Voon 2010).[167] - 14 FTAs prohibited AD measures (7 percent of total FTAs surveyed). By contrast, in the case of CVD measures, only 4 FTAs abolished these types of measures (World Trade Organization 2012b).[168] - Many FTAs excluding anti-dumping measures tend to be either customs unions, reflect deep integration processes, have specific competition rules or provisions expressing cooperation in competition policy and/or have regional consultative mechanisms. - Exceptions: FTAs with a lower level of integration that have also succeeded in abolishing anti-dumping measures—FTA between Canada and Chile.[169]	- Total elimination of all trade remedies provide best means to further trade liberalisation in CET and ensure predictability. - Preferential antidumping does not result in displacement, or fundamental changes in historical pattern of antidumping measures taken by the FTA parties, including in the reduction of AD measures after the conclusion of the FTA (WTO 2012a).[170] Historically, the largest users of trade remedies seem to make the fewest compromises in FTAs (Emerson 2008). - Thus, most effective if incorporated within a comprehensive FTA, between wide spectrum of historically CET-competitive trade partners with a commonality of policy to facilitate trade in CET.	-Trade remedies are enablers of liberalisation: still politically challenging, is lower incidence of elimination of all trade remedies simultaneously within all FTAs and more recently in mega-regionals such as the TPP. - The ease and likelihood of a total abolition of trade remedies in any FTA is a function of political will and strength of negotiating parties.[171] - However, no explicit restriction to abolishing trade remedies in FTAs if parties willing, is a feasible and realistic approach, notwithstanding the political difficulties.
Assessment: Provided there is compliance with GATT article XXIV, it is legally permissible and feasible to abolish the use of trade remedies in an FTA context, even amongst non-integrated countries. If such an agreement could be secured amongst a diversity of trade partners, it would create certainty, as well as significantly enhance trade liberalisation goals with regard to the CET sector and hence be the most effective means to disciplining the use of trade remedies. Furthermore, existence of some FTA partners trading *inter* se without resorting to trade remedies on CET may create a growing awareness around the value and importance of elimination of trade remedies in enhancing trade flows, which could act as a precedent for reducing trade remedy measures on a broader scale (Voon 2010).				

163 Article XXIV of GATT sets conditions in order to derogate from the MFN principle.

164 In accordance with Article XXIV:5.

165 Unlike in the case of safeguards. Exempting FTA trade partners from safeguard measures is a clear violation of the MFN requirement contained in the SGA. Despite some ambivalence in the case law, it is fairly accepted that a prohibition on safeguard measures within an FTA (which in all other respects complies with the requirements of an FTA) would be safe from challenge.

166 This would increase intra-RTA trade liberalisation in accordance with GATT Article XXIV:8, VCLT Article 41(1)(b)(ii), and the Enabling Clause paragraph 3(a) (Voon 2010).

167 WTO data shows that only two FTAs definitively exclude the parties from applying a global and bilateral safeguard, that is, without being subject to any other condition—Singapore-New Zealand and Singapore-Australia.

168 These include those that prohibit the use of anti-dumping measures by RTA parties. Those that do not do so specifically, however, are customs unions, hence the prohibition of anti-dumping measures are presumed. The study showed that the vast majority of FTAs (90.6 percent of all regional regimes studied up to 2012) contain anti-dumping regimes which simply mirror WTO rules and disciplines.

169 Signed 5 December 1996, entered into force 5 July 1997, Article M-01.

170 On the WTO analysis, a change in trade pattern is likely to make a difference only in deep integration agreements, where there is typically a fall off of the use of trade remedy measures after the agreement is concluded. WTO Study page 29.

171 In the US-Korea FTA, Korea did not succeed in instituting even more prosaic requirements on the use of trade remedies included in the FTA. This concerned not even a total abolition of trade remedies but merely the imposition of procedural requirements, such as enhanced notification requirements and consultations before imposing trade remedies.

ANNEX B: TABLE OF FTA PROVISIONS

Provision and Rationale	FTA	Clause
Environment-Specific Consultations	US-Australia Article 19.7	Provides specifically for consultations on environmental issues to seek to resolve issues or seek advice from any relevant body. A Party may request consultations with the other Party regarding any matter arising under this Chapter. Also makes provision for the convening of a Subcommittee on Environmental Affairs, at the request of either Party.
Total Elimination of the Trade Remedy Tool	EFTA-Chile Articles 18.1 and 18.2	"A Party shall not apply anti-dumping measures as provided for under the WTO Agreement on [Antidumping] in relation to goods of a Party."
Reviewing the Necessity to Take Trade Remedy Action: Should it not be possible to agree a total elimination of trade remedies immediately, the parties can review the need to take anti-dumping or other trade remedy measures in the future, in light of developments in sustainable development or climate change mitigation.	EFTA South Korea	"Five years after the entry into force of this Agreement, the Parties shall in the Joint Committee review whether there is need to maintain the possibility to take antidumping measures between them. If the Parties decide, after the first review, to maintain the possibility they shall thereafter conduct biennial reviews of this matter in the Joint Committee."
Reviewing the Abolition of Trade Remedies	EFTA Ukraine Article 2.14	1. A Party shall not apply anti-dumping measures, as provided for under Article VI of the GATT 1994 and the WTO Agreement on Implementation of Article VI of the GATT 1994 in relation to products originating in another Party. 2. Five years after the date of entry into force of this Agreement, the Parties may in the Joint Committee review the operation of paragraph 1. Thereafter the Parties may conduct biennial reviews of this matter in the Joint Committee.

Provision and Rationale	FTA	Clause
Ability to re-invoke measures in specific circumstances: With regard to the elimination of safeguard measures, parties to an FTA may require to retain some degree of comfort that they can invoke the measure in specific circumstances.	Israel-Mexico (Art 5-03);	Global Emergency Actions 1. Each Party retains its rights and obligations under Article XIX of GATT 1994, the WTO Agreement on Safeguards or any other safeguard agreement pursuant thereto except those regarding compensation or retaliation and exclusion from an action to the extent that such rights or obligations are inconsistent with this Article. Any Party taking an emergency action under Article XIX or any such agreement shall exclude imports of a product from the other Party from the action unless: (a) imports from the other Party account for a substantial share of total imports; and (b) imports from the other Party contribute importantly to the serious injury or threat thereof caused by total imports.
Committee providing for information exchange with regard to trade remedy issues	US-Korea Article 10.8 Canada-Korea Article 7.8	"…provide a forum for the Parties to exchange information on issues relating to antidumping, subsidies and countervailing measures, and safeguards;"
General provisions that support the environment	Australia-Korea Article 18.4	Each Party shall endeavour to facilitate and promote trade and investment in environmental goods and services, including environmental technologies, sustainable renewable energy, and energy efficient goods and services, including through addressing related non-tariff barriers.
Provisions supporting the environment and review	Japan-Switzerland Article 9	Promotion of Trade in Environmental Products and Environment-Related Services 1. The Parties shall encourage trade and dissemination of environmental products and environment-related services in order to facilitate access to technologies and products that support the environmental protection and development goals, such as improved sanitation, pollution prevention, sustainable promotion of renewable energy, and climate-change-related goals. 2. The Parties shall periodically review in the Joint Committee progress achieved in pursuing the objectives set out in paragraph 1.
	EFTA-Ukraine	The Parties shall review this Agreement in the Joint Committee within three years after the entry into force of this Agreement in light of developments in the field of trade and sustainable development.

Provision and Rationale	FTA	Clause
Ex-Ante Consultations: Greater effectiveness would be ensured if the provision could specify an agreed number of days prior to initiation.	USA-Korea Article 10.7.3 (a) Canada-Korea Article 7.7.2	Upon receipt by a Party's competent authorities of a properly documented antidumping application with respect to imports from the other Party, and before initiating an investigation, the Party shall provide written notification to the other Party of its receipt of the application and afford the other Party a meeting or other similar opportunities regarding the application, consistent with the Party's law.
Choice of Forum Clause	Japan-Switzerland Article 138.2 Canada-Korea Article 7.7.1	Once the complaining Party has requested the establishment of an arbitral tribunal under this Chapter or a panel under Article 6 of the Understanding on Rules and Procedures Governing the Settlement of Disputes in Annex 2 to the WTO Agreement with respect to a particular dispute, the arbitral tribunal or panel selected shall be used to the exclusion of the other procedure for that particular dispute.
Exclusion of Trade Remedy Chapter from Dispute Settlement	FTA between EU and Peru/ Colombia Article 47	Title XII (Dispute Settlement) shall not apply to this Section…In the case of the application of an anti-dumping duty or countervailing measure... by the Andean Community authority on behalf of two or more member Countries of the Andean Community, the competent Andean Community judicial body shall be the single forum for judicial review (Article 42).
Raising the De Minimis Margin	Singapore-Jordan Article 2.8	"(a) the de minimis margin of 2 percent …is raised to 5 percent;"
Limiting the Duration of the Duty	Singapore-Jordan Article 2.8	"(f) any anti-dumping duty shall be terminated on a date not later than three years from the date that the duty was imposed…"

Provision and Rationale	FTA	Clause
Lesser Duty Rule: For LDR to be mandatory, there should be clear disciplines and rules in place to provide guidance on the methodology to be used by investigating authorities. It is also possible to agree conditions, guidelines, or circumstances to circumscribe the use of the LDR (for example, stipulating how the non-injurious price will be calculated) or to only apply the LDR for exporters (and/or importers) that cooperated during an investigation as a mechanism for encouraging cooperation.	EFTA-Korea Article 2.10, paragraph 1	"If a Party takes a decision to impose an anti-dumping duty…the Party taking such a decision shall apply the "lesser duty" rule by imposing a duty which is less than the dumping margin where such lesser duty would be adequate to remove the injury to the domestic industry."
LDR explicitly provided for	Canada-EU (CETA) Article 3.3 (1)	After considering the information referred to in paragraph 1, the Party's authorities may consider whether the amount of the anti-dumping or countervailing duty to be imposed shall be the full margin of dumping or amount of subsidy or a lesser amount, in accordance with the Party's law.

ANNEX C: MAPPING OF SELECTED OPTIONS TO DISCIPLINE THE USE OF TRADE REMEDIES

WTO

Policy Option and Category	Means of Implementation	Time-Frame	Qualifications
	HARD LAW:		
Lesser Duty Rule (I)	WTO rules negotiations	Long-term	Politically challenging
Duration of Measures (I)	WTO rules negotiations	Long-term	Politically challenging
Non-Actionability under SCMA (III)	WTO rules negotiations	Medium to long-term	Politically challenging
	SOFT LAW:		
Moore's Law Lesser Duty Rule (I) De Minimis Margin (I) Duration of Measures (I) Non-Actionability under SCMA (III) Pre-Initiation Consultations Temporary Self-Restraint (III) Total Elimination TR (III)	Discussions: Rules committee	Short to medium-term	Find common basis for discussion in context of rapidly evolving high-tech technology products.
	Discussions: CTE committee	Short to medium-term	
	Monitoring: RTA Committee Transparency Mechanism	Short to medium-term	Transparency and disclosure
	Monitoring: Notifications	Short to medium-term	Transparency and disclosure

SECTORAL/SETA

Policy Option and Category	Means of Implementation	Time-Frame	Qualification
Moore's Law (I)	Specific provisions	Short to medium-term	Subject to MFN
Lesser Duty Rule (I)	Specific provisions	Short to medium-term	Subject to MFN
De Minimis Margin (I)	Specific provisions	Short to medium-term	Subject to MFN
Duration of Measures (I)	Specific provisions	Short to medium-term	Subject to MFN
Pre-Initiation Consultations (II)	Specific provisions	Short to medium-term	Subject to MFN
Temporary Self-Restraint (III)	Specific provisions	Short to medium-term	Subject to MFN
Total Elimination TR (III)	Specific provisions	Short to medium-term	Subject to MFN
	Peer Review	Short to medium-term	

REGIONAL TRADE ARRANGEMENT/MEGA-REGIONAL

Policy Option and Category	Means of Implementation	Time-Frame	Qualifications
Moore's Law (I)	Specific provisions	Short to medium-term	Comprehensive trade agreement
Lesser Duty Rule (I)	Specific provisions	Short to medium-term	Comprehensive trade agreement
De Minimis margin (I)	Specific provisions	Short to medium-term	Comprehensive trade agreement
Duration of Measures (I)	Specific provisions	Short to medium-term	Comprehensive trade agreement
Pre-Initiation Consultations (II)	Specific provisions	Short to medium-term	Comprehensive trade agreement
Temporary Self-Restraint (III)	Specific provisions	Short to medium-term	Comprehensive trade agreement
Total Elimination TR (III)	Specific provisions	Short to medium-term	Comprehensive trade agreement

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