

Chapter 8

Trade Considerations for Decarbonization Strategies

by Elizabeth Trujillo

As countries fulfill their commitments to the Paris Climate Agreement and engage in climate change mitigation policies and domestic decarbonization strategies, governments must ensure their policies comply with their trade obligations. This chapter provides a brief overview of key areas where international trade rules may impact U.S. policies geared towards decarbonization. It will focus primarily on the policies needed for decarbonization, as outlined in the Deep Decarbonization Pathways Project report, that are connected to international trade rules, with the goal of finding ways of using the international trade legal framework as another tool for encouraging, rather than inhibiting, decarbonization efforts at the national level. Section II sets out the policy tools promoting decarbonization most likely to implicate or conflict with trade rules. Section III provides a primer on the main trade rules that intersect with decarbonization tools such as border tariff adjustments, subsidies, labeling schemes, and local content requirements. Section IV examines specific cases where decarbonization has led to trade law conflicts as well as recommendations for decarbonization strategies that are trade compliant and avoid such conflicts in the future. Section V considers preferential trade agreements as an alternative way that trade policymakers and regulators may work together towards decarbonization.

I. Introduction

The Deep Decarbonization Pathways Project (DDPP) policy report for the United States defines deep decarbonization as “the reduction of greenhouse gases over time to a level consistent with limiting global warming to 2 degrees or less, based on the scientific

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consensus that higher levels of warming pose an unacceptable risk of dangerous climate change.”¹ This translates to a reduction of U.S. greenhouse gas emissions by at least 80% by 2050.² It identifies three pillars of deep decarbonization as energy efficiency and conservation, decarbonization of electricity and fuels, and switching of liquid fuels to low-carbon supplies. In developing effective policy for energy transformation, the DDPP recognizes the complex market and jurisdictional landscape in which the U.S. energy system operates, including geographic fragmentation of energy markets and the divisions across multilevels of governance around energy policy (federal, state, and local).

The DDPP report correctly notes that decarbonization in the United States, and elsewhere, requires transformation of the physical energy system to one that will funnel capital and investments towards low-carbon infrastructure, energy sources, and consumer products. The report identifies a great many laws and policies to achieve that result.³ Many of these policies are domestic, of course, but there is another critical layer of governance important to understanding the energy policy landscape—the *supranational*.

This chapter focuses on regional and multilateral trade regimes to which the United States is a member. While there are few if any specific trade rules for deep carbonization laws and policies, they may have implications for trade and even violate a trade agreement, especially if they are intended to protect U.S. industries at the expense of competitive goods and services from importers.⁴ As this chapter explains, international trade rules provide both a set of constraints and a set of opportunities for decarbonization.

This chapter is divided into four main parts. Section II sets the stage by briefly describing the main policy mechanisms that countries, and the United States more specifically, use to promote their domestic renewable energy-sector and low-carbon infrastructures—mechanisms that may implicate trade commitments. These include feed-in tariffs (FITs), local content requirements (LCRs), taxes and border tax adjustments

¹ JAMES H. WILLIAMS ET AL., ENERGY AND ENVIRONMENTAL ECONOMICS, INC. ET AL., US 2050 REPORT, VOLUME 2: POLICY IMPLICATIONS OF DEEP DECARBONIZATION IN THE UNITED STATES 8 (2015), <http://usddpp.org/downloads/2015-report-on-policy-implications.pdf>.

² *Id.*

³ *See id.*

⁴ Corporate Average Fuel Economy (CAFE) standards and local standards regarding transportation are less likely to impact trade, except to the extent there may be different standards for U.S. goods and services in this regard than for similar imports and these differences advantage U.S. production over importers. This chapter will not specifically discuss transportation and CAFE standards.

(BTAs), subsidies, and eco-labeling. Section III provides a brief primer on the most significant international trade rules in the context of these deep carbonization strategies. Section IV brings together these parts, explaining how policy mechanisms to promote deep carbonization can conflict with international trade rules. This section also makes recommendations for policy measures that can avoid potential trade law violations. An overarching theme is that these schemes work best under trade rules when they are part of a more comprehensive decarbonization policy intended to address climate change and environmental concerns.

Section V steps away from the traditional doctrinal trade tools and considers other forms for reconciliation that use the international trade framework as a means of fostering sustainable development, namely through the negotiating processes of preferential trade agreements and regulatory cooperation established within them. A preferential trade agreement reduces tariffs for specified products for Parties to the agreement, and has many fewer Parties than the multilateral trade framework of the World Trade Organization (WTO); many preferential trade agreements are regional (e.g., North American Free Trade Agreement (NAFTA)). This section considers key areas where there already is some regulatory coordination, for example, among the North American partners of the United States, Canada, and Mexico through the emergence of regulatory cooperation councils in specific sectors of common interest such as oil and gas.⁵ Also, it briefly discusses the regulatory cooperation frameworks established in the recently executed European Union (EU)-Canada Comprehensive Economic and Trade Agreement (CETA)-- the free trade agreement that has arguably made the largest strides in reconciling trade and environmental issues. Despite recent changes in the U.S. position on the Trans-Pacific Partnership (TPP) and the Transatlantic Trade and Investment Partnership (TTIP), these new plurilateral agreements can serve as models for future U.S. trade agreements, especially with respect to the reduction of non-tariff barriers and enhanced regulatory cooperation and harmonization. Section VI concludes.

⁵ See EXECUTIVE OFFICE OF THE PRESIDENT OF THE UNITED STATES, UNITED STATES-MEXICO HIGH-LEVEL REGULATORY COOPERATION COUNCIL WORK PLAN (2012), <https://obamawhitehouse.archives.gov/sites/default/files/omb/oira/irc/united-states-mexico-high-level-regulatory-cooperation-council-work-plan.pdf>; THE WHITE HOUSE, UNITED STATES-CANADA REGULATORY COOPERATION COUNCIL JOINT FORWARD PLAN (2014), <https://obamawhitehouse.archives.gov/sites/default/files/omb/oira/irc/us-canada-rcc-joint-forward-plan.pdf>.

Conflicts between trade liberalization efforts and environmental protection have been at the center of the trade and environment debate for some time. In fact, one of the challenges for both environmental and trade policymakers results from their respective legal frameworks, which have different goals and use different vocabularies in approaching economic development. Recent measures promoting deep decarbonization, as identified in the next section, have increased the conflict in the past decade, resulting in a significant number of formal trade disputes.⁶ Some of these tensions may be unavoidable, especially when they are also part of a greener industrial policy.⁷ International trade law's emphasis on increased liberalization of commerce and the efficient expansion of supply chains as part of economic development will often run into efforts to protect the environment that have protectionist impacts, whether intentional or not. The overall goal of this chapter is to find ways of reducing these tensions, using both market and regulation mechanisms to create fertile ground for the multiple goals of efficient clean energy production, low-carbon infrastructure, and market production. While international trade rules certainly impose limits on how the United States can pursue decarbonization, they also provide opportunities.

II. Policy Tools to Promote Deep Decarbonization

Countries have relied on a great variety of basic policy tools to promote decarbonization at the national and local levels. In practice, this has primarily meant measures intended to increase the use of renewable energy, support the domestic renewable energy sector, or promote energy efficiency. This section briefly sets out five key decarbonization policy tools that are most relevant to international trade today, describing how they are applied. We will return to these in Section IV where we describe how these may conflict with trade law and the case law that has developed.

A. FITs

One of the most popular policy tools countries have employed to promote renewable energy involves FITs. A FIT program provides for long-term contracts that guarantee payment to renewable energy producers for the energy they produce. They create fixed

⁶ See, e.g., Mark Wu & James Salzman, *The Next Generation of Trade and Environment Conflicts: The Rise of Green Industrial Policy*, 108 NW. U. L. REV. 401 (2014).

⁷ *Id.*

prices for electricity and lower barriers to entry, incentivizing more investment in renewable energy production. They have particularly been popular in Europe and Canada and, as discussed in Chapter 23 (Electricity Charges, Mandates, and Subsidies), some U.S. states have also implemented such programs. As will be explained in Section IV, recent trade disputes have discussed the viability of these FIT programs in the context of LCRs that many also contain, but it is less clear the extent to which these programs (without LCRs) amount to allowable subsidies under trade rules.

B. LCRs

While much of the media attention has focused on China's LCRs, these are found in other countries as well, including the United States. At least one Canadian province and several U.S. states have included LCRs in their renewable energy plans. These measures require, "as a condition for financial support," that "renewable electricity generators . . . source a previously defined share of components for their final products from local manufacturing or assembly."⁸ Though LCRs are usually found to be protectionist under trade rules, they do allow local governments to garner political support, especially in conjunction with policies intended to create local jobs and for economic incentive packages for new technologies and products needed for viable renewable energy plans.⁹

C. Tax Schemes and BTAs

Various tax schemes, including a carbon tax, may be effective in penalizing the use of higher polluting production methods and facilitating the transition towards cleaner, more efficient models. Depending on how these fiscal measures are implemented, they may conflict with trade obligations. A BTA is generally an indirect tax at the point of domestic consumption in which imports are taxed but similar exports are not.¹⁰ Direct taxes are fixed producer domestic taxes such as income or social security taxes and these cannot be adjusted or imposed on imports. Indirect taxes, by contrast, are adjustable

⁸ Jan Christoph Kuntze & Tom Moerenhout, *Are Feed-in Tariff Schemes With Local Content Requirements Consistent With WTO Law?*, in FRONTIERS OF INTERNATIONAL ECONOMIC LAW: LEGAL TOOLS TO CONFRONT INTERDISCIPLINARY CHALLENGES (Freya Baetens & José Caiado eds., Martinus Nijhoff 2014) (Aug. 2013 manuscript at 2), <http://ssrn.com/abstract=2307435>.

⁹ For discussion on the political necessity of the local content requirements in the context of trade, see generally Tim Meyer, *How Local Discrimination Can Promote Global Public Goods*, 95 B.U. L. REV. 1939 (2015).

¹⁰ Henrik Horn & Petros C. Mavroidis, *To B(TA) or Not to B(TA)? On the Legality and Desirability of Border Tax Adjustments From a Trade Perspective*, 34 WORLD ECON. 1911, 1914 (2011).

because they allow imports, which under the U.S. corporate tax system are not normally taxed as compared to similar exports, to be taxed in the place of their consumption. This adjustment is done in accordance with the “destination principle.” The Organisation for Economic Co-operation and Development’s (OECD’s) 1970 Working Party on Border Tax Adjustments defines a BTA as a means for employing the destination principle:

any fiscal measures which put into effect, in whole or in part, the destination principle (i.e. which enable exported products to be relieved from some or all of the tax charged in the exporting country in respect of similar domestic products sold to consumers on the home market and which enable imported products sold to consumers to be charged with some or all of the tax charged in the importing country in respect of similar domestic products).¹¹

In this way, a neutral level of competition among imports and exports in the same market is maintained. Traditionally, BTAs are aimed at addressing public health or environmental concerns and have been associated with climate change policies, especially in conjunction with carbon taxes or with cap-and-trade systems in order to neutralize the competitive distortions that these policies may cause on domestically produced products.¹² Cap-and-trade schemes to lower emissions as well as taxes on carbon raise concerns of leakage and unfair competitiveness, especially if they are done in some countries and not others. Leakage occurs if, for example, producers are incentivized to move their production from countries or regions that have implemented a cap-and-trade system, like the EU, to countries that have not implemented such a system, making imports from countries without cap and trade less expensive.¹³ In the context of the DDPP, however, BTAs can promote protectionism by making imported renewable energy technologies more expensive. The Trump Administration, for example, has levied

¹¹ *Border Tax Adjustments: Report of the Working Party Adopted on 2 December 1970 (L/3464)*, GATT B.I.S.D. (18th Supp.) at 97, 98 (1970) [hereinafter BTA Report].

¹² The Trump Administration did consider using BTAs as part of a plan to promote domestic production at the expense of competitive imports. This plan was suspended. See Akin Oyedele, *Trump Has Reportedly Shelved One of the Most Controversial Parts of His Tax Plan*, BUS. INSIDER, Apr. 25, 2017, <http://www.businessinsider.com/trump-drops-border-adjustment-tax-2017-4>.

¹³ Horn & Mavroidis, *supra* note 10, at 1928; see also Kate Kelly et al., *Trump Is Said to Abandon Contentious Border Tax on Imports*, N.Y. TIMES, Apr. 25, 2017, <https://www.nytimes.com/2017/04/25/us/politics/orrin-hatch-trump-tax-cuts-deficit-economy.html>.

duties of an estimated 30% on Chinese solar technology imports in retaliation for unfair trade practices.¹⁴ The price of solar panels had dropped over the last few years, incentivizing the growth of the industry, even if hurting the few manufacturers of solar panels in the U.S.¹⁵ Recent tariffs on solar import panels, though, have hurt the solar installation projects in the U.S. as companies have had to absorb the costs of those tariffs rather than pass them onto consumers.¹⁶

D. Subsidies

Many countries have turned to subsidies as a means of addressing climate change. Though there are pros and cons to using subsidies in economic terms, they may be used to create market preferences.¹⁷ The Agreement on Subsidies and Countervailing Measures (SCM Agreement) defines a subsidy as where there is either “a financial contribution by a government or any public body within the territory of a Member” that meets certain criteria or “any form of income or price support” and “a benefit is thereby conferred.”¹⁸ More on this definition will be discussed in the next section, but generally speaking, governments have used subsidies to offset market costs of production,

¹⁴ See Timothy Cama, *Trump Imposes 30 Percent Tariff on Solar Panel Imports*, HILL, Jan. 22, 2018, <http://thehill.com/policy/energy-environment/370171-trump-imposes-30-tariffs-on-solar-panel-imports>. The tariff will last for four years and decrease each year. In the past five years, there has been a boom in the solar industry. The growth relates to the decreased cost of solar panels from foreign manufactures. Because of the decreased cost of solar panels, the solar panel installation industry has grown 17 times more than the overall U.S. job growth. According to the Solar Energy Industry Association, the tariff will lead to an estimated 23,000 solar industry workers to lose their jobs in 2018. Only 14% of the U.S. solar industry consists of manufacturing and only a portion of that actually manufactures cells and modules. Most of the manufacturing sector of the solar industry creates the steel racks and support systems for the solar panels. The Trump Administration claims that the tariff will bring more manufacturing jobs to the United States and encourage solar panel companies to build factories in the United States. Experts rebut this claim and argue that the four-year tariff will actually discourage foreign investment in the U.S. solar industry. See Brian Eckhouse et al., *Trump’s Tariffs on Solar Mark Biggest Blow to Renewables Yet*, BLOOMBERG, Jan. 22, 2018, <https://www.bloomberg.com/news/articles/2018-01-22/trump-taxes-solar-imports-in-biggest-blow-to-clean-energy-yet>; see also Ana Swanson & Brad Plumer, *Trump’s Solar Tariffs Are Clouding the Industry’s Future*, N.Y. TIMES, Jan. 23, 2018, <https://www.nytimes.com/2018/01/23/us/politics/trump-solar-tariffs.html>.

¹⁵ An estimated 80% of solar panels sold in the U.S. are imported. See [Brittany Renee Mayes](#), [Ted Mellnik](#), [Kate Rabinowitz](#) and [Shelly Tan](#), “*Trump’s Trade War has Started. Who’s Been Helped and Who’s Been Hurt?*” WASHINGTON POST, July 5, 2018, https://www.washingtonpost.com/graphics/2018/business/trump-tariff-trade-war/?noredirect=on&utm_term=.6ed3948665ac.

¹⁶ See *Id.*

¹⁷ TRACEY EPPS & ANDREW GREEN, RECONCILING TRADE AND CLIMATE: HOW THE WTO CAN HELP ADDRESS CLIMATE CHANGE 105-06 (2010).

¹⁸ Agreement on Subsidies and Countervailing Measures, Apr. 15, 1994, art. 1.1, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1869 U.N.T.S. 14 [hereinafter SCM Agreement].

especially when industries would like to incorporate new and otherwise expensive technologies such as renewable energy products. They can take many forms, including tax credits, loan guarantees, and FITs.

E. Eco-labeling

Eco-labeling identifies a product's impact on the environment based on the life cycle of the product. It provides information to consumers about the relative environmental quality of a product. It has particularly been popular with private industries attempting to align their production processes with corporate responsibility principles and international standards. Some U.S. states have used labeling schemes for genetically modified food and seed products, for example.¹⁹ Labeling allows for a private form of regulation, where compliance is either voluntary or incentive-driven with market-based principles, rather than mandated by the state. Labeling has become an increasingly preferred form of regulation in recent trade agreements.²⁰

III. A Primer on International Trade Law and Deep Decarbonization

When the use of the policy tools described above restrict trade or promote protectionism, they may run afoul of trade law. This section provides a trade law primer, briefly setting out the key trade rules relevant to renewable energy and decarbonization efforts. These include discrimination rules in international trade (Article I and Article III of the General Agreement on Tariffs and Trade (GATT)), the GATT exceptions for social policy protections (Article XX of GATT), the rules on subsidies (WTO SCM Agreement), and the WTO Technical Barriers to Trade (TBT) Agreement. As a Party to GATT and the WTO, the United States is subject to these rules.

A. Discrimination in GATT: Articles I and III

¹⁹ See H. 112, 2013/2014 Sess., 2014 Vt. Laws 120; see also H.B. 6527, 2013 Gen. Assem., Reg. Sess., 2013 Conn. Legis. Serv. P.A. 13-183; L.D. 718, 126th Leg., 2d Reg. Sess., 2014 Me. Legis. Serv. ch. 436. In 2016, Massachusetts tried to pass the Genetic Engineering Transparency Food and Seed Labeling Act. See H. 3242, 189th Gen. Ct. (Mass. 2015/2016). For information on the Denying Americans the Right to Know (DARK) Act, which was a congressional bill to counter these states' efforts to pass genetically modified organism (GMO) labeling legislation, see Just Label It!, *GMO Labeling in Congress*, <http://www.justlabelit.org/dark-act/> (last visited May 1, 2018).

²⁰ See, e.g., United States-Colombia Trade Promotion Agreement, 125 Stat. 464 (2011), <https://ustr.gov/trade-agreements/free-trade-agreements/colombia-fta/final-text>; United States-Peru Trade Promotion Agreement, Apr. 12, 2006, U.S.-Peru, 1121 Stat. 1455, <https://ustr.gov/trade-agreements/free-trade-agreements/peru-tpa/final-text>; Comprehensive Economic and Trade Agreement, Oct. 30, 2016, Canada-EU, 2017 O.J. (L 11/23) [hereinafter CETA].

GATT Article I lays out the most-favored nation (MFN) principle for international trade, which is one of the primary foundations of the global trading system. GATT Article I states that any “advantage . . . granted by any Member to any product originating in . . . any other country shall be accorded immediately and unconditionally to the like product originating in . . . all other [WTO] Members.”²¹ Thus, if Country A enters into tariff commitments with Country B, it may not treat Country C any worse (or in a discriminatory fashion) than Country B so long as all three are Parties to GATT.

GATT Article III prohibits Member States from discriminating in arbitrary ways between imports and “like domestic products.”²² This ensures that domestic and foreign goods and services should be treated equally. In other words, if Country A imports products or services from Country B, Country A cannot discriminate between those Country B products and services and similar ones from Country A so long as both are GATT Parties. The focus of Article III generally is on preserving equal competitive opportunities and encouraging market access, while prohibiting domestic measures intended to protect domestic production over imports.²³

Article III:2 covers fiscal measures that discriminate against imports in favor of “like domestic products.” In the decarbonization context, the most obvious example of a fiscal measure is a carbon charge or tax. This section not only prohibits internal measures that are directly protectionist (de facto discrimination) but also those with protectionist effects even if they do not discriminate on the face (de jure discrimination). In determining which measures are protectionist, the focus is on defining which imports are “like” domestic products. In determining “likeness,” the following four criteria are generally used: (1) the physical characteristics of a product, including its properties, nature, and quality; (2) the end uses of a product in any given market; (3) consumers’ tastes and habits, which may vary; and (4) tariff classification of the products.²⁴ While

²¹ See General Agreement on Tariffs and Trade, Oct. 30, 1947, art. I, 61 Stat. A-11, A-12 to A-13, 55 U.N.T.S. 194, 197-200 [hereinafter GATT].

²² See *id.* art. III.

²³ Elizabeth Trujillo, *Mission Possible: Reciprocal Deference Between Domestic Regulatory Structures and the WTO*, 40 CORNELL INT’L L.J. 201, 211-21 (2007) (discussing the interpretation and application of GATT Article III). See generally Alan O. Sykes, *Regulatory Protectionism and the Law of International Trade*, 66 U. CHI. L. REV. 1 (1999).

²⁴ See BTA Report, *supra* note 11, at 101-02 (setting forth in paragraph 18 the criteria for determining “likeness” set out by the Working Party on Border Tax Adjustments report).

these criteria are not mutually exclusive, the WTO Dispute Settlement Body (DSB, which includes the panels that initially hear trade disputes as well as the Appellate Body) has arguably placed the greater emphasis on the second and third criteria, focusing on the “competitive substitutability” of the imports as they compare to like domestic products.

A recurring question under the national treatment rule is whether essentially identical products can be treated differently because of the processes or production methods (PPMs) used to produce them. This has particular saliency for decarbonization because, for example, a variety of decarbonization methods, including carbon pricing, would reduce greenhouse gas emissions needed to produce a particular product. Should a government be able to treat a widget produced with high carbon differently than the same kind of widget produced with less carbon? The WTO DSB has not definitively ruled on the viability of trade discrimination based on differences in PPMs, but has stated that Article III may, in fact, prohibit discrimination based on differences in PPMs when the final products are otherwise identical.²⁵

Trade restrictions based on PPMs remain quite controversial for the WTO, and developing countries like Mexico have been hesitant to accept them as part of the international trade framework.²⁶ This is understandable, because trade restrictions based on differences in PPMs may advantage industrialized countries with more sophisticated technologies over less developed ones. The adoption of cleaner production methods may be expensive, and requiring them could impact the competitiveness of products coming from developing countries.²⁷

B. Exceptions to GATT: Article XX

²⁵ See Appellate Body Report, *United States—Import Prohibition of Certain Shrimp and Shrimp Products*, ¶157, WTO Doc. WT/DS58 (adopted Oct. 12, 1998) [hereinafter *United States—Shrimp*].

²⁶ See Elizabeth Trujillo, *A Dialogical Approach to Trade and Environment*, 16 J. INT’L ECON. L. 535, 548-50 (2013) [hereinafter Trujillo, *Dialogical Approach*] (for discussion on PPMs in GATT/WTO jurisprudence).

²⁷ Recent WTO jurisprudence has discussed PPMs in the context of technical regulations, like labeling schemes, under the TBT Agreement to be discussed later in this chapter. See, e.g., Panel Report, *United States—Measures Concerning the Importation, Marketing, and Sale of Tuna and Tuna Products*, WTO Doc. WT/CS381/R (adopted Sept. 15, 2011) [hereinafter *United States—Tuna Panel Report*]; Appellate Brief, *United States—Measures Concerning the Importation, Marketing, and Sale of Tuna and Tuna Products*, WTO Doc. WT/DS381/AB/R (May 16, 2012) [hereinafter *United States—Tuna II AB*].

GATT Article XX²⁸ provides a set of exceptions or affirmative defenses to its antidiscrimination rules. A U.S. decarbonization policy that would otherwise violate either the MFN or national treatment rules may still be justifiable under one or more of the GATT Article XX exceptions. With respect to the trade and environment relationship, the most commonly argued Article XX exceptions have been Articles XX(b) and XX(g). Article XX(a), which has rarely been used by complainants, allows for measures “necessary to protect public morals,” and may present interesting opportunities for environmentalists for the future.²⁹

Article XX(b) allows for countries to pass measures “necessary to protect human, animal or plant life or health.”³⁰ The public health impacts of climate change, coupled with the variety of impacts that increased greenhouse gas concentrations in the atmosphere are having, and will continue to have, on animal or plant life or health, provide a way for the U.S. government or state and local governments to argue that otherwise discriminatory decarbonization measures are justified under Article XX(b). In applying this provision, the WTO DSB must balance the contribution of the measure to the achievement of the measure’s objective with its trade restrictiveness.³¹ The respondent has the burden of proving the necessity of the measure.³² In determining whether the measure contributes to the achievement of its objectives, there must be “a genuine relationship of ends and means between the objective pursued and the measure at issue.”³³ This may include a comprehensive policy made up of several measures to meet its objective. The more material the contribution of the challenged measure(s) to the objective, the higher the likelihood that the measure will be considered *necessary*. The measure(s) must also be the “least restrictive on trade” as compared to any alternative

²⁸ GATT, *supra* note 21, art. XX.

²⁹ See Appellate Body Report, *European Communities—Measures Prohibiting the Importation and Marketing of Seal Products*, WTO Doc. WT/DS400 (adopted May 22, 2014).

³⁰ GATT, *supra* note 21, art. XX(b).

³¹ Panel Report, *China—Measures Related to the Exportation of Rare Earths, Tungsten, and Molybdenum*, ¶7.146, WTO Docs. WT/DS431/R, WT/DS432/R, WT/DS433/R (Mar. 26, 2014) (adopted Dec. 13, 2013) (referring to *Brazil—Tyres*, *infra* note 33, ¶178).

³² Notably, however, Article XX is very limited in scope and places the burden on the respondent to prove that the given regulatory measure is the least restrictive, and that no alternative exists. Robert E. Hudec, *GATT/WTO Constraints on National Regulation: Requiem for an “Aim and Effects” Test*, 32 INT’L LAW. 619, 628-29 (1998).

³³ *Brazil—Measures Affecting Imports of Retreaded Tyres*, ¶145, WTO Doc. WT/DS332/R (June 12, 2007) [hereinafter *Brazil—Tyres*].

measures that could meet the same objective.³⁴

Article XX(g) provides an exception for measures “relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption.”³⁵ Article XX(g) was intended to allow for a balancing between the goals of trade and those of sustainable development as well as state sovereignty. As interpreted in various decisions, Article XX(g) applies to both exhaustible and nonexhaustible resources, and is probably triggered by air pollution.³⁶ However, it also requires a country to use the least trade-restrictive means of meeting its environmental objective.

Decarbonization measures might satisfy Article XX(g) because a stable climate is an exhaustible natural resource; because greenhouse gases pollute the atmosphere, which is also a natural resource; and because measures to reduce greenhouse gas emissions are needed to conserve forests, aquatic life, wildlife, and other natural resources.

Article XX(a) allows for measures that are “necessary to protect public morals.” In general, the provision is used as a balancing test to weigh domestic issues of public morality against trade liberalization interests of WTO Members.³⁷ A public morals justification could be used to justify an environmental policy connected to a moral value such as animal welfare or human health.³⁸ A comprehensive climate change mitigation

³⁴ See *id.* ¶¶224-234.

³⁵ GATT, *supra* note 21, art. XX(g).

³⁶ *United States—Shrimp* was the first case to interpret this provision to include natural resources, which may be both exhaustible and nonexhaustible. See *United States—Shrimp*, *supra* note 25. This was confirmed by the 1996 *United States—Gasoline* case concerning U.S. fuel emissions regulation, which established individual baselines representing the quality of gasoline imports produced by refiners in order to measure compliance with U.S. regulations. See Appellate Body Report, *United States—Standards for Reformulated and Conventional Gasoline*, WTO Doc. WT/DS2 (Apr. 29, 1996) [hereinafter *United States—Gasoline*]. The Appellate Body in *United States—Gasoline* found that the measure, with the baselines that helped to monitor the levels of compliance, did meet the requirements of Article XX(g) in that it was aimed at reducing air pollution and therefore the conservation of a natural resource. However, there were less trade-restrictive means of meeting this environmental objective, including imposing such baselines without differentiating between imported and domestic gasoline. Therefore, though the measure was justified as one related to the conservation of an exhaustible resource, once again it failed to meet the strict arbitrary and discriminatory test under the chapeau of Article XX. It was also found to be a violation of GATT Article III.

³⁷ See Appellate Body Report, *United States—Measures Affecting the Cross-border Supply of Gambling and Betting Services*, WTO Doc. WT/DS285 (Apr. 7, 2005); see also Jeremy C. Marwell, *Trade and Morality: The WTO Public Morals Exception After Gambling*, 81 N.Y.U. L. REV. 802, 804-05 (2006).

³⁸ See, e.g., Appellate Body Report, *European Communities—Measures Prohibiting the Importation and Marketing of Seal Products*, WTO Docs. WT/DS400/AB/R, WT/DS401/AB/R (May 22, 2014).

policy, connected to the reduction of greenhouse gas emissions for health reasons, for example, could arguably come under a public morals exception.³⁹

In assessing whether an Article XX exception is available, one must also satisfy the chapeau (preamble). It states that trade-restrictive measures may not be “applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade.”⁴⁰

C. *The SCM Agreement*

The SCM, which is part of the WTO covered agreements (agreements included under the WTO system), generally prohibits the use of subsidies, including export subsidies.⁴¹ The SCM defines a subsidy as “a financial contribution by a government or any public body” in which a “benefit” is “conferred.”⁴² The definition of “benefit” remains unclear under WTO jurisprudence. To determine whether there is a benefit, the market is used as the benchmark; however, this determination is not always clear, especially in cases where there is no existing domestic market (e.g., in a new market like renewable energy).⁴³

Furthermore, the analysis of whether a benefit is conferred does not consider the impact on production of such benefit or other regulatory demands on the industry or other subsidies to competitors in the given market. For example, subsidies for renewable energy may only offset the benefits given to similar subsidies on coal production.⁴⁴ Furthermore, the SCM Agreement does not contain a general exception for subsidies placed to fulfill a legitimate public purpose such as climate change mitigation.⁴⁵ The WTO Appellate Body has not clarified what would constitute a violation of the SCM Agreement in this context.

³⁹ The DSB addressed Article XX(j) for the first time in *India—Certain Measures Relating to Solar Cells and Solar Modules*, discussed in Section IV of this chapter.

⁴⁰ GATT, *supra* note 21, art. XX, preamble.

⁴¹ SCM Agreement, *supra* note 18, arts. 3.1 & 3.2.

⁴² *Id.* art. 1.1, at 14.

⁴³ See EPPS & GREEN, *supra* note 17, at 110-12 (discussing marketplace benchmark for defining “benefit conferred”).

⁴⁴ See *id.* at 111.

⁴⁵ Article 8.2 of the SCM Agreement did create exceptions for subsidies connected to research and development, regional development, and environmental compliance costs, SCM Agreement, *supra* note 18, art. 8.2; however, in 2000, these exceptions expired and they were not renewed. See EPPS & GREEN, *supra* note 17, at 118.

D. The TBT Agreement

The TBT⁴⁶ “aims to ensure that technical regulations, standards, and conformity assessment procedures are non-discriminatory and do not create unnecessary obstacles to trade.”⁴⁷ At the same time, it recognizes that Member States should not be prevented from taking measures “to ensure the quality of [their] exports, or for the protection of human, animal or plant life or health, of the environment, or for the prevention of deceptive practices . . .”⁴⁸ In other words, it was intended to balance trade liberalization goals with Member States’ right to regulate, while nudging countries towards using international standards as the basis for their own regulatory measures.⁴⁹

TBT regulations could very easily pertain to a PPM.⁵⁰ For example, a government requirement that a product be produced with a limited level of fuel emissions—such as particularly low levels of greenhouse gas emissions—would be a technical regulation. So would be a voluntary labeling scheme, managed by the government, that informs consumers of the method of production of a product. Even a law that permits the use of a voluntary product label showing that tuna was caught in compliance with standards for “dolphin-safe” tuna is a technical barrier.⁵¹

Technical barriers are allowed under the TBT Agreement as long as they meet its requirements. For example, a technical barrier must not be discriminatory under TBT Articles 2.1 and 2.2. TBT Article 2.1 requires that imported products “be accorded treatment no less favourable than that accorded to like products of national origin and to like products originating in any other country.”⁵² Somewhat similarly, Article 2.2

⁴⁶ See Agreement on Technical Barriers to Trade, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1868 U.N.T.S. 120 [hereinafter TBT Agreement].

⁴⁷ See WTO, *Technical Barriers to Trade* (summarizing the purpose of the TBT Agreement), https://www.wto.org/english/tratop_e/tbt_e/tbt_e.htm (last visited May 1, 2018).

⁴⁸ TBT Agreement, *supra* note 46, at 120 (preamble).

⁴⁹ See EPPS & GREEN, *supra* note 17, at 77 (discussing the purpose of the TBT Agreement in the context of international standards).

⁵⁰ *United States—Tuna Panel Report*, *supra* note 27; *United States—Tuna II AB*, *supra* note 27.

⁵¹ *United States—Tuna II AB*, *supra* note 27. In *United States—Tuna II AB*, the WTO Appellate Body found that a U.S. dolphin-safe labeling scheme with respect to fishing tuna was a technical regulation and a PPM under the TBT Agreement.

⁵² See TBT Agreement, *supra* note 46, art. 2.1.

prohibits technical regulations that are “more trade-restrictive than necessary to fulfill a legitimate objective, taking account of the risks non-fulfillment would create.”⁵³

IV. Trade Law and Decarbonization Policy Conflicts

Section II briefly described the part of the policy toolkit for deep decarbonization that raises trade law concerns. Section III set out the specific trade laws that give rise to these concerns. This section brings these together, describing specific trade law challenges to specific deep decarbonization policies. The section proceeds tool by tool, describing the different kinds of trade law implications of each policy tool, followed by specific policy recommendations.

A. LCRs

1. WTO case law

The WTO DSB has decided several cases involving local content requirements. These cases provide some guidance in understanding when LCRs are lawful or not lawful. In 2012, Japan brought to the WTO *Canada—Certain Measures Affecting Renewable Energy*, alleging that the LCRs for an Ontario FIT program violated Article III of GATT.⁵⁴ Ontario’s Green Energy Act established a FIT that required wind and solar projects to obtain about half of their projects’ components locally in order to qualify for payments under the FIT.⁵⁵ The primary GATT rule applicable to a FIT scheme like the Canadian one is national treatment under GATT Article III, since the LCR allegedly resulted in discriminating against Japanese renewable energy equipment in favor of Canadian renewable energy equipment.

In this case, the Canadian FIT program applied to the sale of electricity but not to renewable energy equipment. As explained earlier, “like products” must be in a competitive relationship to trigger the application of GATT Article III. Therefore, in one

⁵³ *Id.* art. 2.2.

⁵⁴ Appellate Body Report, *Canada—Renewable Energy Measures Affecting Renewable Energy Generation Sector*, WTO Doc. WT/DS412/AB/R (May 6, 2013) [hereinafter *Canada—Renewable Energy Measures*]; see also Appellate Body Report, *Canada—Measures Relating to Feed-in Tariff Program*, WTO Doc. WT/DS 426/AB/R (May 6, 2013). The Appellate Body decided these cases together as they related to the same Canadian FIT program, the former case brought by Japan, and the latter by the EU. Japan also alleged that the Ontario law violated Article 2.1 of the Trade-related Investment Measures (TRIMS) Agreement.

⁵⁵ *Canada—Renewable Energy Measures*, *supra* note 54, ¶¶4.21-4.22.

respect, Canada and Japan were not in a competitive relationship as understood under Article III. On the other hand, as the Appellate Body concluded, the LCRs applied to the equipment (and not the electricity), thereby discriminating against imports of such equipment from Japan. As a result, the LCRs violated national treatment rules.⁵⁶ The Appellate Body in this case recognized that deciding on whether the products are in a competitive relationship may include the “inputs and processes of production used to produce the product,” but it did not explain this further.⁵⁷ It thus left open the possibility that PPM differences between products (one produced with less carbon and the other produced with more carbon) may lead to the conclusion that these products are not “like” each other under Article III. If so, that could help the viability of decarbonization measures under trade rules.

In 2016, the WTO’s Appellate Body ruled on the case *India—Certain Measures Relating to Solar Cells and Solar Modules* between the United States and India.⁵⁸ The Indian decarbonization policy in dispute—part of India’s National Solar Mission Strategy—was the use of long-term government purchase agreements with solar power developers to promote the generation of solar energy in the power grids. The program operated in phases to continuously increase grid-connected solar power capacity over the next 25 years. As part of the initial phases of the program, the government imposed local content requirements on some of the equipment used by solar power producers. India stated that the objective of the National Solar Mission was “to establish India as a global leader in solar energy, by creating the policy conditions for its diffusion across the country as quickly as possible.”⁵⁹

⁵⁶ There is a government procurement exception to national treatment requirements under Article III:8 (argued by Canada in this case).

⁵⁷ *Canada—Renewable Energy Measures*, *supra* note 54, ¶5.63.

⁵⁸ Appellate Body Report, *India—Certain Measures Relating to Solar Cells and Solar Modules*, WTO Doc. WT/DS456/AB/R (Sept. 16, 2016) [hereinafter *India—Solar Modules*]. The United States claimed violations of GATT Article III:4 and Article 2.1 of the TRIMS Agreement. Article 2.1 of TRIMS states that no trade-related investment measure shall violate Article III (national treatment) of GATT. Agreement on Trade-related Investment Measures, Apr. 15, 1994, art. 2.1, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1868 U.N.T.S. 186. On January 23, 2018, India requested the establishment of a compliance panel pursuant to Article 21.5 of the Dispute Settlement Understanding. ~~[Should this be Article 2.1?]~~

⁵⁹ *India—Solar Modules*, *supra* note 58, ¶1.2.

The Appellate Body followed *Canada—Certain Measures Affecting Renewable Energy* and held that the measure violated GATT. India attempted to defend its LCR under a different Article XX exception than those employed in previous trade and environment cases. Article XX(j) deals with those measures that are

essential to the acquisition or distribution of products in general or local short supply; *Provided* that any such measures shall be consistent with the principle that all contracting parties are entitled to an equitable share of the international supply of such products, and that any such measures, which are inconsistent with the other provisions of the Agreement shall be discontinued as soon as the conditions giving rise to them have ceased to exist.⁶⁰

This provision essentially allows an exception for local measures for the acquisition and distribution of products that are in short supply. The shortage should not be confined to a specific period of time, but rather a holistic approach should be taken in conjunction with the overall supply and demand of the product on the market over time.⁶¹ After detailed analysis of the Indian solar technology market, the Appellate Body held that India did not demonstrate that the solar cells or modules at issue in this case are “products in general or local short supply.”⁶²

As this book goes to press, a case in progress that merits close watching is *United States—Certain Measures Relating to the Renewable Energy Sector*.⁶³ India brought a dispute against the United States, claiming that several LCRs and other decarbonization measures in eight U.S. states violate GATT Article III and the SCM Agreement.⁶⁴ These measures are mostly in the form of state and local tax credits, rebates, and refunds for use of solar energy and/or biodiesel and ethanol. Many of them also include LCRs and/or incentives for using local content. The Michigan program being contested in this case established a renewable portfolio standard that requires Michigan utilities to obtain 10%

⁶⁰ GATT, *supra* note 21, art. XX(j).

⁶¹ *India—Solar Modules*, *supra* note 58, ¶5.70.

⁶² *Id.* ¶6.4.

⁶³ Request for the Establishment of a Panel by India, *United States—Certain Measures Relating to the Renewable Energy Sector*, WTO Doc. WT/DS/510/2 (Jan. 24, 2017). On March 21, 2017, the DSB established a panel. India is also claiming violations of Article 8 of TRIMS.

⁶⁴ *Id.*

of their electricity from renewable energy resources by 2015. Compliance can be obtained by purchasing renewable energy credits, and additional credits are available for using Michigan-produced equipment.⁶⁵

2. Recommendations Concerning LCRs

The foregoing analysis leads to the following recommendations.

First, U.S. decarbonization policies with LCRs will likely violate trade rules because of their discriminatory impacts on foreign-related imports as compared to U.S. produced ones. Therefore, state and local governments should avoid adopting decarbonization laws that contain LCRs. The trade rules can accommodate legitimate decarbonization efforts, even if they have some discriminatory impact, as long as they are not linked to LCRs intended to advantage domestic producers over foreign ones. If the U.S. government, state governments, or local governments seek to facilitate a transition toward cleaner industrial markets, they should adopt policies that apply evenly on domestic and foreign producers.

Second, if Congress, a state legislature, or a local government decides to adopt an LCR anyway, it could limit the LCR to government procurement. GATT Article III:8 contains an exception for products purchased for the use of government, consumed by government, or provided by government to recipients in the discharge of its public function.⁶⁶ While the exception was held inapplicable in *Canada—Certain Measures Affecting Renewable Energy* because the products in question (sale of electricity versus renewable energy equipment) were not in a competitive relationship,⁶⁷ a properly drafted LCR limited to government procurement could survive scrutiny under Article III. Adoption of such an LCR would likely be more defensible if it were tied to a broader state policy regarding decarbonization and protection of public health. State or local adoption of such an LCR might be even more defensible under Article III and Article XX if it were connected to federal legislation.

Third, as the U.S. government as well as state and local governments develop decarbonization laws and policies that contain LCRs, they should make every effort to

⁶⁵ *Id.*

⁶⁶ GATT, *supra* note 21, art. III:8.

⁶⁷ *Canada—Renewable Energy Measures*, *supra* note 54, ¶5.63.

ensure that they do not “constitute a means of arbitrary or unjustifiable discrimination” or a “disguised restriction on international trade.”⁶⁸

Fourth, as explained above, the federal government as well as state and local governments may be able to justify an otherwise unlawful LCR on the grounds that it satisfies one or more of the exceptions contained in Article XX(b), XX(g), or XX(a). In addition, it may be possible, under *India—Certain Measures Relating to Solar Cells and Solar Modules*, to justify certain laws under Article XX(j).

Article XX(j), used for the first time by India as a defense in *India—Solar Modules*, may be used to advocate for domestic policies, even if protectionist, intended to allow for the acquisition and distribution of products in short supply and intended, for example, for sustainable development. This is particularly true because of the many new and improved technologies and products that are required to decarbonize the economy. However, this provision cannot be used to discriminate against foreign producers of competitive relevant goods.

Several federal agencies involved in decarbonization policies could participate in this strategy, including the U.S. Departments of Energy, the Interior, State, Transportation, and the Environmental Protection Agency. Coordinated interagency strategies at the domestic level⁶⁹ are key to any decarbonization policy and would help demonstrate to an international trade dispute settlement body the public interest purpose of such strategies, even if they have some protectionist aspects. The longer the United States waits to develop particular markets for renewable energy technologies and products, however, the harder it will be to make the argument that these materials are in “short supply.” Countries like Germany, Spain, and China continue to develop solar panels, wind turbines, and other renewable energy products that are being sold on the global market.

If a government tried to justify an LCR based on a short supply argument that dependence on imports of necessary products makes it vulnerable to market risk, it would

⁶⁸ See GATT, *supra* note 21, art. XX.

⁶⁹ See Jody Freeman & Jim Rossi, *Agency Coordination in Shared Regulatory Space*, 125 HARV. L. REV. 1131 (2012).

have to prove that it is subject to specific risks because of that dependence.⁷⁰ In addition, a government attempting to justify an LCR based on the political challenges of passing decarbonization measures without LCRs or based on energy security would also need to demonstrate that otherwise trade-restrictive measures (such as export restrictions) were the only ones available to meet those policy objectives or that there were no less trade-restrictive measures available.⁷¹

Fifth, the U.S. Department of State should play a leadership role in working multilaterally to develop new agreements on environmental goods and services⁷² as well as on strategies that facilitate the development of cleaner markets. Such strategies may include subsidies but Member States should agree on the kinds of subsidies allowed, rather than leaving it to international institutions.

Finally, Congress and state legislatures should continue to use subsidies (preferably without LCRs) in the form of tax credits, accelerated depreciation, or cash grants, in combination with other incentives, to help create a market for renewable energy that would eventually drive down some of the production costs.

B. Border Tax Adjustments

Following adoption of the Kyoto Protocol, some regions, such as the EU, began implementing cap-and-trade schemes to address greenhouse gas emissions. In the United States, the Regional Greenhouse Gas Initiative was established as an active cap-and-trade program of nine northeastern and Atlantic states. California adopted a cap-and-trade

⁷⁰ See *India—Solar Modules*, *supra* note 58, ¶5.71. India attempted to make this argument from the perspective of a developing country but the Appellate Body, though recognizing the relevance of this, found that India had not proven any specific risks in this context.

⁷¹ *Id.* ¶¶5.72, 7.78-7.82.

⁷² Because of the strictness of the chapeau, many argue that the only way for WTO rules to accommodate decarbonization measures that may in fact have a discriminatory impact on imports is to address this issue multilaterally through an additional agreement. See, e.g., Alex Capri, *The Reborn TPP Proves That Multilateral Agreements Trump Bilateral Trade Deals Every Time*, FORBES, Nov. 15, 2017, <https://www.forbes.com/sites/alexcapri/2017/11/15/multilateral-agreements-are-better-than-bilateral-trade-deals-and-the-tpp-proves-it>; see ALSO GERMAN DEVELOPMENT INSTITUTE, BRIEFING PAPER NO. 19, THE GLOBAL REGULATORY FRAMEWORK FOR DECARBONISATION—3X3 STARTING POINTS FOR THE REFORM OF GLOBAL ECONOMIC GOVERNANCE (2015), https://www.die-gdi.de/uploads/media/BP_19.2015.pdf. For this reason, the WTO has begun negotiations on the Environmental Goods Agreement. This agreement would “eliminate tariffs on a number of important environment-related products,” including “products that can help achieve environmental and climate protection goals, such as generating clean and renewable energy [and] improving energy and resource efficiency.” WTO, *Environmental Goods Agreement (EGA)*, https://www.wto.org/english/tratop_e/envir_e/ega_e.htm (last visited May 1, 2018). Little progress has been made so far on such an agreement.

program, forming linkages later with Quebec and Ontario. In this context, BTAs can be used in conjunction with carbon taxes or with cap-and-trade systems to neutralize the competitive distortions that these policies may cause on domestically produced products. Put simply, importing countries can use border tariffs to level the playing field on products from other countries that do not have comparable climate policies (and related costs of compliance).⁷³

Under WTO rules, BTAs are not automatically considered to be prohibited export subsidies.⁷⁴ As long as these taxes comport with the SCM Agreement and the MFN and national treatment provisions of GATT, they may be viable options by Member States as part of their domestic climate change policies.

1. BTAs and GATT Article I

⁷³ As noted *supra* note 12, the Trump Administration did consider using BTAs as part of a plan to promote domestic production at the expense of competitive imports. This plan was suspended. *See* Oyedele, *supra* note 12.

⁷⁴ GATT Article VI:4 states:

No product of the territory of any contracting party imported into the territory of any other contracting party shall be subject to anti-dumping or countervailing duty by reason of the exemption of such product from duties or taxes borne by the like product when destined for consumption in the country of origin or exportation, or by reason of the refund of such duties or taxes.

GATT, *supra* note 21, art. VI:4. The SCM Agreement prohibits export subsidies and provides an illustrative list of these. If a BTA on exports is construed to be a prohibited subsidy, then a country's decision to place a BTA on exports could result in retaliation from another WTO Member affected by these measures. That other Member could then impose countervailing duties on the imported good. *See* SCM Agreement, *supra* note 18, art. 3.

Footnote 1 of the SCM Agreement states that “the exemption of an exported product from duties or taxes borne by the like product when destined for domestic consumption, or the remission of such duties or taxes in amounts not in excess of those which have accrued, shall not be deemed to be a subsidy.” *Id.* at 14 n.1. However, Annex I of the SCM Agreement provides examples of prohibited export subsidies, which include “[t]he exemption or remission, in respect of the production and distribution of exported products, of indirect taxes in excess of those levied in respect of the production and distribution of like products when sold for domestic consumption.” *Id.* annex I, para. (g). These exemptions are for those cumulative indirect taxes in the “prior-stage . . . on goods or services used in the production of like products when sold for domestic consumption.” However, Annex I of the SCM Agreement does allow “prior stage cumulative indirect taxes” if these are placed on “inputs that are consumed in the production of the exported product.” *Id.* annex I, para. (h). Annex II of the guidelines on consumption inputs in the production process (referred to by Annex 1) states that “inputs consumed in the production process” may include “energy, fuel, and oil used in the production process.” *Id.* annex II. It is unclear whether a carbon tax would be considered an allowable BTA. For more on this, see JOOST PAUWELYN, DUKE UNIVERSITY, WORKING PAPER NO. 07-02, U.S. FEDERAL CLIMATE POLICY AND COMPETITIVENESS CONCERNS: THE LIMITS AND OPTIONS OF INTERNATIONAL TRADE LAW 19 (2007), <https://nicholasinstitute.duke.edu/sites/default/files/publications/u.s.-federal-climate-policy-and-competitiveness-concerns-the-limits-and-options-of-international-trade-law-paper.pdf>.

A carbon tax is likely considered an indirect tax, and therefore adjustable; it would almost certainly pass muster under GATT.⁷⁵ (Carbon taxes are discussed in detail in Chapter 2 of this book.) But if the United States decides, as part of a carbon tax program, to apply a BTA on an imported product from Country A, which does not have a carbon dioxide emissions reduction program, but fails to impose the BTA on an otherwise identical product from Country B, which has such an emissions reduction program comparable to that in the United States,⁷⁶ Country A may claim that the United States has violated the MFN principle under GATT Article I. The United States is likely to be able to be successful in arguing that the products produced in Country A are not “like” those produced in Country B. For trade compliance purposes, the two products would have to be competitively substitutable. Although less clear, it appears that a BTA may also be used as an indirect tax for a PPM (an input not physically incorporated into the final product, such as carbon emissions).⁷⁷ This is an important issue because decarbonization policies such as carbon taxes go to the heart of ensuring that products are produced with fewer greenhouse gas emissions.⁷⁸

On the other hand, the United States is not likely to be able to ban specific products that result in certain levels of emissions, resulting in one country being more impacted than another. This would also raise MFN compliance concerns. In 2009, Europe amended its Fuel Quality Directive to reduce greenhouse gases on fuel and petrol products supplied for road transport. It also laid out sustainability criteria for biofuels,⁷⁹ and required a reporting of indirect land use impact in order to minimize negative impact. As part of this plan, in 2012, Europe proposed a “dirty oil” label for fuel products from oil sands because they are more carbon intensive than conventional oil. This would have

⁷⁵ See PAUWELYN, *supra* note 74, at 19 n.47.

⁷⁶ An increasing number of other countries do have such taxes. See WORLD BANK ET AL., STATE AND TRENDS OF CARBON PRICING 2017 (2017), https://openknowledge.worldbank.org/bitstream/handle/10986/28510/wb_report_171027.pdf.

⁷⁷ See *id.*

⁷⁸ One can argue that a 1987 GATT panel decision, *United States—Superfund*, appears to allow such BTAs. In that case, the panel upheld a U.S. tax on certain chemicals that also applied to imports using those same chemicals in their production, even though the chemicals may not have been present in the final product. As a result, BTAs appear to be appropriate for carbon taxes on not only products but also PPMs for those products. The issue remains contested. Panel Report on *United States—Taxes on Petroleum and Certain Imported Substances*, GATT B.I.S.D. (34th Supp.) at 136 (1987).

⁷⁹ See Council Directive 2009/30/EC, 2009 O.J. (L 140/88).

particularly affected Canada and Venezuela. Canada threatened to bring a WTO case against the EU, and the issue was a point of contention during the CETA negotiations.⁸⁰ The conflict finally dissolved, but in such a scenario an MFN violation claim would have been likely (claiming discrimination of “like products” based on origin).⁸¹ Any GATT Article I violation could possibly be justified under specific exceptions of GATT Article XX, but would need to pass muster under the strict chapeau.

2. BTAs under GATT Article III

BTAs on imports can also raise concerns under Article III of GATT. Basically, direct taxes on imports “in excess of” those placed on “like domestic products” could be in violation of GATT Article III:2. Under Article III:2, imports shall not be subject, “directly or indirectly, to internal taxes or other internal charges of any kind in excess of those applied, directly or indirectly, to like domestic product.”⁸² To prove a violation of Article III:2, a complaining party must show that: (1) the comparable goods are “like,” and (2) the measure in question is in place “so as to afford protection.”

The first question is: what constitutes “like” under these circumstances? As explained above, products could be treated as not “like” each other if one was produced differently because of a regulatory measure, especially one intended to protect health.⁸³ If, in fact, a BTA is in place to offset the competitive advantage to imports in the local market of a particular product due to, for example, a carbon tax on the emissions caused

⁸⁰ Yadullah Hussain, *Oilsands Dodge “Dirty” Label in European Union After Directive Made Official*, FIN. POST, Feb. 6, 2015, <http://business.financialpost.com/commodities/energy/oilsands-crude-will-no-longer-be-singled-out-by-eu-after-directive-made-official/>; see also Jason Fekete, *Canada Threatens Trade War With EU Ahead of Oil Sands Vote*, FIN. POST, Feb. 21, 2012, <http://business.financialpost.com/news/canada-threatens-trade-war-with-eu-ahead-of-oil-sands-vote>.

⁸¹ Noncompliance with the TBT Agreement might also have been claimed. Under the TBT Agreement, the focus would be on whether such a regulation is: (1) a technical regulation; and (2) discriminatory under the provisions of Articles 2.2 and 2.3. It is unlikely that GATT Article XX could be used to justify any violations under the TBT Agreement, as recent WTO case law has been hesitant to apply GATT provisions to the other WTO covered agreements. See, e.g., Appellate Body Report, *China—Measures Related to the Exportation of Rare Earths, Tungsten, and Molybdenum*, WTO Docs. WT/DS431/AB/R, WT/DS432/AB/R, WT/DS433/AB/R (Aug. 7, 2014) (adopted Aug. 29, 2014) [hereinafter *China—Rare Earths*] (discussing the “systemic relationship” among the WTO agreements, specifically the applicability of GATT Article XX to other covered agreements).

⁸² GATT, *supra* note 21, art. III:2, sentence 1. In addition, Article III:1 states that taxes may not be applied “so as to afford protection to domestic production.”

⁸³ See Appellate Body Report, *European Communities—Measures Affecting Asbestos and Asbestos-containing Products*, WTO Doc. WT/DS135/AB/R (Mar. 12, 2001). Note that this case dealt with GATT Article III:4 since the measure was non-fiscal.

in the production of such product, then the goods may be regarded as “unlike.”

A BTA may also survive scrutiny under the second element—that the measure is in place “so as to afford protection.” A mere “detrimental effect” may not amount to discrimination as long as “the detrimental effect is explained by factors or circumstances unrelated to the foreign origin of the product.”⁸⁴ This latter element requires consideration of the overall design, purpose, and architecture of the measure.⁸⁵ If the BTA is simply intended to level the competitive playing field, the protectionist argument against the BTA becomes a good deal more difficult.

3. BTAs and GATT Article XX

As discussed earlier, under GATT Article XX(b), “necessity” of the measure would need to be shown; under Article XX(g), a substantial connection of the measure to the overall conservation policy would be needed. A BTA that is applied in the same way to a domestic good and a “like” import would comply under national treatment requirements of Article III; and therefore, would not need to be justified under Article XX. However, if there is an Article III violation then the respondent would need to show under Article XX(b) that such a measure is necessary; that is, that there is no less restrictive alternate measure available.

In the *Brazil—Tyres* case, the WTO Appellate Body was willing to consider the need for countries to have “a comprehensive policy comprising a multiplicity of interacting measures” when it comes to health and environmental problems.⁸⁶ It read Article XX(b) broadly and it even mentioned climate change.⁸⁷ It stated that a demonstration of “necessity” included a showing that the measure makes a “material contribution to the achievement of its objective.” This showing can be made by submitting relevant data or evidence, though it clarified that quantitative evidence is not

⁸⁴ Appellate Body Report, *Dominican Republic—Measures Affecting the Importation and Internal Sale of Cigarettes*, WTO Doc. WT/DS302/AB/R (Apr. 25, 2005).

⁸⁵ Horn & Mavroidis, *supra* note 10, at 1917; *see also* Appellate Body Report, *Japan—Taxes on Alcoholic Beverages*, WTO Docs. WT/DS8/AB/R, WT/DS10/AB/R, WT/DS11/AB/R (Oct. 4, 1996).

⁸⁶ *Brazil—Tyres*, *supra* note 33, ¶151.

⁸⁷ ROBERT HOWSE, INTERNATIONAL INSTITUTE FOR SUSTAINABLE DEVELOPMENT, CLIMATE MITIGATION SUBSIDIES AND THE WTO LEGAL FRAMEWORK: A POLICY ANALYSIS 18 (2010), https://www.iisd.org/pdf/2009/bali_2_copenhagen_subsidies_legal.pdf.

the only way.⁸⁸ The Appellate Body stated the following, showing a willingness to accept strong measures if the objective is environmental protection:

Thus, a panel might conclude that an import ban is necessary on the basis of a demonstration that the import ban at issue is apt to produce a material contribution to the achievement of its objective. This demonstration could consist of quantitative projections in the future, or qualitative reasoning based on a set of hypotheses that are tested and supported by sufficient evidence.⁸⁹

Under Article XX(g), such a tax would need to be shown as substantially “related to” an overall decarbonization policy that has, as its primary aim, the conservation of an exhaustible natural resource.⁹⁰ In *United States—Gasoline*, the panel, not the Appellate Body, concluded that clean air is an exhaustible natural resource under Article XX(g).⁹¹ Therefore, it is plausible that BTA measures tied to policies reducing carbon emissions could fall within the parameters of Article XX(g).⁹² However, such measures should avoid placing too high of a burden on foreign producers and consumers as compared to domestic ones.⁹³

Finally, even if a BTA is justified under one of the provisions of Article XX, it must not be found to be an arbitrary or unjustifiable discrimination or a disguised restriction on trade. The focus is on the evenhandedness of the application of the

⁸⁸ *Brazil—Tyres*, *supra* note 33, ¶151.

⁸⁹ *Id.*

⁹⁰ GATT, *supra* note 21, art. XX(g).

⁹¹ *United States—Gasoline*, *supra* note 36, ¶6.37.

⁹² In line with *United States—Shrimp*, the Appellate Body in *China—Rare Earths* clarified that the respondent would need to show that the measure, which in the latter case was not a tax but rather an export restriction, had a substantial connection to conservation. The focus would be on the overall structure and design of the measure and its connection to conservation. *See China—Rare Earths*, *supra* note 81.

⁹³ Such measures work best when they are “made effective in conjunction with” restrictions on domestic production or consumption. As per *United States—Gasoline*, an evenhandedness of the application of the measure is embodied in Article XX(g) but not a separate element of analysis, as clarified in *China—Rare Earths*. Though a showing of an even distribution of burden on domestic producers or consumers and on foreign ones is not required, the Appellate Body is likely to be more cautious when the burden on foreign producers and consumers is too high as compared to domestic ones. *See Elizabeth Trujillo, China—Measures Related to the Exportation of Rare Earths, Tungsten, and Molybdenum*, 109 AM. J. INT’L L. 616 (2015).

measure⁹⁴ and on discrimination “where the same conditions prevail” rather than on the trade effects themselves.⁹⁵

4. BTAs and the SCM

BTAs on exports can also raise concerns under GATT subsidy rules, including the SCM Agreement, depending on whether they are direct or indirect taxes.⁹⁶ Indirect taxes are more likely to be adjusted and allowed, according to the *United States Tax Legislation (DISC)* GATT case, which allowed tax exemptions for some corporations based on export earnings, concluding that they amounted to export subsidies.⁹⁷ In addition, tax exemptions or rebates on exports, even if in excess of internal taxes on like imported products, could be construed as export subsidies and allowable as long as they meet the requirements under the SCM Agreement.⁹⁸ In other words, if these taxes comport with the “destination principle,” they are more likely to comply with the SCM Agreement.⁹⁹ It is important to note that U.S. subsidies for fossil fuel exploration and production were an estimated \$20.5 billion annually as of October 2017.¹⁰⁰

5. Recommendations for BTAs

This analysis leads to the following recommendations.

First, Congress should include BTAs in a comprehensive carbon tax or other broad climate change policy. Carbon pricing schemes combined with domestic compensation schemes, intended to level the playing field between imports and exports

⁹⁴ Horn & Mavroidis, *supra* note 10, at 1922. See *United States—Gasoline*, *supra* note 36; *Brazil—Tyres*, *supra* note 33.

⁹⁵ See *Brazil—Tyres*, *supra* note 33; *United States—Shrimp*, *supra* note 25.

⁹⁶ For more discussion on indirect and direct BTAs, see Javier de Cendra, *Can Emissions Trading Schemes Be Coupled With Border Tax Adjustments? An Analysis Vis-à-vis WTO Law*, 15 REV. EUR. COMP. & INT’L ENVTL. L. 131 (2006).

⁹⁷ See Panel Report, *United States—Income Tax Legislation (DISC)*, GATT B.I.S.D. (23d Supp.) at 98 (1977).

⁹⁸ See also GATT, *supra* note 21, art. VI(4). In addition to providing an illustrative list of possible prohibited export subsidies, Annex I of the SCM Agreement does allow “prior stage cumulative indirect taxes” if these are placed on “inputs that are consumed in the production of the exported product.” See SCM Agreement, *supra* note 18, annex I, para. (h).

⁹⁹ See BTA Report, *supra* note 11.

¹⁰⁰ See Oil Change International, *Fossil Fuel Subsidies: Overview*, <http://priceofoil.org/fossil-fuel-subsidies/> (last visited May 1, 2018); see also Alisa Barba, *IE Questions: How Does the Government Subsidize Oil and Gas?*, INSIDE ENERGY, Nov. 4, 2016, <http://insideenergy.org/2016/11/04/ie-questions-how-does-the-government-subsidize-oil-and-gas/>.

(rather than advantage exports over imports) may be more viable under trade rules.¹⁰¹ These may include top-down regulatory approaches that involve government procurement programs such as requiring zero-emission materials, FIT schemes, consumption taxes on the use of higher emitting fuels, and energy subsidies intended to reach upstream producers.¹⁰² For trade purposes, the United States could, for example, place tariffs against all coal imports as long as domestic coal is similarly taxed, as part of a regime disincentivizing the use of all coal (and not coal from any particular country).¹⁰³ Linking a BTA to a broader decarbonization strategy rooted in industrial policy could also enhance the likelihood of legislative support.¹⁰⁴

Second, Congress should use carbon-based BTAs to address leakage concerns.¹⁰⁵ A border tax that is in the form of an indirect tax that is tied to inputs that are consumed in the production of the exported product could work in conjunction with a carbon tax.

Third, Congress should eliminate subsidies for coal producers. If a BTA is allowed on fossil fuels, for example, even if it is done in conjunction with a carbon tax on domestic fossil fuel production, but subsidies remain for domestic coal producers,¹⁰⁶ the overall impact of such a carbon tax becomes a wash and the imports will be more disadvantaged which would create a violation under trade rules.¹⁰⁷

Fourth, in considering possible GATT challenges, Congress and federal regulators should avoid unilateral measures that distinguish between domestic goods and services from “like” imports unless they can show that these goods and services are not

¹⁰¹ See Max Åhman et al., *Global Climate Policy and Deep Decarbonization of Energy-intensive Industries*, 17 CLIMATE POL’Y 634, 645 (2017).

¹⁰² *Id.*

¹⁰³ Jeffrey Frankel, *Climate and Trade: Links Between the Kyoto Protocol and WTO*, 47 ENV’T: SCI. & POL’Y SUSTAINABLE DEV. 8, 16 (2005).

¹⁰⁴ See HOWSE, *supra* note 87, at 19.

¹⁰⁵ Horn & Mavroidis, *supra* note 10, at 1928; see also Kelly, *supra* note 13.

¹⁰⁶ WILLIAM WATSON ET AL., U.S. ENERGY INFORMATION ADMINISTRATION, U.S. COAL SUPPLY AND DEMAND: 2010 YEAR IN REVIEW (2011), <https://www.eia.gov/coal/review/pdf/feature10.pdf>. *But see* U.S. Energy Information Administration, *In 2015, Coal Production, Consumption, and Employment Fell by More Than 10%*, TODAY IN ENERGY, Nov. 10, 2016, <https://www.eia.gov/todayinenergy/detail.php?id=28732>.

¹⁰⁷ See, e.g., Press Release, OECD, OECD and IEA Recommend Reforming Fossil-Fuel Subsidies to Improve the Economy and the Environment (Apr. 10, 2011), <http://www.oecd.org/newsroom/oecdandiearecommendreformingfossil-fuelsubsidiestoimprovetheeconomyandtheenvironment.htm>.

competitively substitutable. In general, such unilateral measures are vulnerable under Article III, especially as they relate to PPMs. While one might argue that a good produced with low greenhouse gas emissions may be “unlike” one produced with more emissions, there is stronger ground if the policymakers can show that the consumer is aware of the purpose of such policy when attached to the production of a good. In other words, policymakers should consider whether a consumer: (1) knows of the cleaner production method for a good when he or she purchases the good; and (2) considers this fact is important enough to sway his or her purchasing behavior. This would go to the competitive substitutability criteria under Article III.

Fifth, the best way to address the issue of leakage is through multilateral cooperation, where nations and the WTO could find a common solution for dealing with PPMs and with the use of BTAs as part of domestic climate change policies. However, it is also one of the most politically difficult issues on which to reach multilateral consensus.¹⁰⁸ For this reason, rather than leaving the resolution of these issues to the WTO DSB and multilateral stagnation, the U.S. Department of State should play a lead role in addressing BTAs and other decarbonization strategies within the negotiation phase of preferential trade agreements, particularly regional and plurilateral agreements.

C. FITs

From recent WTO disputes, FIT programs that include LCRs do not pass muster under GATT rules. However, it is less clear whether FITs without LCRs may in fact be viable under trade law. The main question would be whether such arrangements would constitute allowable subsidies under the SCM Agreement. Also, it would be relevant whether FITs would be justified under GATT Article XX, assuming that Article XX would apply at all in the case of a subsidy, which is an unsettled issue in WTO jurisprudence.¹⁰⁹

Regarding the SCM Agreement, the first relevant legal issue would be whether a specific FIT program amounts to a “financial contribution by a government or any public

¹⁰⁸ Since 2014, 46 WTO Members have been negotiating the Environmental Goods Agreement. Nothing has yet been finalized. *See* WTO, *supra* note 72.

¹⁰⁹ *See* MARIE WILKE, INTERNATIONAL CENTRE FOR TRADE AND SUSTAINABLE DEVELOPMENT, ISSUE PAPER NO. 4, FEED-IN TARIFFS FOR RENEWABLE ENERGY AND WTO SUBSIDY RULES: AN INITIAL LEGAL REVIEW 19-21 (2011) (discussing the possible applicability of Articles XX(b) and XX(g)), <https://www.ictsd.org/downloads/2011/11/feed-in-tariffs-for-renewable-energy-and-wto-subsidy-rules.pdf>.

body. . . .”¹¹⁰ The second issue is whether such “financial contribution” amounts to “a benefit is conferred.” The first issue turns on the question of what constitutes a “public body,” especially if the government directs a private entity to execute the program or to do so while also paying for the program, as in the case of the German FIT program.¹¹¹ In a “hybrid” scenario, as has been used in the United Kingdom (U.K.), the management of the program is by the government, through a licensing structure, but the accreditation and costs are shared among network providers.¹¹² In both the U.K. and German examples, there are no LCRs.

If the program is found to be by a government under the SCM Agreement, then the question is whether a benefit is conferred, as will be discussed in the WTO *Canada—Certain Measures Affecting Renewable Energy* case below. Finally, even if the FIT program is found to be a subsidy, it is not necessarily a prohibited subsidy.¹¹³ In order to determine whether such a program is instead an actionable subsidy, an assessment of its “adverse affects” on another country must be made.¹¹⁴

1. Relevant WTO case law

In *Canada—Certain Measures Affecting Renewable Energy*, Japan alleged that the Ontario FIT program constituted a prohibited subsidy under the SCM Agreement because it provided that the alleged benefit conferred was “contingent . . . upon the use of domestic over imported goods.”¹¹⁵ The Appellate Body found that the FIT program could

¹¹⁰ See SCM Agreement, *supra* note 18, art. 1.

¹¹¹ See WILKE, *supra* note 109, at 6. In the German case, the German government instructed electricity network operators to purchase all renewable energy at a minimum price, in line with a broader climate change mitigation policy. The funding is private, as costs are divided among electricity network providers without public funding. *See id.*

¹¹² *See id.* (discussing the U.K. “hybrid” approach).

¹¹³ See SCM Agreement, *supra* note 18, art. 3.

¹¹⁴ In determining if an actionable subsidy has adverse effects on another country, it must be specific—that is, accessible to a particular enterprise or industry or groups of enterprises or industries. *See id.* art. 5. Furthermore, adverse effects include: (1) an “injury to the domestic industry of another member,” (2) the “nullification or impairment of benefits accruing directly or indirectly to other members,” or (3) a “serious prejudice to the interests of another member.” *See id.* arts. 5 & 6. This includes considering the design of the subsidy and the effects on the other country’s economy, considering the strength of the affected industry in that country. If adverse effects are found, the country must take measures to relieve the adverse effects, but not necessarily eliminate the subsidy in question as in the case of a prohibited subsidy. *See id.* arts. 4.7 & 7.8; *see, e.g.*, Appellate Body Report, *United States—Subsidies on Upland Cotton*, WTO Doc. WT/DS267/AB/R (Mar. 3, 2005).

¹¹⁵ *Canada—Renewable Energy Measures*, *supra* note 54.

be a benefit conferred by the government,¹¹⁶ but that Japan did not prove that there was a financial contribution under the SCM.¹¹⁷ The Appellate Body had difficulty finding the correct market benchmark to decide whether there was a true financial contribution, given that the renewable energy market is new and that consumers turning on an electric switch do not recognize the difference between renewable electricity and higher polluting electricity.

In essence, the Appellate Body decided to leave for another day the analysis of the extent to which the SCM Agreement may apply to such programs. In doing so, it also took the opportunity to state that trade agreements should not prevent governments from developing economic incentives to create new markets. This is especially true, the Appellate Body said, when such markets, like the renewable energy market, would not otherwise exist or would be smaller because of the expensive startup costs for producers.¹¹⁸ The Appellate Body thus left enough open questions to allow Member States to use subsidies as a policy tool to transition the energy markets and address the startup costs for producers.

2. Recommendations for FITs

The following recommendations seem appropriate for FITs.

First, the U.S. government as well as state governments should consider FITs as long as they comply with applicable trade rules. There is no concrete decision at the WTO regarding the viability of FIT programs per se; however, as explained above, it is clear that those containing LCRs will likely not pass muster under trade rules, unless they can come under an exception for government procurement under Article III:8 or GATT Article XX. In not deciding whether the Ontario FIT program constituted a subsidy under the SCM Agreement, the WTO DSB seemed to allow room for governments to structure such programs in ways that will comply with both GATT and the SCM Agreement, especially if they are part of a comprehensive climate change mitigation policy. FIT programs that have minimal government involvement, are part of a comprehensive

¹¹⁶ See Appellate Body Report, *Canada--Measures Affecting the Export of Civilian Aircraft*, ¶ 157, WT/DS70/AB/R (Aug. 2, 1999) (stating that “the marketplace provides an appropriate basis for comparison in determining whether a ‘benefit has been conferred’”).

¹¹⁷ *Id.* at ¶159-161; see SCM Agreement, *supra* note 18, art. 1.1(a)(1).

¹¹⁸ *Canada—Renewable Energy Measures*, *supra* note 54, ¶5.185.

decarbonization plan, and defer to private entities to manage and fund them would likely do better under trade rules.

Second, as part of the negotiations for a multilateral agreement on environmental goods and services, the U.S. Department of State should take a lead role in advocating clarifications to trade rules to more clearly allow FIT programs. The State Department should advocate for defining the applicability of the SCM Agreement when it comes to FIT programs and other domestic decarbonization policies intended to create new markets in renewable energy. The State Department should also advocate clarifying the applicability of GATT Article XX in this context.

D. Eco-labeling

1. Use of eco-labeling for decarbonization

Eco-labeling could be a significant U.S. approach to decarbonization. An eco-label identifies a product's impact on the environment based on its life cycle, providing this information for consumers. Though eco-labeling programs may consist of both public and private schemes, they are most often used in combination with market-driven voluntary regulation, relying on consumer preferences rather than on command-and-control regulation.

Many eco-labeling schemes turn to the international global standards of the International Organization for Standardization (ISO) and the Global Ecolabelling Network for guidance.¹¹⁹ The ISO 14000 series environmental standards help set up eco-labeling criteria for organizations operating eco-labeling schemes for private

¹¹⁹ Such eco-labels that use ISO and Global Ecolabelling Network include: Good Environmental Choice Australia; Biogarantie and Ecogarantie (Belgium); Qualidade Ambiental (Brazil); California Certified Organic Farmers; Canada Organic; Huan (China); Eco-management and Audit Scheme (EU); Green Label (Hong Kong); Eco-mark (Japan); Ecoleaf (Japan); carboNZero (New Zealand); Vitality Leaf (Russia); Singapore Green Labelling Scheme (Singapore); E-mark (South Korea); Green Mark (Taiwan); Green Seal (United States). Many countries, including the United States, have multiple eco-labels, some referring to ISO but others with unknown resources or other private resources for guidance, such as ISEAL Code of Good Practice for Setting Social and Environmental Standards. The Global Ecolabelling Network operates eco-labeling schemes globally. See generally Global Ecolabelling Network, *Homepage*, <https://globalecolabelling.net> (last visited May 1, 2018). See also ISO, ENVIRONMENTAL LABELS AND DECLARATIONS: HOW ISO STANDARDS HELP (2012), <https://www.iso.org/files/live/sites/isoorg/files/archive/pdf/en/environmental-labelling.pdf>. For more information on eco-labeling as a transnational regulatory norm, see generally Elizabeth Trujillo, *Regulatory Cooperation in International Trade and Its Transformative Effects on Executive Power*, 25 IND. J. GLOBAL LEGAL STUD. (forthcoming 2018) [hereinafter Trujillo, *Regulatory Cooperation*], https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3123353.

industries,¹²⁰ standardizing the practices for different voluntary environmental labeling types. Eco-labeling schemes may also follow national standards, though WTO jurisprudence generally favors those that comport with international standards. The German Blue Angel label has had success in this respect. This label was established and is monitored by the German government—specifically the German Federal Environment Agency, which monitors changes in consumer behavior as a result of the label and uses this information to improve requirements and test methods for products. Yet this label also comports with international standards under ISO and the Global Ecolabelling Network.¹²¹ With respect to trade rules, eco-labeling would come under the TBT Agreement discussed earlier in this chapter. Eco-labeling schemes could regulate PPMs and would be subject to the nondiscrimination rules of the TBT Agreement.

2. Recommendations for eco-labeling

The following recommendations would likely ensure the conformity of decarbonization labeling laws under the TBT. They do not affect private labeling requirements unless those labeling requirements are subsequently written into governmental requirements.

First, Congress and states should structure decarbonization labeling schemes so as not to discriminate against foreign imports. They can do that by requiring that “like” foreign and domestic products are subject to the same labeling requirements. They can also do that by embedding the labeling requirements in a comprehensive decarbonization policy that is clearly linked to health or climate change mitigation. The 2018 WTO panel decision on tobacco labeling found that the use of labels informing consumers of health risks connected to smoking is viable under the TBT, opening the door for similar labels in the future; including, arguably, those relating to PPMs intended to mitigate for climate change impacts.¹²²

¹²⁰ See, e.g., Global Ecolabelling Network, *supra* note 119.

¹²¹ Blue Angel is also reviewed and adapted according to new scientific information and needs, and it follows ISO 14020, 14021, 14022, and 14025. See Blue Angel, *Our Label for the Environment*, <https://www.blauer-engel.de/en/our-label-environment> (last visited May 1, 2018). The Blue Angel label was actually the model for the international standard ISO 14020, which is the standard by which many new global environmental standards have been developed.

¹²² See *Australia-Certain Measures Concerning Trademarks, Geographical Indications, and Other Plain Packaging Requirements Applicable to Tobacco Products and Packaging*, WTO Doc., WT/DS435/R, WT/DS441/R, WT/DS458/R, WT/DS467/R (Adopted June 28, 2018), https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds434_e.htm. See also, Bryce Baschuk,

Second, Congress and states should consider incorporation into their laws any relevant internationally applied decarbonization labeling standards or requirements. That would reduce the likelihood that they would be considered discriminatory. This is particularly true if the international standards were based on an international or multilateral agreement on climate change mitigation or on environmental goods.

Finally, the U.S. Department of State should take a lead role in negotiating multilateral agreements concerning climate change that include decarbonization labeling standards. Preferential trade agreements increasingly contain provisions encouraging labeling schemes as market-driven, voluntary forms of regulation.¹²³ The U.S. Trade Representative (USTR) could continue this trend in future preferential trade agreements where labeling schemes may be easier to incorporate, in accordance with international standards, than through the multilateral framework.

V. Deep Decarbonization in Preferential Trade Agreements

Despite an increased willingness by the WTO DSB to consider the legitimacy of domestic environmental regulations under trade law and the relevance of international environmental agreements, critics have argued that international trade regimes create important obstacles to the ability of countries to pass effective regulation for environmental protection.¹²⁴ It is challenging for policymakers in the environment and in trade to formulate decarbonization policies because the goals and even vocabularies of their respective legal frameworks are quite different. For example, an environmental

WTO Tobacco Ruling Opens Door to New Plain Packaging Laws, Bloomberg, June 28, 2018, <https://www.bloomberg.com/news/articles/2018-06-28/wto-tobacco-ruling-opens-door-to-new-plain-packaging-laws>.

¹²³ See, e.g., United States-Colombia Trade Promotion Agreement, *supra* note 20; United States-Peru Trade Promotion Agreement, *supra* note 20.

¹²⁴ See, e.g., OECD, OECD KEY ENVIRONMENTAL INDICATORS (2008), <https://www.oecd.org/env/indicators-modelling-outlooks/37551205.pdf>; JAAP VAN WOERDEN, UNITED NATIONS ENVIRONMENT PROGRAMME & INTERNATIONAL INSTITUTE FOR SUSTAINABLE DEVELOPMENT, IEA TRAINING MANUAL: A TRAINING MANUAL ON INTEGRATED ENVIRONMENTAL ASSESSMENT AND REPORTING—TRAINING MODULE 4: MONITORING, DATA, AND INDICATORS 26 (discussion of “Indicators”), <http://wedocs.unep.org/bitstream/handle/20.500.11822/11297/module-4.pdf>; SIERRA CLUB, TRADING AWAY OUR CLIMATE? HOW INVESTMENT RULES THREATEN THE ENVIRONMENT AND CLIMATE PROTECTION, <https://www.sierraclub.org/sites/www.sierraclub.org/files/uploads-wysiwig/Investor-State-Climat-FINAL.pdf>; see also James E. Bailey, *Free Trade and the Environment: Can NAFTA Reconcile the Irreconcilable*, 8 AM. U. J. INT’L L. & POL’Y 839 (1993); Robert F. Blomquist, *Against Sustainable Development Grand Theory: A Plea for Pragmatism in Resolving Disputes Involving International Trade and the Environment*, 29 VT. L. REV. 733 (2005). But see Jeffrey Frankel & Andrew K. Rose, *Is Trade Good or Bad for the Environment? Sorting Out the Causality*, 87 REV. ECON. & STAT. 85 (2005).

lawyer may ask: what can international trade do to help achieve a genuine 80% U.S. reduction in greenhouse gas emissions? By contrast, a trade policymaker may ask: how can government pass decarbonization policies that do not violate trade rules? These fundamentally varying approaches towards climate change mitigation have been at the heart of the trade and environment debate for decades.

Most traditional trade provisions were not designed to assist local efforts to protect the environment; they were designed to liberalize trade and to discipline governments from passing regulations that would protect domestic industry at the expense of fostering free trade. Despite this, WTO Appellate Body decisions have exhibited an increasing willingness to take into account the legitimacy of environmental protection regulations by its Member States. However, the usual judicial tools available to accommodate regulatory policy—treaty interpretation, amicus curiae briefs in WTO cases, and the like—have limitations given the political balance necessary for such a large number of Member States.¹²⁵

The preamble to the 1994 Marrakesh Agreement, which created the WTO, attempts to reconcile these two approaches through the conceptual framework of sustainable development. The UN Sustainable Development Goals conceive sustainable development to include ecologically sustainable human development; therefore, development and environmental protection are furthered at the same time rather than acting as opposing forces. The 1987 Brundtland Commission report defined sustainable development by emphasizing the importance of meeting the needs of the present generation without compromising the ability of future generations to meet their own needs.¹²⁶ Perhaps one of the most groundbreaking efforts in this regard has been the 2012 *Inclusive Green Growth* report by the World Bank, which attempts to reframe the definition of development to include a framework for measuring the preservation of natural capital for future generations.¹²⁷ The Marrakesh preamble captures this point by

¹²⁵ See Trujillo, *Dialogical Approach*, *supra* note 26 (discussing judicial dialogue between trade and environmental norms through treaty interpretation, the incorporation of amicus curiae briefs, and judicial restraint).

¹²⁶ WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, OUR COMMON FUTURE 43 (1987).

¹²⁷ See WORLD BANK, INCLUSIVE GREEN GROWTH: THE PATHWAY TO SUSTAINABLE DEVELOPMENT (2012), http://siteresources.worldbank.org/EXTSDNET/Resources/Inclusive_Green_Growth_May_2012.pdf.

stating that Parties engaged in international trade should allow “for the optimal use of the world’s resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment and to enhance the means for doing so in a manner consistent with their respective needs and concerns at different levels of economic development.”¹²⁸ Though this debate between trade and environment continues in the context of domestic decarbonization efforts to incentivize investment in “greener” markets, such as renewable energy, clean or “green” energy is one area where the two camps should find common ground.¹²⁹ This common ground can and should be employed in future trade agreements.

One means to overcome the seemingly inevitable tension between DDPP and WTO law is through trade agreements negotiated outside of the multilateral trade framework—in particular, through the regulatory cooperation strategies found in regional and plurilateral trade agreements.¹³⁰ Already some U.S. bilateral agreements, like United States-Peru¹³¹ and United States-Colombia,¹³² contain sustainability provisions that have not been seen before in trade agreements. These regional agreements can include side agreements specifically addressing environmental protection efforts, carving out a safe harbor for certain types of measures.

This section explores ways in which new trade agreements may bring together regulators and trade policymakers to negotiate provisions that allow for more policy space that would in turn help foster, or at least not hinder, the development of U.S. decarbonization policies.¹³³ It summarizes relevant provisions in NAFTA, the TPP, and the CETA. It then makes recommendations for the NAFTA renegotiation and for regulatory cooperation in preferential trade agreements.

¹²⁸ Marrakesh Agreement Establishing the World Trade Organization, Apr. 15, 1994, preamble, 108 Stat. 4809, 1867 U.N.T.S. 154, 154.

¹²⁹ See ELIZABETH TRUJILLO, REFRAMING THE TRADE AND ENVIRONMENT LINKAGE FOR SUSTAINABLE DEVELOPMENT (forthcoming 2018) (proposing that clean energy is at the forefront of reconciling trade and environment).

¹³⁰ See Trujillo, *Regulatory Cooperation*, *supra* note 119 (discussing the trend of regulatory cooperation in international trade and the pros and cons of this trend from a multilateral and regional perspective).

¹³¹ United States-Peru Trade Promotion Agreement, *supra* note 20, ch. 18.

¹³² United States-Colombia Trade Promotion Agreement, *supra* note 20, ch. 18.

¹³³ See Trujillo, *Regulatory Cooperation*, *supra* note 119.

As this book goes to press, U.S. policy toward international trade and climate change agreements is unfriendly at best, given the Trump Administration's decisions to back out of the TPP, renegotiate NAFTA, and withdraw from the Paris Climate Agreement. Furthermore, recent increase of U.S. tariffs on products from countries that are not only WTO members but long-time allies of the U.S. blurs U.S. trade policy moving forward.¹³⁴ Given this scenario, it is unlikely that the U.S. will enter into new regional trade agreements during the current Trump administration. Still, it is worth examining the opportunities that are available to the United States, most likely in a post-Trump presidency.

A. NAFTA

NAFTA affirmed the existing rights and obligations of Parties to GATT, incorporating specific provisions of GATT, such as the GATT national treatment provision for market access of goods.¹³⁵ Interestingly, the NAFTA chapter on sanitary and phytosanitary (SPS) measures, which deals with safety and health standards for food, animals, and plant products, also recognizes, in part, the obligations and rights of GATT on the Parties. It nonetheless specifically excludes GATT national treatment obligations and provisions of Article XX(b) of GATT.¹³⁶ It also allows Parties to have more restrictive SPS measures than international standards.¹³⁷ The NAFTA SPS chapter also recognizes a precautionary principle, for a limited time, when the science is uncertain around a measure.¹³⁸

These allowances in NAFTA reflected the concern at the time by environmental and health interest groups in the United States that environmental and safety standards

¹³⁴ See Heather Long, *Trump has Officially Put More Tariffs on U.S. Allies than on China*, WASHINGTON POST, May 31, 2018, https://www.washingtonpost.com/news/wonk/wp/2018/05/31/trump-has-officially-put-more-tariffs-on-u-s-allies-than-on-china/?noredirect=on&utm_term=.5f0222d39c33; *The Trump Administration Imposes Tariffs on America's Closest Allies*, THE ECONOMIST, June 1, 2018, <https://www.economist.com/finance-and-economics/2018/06/01/the-trump-administration-imposes-tariffs-on-americas-closest-allies> (June 1, 2018). See also, Bill Chappell, *China Files Complaint Over U.S. Tariffs on \$200 Billion of Imports*, July 16, 2018, <https://www.npr.org/2018/07/16/629390937/china-files-wto-complaint-over-u-s-tariff-on-200-billion-of-imports>.

¹³⁵ See North American Free Trade Agreement, Dec. 17, 1992, art. 301, 107 Stat. 2057, 32 I.L.M. 289, 605.

¹³⁶ See *id.* art. 710.

¹³⁷ See *id.* art. 713(2), (3).

¹³⁸ See *id.* art. 712(4).

would lead to a race to the bottom as a result of trade, especially because of different standards in Mexico.¹³⁹ It was also the first U.S. regional agreement of its kind.

The United States and Canada, through their trading relationship, as with Mexico, have put into place various standard-setting frameworks to reach some equivalence in their standards. An important area of mutual interest to the United States and Canada is Canadian hydropower. Canadian electricity comes mostly from nuclear or hydropower, so it is much cleaner on average than U.S. electricity. Canada's extensive electricity grid allows it to share electricity with U.S. northern border states. Though most of the U.S. Canadian power comes in the form of hydropower exported from the Canadian provinces of Quebec, Ontario, Manitoba, and British Columbia, the export amount is low due to antiquated transmission lines.¹⁴⁰ However, states like Massachusetts and New York look to Canadian hydropower as a source for incorporating cleaner energy sources into their own electricity grids.¹⁴¹ Canada also imports power from the United States.

As of 2010, the United States established separate regulatory cooperation councils with Canada and Mexico, consisting of regulatory, trade, and foreign affairs officials. They function as transnational regulatory platforms to work on issues of regulatory convergence in specific areas of interest for the United States and Canada and the United States and Mexico.¹⁴² This trend of regulatory cooperation in preferential trade agreements would continue into the TPP negotiations and the CETA discussed below.¹⁴³

B. The TPP

¹³⁹ *But see* JAGDISH BHAGWATI, IN DEFENSE OF GLOBALIZATION 135 (2007) (finding that concerns of an environmental race to the bottom were not as dramatic as a result of free trade as originally anticipated).

¹⁴⁰ *See* Stéphane Bordeleau, *Where Canada's Surplus Energy Goes*, CBC, Mar. 30, 2011, <http://www.cbc.ca/news/canada/where-canada-s-surplus-energy-goes-1.1109321>.

¹⁴¹ *See* DOUG VINE, CENTER FOR CLIMATE AND ENERGY SOLUTIONS, INTERCONNECTED: CANADIAN AND U.S. ELECTRICITY (2017), <https://www.c2es.org/site/assets/uploads/2017/05/canada-interconnected.pdf>.

¹⁴² UNITED STATES-MEXICO REGULATORY COOPERATION COUNCIL, PROGRESS REPORT TO LEADERS 3 (2013), <https://www.trade.gov/hlrc/> (select "HLRCC—Progress Report—August 2013" link); *see* CANADA DEPARTMENT OF NATURAL RESOURCES & U.S. DEPARTMENT OF TRANSPORTATION, U.S.-CANADA REGULATORY COOPERATION COUNCIL REGULATORY PARTNERSHIP STATEMENT 2, <https://www.trade.gov/rcc/documents/j-rps-nrcan-dot-phmsa-rps.pdf>.

¹⁴³ *See generally* Trujillo, *Regulatory Cooperation*, *supra* note 119 (discussing the trend of transnational regulatory cooperation in recent preferential trade agreements).

The current status of the TPP is unclear with respect to the non-U.S. participants; however, the Trump Administration pulled out of the signed TPP in January 2017.¹⁴⁴ Since many of its provisions are being considered during the NAFTA renegotiations and will likely be used in future U.S. trade agreements, it is worth examining some of the work done by TPP negotiators as we consider possibilities for future trade agreements creating policy space for the United States to pass effective and trade-compliant decarbonization policies.

Though there was not a chapter on energy in TPP prior to the Trump Administration decision to pull out, there were several provisions that related to energy production and sale of energy products. Unlike NAFTA, which established a separate side agreement on the environment, the TPP incorporated environmental issues into its Chapter 20. Chapter 20 established as one of TPP’s objectives the improvement of environmental protection “in the furtherance of sustainable development.” It also recognized the sovereign right of Parties to establish their own environmental regulations.¹⁴⁵ In addition, the Parties reaffirmed their commitment to comply with multilateral environment agreements to which they may be Parties, and “the need to enhance the mutual supportiveness between trade and environmental law and policies. . . .”¹⁴⁶

Article 20.15 specifically addressed the transition to a “low emissions and resilient economy.”¹⁴⁷ It was a short provision, not creating any binding commitments, but recognizing that Parties would cooperate to address areas of common interest in this transition, including in the ways in which they pass domestic policies to encourage the development of “clean and renewable resources” in addition to other strategies.¹⁴⁸ The list included, but was not limited to “energy efficiency; development of cost-effective, low emissions technologies and alternative, clean and renewable energy sources;

¹⁴⁴ See S.A. Miller, *Donald Trump Keeps Campaign Promise to Abandon Trans-Pacific Partnership*, WASH. TIMES, Jan. 23, 2017, <http://www.washingtontimes.com/news/2017/jan/23/trump-pull-out-trans-pacific-partnership/>.

¹⁴⁵ Trans-Pacific Partnership Agreement, Feb. 4, 2016, art. 20.3(1), (2), , <https://ustr.gov/trade-agreements/free-trade-agreements/trans-pacific-partnership/tpp-full-text>.

¹⁴⁶ *Id.*

¹⁴⁷ *Id.*

¹⁴⁸ *Id.* art. 20.15(2).

sustainable transport and sustainable urban infrastructure development; addressing deforestation and forest degradation; emissions monitoring; market and nonmarket mechanisms; low emissions, resilient development and sharing of information and experiences in addressing this issue.”¹⁴⁹ Parties would also cooperate in capacity-building initiatives. Finally, this chapter recognized the importance of environmental goods and services, and the need for cooperation in this regard. Environmental goods and services could, of course, include energy products and services.¹⁵⁰

The TPP signified an important step for U.S. trade policymakers regarding the need to create more policy space for decarbonization policies within trade. In particular, Article 20.15, which specifically addressed the transition to a “low emissions and resilient economy” and the encouragement of the development of clean and renewable energy sources, demonstrated a willingness by relevant countries to move forward towards reconciling trade and environmental goals. However, for trade to better serve these efforts, more must be done both regionally and multilaterally.

C. *The CETA*

The CETA, which provisionally entered into force in 2017, has taken the largest step in reconciling the trade and environmental camps. Though its chapter on the environment does not contain a precautionary principle *per se*, it does recognize that the lack of full scientific evidence will not be a reason for not protecting the environment.¹⁵¹ The CETA contains a separate chapter on trade and sustainable development, which includes two subchapters on trade and labor and trade and environment (as part of sustainable development). The CETA’s chapter on the environment recognizes commitments under several multilateral environmental agreements. The chapter on regulatory cooperation

¹⁴⁹ *Id.*

¹⁵⁰ *Id.* art. 20.18.

¹⁵¹ CETA, *supra* note 20, art. 24.8(2) (“The Parties acknowledge that where there are threats of serious or irreversible damage, the lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”). The EU has recognized a precautionary principle. CETA entered into force on September 21, 2017. *See* European Commission, *EU-Canada Comprehensive Economic and Trade Agreement (CETA)*, <http://ec.europa.eu/trade/policy/in-focus/ceta/> (last updated Mar. 28, 2018).

explicitly recognizes a right to regulate,¹⁵² which is a good indication of Canadian priorities in its future trade agreements, including a revised NAFTA.

Considering the European public concern that such trade agreements could lower regulatory standards, it is not surprising that the CETA would make regulatory cooperation a priority. The explicit recognition of multilateral environmental agreements, a more precautionary approach, and sustainable development goals as part of trade goals as written in the CETA are important steps in reconciling trade and environmental goals, especially in the context of decarbonization efforts at the national level.

D. Recommendations

1. Recommendations for NAFTA renegotiations

As the NAFTA Parties renegotiate NAFTA, there are opportunities for not only updating trade provisions but also incorporating issues around decarbonization and climate change mitigation, especially as connected to clean energy strategies. What follows are several recommendations for employing the NAFTA renegotiation to help foster decarbonization.¹⁵³

First, USTR should advocate not only ways of increasing the electricity trading relationship between the United States and Canada, but also of improving the transnational grid in ways that allow for increased two-way flow of cleaner energy sources. Trade provisions that incorporate provisions on energy, though, will likely also include the production of natural gas because of the strong natural gas production in Canada, the United States, and Mexico, especially as a result of hydraulic fracturing and shale gas production in the Gulf of Mexico. This seems counterproductive with decarbonization goals and the DDPP does not assume increased production of natural

¹⁵² See CETA, *supra* note 20, art. 24.3 (right to regulate). Canada is more likely to ask for right-to-regulate provisions in the revised NAFTA as well as more concessions regarding climate change mitigation efforts, since it remains a Member of the Paris Climate Agreement, and on hydropower trade with the United States. See SIMON LESTER ET AL., CATO INSTITUTE, WORKING PAPER NO. 46, RENEGOTIATING NAFTA IN THE ERA OF TRUMP: KEEPING THE TRADE LIBERALIZATION IN AND THE PROTECTIONISM OUT 7 (2017) (stating “[t]he TPP and CETA provisions could be a good source of inspiration for improved NAFTA dispute rules”), <https://object.cato.org/sites/cato.org/files/pubs/pdf/working-paper-46-update-4.pdf>.

¹⁵³ For U.S. priorities in the NAFTA renegotiations, see The Office of the United States Trade Representative, SUMMARY OF OBJECTIVES FOR NAFTA RENEGOTIATION, July 17, 2017, <https://ustr.gov/sites/default/files/files/Press/Releases/NAFTAObjectives.pdf>. Many of these priorities concern, among other items, tariffs, rules of origin, dispute settlement resolution, intellectual property, and the protection of U.S. production.

gas. Politically, though, it is unlikely that a broader U.S. energy policy moving forward that also includes a cross-border clean energy plan could survive with only the development of more renewable energy opportunities; therefore, to the extent that trade agreements incorporate energy provisions, they will likely also include provisions regarding natural gas production in addition to other cleaner sources of energy.

Second, USTR should frame clean energy efforts in NAFTA as part of U.S. decarbonization efforts, especially when coupled with energy production as also being a source of creating new markets and local jobs. That is highly likely to be the way that both Canada and Mexico frame their own decarbonization efforts in NAFTA. After the CETA, Canada will likely introduce different priorities to NAFTA, including a right-to-regulate provision and provisions that allow it to domestically increase its decarbonization efforts in order to comply with the stronger sustainable development provisions in the CETA. This could be an opportunity, under a U.S. administration receptive to increasing decarbonization strategies, to incorporate stronger environmental protection provisions in a revised NAFTA, which includes not only regulatory cooperation on decarbonization efforts, but also clean energy strategies. Furthermore, the TPP-11 (the 11 countries in the TPP without the United States), now called the Comprehensive and Progressive Agreement for the Trans-Pacific Partnership (which includes Mexico and Canada), will likely move forward and will influence Canada's and Mexico's priorities in the NAFTA renegotiations as well.¹⁵⁴

Finally, the U.S. State Department should recognize that as long as the United States is no longer at the trade negotiations table for preferential trade agreements like TPP-11 or participating in the Paris Climate Agreement, other countries, including U.S. trading partners, continue to move forward on clean energy strategies in these agreements.¹⁵⁵ This allows those countries to foster stronger economic ties with each

¹⁵⁴ See *NAFTA Negotiators Close Fifth Round, Prepare to Set Stage for 2018 Talks*, 21 BRIDGES WKLY. 1, 3 (2017) (discussing the NAFTA renegotiations in the context of the TPP-11), <https://www.ictsd.org/sites/default/files/review/bridgesweekly21-39.pdf>.

¹⁵⁵ See e.g. EU-Japan Economic Partnership Agreement, July 6, 2018, (incorporates provisions on environmental protection and sustainable development, including provisions addressing climate change mitigation). See EU Commission Fact Sheet, [http://europa.eu/rapid/press-release MEMO-18-3326_en.htm](http://europa.eu/rapid/press-release_MEMO-18-3326_en.htm) (last visited July 18, 2018). Alaana Petroff and Ivana Kottasova, *EU and Japan sign trade*

other, leaving the U.S. more isolated in these areas, and to establish the groundwork on decarbonization strategies on which they can agree.

2. Recommendations for other preferential trade agreements

In developing and negotiating future preferential trade agreements, the following recommendations seem appropriate.

First, the U.S. Department of State and USTR, on one hand, and the U.S. Department of Energy and other federal agencies, on the other, should further a consistent (preferably federal) decarbonization strategy tied to climate change mitigation. One of the expectations of the TPP was that it would increase U.S. export of liquefied gas to Japan, as Japan was one of the signatories of the TPP and is transitioning away from nuclear energy.¹⁵⁶ While political concessions must be made in order to conclude preferential trade agreements, provisions that on the one hand promote renewables and on the other increase natural gas production are at odds with reducing U.S. greenhouse gas emissions by 80% by 2050.

Through regulatory cooperation in the negotiating of preferential trade agreements, the U.S. State Department and USTR, in conjunction with agency experts in the Department of Energy, Environmental Protection Agency, and Department of Transportation, for example, could work together to incorporate decarbonization strategies into these trade agreements. These agreements would also set up regulatory councils and/or committees to continue to work transnationally on creating future regulations that do not violate trade rules and further decarbonization strategies. This, of course, requires domestic interagency coordination¹⁵⁷ and an administration that is willing to recognize the link between trade liberalization and the need for decarbonization efforts as part of a broader climate change mitigation policy.

Second, in drafting new preferential trade agreements, USTR should consider lessons that can be learned from the structure of the CETA. Linking the sustainability

deal covering a third of the world's economy, CNN Money, July 17, 2018,

<https://money.cnn.com/2018/07/17/news/economy/eu-japan-trade-deal/index.html>.

see also <https://www.ft.com/content/bd100de0-89b2-11e8-b18d-0181731a0340>

¹⁵⁶ See TOM CUTLER, NATIONAL BUREAU OF ASIAN RESEARCH, *THE TRANS-PACIFIC PARTNERSHIP AS A PATHWAY FOR U.S. ENERGY EXPORTS TO JAPAN* (2015),

http://nbr.org/downloads/pdfs/eta/ES_essay_cutler_012815.pdf.

¹⁵⁷ See Freeman & Rossi, *supra* note 79 (discussing the challenges of interagency coordination).

chapters to environmental and labor issues as well as to regulatory cooperation could lead to more ambitious trade policies that promote national decarbonization goals, while allowing for more transnational regulatory coordination.¹⁵⁸

VI. Conclusion

While trade rules may create obstacles for domestic regulatory initiatives for climate change mitigation and decarbonization, they can also provide opportunities for the United States to use trade as a means of assisting in the transition from high-emission economies towards low-emission ones. In this way, trade can provide a catalyst for bringing together regulators, civil society, business, and energy industries to help shape domestic decarbonization policies that meet climate mitigation goals and create new markets that can bring jobs, without restricting trade liberalization. The key is in finding ways to reconcile these various interests that also are politically palatable to domestic constituents and consumers.

In U.S. efforts to decarbonize, priorities must be balanced so that trade liberalization does not outweigh the importance of climate change mitigation. Workable solutions may be best found through coordination among regulators and trade policymakers on a national, transnational, and global scale.

¹⁵⁸ See CETA, *supra* note 20, art. 22.1 (recognizing the importance of linking trade-related labor and environmental issues as part of a “global approach to trade and sustainable development”).