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BEFORE THE OFFICE OF THE UNITED STATES TRADE REPRESENTATIVE

PETITION FOR RELIEF UNDER SECTION 301 OF THE TRADE ACT OF 1974, AS AMENDED

CHINA'S POLICIES AFFECTING TRADE AND INVESTMENT IN GREEN TECHNOLOGY

ON BEHALF OF

THE UNITED STEEL, PAPER AND FORESTRY, RUBBER, MANUFACTURING, ENERGY, ALLIED INDUSTRIAL AND SERVICE WORKERS INTERNATIONAL UNION, AFL-CIO CLC (USW)

VOL. 1 OF 9: PETITION AND EXHIBITS SECTION I

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I. INTRODUCTION

This petition is submitted pursuant to section 302(a) of the Trade Act of 1974, as amended ("the Act"), and it requests that action be taken under section 301(a) of the Act to address the violations of WTO obligations assumed by the People's Republic of China upon its accession to the WTO on the matters described below. The petition contains information required by regulation reasonably available to the petitioner. *See* 15 C.F.R. § 2006.1(a) and (b)(1).

Executive Summary

> "China is not waiting to revamp its economy. Germany is not waiting. India is not waiting. These nations – they're not standing still. These nations aren't playing for second place .... They're making serious investments in clean energy because they want those jobs. Well, I do not accept second place for the United States of America .... the nation that leads the clean energy economy will be the nation that leads the global economy. And America must be that nation."
>
> – President Barack Obama
> State of the Union Address, Jan. 27, 2010

China employs a wide range of policies to stimulate and protect its domestic producers of green technology, from wind and solar energy products to advanced batteries and energy-efficient vehicles. These policies have permitted China to become the dominant global supplier of a number of green technologies, drained manufacturing investment from the U.S. to China,

transferred valuable technology and research and development activities to China, cost American workers the high-skilled green jobs of the future, and increased the U.S. trade deficit.

- China is now the leading global producer of solar panels, accounting for 30 percent of all global production in 2009.
- China doubled its wind power capacity in 2009, and has now begun exporting complete wind turbines to the U.S. and other countries.
- China required U.S. suppliers of nuclear and hydropower equipment to government projects to license technology and partner with local manufacturers – now those Chinese manufacturers dominate the global hydropower market and are rising fast in nuclear as well.
- China is already exporting energy-efficient vehicles to Europe, Asia, and Latin America, and is predicted to lead the European market by 2020.
- China makes more than 75% of all compact fluorescent light bulbs in the world.

In the race to become the nation that leads the clean energy economy, China has used numerous unfair and discriminatory policies to leapfrog over the U.S. A number of these practices are direct violations of the obligations China undertook when it joined the World Trade Organization ("WTO"). Other policies are subject to challenge at the WTO if they cause serious prejudice to U.S. industries and workers and thus deny benefits accruing to the U.S. under the WTO agreements. A successful WTO challenge to these practices would require China to either reform its policies to bring them into compliance with WTO rules or to face retaliation for its unfair practices.

This petition covers five categories of China's green technology polices that violate WTO rules.

1) Restrictions on Access to Critical Materials. Dozens of vital green technologies – solar panels, wind turbines, advanced batteries, energy efficient lighting, and more – depend on critical raw materials derived from rare earth elements and other minerals. China produces more than 90 percent of the world's supply of these minerals, and it uses a variety of means to restrict

exports of these materials to users in the U.S. and other countries. These restrictions raise prices for manufacturers outside of China, lower prices for those within the country, and create a powerful incentive to shift production to China in order to secure necessary supplies. These export restrictions are a clear violation of China's WTO commitments. The U.S., Europe, and Mexico are already challenging similar restrictions on a separate set of critical materials at the WTO, and restrictions on rare earths and other green technology minerals should receive the same priority.

2) Prohibited Subsidies Contingent on Export or Domestic Content. WTO rules prohibit China from granting subsidies that are contingent on export performance or on the use of domestic over imported goods. This petition describes subsidies for wind turbine manufacturing and the development of other advanced green technology products that violate these rules. In addition, this petition demonstrates that China's export credits and export credit insurance programs for green technology are prohibited export subsidies. China's exporters benefit from concessional loans and guarantees that dwarf those provided by other countries – in fact, in 2008 China's ExIm Bank lent more than the export credit agencies of all G7 countries combined. Because China refuses to play by the rules that prevent other countries from engaging in a race to the bottom in the export credit arena, it can freely undercut and outbid U.S. exporters of green technology products around the world.

3) Discrimination Against Foreign Firms and Goods. The Chinese government bids out the construction of wind farms and solar power plants to competing firms, and grants the winners concessions and the right to guaranteed power purchases by government-owned utilities. Despite a commitment to eliminate domestic content requirements for wind farm concessions, China's policies still state that approval of such projects will be based in part on the portion of

wind power equipment that is manufactured domestically. Recent reports indicate similar domestic content requirements are part of the bidding requirements for new solar plants as well. In the solar sector, the first U.S. firm granted the right to build a solar power plant in China agreed to be subject to conditions that it "localize" its supply chain in China, including for its advanced thin film solar cell technology. China's laws also explicitly discriminate against foreign bidders, and no foreign firms have ever won a major wind farm concession in China, despite highly competitive offers. In addition, China prohibits foreign firms from getting international emissions credits for clean development projects (which are often key to their financial viability), unless the foreign company allows a Chinese partner to own a majority of the venture. Supply and joint venture agreements between foreign investors and state-owned entities in China also appear to contain localization requirements. This type of discrimination violates China's WTO obligations, including specific commitments made in its Protocol of Accession.

4) Technology Transfer Requirements for Investors. When China joined the WTO, it committed not to require that foreign companies transfer technology as a condition of investment approvals. China's laws state that transfer of advanced technology should be included in foreign joint venture agreements, and they give the government the right to approve or reject such agreements. In practice, foreign firms' investment agreements with state-owned partners or state financiers invariably contain requirements to transfer technology. Leading green technology corporations, including GE and Siemens AG, have begun to complain publicly about this "technology for market" strategy. In one 2009 example, Evergreen Solar, a U.S. company, had difficulty raising funds to open a plant in China, and so it entered into a joint venture agreement (backed by provincial government funding) that requires Evergreen to license solar wafer

technology to the new venture. As a result, Evergreen is now shifting panel production from its Massachusetts facility to China.

5) Trade-Distorting Domestic Subsidies. China offers a broad range of subsidies to producers of green technologies, including in the solar, wind, biomass, geothermal, hydropower, nuclear, advanced battery, alternative vehicle, and energy-efficient consumer products sectors. China's subsidies in these areas are so enormous that they are distorting trade and harming producers in other countries. In its economic stimulus package, for example, China gave more than $216 billion to subsidize green technologies – more than twice as much as the U.S. spent in the sector and nearly half of the total "green" stimulus spent worldwide. These massive government subsidies are helping Chinese producers ramp up production, seize market share, drive down prices, and put global competitors out of business. U.S. companies and firms have suffered the consequences of these massive subsidies as their exports are displaced, domestic market share erodes, prices plummet, and jobs are lost. WTO rules give the U.S. the right to challenge such subsidies to cease the severe competitive harm they are causing.

In combination, these policies have helped propel China to the forefront of the global green economy, while U.S. firms and workers still struggle to develop a robust green technology supply chain here at home. These policies have helped China acquire foreign investment, technology, and expertise, while restricting foreign access to its raw materials and its market. China has massively subsidized domestic production and Chinese exports, while discriminating against imports and foreign companies.

These policies have already been allowed to persist for far too long. The opportunity to develop and grow a new industry does not come along twice. Unless China's policies are urgently addressed, the U.S. may never get a fair shot at making the green technologies of the

future. This petition gives the Administration the information and arguments it needs to bring a strong WTO challenge against China's unfair trade policies in this vital sector. Only when China's unfair policies are eliminated or reformed can American workers and businesses hope to pursue the President's goal of making our nation a true leader in the global clean energy economy.

A. The Petitioner

This petition is filed on behalf of the United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union, AFL-CIO CLC ("USW"). The USW is an interested party with significant interests affected by China's policies affecting trade and investment in green technology within the meaning of the statute and regulations governing this petition.

The statute states that the term "interested persons," includes, but is not limited to, domestic workers "that may be affected by actions taken under" Section 301 of the Trade Act of 1974, as amended ("Section 301").[1] USTR's regulations further define an interested person as any party who "has a significant interest affected by the act, policy or practice complained of," in a petition, including a "union or group of workers which is representative of an industry" that produces in the United States a product affected by the act, policy or practice complained of.[2]

The USW is an interested person whose interests are affected by China's policies on green technology trade and investment. As described in more detail below, China's policies have displaced U.S. exports of green technology products, increased China's own exports of such products both to the U.S. and third country markets, raised world prices of key inputs to the production of green technology, undercut world prices for green technology end products, and

[1] 19 U.S.C. §2411(d)(9).

[2] 15 C.F.R. § 2006.0(b).

caused U.S. companies to shift investment, production, and technology from the United States to China. The products affected by these policies include end products and upstream inputs in the wind, solar, biomass, geothermal, hydroelectric, clean coal, nuclear, energy-efficient vehicles, and lighting sectors.

The USW is America's largest manufacturing union, representing more than 850,000 workers in a wide array of sectors. The USW represents workers in the production of steel that is used in wind towers and masts, biomass and geothermal boilers, hydroelectirc turbines, coal gasification equipment, nuclear reactors, and vehicles. The USW also represents workers who produce the glass, fiber optics, and semiconductors used in solar panels and energy-efficient lighting. The USW represents workers producing the gears, valves, fittings, pipes, pumps, compressors, engines and blowers, turbines, power transmission equipment, automotive parts, and other parts and machinery used in broad array of green technology applications. A list of some of the facilities where USW members produce green technology products and inputs to such products is attached at **Business Confidential Exhibit I-1**.[3] The jobs of these USW members are directly impacted by China's policies on green technology. When U.S. producers lose sales to their Chinese competitors, cannot access critical inputs, are undercut by subsidized prices, and face an onslaught of unfair Chinese product at home and abroad, it is USW members that lose jobs, wages, and benefits as a result.

In addition to the workers USW already represents in industries affected by China's policies, the USW's interest in representing new members in the green technology sector is directly affected by China's policies. The USW believes that green technology is the industry of the future for America's manufacturing workers. The "green jobs" that will be generated in the

[3] The USW has requested confidential treatment for the information contained in **Business Confidential Exhibit I-1** pursuant to 15 C.F.R. § 2006.15(b). The certification required by 15 C.F.R. §2006.15(b) is attached at **Exhibit I-2**.

sector will be the highly skilled, productive, well-paid jobs that we need to sustain and grow our manufacturing base and our middle class here in the United States. The USW has dedicated significant time, resources, and political capital to the fight to create sound renewable energy policies in this country, not only because it is the right approach as a matter of environmental policy, but because it is essential as a matter of economic policy and job creation. However, if China's unfair policies in this sector are allowed to persist, much of the gain American workers hope to reap from such advances will be lost. To the extent China's policies are preventing investment in new facilities, products, and technology in the U.S. that would otherwise occur, they are robbing U.S. workers of future job opportunities. This directly affects the significant interests of the USW in organizing and representing such workers.

For all of these reasons, the USW is an interested party under the statute and under USTR's regulations.

B. U.S. Rights that Have Been Violated and Denied

Section 301 requires USTR to "take action" against an "act, policy, or practice" of a foreign country that, *inter alia*, "violates, or is inconsistent with, the provisions of, or otherwise denies benefits to the United States under, any trade agreement."[4] USTR is also required to take action if it determines that "the rights of the United States under any trade agreement are being denied."[5] Pursuant to Section 301(a), USTR, subject to the specific direction, if any, of the President, shall "enforce such rights" or "obtain the elimination of such act, policy, or practice."[6]

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[4] 19 U.S.C. § 2411(a)(1)(B)(i).

[5] 19 U.S.C. § 2411(a)(1)(A).

[6] 19 U.S.C. § 2411(a)(1) and (c).

This petition describes an array of policies maintained by China that violate China's WTO commitments, deny the rights of the U.S. under the WTO agreements, and otherwise deny benefits to the U.S. under such agreements.

- Section II, below, describes export restraints on critical inputs to green technology end products that are inconsistent with Article XI of the General Agreement on Tariffs and Trade of 1994 ("GATT 1994") and Section 11 of China's Protocol of Accession to the WTO.

- Section III describes subsidies that are contingent in law on export performance, and thus violate Articles 3.1(a) and 3.2 of the WTO Agreement on Subsidies and Countervailing Measures ("SCM Agreement"). The section also describes subsidies that are contingent in law on the use of domestic over imported goods, which violates Articles 3.1(b) and 3.2 of the SCM Agreement.

- Section IV describes measures taken by the Government of China that accord imported goods treatment less favorable than domestic goods, in violation of Article III:4 of the GATT 1994. The section describes government measures that discriminate against foreign enterprises, in violation of Paragraph 3(a) of China's Protocol of Accession to the WTO.

- Section V describes performance requirements that China imposes on foreign investors, which require the transfer of technology as a condition of investment approvals or of agreements with state-owned enterprises. These requirements violate Paragraph 7.3 of China's Protocol of Accession to the WTO.

- Section VI describes subsidies that are specific to green technology producers within China that are causing serious prejudice to the interests of the United States. Such subsidies are actionable under Articles 5 and 6 of the SCM Agreement, and they deny benefits to the United States within the meaning of Section 301(a)(1)(B)(i).

C. Laws and Regulations that are the Subject of this Petition

A complete list of the laws, regulations, and policies that are the subject of this Petition is attached at **Exhibit I-3**. For each law, regulation, or policy, the list identifies the exhibit or exhibits herein where a copy of the law, regulation, or policy is provided. Where, despite best efforts, it has not been possible to obtain a copy of a law, policy, or regulation challenged in this petition, we provide a citation with as much particularity as possible, as well as an identification of exhibits herein containing secondary information regarding such laws, policies, or regulations.

D. Foreign Country that Is the Subject of this Petition

This petition addresses the acts, policies, and practices of the People's Republic of China.

E. Products Covered by this Petition

The products that are the subject of this petition are green technology products used to produce renewable energy or reduce the emissions associated with the production and use of energy. These are the products necessary to produce energy from wind, solar, biomass, geothermal, hydro, and nuclear resources, products to enable the production of energy from coal with fewer greenhouse gas emissions, and products that consume less energy or alternative sources of energy, such as energy-efficient vehicles and energy-efficient lighting.

The products covered by this petition are not, in many cases, classified in discrete and dedicated categories within the harmonized system. An HTS category, even at the ten-digit level, may include some products that can be used in green technology applications and others that are not suitable for such applications. Various institutions and organizations are working on identifying green or environmental technologies within the standard harmonized categories. The World Bank has identified a list of forty-three six-digit HS codes that contain green technologies. That list is attached at **Exhibit I-4**. Members of the WTO have also proposed a number of HTS categories that contain goods of interest for sectoral negotiations regarding environmental goods and services. That list is attached at **Exhibit I-5**. Senator Ron Wyden (D-OR), has also worked with the U.S. International Trade Commission to identify environmental goods within the U.S. HTS. His report on the effort is attached at **Exhibit I-6**.

In addition, as indicated in Section I.A, above, there are a wide range of upstream inputs to green technology products that are affected by China's unfair and discriminatory policies. A list of HTS categories containing such inputs is attached at **Exhibit I-7**.

F. Burden or Restriction on U.S. Commerce

This petition demonstrates that the rights of the United States under WTO agreements are being denied by China's policies affecting green technology trade and investment, and it further demonstrates that such policies violate, are inconsistent with, and/or deny benefits to the United States under such agreements. Section 301(a)(1)(A) and (a)(1)(B)(ii) mandate that USTR take action if it determines that such violations have occurred, and it does not require petitioner to demonstrate that such policies also burden or restrict U.S. commerce in order for action to be taken. USTR's regulations do, however, require all petitions to provide information concerning the degree to which the denial of U.S. rights burdens or restricts U.S. commerce, the volume of trade involved, and the methodology used to calculate the burden or restriction. *See* 15 C.F.R. § 2006.1(a)(7). That information is provided below.

The policies complained of in this petition have significant impacts on U.S. commerce, affecting tens of billions of dollars of trade and investment. The policies involve hundreds of billions of dollars of subsidies to green technology by the Government of China, including $216 billion in stimulus funding for green technology, and $174 billion in export credits and $99 billion in export credit insurance for an array of products, including green technology. The policies described herein have stimulated massive growth in China's annual exports of green technology, which reached $4 billion to the U.S. alone in 2009.[7] China's policies have also displaced U.S. exports to China and to third country markets – affecting trade flows that reached $16 billion in 2009. The U.S. trade deficit with China in green technology has grown dramatically since 2001, and reached $2.7 billion in 2009, accounting for nearly half of the total U.S. deficit in the sector. In addition, China's export restraints on rare earths, antimony, and

[7] *See* U.S. Import and Export Statistics for Green Technology **(Exhibit I-8)**.

tungsten have constrained supplies of these critical inputs to U.S. producers of green technology. Volumes of supply have dropped since 2001, while prices have nearly doubled, affecting $124 million in U.S. imports in 2009.

The direct impacts on import and export volumes are but a small subset of the burden China's policies impose on U.S. commerce. They do not reflect the loss of investment, production, and R&D in the United States that has resulted from companies' decision to shift activities to China in response to China's discriminatory and restrictive practices. Nor do they reflect the loss in potential new opportunities in expanding markets at home and abroad, as well as the loss of new investment and the development of new products and technologies due to China's policies in the sector.

At the outset, it is important to note that the difficulty in providing any precise quantification of the burden on commerce imposed by China's practices in the green technology sector due to a lack of consistent information regarding demand and production trends in a number of green technology product areas, as well as a lack of uniformity in the classification of green technology products within the harmonized system. A recent report released by Senator Ron Wyden (D-OR), prepared in collaboration with staff from the U.S. International Trade Commission, estimates that the U.S. trade deficit in environmental goods grew from $3.6 to $3.9 billion from 2007 to 2009, with much steeper increases in some individual categories.[8] China is listed as a top import source for many of the products examined in the report.[9]

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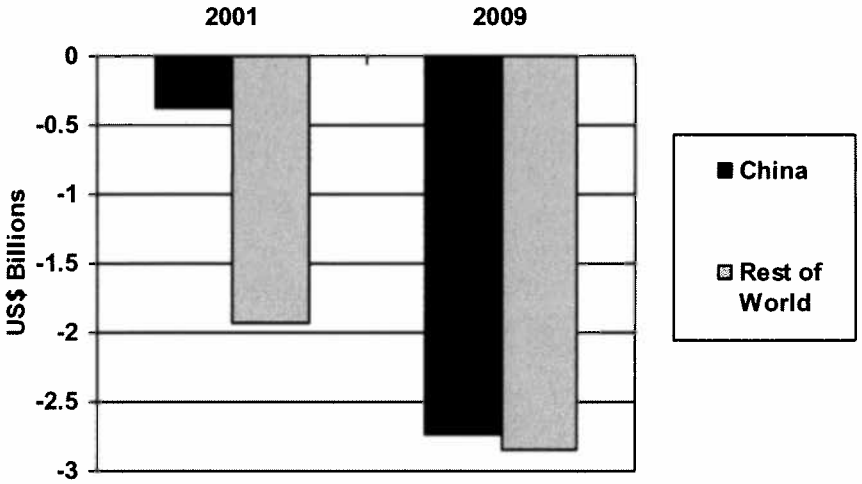
[8] *See* Senator Ron Wyden, U.S. TRADE IN ENVIRONMENTAL GOODS: FOLLOW-UP REPORT TO MAJOR OPPORTUNITIES AND CHALLENGES TO U.S. EXPORTS OF ENVIRONMENTAL GOODS (May 20, 2010) at 15-16 **(Exhibit I-6)**.

[9] *See id.* at 18-19.

Using a broader definition of environmental goods, the data show that China accounted for nearly half of the U.S. trade deficit in the sector in 2009 – or a full $2.7 billion.[10] Since 2001, the U.S. trade deficit in environmental goods with the world has more than doubled. The U.S. trade deficit with China in the sector grew more than three times as fast: by 2009, our trade deficit with China in environmental goods was more than seven times higher than it was in 2001, when China joined the WTO. In 2001, China accounted for 16 percent of our trade deficit in the sector – by 2009, China accounted for nearly half of the U.S. deficit.

U.S. Trade Deficit in Environmental Goods

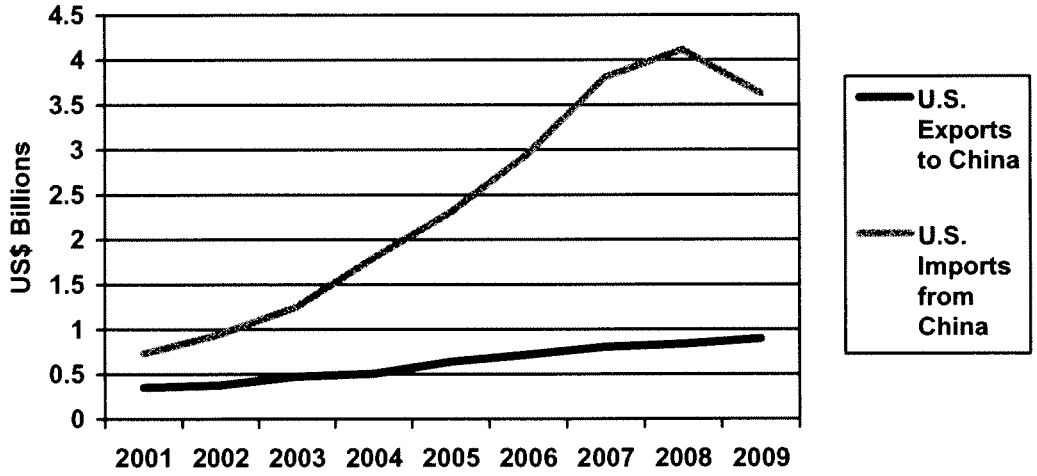


The trade deficit with China in this segment is particularly lopsided. While the U.S. imports about $1.19 of environmental goods to the rest of the world for each dollar it exports (a proportion that has stayed relatively steady since 2001), the U.S. imports more than four dollars of environmental goods from China for each dollar it exports to China. This imbalance has deteriorated sharply since 2001, when the U.S. imported only two dollars worth of such goods

[10] U.S. Import and Export Statistics for Green Technology **(Exhibit I-8)**. Environmental goods include each of the 43 six-digit HS categories containing environmental goods that have been identified by the World Bank and used in the Wyden report. Since the methodology used in the Wyden report to narrow the products included within each six-digit HS category were not disclosed, this data relies on all imports and exports within the six-digit category.

from China for each dollar of exports to China. This is due to the fact that U.S. imports from China have grown more than twice as fast as U.S. exports to China since China joined the WTO.

U.S. Trade in Environmental Goods with China

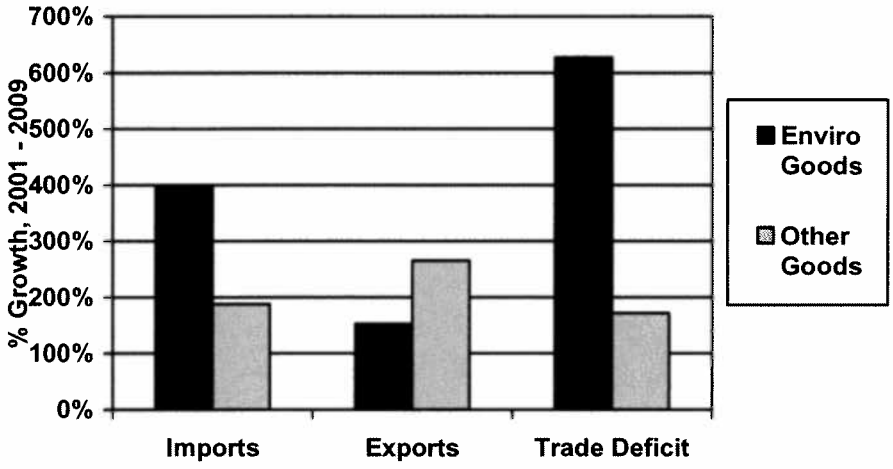


In sum, the annual U.S. trade deficit in environmental goods with China has ballooned by more than two billion dollars since China joined the WTO, and China is now the top contributor to the U.S. global trade deficit in the sector. While U.S. exports to China in the sector have grown only modestly, U.S. imports from China in the sector are nearly five times higher than they were in 2001.

The burden manifested in this surging trade deficit is the direct result of the policies and practices complained of in this petition. While the U.S. trade deficit overall with China has also grown since China joined the WTO, the growth in the environmental goods sector has been particularly striking. U.S. non-environmental exports to China were 3.6 times higher in 2009 than they were in 2001 – U.S. exports of environmental goods grew at a much slower pace, and in 2009 were only 2.5 times higher than they had been in 2001. This weaker growth trajectory, especially in light of China's surging demand for green technology during the period, reflects China's application of particularly trade-distorting policies to the sector. In addition, while U.S.

imports from China outside of the environmental area have grown quickly since China joined the WTO, they have grown less quickly than U.S. non-environmental exports, and were three times higher in 2009 than they were in 2001. By contrast, U.S. imports of environmental goods grew much more quickly than exports, and were nearly five times greater in 2009 than they were in 2001. Again, the discrepancy reflects the coordinated, mercantilist strategy that China has undertaken in the sector, as detailed in this petition. As a result of these diverging trends, the U.S. trade deficit in environmental goods with China grew more than three times faster than the deficit with China in other product areas.

U.S. Trade with China in Environmental and Non-Environmental Goods



In addition to the cumulative impact on trade in green technology goods, China's policies have also impacted trade in the critical inputs needed to produce such goods. The export restraints on rare earths, antimony, and tungsten complained of in Section II of the petition affected $124 million of U.S. imports in 2009.[11] China's restraints have sharply cut the supply available to U.S. producers of green technology, even as demand was growing. From 2001 to 2009, U.S. imports of these materials from China dropped by 21 percent, with a particularly

[11] U.S. Import Statistics for Rare Earths, Antimony, and Tungsten **(Exhibit I-9)**.

sharp contraction of 32 percent just from 2008 to 2009. At the same time, China's restraints have sharply increased prices to U.S. producers – the average import unit value of the restricted materials has nearly doubled since 2001. These restrictions are particularly burdensome given China's dominance of the global market for such minerals. The U.S. is highly dependent on China as a source for rare earths, antimony, and tungsten. China accounts for about three-quarters of all U.S. imports of the materials, even as supplies from China have shrunk and prices have ballooned.

The direct effects reviewed above greatly understate the burden placed on U.S. commerce by these export restraints. While only very small amounts of these materials are used in green technology products, they are critical to the ability to produce such products. Due to their unique physical and chemical properties, they are essential inputs for the production of solar panels, wind turbines, advanced batteries, energy-efficient vehicles, and energy-efficient lighting. As supplies dwindle and prices rise, the incentive to shift production of this broad array of high-value downstream goods to China intensifies, draining substantial investment and employment from the U.S. economy. Thus, the economic burden imposed by China's export restraints is exponentially greater than what is reflected in the import statistics for these inputs.

The policies detailed in this petition have burdened and restricted U.S. commerce by imposing barriers to U.S. exports, fueling a massive increase in China's exports, and draining investment and technology from the U.S. to China.[12]

- The export restraints described in Section II have burdened and restrained U.S. commerce by denying U.S. producers access to needed inputs unless they shift production to China, and by increasing world prices for such inputs while driving them downwards within China.

[12] We note that the statute defines "commerce" to include foreign direct investment by U.S. persons with implications for trade in goods and services. 19 U.S.C. § 2411(d)(1)(B).

- The domestic content subsidies detailed in Section III.B and C have burdened and restricted U.S. commerce by providing financial incentives to use Chinese instead of U.S. goods.

- The export subsidies described in Section III.D, E, and F have burdened and restricted U.S. commerce by providing direct government funding, concessional financing terms for export credits, and discounted premium rates for export credit insurance to Chinese producers of green technology, contingent on their export performance. The Government of China has expended hundreds of billions of dollars under these programs to ramp up Chinese exports at the expense of U.S. producers seeking to compete at home and abroad.

- The discriminatory practices detailed in Section IV have burdened and restricted U.S. commerce by imposing barriers to U.S. exports and U.S. firms in China's green technology market.

- The technology transfer requirements in Section V have burdened and restricted U.S. commerce by conditioning investment approval on the transfer of vital green technologies, permitting China to leapfrog ahead of U.S. producers.

- Finally, the domestic subsidies described in Section VI have burdened and restricted U.S. commerce by displacing U.S. exports to China and third country markets, by undercutting prices, and by causing lost sales to U.S. producers in our home market.

Sections IV, V, and VI also contain numerous examples of U.S. companies in the green technology sector that have shifted production, investment, and technology to China in response to the array of discriminatory and prejudicial policies the government deploys in the sector. These shifts have cost U.S. workers their jobs and cost the American economy vital components of a green technology manufacturing infrastructure. Unless action is taken to bring China into compliance with its WTO obligations in this sector, the burdens on U.S. commerce will only intensify, inflicting greater harm on U.S. firms and their workers.

G. Relief Requested

The USW respectfully requests that the United States take action to ensure that China brings itself into compliance with its WTO obligations by eliminating the policies identified herein that violate those obligations. The USW asks that the U.S. act pursuant to Section 301 of

the Trade Act of 1974, as amended, to enforce U.S. rights under the GATT 1994, SCM Agreement, and China's Protocol of Accession to the WTO by and through a formal request for consultations at the WTO, and, if necessary, through WTO dispute settlement.

H. Other Requests for Relief

The USW is not filing at the present time for other forms of relief under the Trade Act of 1974 or under any provision of the Tariff Act of 1930, as amended, with respect to the acts, policies, or practices of China complained of in this petition.

I. Public Hearing

The USW is not, at this time, requesting that a public hearing be held regarding this petition within thirty days of its filing. The USW reserves the right to request such a hearing at a later date, consistent with 19 U.S.C. § 2411(a)(4)(B) and 15 C.F.R. § 2006.7(a)(2).

II. EXPORT RESTRAINTS

As reflected in GATT 1994 Article XI:1, export restraints have long been considered to distort trade both in domestic and international markets. Since its accession to the WTO, however, China has continued to use export restraints to control the quantities and prices of key inputs for the benefit of its own processing industries. Indeed, the United States has already asserted that not only have China's export restraints not been eliminated but, instead, they have *proliferated* in number and kind:

> In the years since China's accession to the WTO in 2001, its export restraints have proliferated in number and kind, driven by the industrial policies adopted in the Five-Year Plans and other plans formulated and approved by China's central government. China now subjects over 600 items to non-automatic licensing and over 350 items to export duties. Moreover, these export restraints have become increasingly restrictive over time; export quota amounts

> have decreased steadily while export duty rates have increased steadily.[13]

In the *China – Raw Materials Exports* dispute, the United States identified export restraints affecting trade in various forms of nine raw materials that are key inputs for numerous downstream products in the steel, aluminum, and chemical sectors.[14] The scope of that dispute, however, does not cover almost identical export restraints that are currently affecting trade in the critical minerals needed for green technologies and other applications.[15]

China now dominates the world market not only in the mining and processing of rare earths but also the production of green technology products. Indeed, China currently produces about 97 percent of all rare earth ore and oxides.[16] In the last four to five years, China has imposed gradual and tightening restraints in the form of export duties, licensing procedures, and quotas on rare earths, antimony, and tungsten.[17]

The term "rare earths" generally refers to 17 metallic elements that are used in multiple commercial applications, including green technology like hybrid cars (and the rechargeable

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[13] U.S. First Written Submission in *China – Raw Materials Exports*, WT/DS394, DS395, DS398, at para. 3 (June 1, 2010) (emphasis added).

[14] The *China – Raw Materials Exports* dispute covers export restraints covering various forms of bauxite, coke, fluorspar magnesium, manganese, silicon carbide, silicon metal, yellow phosphorus, and zinc. USTR Press Release (Nov. 4, 2009) **(Exhibit II-1)**.

[15] Should the DSB find that China's export restraints are inconsistent with its WTO obligations, any implementation of the DSB recommendations or rulings could be limited to a product-specific revision of its tariff schedule and catalogs or quotas listing the goods subject to export restrictions rather than resulting in a large-scale overhaul of the export restraints.

[16] GAO Briefing for Congressional Committees, *Rare Earth Materials in the Defense Supply Chain,* GAO-10-617R, at 10-20 (April 1, 2010) **(Exhibit II-2)**. Rare earth ore is mined and separated into oxides that are refined to metals which are formed into alloys that are manufactured into magnets and other components. China produces approximately 89 percent of rare earth alloys. *Id.*

[17] *See* Ashlie Rodriguez, *Success of Green Industry Could Hinge on China,* NATIONAL JOURNAL (May 11, 2010) **(Exhibit II-3)**; *China Cracks Down on Rare Earth Mining* (May 21, 2010), available at <www.indiumsamplesblog.com> **(Exhibit II-4)**.

batteries for electric vehicles),[18] catalytic converters for fuel-efficient vehicles,[19] wind turbines, solar panels, and energy-efficient lighting.[20] "Green energy technology is expected to become the largest consumer of rare earth elements in the future."[21] Likewise, antimony is used in microcapacitors, OLEDs, and PV cells, and tungsten is used in halogen and fluorescent bulbs and in superalloys for turbine parts.[22]

Through the use of export restraints for both raw materials and minerals, the Chinese government has enhanced its own industries' access to critical inputs, providing them with a significant competitive advantage. China's control over key minerals has also been used to shutter downstream industries in other countries and attract foreign investment by limiting access to those with a local presence.[23] For example, news reports indicate that the goal of the Chinese strategy to regulate the exploitation and exportation of these minerals is not only to stabilize prices but also to attract investors to develop the Baotou region in Inner Mongolia, which now accounts for 75% of China's total rare earth reserves, into a world-class rare earth industrial base.[24] Significantly, China's 11th Five Year Plan encourages the further processing of rare

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[18] *See* European Commission, CRITICAL RAW MATERIALS FOR THE EU: REPORT OF THE AD-HOC WORKING GROUP ON DEFINING CRITICAL RAW MATERIALS at 44 (June 2010) **(Exhibit II-5)**.

[19] *See* National Research Council, CRITICAL MINERALS AND THE U.S. ECONOMY 53, 130 (2007) **(Exhibit II-6)**.

[20] GAO Briefing for Congressional Committees, *Rare Earth Materials in the Defense Supply Chain,* GAO-10-617R, at 10-11 (April 1, 2010) **(Exhibit II-2)**; Charles Blum, *Rare Earths: Easing the Scarcity,* Presentation to the Global Business Dialogue at 3 (July 22, 2010) **(Exhibit II-7)**.

[21] *See* IAGS, *China's Rare Earth Elements Industry: What Can the West Learn?* at 19 (March 2010) **(Exhibit II-8)**.

[22] *See* Table of China's Minerals and Green Technology Applications **(Exhibit II-9)**.

[23] *See* Testimony of Terence P. Stewart, Esq., at the U.S. House Committee on Science and Technology, Subcommittee on Investigations and Oversight, Hearing on "Rare Earth Minerals and 21st Century Industry" at 2-3 (March 16, 2010) **(Exhibit II-10)**, *citing* Clint Cox, The Anchor House, Inc. (Research on Rare Earth Elements) at 5 (Dec. 17, 2009), available at <http://theanchorhouse.com> (explaining that China is offering ample supplies of rare earth minerals to foreign companies investing in China).

[24] *China's Inner Mongolia regulates rare earth export to attract investment: official,* PEOPLE'S DAILY ONLINE (Sept. 2, 2009) **(Exhibit II-11)**; IAGS, *China's Rare Earth Elements Industry: What Can the West Learn?* at 21 (March 2010) **(Exhibit II-8)**; Jia Hepeng, *Proposed rare metal ban unlikely to impact market* (Oct. 2009)

earth metal and its applications as well as the production of antimony compounds in conjunction with the development of numerous types of green technologies.[25]

To achieve its goals, China has tightened its export restraints on critical minerals and formulated a plan to establish a mineral reserve system. In December 2008, China's Ministry of Land and Resources (MLR) issued a National Mineral Resources Plan 2008-2015 to strengthen the management of protection and extraction of important minerals, like rare earths, antimony, and tungsten, and to implement a mineral reserve system:

> (3) Implement mineral resources reserve system
>
> ..... Promote the establishment of mineral resources reserves for oil, special and rare types of coal, copper, chromium, manganese, tungsten, rare earth and other key minerals. .....
>
> ..... Form reserves in key mineral-producing regions for tungsten, tin, antimony, rare earth, and other specified minerals that are subject to protective mining under state regulations. Establish 10-30 large and medium mineral reserves. Start investigation and assessment of mineral reserves in advantageous mineral resources-rich regions such as Shanxi, Inner Mongolia, Hunan, Jiangxi, Yunnan, and Qinghai. The state dominates while enterprises complement [the system,] accelerate mining rights consolidation in state mineral reserves. Implement compensation mechanism in mineral reserves, carry out protective policies in mineral reserves, and increase the protection, management, and financial support for mineral reserves through various channels....[26]

According to that plan, China intends to dominate the mineral reserve system, consolidate mining rights in state mineral reserves, and increase extraction and utilization of rare earths,

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(Exhibit II-12) (noting that China's quotas on rare earth materials were intended to maintain the price of rare earth minerals); Wang Qian, *Govt cracks whip on rare earth mining,* CHINA DAILY (May 21, 2010) **(Exhibit II-13)**; ("Officials said the rising prices of rare earth have promoted illegal mining activities in the country").

[25] Decree of the National Development and Reform Commission No. 40, Directory Catalog on Readjustment of Industrial Structure (Version 2005) (Dec. 2, 2005) **(Exhibit II-14)**. Development of a rare metals sector, including the production of antimony and tungsten, will form a separate part of China's 12th Five-Year Plan. *China to cap nonferrous metals production,* PEOPLE'S DAILY ONLINE (July 26, 2010) **(Exhibit II-15)**.

[26] National Mineral Resources Plan (2008-2015), MLR Pub. [2008] No. 309 (Dec. 31, 2008) **(Exhibit II-16)** (emphasis added).

antimony, and tungsten from 2010 to 2015.[27] The industry consolidation is expected to reduce output in the short term and improve export prices.[28]

Likewise, in August 2009, China's Ministry of Industry and Information Technology (MIIT) released its "Rare Earths Industry Development Plan 2009-2015," which announced that China would create a reserve for rare earth materials in the next year.[29] By June 2010, China's MIIT and National Development and Reform Commission had sent a draft plan to the State Council, China's highest legislative body, for approval that would limit mining to only a few select state-owned enterprises (SOEs) to address illegal exploitation (that had undervalued the price) and to consolidate reserves.[30] Once approved, the plan would authorize the Ministry of Land and Resources to issue licenses and start allocating resources only to those SOEs. Private enterprises would only be able to collaborate with the selected firms through shareholding. Foreign-funded enterprises are now being forced to switch gears and invest in the downstream, processing market due to this tightened control. For example, when most of the rare earth ore resources in Baotou were brought under the control of state-owned Inner Mongolia Baotou Steel Rare Earth Co., Ltd., a French firm previously involved in the separation of rare earth elements in the region, Baotou Rhodia Rare Earth Co., Ltd. was forced to change its activities to further

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[27] National Mineral Resources Plan (2008-2015), MLR Pub. [2008] No. 309 (Dec. 31, 2008) **(Exhibit II-16)**.

[28] *New Standard on Rare Earth Industry in the Pipeline,* (July 22, 2010), available at <www.CRIEnglish.com> **(Exhibit II-17)**.

[29] Gerry O'Kane, *China Locks Up Rare Earth Production,* ASIA SENTINEL (Jan. 5, 2010) **(Exhibit II-18)**; *China Prepares Rare Earth Reserve Pilot Program* (May 14, 2010), available at <www.indiumsamplesblog.com> **(Exhibit II-19)**.

[30] *Chinese Government Tightens Controls on Rare Earths* (June 2, 2010), available at <www.indiumsamplesblog.com> **(Exhibit II-20)**, David Barboza, *China Weighs Tighter Controls on Rare Elements,* N.Y. TIMES (June 2, 2010) **(Exhibit II-21)**.

downstream processing due to a lack of supply from the state-owned supplier.[31] News reports have also caused concern among industry representatives that China would, in the future, only export higher value finished rare earth material products rather than the minerals.[32]

In addition to imposing export restraints on rare earth minerals, China's plan also includes controlling their prices to prevent undervaluation. Specifically, in areas like the Jiangxi, Fujian, Guangdong, and Hunan provinces as well as the Guangxi Zhuang autonomous region, the central government was expected to implement a plan in July 2010 to establish a unified pricing mechanism for rare earth minerals.[33] Two of China's largest state-owned rare earths miners, Baotou Steel Rare Earth High-Tech Co. and Jiangxi Copper Corp., have already announced that they would launch a new unified pricing system for light rare earths intended to prevent undervaluation.[34]

As explained below, China's reliance on WTO-inconsistent export restraints to dominate the world market in rare earth and other minerals not only nullifies and impairs benefits accruing to the United States under the WTO Agreement, it fundamentally distorts trade and competition in the green technology sector, among others.

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[31] *Rare Earth Ore Supplies Cut Short, Foreign Producers Affected,* BUSINESS CHINA (June 24, 2010) **(Exhibit II-22)**; *China's management of rare earth resources takes effect,* PEOPLE'S DAILY ONLINE (June 24, 2010) **(Exhibit II-23)**. *See also* **Exhibit II-8** at 22-23.

[32] GAO Briefing for Congressional Committees, *Rare Earth Materials in the Defense Supply Chain,* GAO-10-617R, at 22 (April 1, 2010) **(Exhibit II-2)**; IAGS, *China's Rare Earth Elements Industry: What Can the West Learn?* at 21 (March 2010) **(Exhibit II-9)** ("On 2 September 2009, speaking at the annual Minor Metals and Rare Earth Conference in Beijing, Wang Caifeng tried to allay fears over China's reduction in export quotas of rare earths, pointing out that China would encourage the sales of finished rare earth products, but limit the export of semifinished goods.).

[33] *China plans a unified pricing to buoy rare earth prices,* PEOPLE'S DAILY ONLINE (July 8, 2010) **(Exhibit II-24)**.

[34] *China Takes Step to Set Rare-Earth Prices,* WALL ST. J. (Aug. 11, 2010) **(Exhibit II-25)**; *'Bigger say' set on rare earths market,* CHINA DAILY (Aug. 10, 2010) **(Exhibit II-26)**; *Dash for Clean Energy a Boon to China's Rare Earth Monopoly,* REUTERS (Aug. 12, 2010) **(Exhibit II-27)**.

A. China's Imposition of Export Restraints on Rare Earth Minerals, Antimony, and Tungsten Violates the WTO Agreement[35]

1. Export Duties

China's obligations under paragraph 11.3 of Part I of the Accession Protocol require that China not impose export duties on products that are not listed in Annex 6 of the Accession Protocol.[36] These obligations also require China to limit any export duties imposed on products that are listed in Annex 6 to the rates provided therein.

Specifically, Part I, Section 11 of the Accession Protocol contains China's binding commitments on taxes and charges levied on imports and exports. Part I, paragraph 11.3 states:

> China shall eliminate all taxes and charges applied to exports unless specifically provided for in Annex 6 of this Protocol or applied in conformity with the provisions of Article VIII of the GATT 1994.

Annex 6 of the Accession Protocol, titled "Products Subject to Export Duty," is a list of 84 products, each listed sequentially by HS number and accompanied by a description of the product and an export duty rate listed as an *ad valorem* percentage. The Note to Annex 6 states:

> China confirmed that the tariff levels included in this Annex are maximum levels which will not be exceeded. China confirmed furthermore that it would not increase the presently applied rates, except under exceptional circumstances. If such circumstances occurred, China would consult with affected members prior to increasing applied tariffs with a view to finding a mutually acceptable solution.

Accordingly, paragraph 11.3 contains a commitment by China to "eliminate all taxes and charges

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[35] The following legal discussion of China's WTO obligations with respect to export quotas, export duties, and export licensing procedures is based heavily (and sometimes *verbatim*) on the U.S. First Written Submission in *China – Raw Materials Exports*, WT/DS394, DS395, DS398 (June 1, 2010).

[36] The second sentence of paragraph 1.2 of the Accession Protocol states: "This Protocol, which shall include the commitments referred to in paragraph 342 of the Working Party Report, shall be an integral part of the WTO Agreement." Accession Protocol at para. 1.2 **(Exhibit II-28)**. As an integral part of the WTO Agreement, the provisions of the Accession Protocol are enforceable in WTO dispute settlement pursuant to Article 1.1 of the DSU.

applied to exports" except in two specific situations: (1) where the taxes and charges are covered by Article VIII and applied consistently with the requirements of Article VIII; and (2) where the taxes and charges are imposed on products listed in Annex 6 at a rate less than or equal to the *ad valorem* percentage specified for those products in Annex 6.

China's Regulations on Import and Export Duties provide that all goods permitted to be imported into or exported out of China shall, unless otherwise provided for by the State Council, be subject to the imposition of import and export duties in accordance with the Regulations on Import and Export Duties.[37] The Regulations on Import and Export Duties provide that export duties are established in export duty rates.[38] There are at least three types of export duty rates: "regular" export duty rates that are established to be generally applicable; "temporary" export duty rates established for a limited period of time;[39] and "special" export duty rates established under special circumstances.[40]

The Customs Tariff Commission ("Tariff Commission"), established by the State Council, is responsible for adjusting and determining items subject to duties, duty nomenclature and heading numbers, and duty rates (*i.e.,* "regular" duty rates). The Tariff Commission also determines the goods subject to "temporary" duty rates, the "temporary" duty rates, and the time limits for those duties. Article 9 of the Regulations on Import and Export Duties provides that temporary export duty rates can be applied for a defined period of time. Article 11 of the Regulations on Import and Export Duties further provides that, where a good is subject to both a "regular" export duty rate and a "temporary" duty rate, the "temporary" duty rate prevails. In

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[37] Regulations on Import and Export Duties, art. 2 **(Exhibit II-29)**.

[38] Regulations on Import and Export Duties, art. 9 **(Exhibit II-29)**.

[39] *See* Regulations on Import and Export Duties, art. 4, 9, and 11 **(Exhibit II-29)**.

[40] *See* Regulations on Import and Export Duties, art. 4 **(Exhibit II-29)**.

addition, the Tariff Commission is responsible for the application of duty rates in special circumstances, *i.e.*, "special" duty rates.[41] The General Administration of Customs ("Customs"), established by the State Council, is responsible for supervising and controlling the entry and exit of goods into and from China's borders, including the collection of customs duties as well as other taxes and charges related to import and export.[42]

Based on the State Council's notice on the implementation of the 2010 Tariff Schedule, China is imposing export taxes on 329 product categories, including 23 rare earth mineral categories and certain tungsten and antimony categories (*e.g.*, items 28, 45, 56-57, 87-92, 118-139, 313-315, and 323-325), in plain violation of its WTO commitments.[43] "Temporary" export duties covering rare earths and certain antimony and tungsten exports range from 5 to 25%.[44] With the exception of tungsten ores and concentrates (item 45) and antimony (items 56, 323-25), Annex 6 of China's Accession Protocol does not include any of the products listed in the table in **Exhibit II-30**.[45] Nor could conformity with GATT 1994 Article VIII justify China's export duties on these products, because Article VIII by its terms does not apply to export duties but, instead, applies to fees and formalities imposed by WTO Members in connection with exportation.

Accordingly, unless the export duties are somehow justified, China's maintenance of temporary duties on rare earths and certain antimony and tungsten exports is inconsistent with its

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[41] Regulations on Import and Export Duties, art. 4 **(Exhibit II-29)**.

[42] Regulations on Import and Export Duties, art. 2 **(Exhibit II-29)**.

[43] *See State Council Customs Tariff Commission's Notice on the Implementation of the 2010 Tariff Schedule,* Customs Tariff Pub. [2009] No. 28 (Dec. 8, 2009) **(Exhibit II-31)** (Exhibit 2.A); *see also* Testimony of Terence P. Stewart, Esq., at the U.S. House Committee on Science and Technology, Subcommittee on Investigations and Oversight, Hearing on "Rare Earth Minerals and 21st Century Industry" at 2, 5 (March 16, 2010) **(Exhibit II-10)**.

[44] *See* Table of China's Export Duties and Licenses on Rare Earths, Antimony and Tungsten **(Exhibit II-30A)**.

[45] Accession Protocol at Annex 6 **(Exhibit II-28).**

obligations under paragraph 11.3 of Part I of the Accession Protocol to eliminate all taxes and charges applied to exports.

2. Export Licensing Procedures

China subjects rare earth minerals, antimony and tungsten to non-automatic export licensing procedures that are equivalent to those challenged in the U.S. dispute covering raw materials.[46] Despite its accession to the WTO Agreement in 2001, China has continued to restrict or prohibit the exportation of goods,[47] and it subjects goods whose exportation is restricted to an export licensing administration.[48] China's Ministry of Commerce ("MOFCOM") is the department responsible for the centralized administration of export licenses for China. As such, MOFCOM is responsible for formulating the rules and regulations on the administration of export licenses, supervising and inspecting the implementation of such measures, and punishing violations and violators. Together with Customs, MOFCOM is responsible for formulating, adjusting, and publishing catalogs listing all goods subject to export restriction.[49]

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[46] *See* U.S. First Written Submission in *China – Raw Materials Exports*, WT/DS394, DS395, DS398, at paras. 90-97, 185-204 (June 1, 2010). *See also* **Exhibit II-30A**.

[47] *See* Foreign Trade Law, arts. 16-17 **(Exhibit II-32)**; Import and Export Regulations, art. 35 **(Exhibit II-33)**.

[48] Export Licensing Measures, art. 2 **(Exhibit II-34)**.

[49] Foreign Trade Law, art. 18 **(Exhibit II-32)**; Import and Export Regulations, art. 35 **(Exhibit II-33)**; Export Licensing Measures, art. 3, para. 2 **(Exhibit II-34)**. According to China's regulations, China may restrict goods under Clauses 1, 2, 3, and 7 of Article 16 of the Foreign Trade Law, which state:

> Article 16. For the following reasons, the States may restrict or forbid the import or export of the relevant goods or technology when:
>
> 1. it is necessary to restrict or forbid the import or export for the purposes of maintaining national security, social public interests or public morality;
>
> 2. it is necessary to restrict or forbid the import or export for the purpose of protecting human health or security, protecting the life or health of any animal or plant, or protecting the environment;
>
> 3. it is necessary to restrict the import or export for the purpose of implementing the measures relating to the import or export of gold or silver;

Although China does maintain a separate automatic export licensing system,[50] the exportation of the restricted goods listed in the catalogs requires approval by MOFCOM[51] and is subject to export licensing[52] that is, accordingly, not automatic. On the contrary, MOFCOM is authorized to impose various conditions on the exportation of restricted products including (1) the quantities of products that can be exported,[53] (2) the price at which the products can be exported,[54] (3) the qualifications that exporters must possess in order to export,[55] and (4) any other condition that MOFCOM decides it needs in order to provide its approval.[56]

Only after an exporter obtains an export license can that exporter seek export clearance from Customs by presenting the export license to Customs for declaration and examination:[57]

> For the goods restricted from exportation that are subject to the administration of licenses, the export business operators shall file applications to the foreign trade department of the State Council or

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* * *

7. it is necessary to restrict the import for the purpose of establishing or accelerating the establishment of a particular domestic industry....

Foreign Trade Law, art. 16 **(Exhibit II-32)**. MOFCOM is charged with collaborating with Customs to promulgate annual catalogs covering "goods subject to export licensing" and "graded issuance of licenses of goods subject to export licensing."

[50] Foreign Trade Law, arts. 14-15 **(Exhibit II-32)**.

[51] Foreign Trade Law, art. 19 **(Exhibit II-32)**. Article 19 states, *inter alia,* that "[g]oods and technologies that are subject to the administration of quotas or licenses can only be imported or exported with approval from the foreign trade department of the State Council independently or jointly with other departments of the State Council in accordance with the State Council's rules."

[52] Export Licensing Measures, art. 2 **(Exhibit II-34)**.

[53] Export Licensing Measures, art. 6 **(Exhibit II-34)** (export licenses governed by the measure include export quota licenses and export licenses); Export Quota Measures, art. 25 **(Exhibit II-35)** (exporters of products subject to quotas must obtain export licenses in order to export).

[54] Measures for the Administration of Licensing Entities, art. 40(3) **(Exhibit II-36)** (license issuing entities subject to penalties for failing to issue licenses according to coordinated export prices).

[55] Export Licensing Rules, art. 8 **(Exhibit II-37)** (listing management qualifications as a condition to be examined in issuing an export license).

[56] Export Licensing Rules, art. 8(2) and (4) **(Exhibit II-37)** (listing undefined "documents of approval" and "other materials to be submitted" as bases for issuance of export licenses).

[57] Import and Export Regulations, art. 43 **(Exhibit II-33)**; Export Licensing Measures, art. 6 **(Exhibit II-34)**.

> relevant departments of the State Council (hereinafter referred to as the administrative departments of export licenses). The administrative departments of export licenses shall decide whether to grant a license or not within 30 days after receiving the application.
>
> The export business operators shall present the export licenses issued by the administrative departments of export licenses to the Customs offices for handing the formalities of customs declaration and examination ....[58]

The license issuing agency, however, is required to issue export licenses within 3 business days from the date of receiving a completed application.[59]

Exporting goods subject to restricted exportation without approval or beyond the scope that is approved, *e.g.,* where no quota exists or at levels exceeding the designated quotas, is subject to investigation leading to potential criminal and administrative penalties including the penalties applicable to smuggling, invalidation of any applicable licenses, and suspension or revocation of the right to engage in foreign trade for up to three years.[60] License issuing entities that issue licenses exceeding their authority are subject to penalties including warnings and suspension or termination of their right to issue licenses.[61] Any individual working as staff at a license-issuing entity that is responsible for issuing licenses outside the scope of approval is also subject to criminal and administrative penalties including removal from his position, and being issued a warning, demotion, and dismissal; the responsibility of the managing head of the entity will also be investigated.[62] Forging, altering without approval, buying and selling export licenses

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[58] Import and Export Regulations, art. 43 **(Exhibit II-33)**.

[59] Export Licensing Measures, art. 19 **(Exhibit II-34)**.

[60] Foreign Trade Law, arts. 61, 64 **(Exhibit II-32)**; Import and Export Regulations, arts. 64-65 **(Exhibit II-33)**; Export Licensing Measures, arts. 21, 38 **(Exhibit II-34)**.

[61] Export Licensing Measures, arts. 21, 36, 38 **(Exhibit II-34)**; Measures for the Administration of Licensing Entities, arts. 40-41 **(Exhibit II-36)**.

[62] Export Licensing Measures, art. 42 **(Exhibit II-34)**; Measures for Administration of Licensing Entities, arts. 40-41 **(Exhibit II-36)**.

are also acts subject to criminal and civil penalties.[63]

Effective January 1, 2010, MOFCOM issued three catalogs of goods covered by its notices on Export License Administration, Export License Administration in Small-Amount Border Trade, and Goods to Be Exported Under Graded Licensing Administration.[64] All three catalogs included rare earths, antimony, and tungsten. Thus, China is able use its non-automatic export licensing system to restrict exports of these minerals.

China's WTO obligations specifically include the elimination of export restrictions through the use of export licenses or other measures. Specifically, GATT 1994 Article XI:1 prohibits WTO Members from instituting or maintaining export bans or restrictions (other than duties, taxes, or other charges) on any product destined for another WTO Member that is made effective through export licenses or other measures:

> No prohibitions or restrictions other than duties, taxes or other charges, whether made effective through quotas, import or export licences or other measures, shall be instituted or maintained by any contracting party on the importation of any product of the territory of any other contracting party or on the exportation or sale for export of any product destined for the territory of any other contracting party.[65]

The term "restriction" in Article XI:1 has been interpreted broadly to cover not just blanket prohibitions or precise numerical limits but also the imposition of limitations or limiting conditions on exportation that generate a disincentive to export not only due to their effect on trade volumes but also by creating uncertainties affecting investment plans, by restricting market

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[63] Foreign Trade Law, arts. 34, 63 **(Exhibit II-32)**; Import and Export Regulations, art. 66 **(Exhibit II-33)**; Export Licensing Measures, art. 39 **(Exhibit II-34)**; Measures for Administration of Licensing Entities, arts. 40-42 **(Exhibit II-36)**.

[64] *See* **Exhibit II-40**.

[65] GATT 1994 Article XI:1, *in* WTO, THE LEGAL TEXTS: THE RESULTS OF THE URUGUAY ROUND OF MULTILATERAL TRADE NEGOTIATIONS at 437 (1999).

access, or by increasing transaction costs to make exportation prohibitively costly.[66]

While an automatic licensing requirement would be permissible, a discretionary or non-automatic export licensing requirement has long been considered to be a restriction prohibited by Article XI:1.[67] For example, a WTO panel in *India – Autos* found that a "trade balancing condition" on import licenses, that limited the value of imports an importer could make to the value of its exports, was a restriction on importation contrary to Article XI:1.[68] Likewise, a GATT panel in *Japan – Semi-Conductors* agreed with the United States' complaint that Japan's export license procedures, which led to delays of up to three months in the issuance of licenses for semi-conductors due to the monitoring of costs and export prices, were non-automatic and constituted a restriction on the exportation of those products contrary to Article XI:1.[69]

The Article XI:1 prohibition on import and export restrictions has been found to protect

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[66] WTO Panel Report, *Colombia – Ports of Entry,* WT/DS366/R, adopted May 20, 2009, paras. 7.233-41, 7.244, *citing* WTO Panel Report, *India – Autos,* WT/DS146/R, WT/DS175, adopted April 5, 2002, paras. 7.269-70, WTO Panel Report, *India – Quantitative Restrictions,* WT/DS90/R, adopted Sept. 22, 1999, para. 5.128, WTO Panel Report, *Brazil – Retreaded Tyres,* WT/DS322/R, adopted Dec. 17, 2007, para. 7.371; WTO Panel Report, *Dominican Republic – Import and Sale of Cigarettes,* WT/DS302/R, adopted May 19, 2005, paras. 7.252, 7.258; *see also* WTO Panel Report, *Korea – Various Measures on Beef,* WT/DS161/R, WT/DS169/R, adopted Jan. 10, 2001, para. 778.

[67] *See* WTO Panel Report, *India – Quantitative Restrictions,* paras. 5.129-30 (finding discretionary import licensing system to be a restriction prohibited by Article XI:1); GATT Panel Report, *Japan – Trade in Semi-Conductors,* BISD 35S/116, adopted May 4, 1988, para. 118 (finding discretionary export licensing system to be restriction prohibited by Article XI:1); GATT Panel Report, *EEC – Quantitative Restrictions Against Imports of Certain Products from Hong Kong,* BISD 30S/129, adopted July 12, 1983, at paras. 8, 31, 34; GATT Panel Report, *EEC – Programme of Minimum Import Prices, Licenses and Surety Deposits for Certain Processed Fruits and Vegetables,* BISD 25S/68, adopted Oct. 18, 1978, para. 4.1 (finding that an automatic licensing requirement was not a restriction within the meaning of Article XI:1).

[68] WTO Panel Report, *India – Autos,* paras. 7.268, 7.278, 7.281.

[69] GATT Panel Report, *Japan – Trade in Semi-Conductors*, paras. 118, 132(b), *citing GATT Panel Report, EEC – Programme of Minimum Import Prices, Licenses and Surety Deposits for Certain Processed Fruits and Vegetables*, BISD 25S/68, adopted Oct. 18, 1978, para. 4.1. The GATT Panel in *Japan – Trade in Semi-Conductors* "noted that the CONTRACTING PARTIES had found in a previous case that automatic licensing did not constitute a restriction within the meaning of Article XI:1 and that an import licence issued on the fifth working day following the day on which the licence application was lodged could be deemed to have been automatically granted (BISD 25S/95)."

competitive opportunities,[70] and it reflects the strong preference for Members to rely on transparent, negotiated tariffs rather than non-tariff barriers to trade:

> The prohibition on the use of quantitative restrictions forms one of the cornerstones of the GATT system. A basic principle of the GATT system is that tariffs are the preferred and acceptable form of protection. Tariffs, to be reduced through reciprocal concessions, ought to be applied in a non-discriminatory manner independent of the origin of the goods (the "most-favoured-nation" (MFN) clause). Article I, which requires MFN treatment, and Article II, which specifies that tariffs must not exceed bound rates, constitute Part I of GATT. Part II contains other related obligations, *inter alia* to ensure that Members do not evade the obligations of Part I. Two fundamental obligations contained in Part II are the national treatment clause and the prohibition against quantitative restrictions. The prohibition against quantitative restrictions is a reflection that tariffs are GATT's border protection "of choice". Quantitative restrictions impose absolute limits on imports, while tariffs do not. In contrast to MFN tariffs which permit the most efficient competitor to supply imports, quantitative restrictions usually have a trade distorting effect, their allocation can be problematic and their administration may not be transparent.
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> Participants in the Uruguay Round recognized the overall detrimental effects of non-tariff border restrictions (whether applied to imports or exports) and the need to favour more transparent price-based, i.e. tariff-based, measures; to this end they devised mechanisms to phase-out quantitative restrictions in the sectors of agriculture and textiles and clothing. This recognition is reflected in the GATT 1994 Understanding on Balance-of-Payments Provisions, the Agreement on Safeguards, the Agreement on Agriculture where quantitative restrictions were eliminated and the Agreement on Textiles and Clothing (further discussed below) where MFA derived restrictions are to be completely eliminated by 2005.[71]

Thus, in addition to Article XI, other WTO Agreement provisions specifically identify export restraints and similar measures as inhibiting or distorting trade. For example, the WTO

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[70] WTO Panel Report, *Colombia – Ports of Entry,* para. 7.236, n.463; *see* WTO Panel Report, *Argentina – Hides and Leather,* WT/DS155/R, adopted Feb. 16, 2001, para. 11.20.

[71] WTO Panel Report, *Turkey – Textiles,* WT/DS34/R, adopted Nov. 19, 1999, paras. 9.63, 9.65 (footnotes omitted).

Agreement on Agriculture identifies "voluntary export restraints" as non-tariff barriers to trade, and the Safeguards Agreement specifically prohibits their use as safeguard measures as well as "similar measures on the export or the import side," including export moderation, export-price monitoring systems, export surveillance, and discretionary export licensing schemes "which afford protection."[72] As another example, the Agreement on Trade-Related Investment Measures ("TRIMs") further prohibits WTO Members from applying any TRIM that is inconsistent with Article XI and identifies in its illustrative list those TRIMS that restrict:

> the exportation or sale for export by an enterprise of products, whether specified in terms of particular products, in terms of volume or value of products, or in terms of a proportion of volume or value of its local production.[73]

Therefore, unless the export restriction is justified as an exception to the general rule in Article XI:1, discretionary or non-automatic export licensing requirements are prohibited by Article XI:1.

In addition to GATT 1994 Article XI:1, China committed not to maintain prohibitions or restrictions on exportation in its Accession Protocol, through its incorporation of paragraphs 162 and 165 of the Working Party Report.[74] At the time of accession, some members of the Working Party specifically "expressed concern about export restrictions on other goods, in particular raw materials or intermediate products that could be subject to further processing, such as tungsten ore concentrate, rare earths and other metals."[75] In response, China agreed to eliminate any

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[72] WTO Agreement on Agriculture, art. 4.2, n.1, *in* WTO, THE LEGAL TEXTS: THE RESULTS OF THE URUGUAY ROUND OF MULTILATERAL TRADE NEGOTIATIONS at 36 (1999); WTO Agreement on Safeguards, art. 11.1(b), n.4, *in* WTO, THE LEGAL TEXTS: THE RESULTS OF THE URUGUAY ROUND OF MULTILATERAL TRADE NEGOTIATIONS at 280 (1999); *cf.* WTO Appellate Body Report, *Chile – Price Band System,* WT/DS207/AB/R, adopted Oct. 23, 2002, paras. 200-01, 219.

[73] WTO Agreement on Trade-Related Investment Measures, Annex para. 2(c), *in* WTO, THE LEGAL TEXTS: THE RESULTS OF THE URUGUAY ROUND OF MULTILATERAL TRADE NEGOTIATIONS at 146 (1999).

[74] Working Party Report, paras. 162, 165 **(Exhibit II-38).**

[75] Working Party Report, para. 164 **(Exhibit II-38)** (emphasis added).

remaining non-automatic restrictions on exports "unless they could be justified under the WTO Agreement or the ... Protocol."[76]

Yet, as explained above, rare earth minerals along with antimony and tungsten continue to be included among the products subject to export restrictions through licensing contrary to China's WTO obligations. Therefore, unless those export restrictions are justified as an exception to the general rule in Article XI:1, China's discretionary or non-automatic export licensing requirements are prohibited by Article XI:1.

3. Export Quotas

a. Maintenance of Export Quotas

In addition to non-automatic export licensing, China maintains export quotas on rare earths, antimony and tungsten, and China has progressively tightened the quotas for rare earths, in particular, since 2006.[77] China maintains numerous general measures that establish an export quota regime. First, Article 19 of the Foreign Trade Law provides in relevant part that the "state applies quota and licensing system to the management of goods subject to . . . export restrictions . . . ."[78] Second, Article 36 of the Import and Export Regulations provides that "[g]oods restricted from exportation that are subject to quantitative restrictions by the state are subject to the administration of quotas . . . ."[79] Third, the Export Quota Measures provide that MOFCOM applies export quota administration with respect to the commodities restricted from export by the State.[80]

As the government agency responsible for administering the export quotas, MOFCOM,

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[76] Working Party Report, para. 165 **(Exhibit II-38)**.

[77] *See* Table of China's Export Quotas on Rare Earth Minerals **(Exhibit II-39)**.

[78] Foreign Trade Law, art. 19 **(Exhibit II-32)**.

[79] Import and Export Regulations, art. 36 **(Exhibit II-33)**.

[80] Export Quota Measures, art. 3 **(Exhibit II-35)**.

in collaboration with Customs, identifies the goods subject to export quotas on a list published annually.[81] For the export quotas taking effect on January 1, 2009 and 2010, MOFCOM and Customs published the 2009 and 2010 Export Licensing List Notices, which identified rare earths, antimony and tungsten as products subject to export quotas that are allocated directly to specific companies.[82] In practice, the export quotas for rare earths have been established twice a year separately for domestic producers and foreign-invested enterprises. Presumably to encourage foreign investment, the export quotas for FIEs had remained relatively steady until diving in 2010 compared to the export quotas for domestic producers.[83]

In July 2010, China's efforts to control the production of rare earth minerals resulted in a sharp 72% cut in available quota levels for the second half of 2010 compared to 2009 levels.[84] Indeed, the overall annual export quota in 2010 compared to 2006 has been cut in half. Likewise, China has maintained export quotas over antimony oxide, antimony alloys and products, tungsten powders and products, tungsten trioxide/blue tungsten oxide, and tungstic acid/tungstate.[85]

By prohibiting exportation of these materials above certain quantities, the export quotas restrict the exportation of these materials. These export quotas are therefore in breach of China's obligations under GATT 1994 Article XI:1 and its Accession Protocol, through its incorporation

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[81] Foreign Trade Law, art. 18 **(Exhibit II-32)**; Import and Export Regulations, art. 35 (**Exhibit II-33**); Export Quota Measures, art. 7 **(Exhibit II-35)**.

[82] 2010 Export Licensing List Notice **(Exhibit II-40)**; *see also* 2009 Export Licensing List Notice **(Exhibit II-41)**.

[83] Table of China's Export Quotas on Rare Earth Minerals **(Exhibit II-39)**.

[84] *China to reduce export quota for rare-earth by 72% in H2* (July 14, 2010), available at <The Tree of Liberty.htm> **(Exhibit II-42)**; *USMMA: China's Rare Earth Export Restrictions Hurt Green Jobs in U.S.*, BUSINESS WIRE (July 13, 2010) **(Exhibit II-43)**; *Rare Earths Looking Rarer by the Minute,* MONEYMORNING (July 13, 2010) **(Exhibit II-44)**; *Roskill Presentation on Rare Earths: A Golden Future or Overhyped?* at 6 (April 1, 2010) **(Exhibit II-39D);** *China Cuts Rare Earth Export Quota 72%, May Spark Trade Dispute with US*, BLOOMBERG NEWS (July 9, 2010) **(Exhibit II-39E).**

[85] Table of China's Export Quotas on Antimony and Tungsten **(Exhibit II-45)**.

of paragraphs 162 and 165 of the Working Party Report, which explicitly include an obligation not to maintain prohibitions or restrictions on exportation made effective through quotas:

> No prohibitions or restrictions other than duties, taxes or other charges, whether made effective through quotas, import or export licences or other measures, shall be instituted or maintained by any contracting party on the importation of any product of the territory of any other contracting party or on the exportation or sale for export of any product destined for the territory of any other contracting party.[86]

Paragraphs 162 and 165 of the Working Party Report also contain enforceable commitments with respect to the elimination of export restrictions in general.[87] According to paragraph 162:

> The representative of China confirmed that China would abide by WTO rules in respect of non-automatic export licensing and export restrictions. The Foreign Trade Law would also be brought into conformity with GATT requirements. Moreover, export restrictions and licensing would only be applied, after the date of accession, in those cases where this was justified by GATT provisions.

Additionally, paragraph 165 of the Working Party Report provides: "The representative confirmed that upon accession, remaining non-automatic restrictions on exports would be notified to the WTO annually and would be eliminated unless they could be justified under the WTO Agreement or the Protocol."

Therefore, unless those export quotas are justified as an exception to the general rule in Article XI:1 and its Accession Protocol, China's maintenance of quotas on the exportation of rare earths,[88] antimony, and tungsten is inconsistent with its WTO obligations.

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[86] GATT 1994 Article XI:1, *in* WTO, THE LEGAL TEXTS: THE RESULTS OF THE URUGUAY ROUND OF MULTILATERAL TRADE NEGOTIATIONS at 437 (1999).

[87] Paragraph 1.2 of China's Accession Protocol states in pertinent part: "This Protocol, which shall include the commitments referred to in paragraph 342 of the Working Party Report, shall be an integral part of the WTO Agreement." Accession Protocol at para. 1.2 **(Exhibit II-28).** Paragraph 342 of the Working Party Report contains a reference to both Paragraphs 162 and 165. Working Party Report, para. 342 **(Exhibit II-38).**

[88] Jia Hepeng, *Proposed rare metal ban unlikely to impact market* (Oct. 2009) **(Exhibit II-12)** (noting that China has imposed production and exportation quotas on rare earth materials since 2004).

b. Administration and Allocation of Export Quotas

China's administration and allocation of export quotas covering rare earths, antimony, and tungsten are also inconsistent with its WTO obligations because they (1) restrict the right to trade to specific companies, (2) subject those enterprises to an examination and approval system before they can export the minerals, and (3) unreasonably delegate to a private body – the China Chamber of Commerce of Metals Minerals & Chemicals Importers and Exporters (CCCMC) – decision-making authority with respect to approval of export quota applications.[89]

Specifically, China restricts the right to export by allocating export quotas directly to specific companies[90] and requiring those companies to satisfy certain eligibility requirements to export. For example, the Import and Export Regulations provide that MOFCOM is responsible for the administration of export quotas and that enterprises seeking to export under the quota must apply by filing applications each year.[91] Quotas are then allocated directly to specific companies on the basis of their applications. The 2010 Notice on Application Criteria and Procedures for 2010 Rare Earth Materials Export Quota, issued by MOFCOM, governs the application process for Chinese enterprises, not FIEs.[92] This measure prescribes several criteria that Chinese enterprises must satisfy in order to be eligible to export under the quota. One of those criteria is that the enterprise must have had a specific amount of exports or export revenue during the prior year(s). In addition, trading companies are also required to have a registered

[89] Because antimony and tungsten are covered by the exception Annex 2A2 for products subject to state trading (export), the arguments regarding the "right to trade" in the Accession Protocol do not include those minerals. *See* Accession Protocol at Annex 2A2 **(Exhibit II-28)**.

[90] 2010 Export Licensing List Notice **(Exhibit II-40)**; *see also* 2009 Export Licensing List Notice **(Exhibit II-41)**.

[91] Import and Export Regulations, arts. 36-40 **(Exhibit II-33)** ; *see also* Export Quota Measures, arts. 13-16 **(Exhibit II-35)**.

[92] MOFCOM, 2010 Notice on Application Criteria and Procedures for 2010 Rare Earth Materials Export Quota, MOFCOM Pub. [2009] No. 94 (Nov. 6, 2009) **(Exhibit II-46)**.

capital of at least RMB 50 million.

China then requires the CCCMC to conduct an examination of whether the applicant enterprises comply with the requirements. Based on the CCCMC's advice, MOFCOM then publishes a list of companies that have applied for rare earth export quotas and complied with the necessary criteria.[93] Thus, companies that do not satisfy the relevant criteria – including with respect to prior export experience and minimum registered capital – are not permitted to export under the quota.

China's commitments under paragraphs 5.1 and 5.2 of Part I of the Accession Protocol (and paragraph 1.2 of the Accession Protocol to the extent that it incorporates the commitments in paragraphs 83 and 84 of the Working Party Report) require China to give all foreign enterprises and individuals, as well as all enterprises in China, the right to export most products.[94] Specifically, Part I, Section 5 of the Accession Protocol contains enforceable commitments regarding the right of all enterprises in China to trade in all goods, including the right to export those goods. Part I, paragraph 5.1 of the Accession Protocol provides:

> Without prejudice to China's right to regulate trade in a manner consistent with the WTO Agreement, China shall progressively liberalize the availability and scope of the right to trade, so that, within three years after accession, all enterprises in China shall have the right to trade in all goods throughout the customs territory of China, except for those goods listed in Annex 2A which continue to be subject to state trading in accordance with this Protocol. Such right to trade shall be the right to import and export goods. . . . For those goods listed in Annex 2B, China shall phase out limitation on the grant of trading rights pursuant to the schedule in that Annex. China shall complete all necessary

[93] MOFCOM, 2010 Notice on Application Criteria and Procedures for 2010 Rare Earth Materials Export Quota, MOFCOM Pub. [2009] No. 94 (Nov. 6, 2009) **(Exhibit II-46)**.

[94] Accession Protocol, paras. 1.2, 5.1, 5.2 **(Exhibit II-28)**; Working Party Report, paras. 83-84 **(Exhibit II-38)**.

> legislative procedures to implement these provisions during the transition period.[95]

Paragraph 5.2 of Part I of the Accession Protocol further states:

> Except as otherwise provided for in this Protocol, all foreign individuals and enterprises, including those not invested or registered in China, shall be accorded treatment no less favourable than that accorded to enterprises in China with respect to the right to trade.

Paragraph 83 of the Working Party Report explains, in relevant part:

> (a) The representative of China confirmed that, upon accession, China would eliminate for both Chinese and foreign-invested enterprises any export performance, trade balancing, foreign exchange balancing and prior experience requirements, such as in importing and exporting, as criteria for obtaining or maintaining the right to import and export.
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> (b) With respect to wholly Chinese-invested enterprises, the representative of China stated that although foreign-invested enterprises obtained limited trading rights based on their approved scope of business, wholly Chinese-invested enterprises were now required to apply for such rights and the relevant authorities applied a threshold in approving such applications. In order to accelerate this approval process and increase the availability of trading rights, the representative of China confirmed that China would reduce the minimum registered capital requirement (which applied only to wholly Chinese-invested enterprises) to obtain trading rights to RMB 5,000,000 for year one, RMB 3,000,000 for year two, RMB 1,000,000 for year three and would eliminate the examination and approval system at the end of the phase-in period for trading rights.
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> * * *
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> (d) The representative of China also confirmed that within three years after accession, all enterprises in China would be granted the right to trade. Foreign-invested enterprises would not be required to establish in a particular form or as a separate entity to engage in importing and exporting nor would new business licence

[95] Paragraph 1.2 of Part I of the Accession Protocol also states in pertinent part: "This Protocol, which shall include the commitments referred to in paragraph 342 of the Working Party Report, shall be an integral part of the WTO Agreement." **(Exhibit II-28).**

> encompassing distribution be required to engage in importing and exporting.[96]

Finally, paragraph 84, which likewise is referred to in paragraph 342 of the Working Party Report, states:

> (a) The representative of China reconfirmed that China would eliminate its system of examination and approval of trading rights within three years after accession. At that time, China would permit all enterprises in China and foreign enterprises and individuals, including sole proprietorships of other WTO Members, to export and import all goods (except for the share of products listed in Annex 2A to the Draft Protocol reserved for importation and exportation by state trading enterprises) throughout the customs territory of China. Such right, however, did not permit importers to distribute goods within China. Providing distribution services would be done in accordance with China's Schedule of Specific Commitments under the GATS.
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> (b) With respect to the grant of trading rights to foreign enterprises and individuals, including sole proprietorships of other WTO members, the representative of China confirmed that such rights would be granted in a non-discriminatory and nondiscretionary way. He further confirmed that any requirements for obtaining trading rights would be for customs and fiscal purposes only and would not constitute a barrier to trade. The representative of China emphasized that foreign enterprises and individuals with trading rights had to comply with all WTO-consistent requirements related to importing and exporting, such as those concerning import licensing, TBT and SPS, but confirmed that requirements relating to minimum capital and prior experience would not apply.[97]

Read together, these provisions establish that all enterprises in China, all foreign enterprises and all foreign individuals shall have the right to export almost all products from China, following a transition period.[98] That transition period ended on December 11, 2004, more than five years ago. Rare earths are not among the products listed in Annex 2A to the Protocol, the export and

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[96] Working Party Report, para. 83 **(Exhibit II-38)** (emphasis added).

[97] Working Party Report, paras. 84, 342 **(Exhibit II-38)** (emphasis added).

[98] Because antimony and tungsten are covered by the exception Annex 2A2 for products subject to state trading (export), the arguments regarding the "right to trade" in the Accession Protocol do not include those minerals. *See* Accession Protocol at Annex 2A2 **(Exhibit II-28)**.

import of which continue to be reserved to SOEs.

Therefore, unless export quotas on rare earths are justified as an exception to the general rules in Articles XI:1 and its Accession Protocol, China's administration and allocation of export quotas for rare earths that restricts the right to trade to specific companies and subjects those enterprises to an examination and approval system before they can export the minerals is inconsistent with its WTO obligations.

Furthermore, China's delegation to a private party – CCCMC – in the process of examining and approving enterprises' applications to export rare earth minerals under the quota is inconsistent with its WTO obligations under GATT 1994 Article X:3(a).[99] Enterprises seeking to export rare earths under the quota must apply to do so pursuant to procedures issued by China. As part of that application process, enterprises submit a number of documents, including past export invoices.[100] MOFCOM delegates to CCCMC the responsibility for reviewing and verifying these applications for export of rare earth minerals under the quota, as well as the responsibility to conduct an examination of whether the applicant enterprises satisfy the requisite conditions. The importance of the CCCMC's role in this process is confirmed by the fact that MOFCOM publishes a list of the enterprises that satisfy the necessary conditions based on the CCCMC's opinion.[101]

While the CCCMC assumes responsibilities in administering the export quota regime on behalf of the Chinese state, it is not a governmental entity. Instead, it is an association of private commercial participants in a common industry – *i.e.,* the metals, minerals, and chemicals

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[99] MOFCOM, 2010 Notice on Application Criteria and Procedures for 2010 Rare Earth Materials Export Quota, MOFCOM Pub. [2009] No. 94 (Nov. 6, 2009) **(Exhibit II-46)**.

[100] MOFCOM, 2010 Notice on Application Criteria and Procedures for 2010 Rare Earth Materials Export Quota, MOFCOM Pub. [2009] No. 94 (Nov. 6, 2009) **(Exhibit II-46)**.

[101] MOFCOM, 2010 Notice on Application Criteria and Procedures for 2010 Rare Earth Materials Export Quota, MOFCOM Pub. [2009] No. 94 (Nov. 6, 2009) **(Exhibit II-46)**.

industry. The CCCMC is a membership organization. Its membership, comprising over 4000 entities, comprehensively represents not just traders, but also researchers, as well as manufacturers of processed downstream products, all of whom are operating businesses in ferrous metals, nonferrous metals, non-metallic minerals and their products, construction materials, coal and coal products, oil and oil products, chemicals, plastics, fine chemicals, agro-chemicals, rubber products, and so on.[102] By virtue of its membership, the CCCMC represents competing enterprises applying to export rare earths under the quota. Since the CCCMC's membership also includes manufacturers of downstream processed products, it likewise represents potential customers of the exporting enterprises as well as competitors of foreign customers.

In addition, as part of administering the application process, the CCCMC obtains access to sensitive commercial information regarding past transactions and past exports in the form of the applicant enterprises' past export invoices. Such documents contain critical commercial information, such as the terms and conditions of prior export transactions. Permitting the representatives of competing exporters and potential customers to access this type of confidential information creates an inherent conflict of interest averse to the interests of the exporter at issue and foreign buyers. Other exporters are provided an opportunity to learn the results of their competitors' negotiations and gain access to information regarding potential foreign customers' bottom line. At the same time, the domestic manufacturers and processors are provided access to the details of their foreign competitors' purchasing, including identities of their suppliers, quantities, and prices. Thus, contrary to the requirements of Article X:3(a) of the GATT 1994, China's administration of the export quota for rare earth minerals is not impartial or reasonable.

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[102] *See* CCCMC website **(Exhibit II-47)** and CCCMC Brochure (Document 99-4) at 2, paras. 2 and 3 **(Exhibit II-48)**.

Under Article X:3(a) of the GATT 1994, China is required to administer its laws and regulations pertaining to restrictions on exports in a uniform, impartial and reasonable manner. Article X:3(a) provides:

> Each contracting party shall administer in a uniform, impartial and reasonable manner all its laws, regulations, decisions and rulings of the kind described in paragraph 1 of this Article.

The laws, regulations, decisions and rulings described in Article X:1 include, in relevant part, those "of general application, made effective by any contracting party, pertaining to . . . restrictions . . . on . . . exports."

Article X:3 has been interpreted as establishing certain minimum standards for procedural fairness and due process[103] in the WTO Members' administration of trade regulations, which encompass notions such as notice, transparency, fairness and equity.[104]

According to the Appellate Body, the term "administer" in GATT 1994 Article X:3 "refers to *putting into practical effect*, or *applying*, a legal instrument of the kind described in Article X:1."[105] Article X:1 covers "'[l]aws, regulations, judicial decisions and administrative

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[103] According to the WTO panel in *EC – Selected Customs Matters,* WT/DS315/R, adopted Dec. 11, 2006, para. 7.108, "[t]he due process theme underlying Article X of the GATT 1994 suggests that the aim of Article X:3(a) of the GATT 1994 is to ensure that traders are treated fairly and consistently when seeking to import from or export to a particular WTO Member." The Appellate Body has further pointed out that "it is only reasonable that rigorous compliance with the fundamental requirements of due process should be required in the application and administration of a measure which purports to be an exception to the treaty obligations of the Member imposing the measure and which effectively results in a suspension *pro hac vice* of the treaty rights of other Members." WTO Appellate Body Report, *US – Shrimp*, WT/DS58/AB/R, adopted Nov. 6, 1998, para. 182.

[104] WTO Panel Report, *EC – Selected Customs Matters,* para. 7.134, *citing* Appellate Body Report, *US – Shrimp*, paras. 181-83.

[105] WTO Appellate Body Report, *EC – Selected Customs Matters,* para. 224 (emphasis in original). According to the panel in *EC – Selected Customs Matters*:

> [T]here would appear to be nothing in the ordinary meaning of the term "administer" that would suggest that it covers *laws and regulations as such.* On the contrary, the relevant dictionary definitions indicate that the term "administer" refers to positive action or steps taken to put into effect measures such as laws and regulations, but not the laws and regulations themselves, which merely exist without effect until they are actually applied in practice.

rulings *of general application*' ... that apply to a range of situations or cases, rather than being limited in their scope of application."[106] Thus, the obligations imposed by Article X:3(a) do not apply to the substantive rules governing the enforcement of Chinese export laws but to their administration,[107] including administrative processes and practices like MOFCOM's notice establishing the application criteria and procedural requirements for rare earth quota applications.[108]

Indeed, the WTO panel in *Argentina – Hides and Leather* considered a similar factual situation involving an industry association of producers of leather, leather manufactures, and related goods, allowed to be present during the inspection, classification, and valuation of leather goods declared for exportation by Customs. In that case, the panel found that the Argentine measure was both partial and unreasonable and, therefore, inconsistent with Article X:3(a). Specifically, the panel stated:

> Whenever a party with a contrary commercial interest, but no relevant legal interest, is allowed to participate in an export transaction such as this, there is an inherent danger that the Customs laws, regulations and rules will be applied in a partial manner so as to permit persons with adverse commercial interests to obtain confidential information to which they have no right.[109]

With respect to reasonableness, the panel explained that the requirement of reasonableness turned on "the question of information flows and whether it is reasonable to allow persons access

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WTO Panel Report, *EC – Selected Customs Matters*, para. 7.106 (emphasis in original).

[106] WTO Panel Report, *EC – Selected Customs Matters*, para. 7.116; *see* WTO Appellate Body Report, *EC – Poultry*, WT/DS69/AB/R, adopted July 23, 1998, para. 111.

[107] WTO Appellate Body Report, *EC – Bananas III*, WT/DS27/AB/R, adopted September 25, 1997, para. 200; WTO Panel Report, *US – Offset Act,* adopted Jan. 27, 2003, para. 7.143, *citing Argentina – Hides and Leather*, para. 11.72.

[108] WTO Appellate Body Report, *EC – Selected Customs Matters,* para. 226. In the *EC – Selected Customs Matters* dispute, the United States specifically challenged, *inter alia,* the EC's administration of its customs laws, including the administrative practices of customs authorities of member States of the European Communities. *Id.* at Annex III.

[109] WTO Panel Report, *Argentina – Hides and Leather*, paras. 2.31, 2.38-44, 11.94, 11.100-01.

to certain information which is irrelevant to the stated purpose of the legislation in question."[110]

Like the industry representatives in *Argentina – Hides and Leather,* the CCCMC represents competitors of the individual applicant enterprises and of the foreign buyers. Thus, even if the application requirements were consistent with China's WTO obligations, the CCCMC's role in determining whether applicant enterprises satisfy the requisite conditions for the rare earth export quota involves the same conflict of interest that the panel found problematic in *Argentina – Hides and Leather.* Accordingly, China's administration of the export quota system in this case is likewise unreasonable and partial contrary to Article X:3(a) of the GATT 1994.

B. China's Cannot Justify Imposition of Export Restraints on Rare Earth Minerals, Antimony, and Tungsten Because the "Exhaustible Natural Resources" and "Environmental" Exceptions Are Inapplicable

1. The "Exhaustible Natural Resources" Exception Is Inapplicable

As explained above in Section II.A, China's export duties, licensing procedures, and quotas on rare earths, antimony, and tungsten are inconsistent with its WTO obligations under GATT 1994 Articles XI:1 and X:3(a), and/or its Accession Protocol. While China is likely to defend its export measures by relying on the "exhaustible natural resources" exception in GATT 1994 Article XX(g), the exception should be inapplicable.[111]

GATT 1994 Article XX(g) permits the adoption or enforcement of export restrictions relating to the conservation of "exhaustible natural resources"[112] only if those export restrictions

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[110] WTO Panel Report, *Argentina – Hides and Leather*, para. 11.86.

[111] *Chinese Government Tightens Controls on Rare Earths* (June 2, 2010) available at <www.indiumsamplesblog.com> **(Exhibit II-20)** ("'WTO rules stipulate that its members can take measure to protect their raw materials from being exhausted, and China's measures are in line with them,' said He Weiwen, managing director of the China Society for World Trade Organization Studies.").

[112] GATT 1994 Article XX, *in* WTO, THE LEGAL TEXTS: THE RESULTS OF THE URUGUAY ROUND OF MULTILATERAL TRADE NEGOTIATIONS at 455 (1999). For example, the Appellate Body has recognized that clean

that are made effective in conjunction with restrictions on domestic production or consumption:

> Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures:
>
> * * *
>
> (g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption....[113]

Article XX(g) has been interpreted to call for a two-part legal analysis. First, Article XX(g) requires consideration of "the relationship between the measure at stake and the legitimate policy of conserving exhaustible natural resources."[114] Whether measures "relate to" the conservation of natural resources involves an examination of the "relationship between the general structure and design of the measure ... and the policy goal it purports to serve" to determine whether the measure is "primarily aimed at" conservation or whether there is a "substantial" or "close and genuine relationship of ends and means" so that "[t]he means are, in principle, reasonably related to the ends."[115] In other words, the design of the measure cannot be "disproportionately wide in its scope and reach in relation to the policy objective of protection and conservation...."[116]

Second, Article XX(g) requires consideration of whether the measures are "made effective in conjunction with restrictions on domestic production or consumption." According to

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air is an exhaustible natural resources within the meaning of GATT 1994 Article XX(g). *See* Appellate Body Report, *United States – Gasoline,* WT/DS2/AB/R, adopted May 20, 1996, p. 17.

[113] GATT 1994 Article XX(g).

[114] WTO Appellate Body Report, *United States – Shrimp,* WT/DS58/AB/R, para. 135. According to the Appellate Body in *United States, -- Shrimp,* "measures to conserve exhaustible natural resources, whether *living* or *non-living*, may fall within Article XX(g)." *Id.* at para. 131.

[115] See WTO Appellate Body Report, *United States – Shrimp*, paras. 136-42; WTO Appellate Body Report, *United States – Gasoline*, at pp. 14, 16-17, *citing* GATT Panel Report, *Canada – Measures Affecting Exports of Unprocessed Herring and Salmon*, BISD 35S/98, adopted March 22, 1988, para. 4.6.

[116] WTO Appellate Body Report, *United States – Shrimp,* para. 141.

the Appellate Body, this clause requires *even-handedness* in the imposition of restrictions:[117]

> The Appellate Body considers that the basic international law rule of treaty interpretation, discussed earlier, that the terms of a treaty are to be given their ordinary meaning, in context, so as to effectuate its object and purpose, is applicable here, too. Viewed in this light, the ordinary or natural meaning of "made effective" when used in connection with a measure – a governmental act or regulation – may be seen to refer to such measure being "operative", as "in force", or as having "come into effect." Similarly, the phrase "in conjunction with" may be read quite plainly as "together with" or "jointly with." Taken together, the second clause of Article XX(g) appears to us to refer to governmental measures like the baseline establishment rules being promulgated or brought into effect together with restrictions on domestic production or consumption of natural resources. Put in a slightly different manner, we believe that the clause "if such measures are made effective in conjunction with restrictions on domestic product or consumption" is appropriately read as a requirement that the measures concerned impose restrictions, not just in respect of imported gasoline but also with respect to domestic gasoline. The clause is a requirement of *even-handedness* in the imposition of restrictions, in the name of conservation, upon the production or consumption of exhaustible natural resources.[118]

While the Appellate Body explained that identical treatment was not required, it pointed out that "if *no* restrictions on domestically-produced like products are imposed at all, and all limitations are placed upon imported products *alone*, the measure cannot be accepted as primarily or even substantially designed for implementing conservationist goals."[119] In other contexts, the Appellate Body has equated the term "even-handed" with the fairness, impartiality, or lack of bias. According the Appellate Body, "even-handed" treatment would be "fair to all parties affected" and, therefore, would not disadvantage or prejudice exporters over domestic interested

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[117] *See* WTO Appellate Body Report, *United States – Shrimp,* para. 143, *citing* WTO Appellate Body Report, *United States – Gasoline,* at 18.

[118] WTO Appellate Body Report, *United States – Gasoline,* at 18.

[119] WTO Appellate Body Report, *United States – Gasoline*, at pp. 18-19, *citing* GATT Panel Report, *Canada – Measures Affecting Exports of Unprocessed Herring and Salmon*, BISD 35S/98, adopted March 22, 1988, para. 5.1; GATT Panel Report, *United States – Prohibition of Imports of Tuna and Tuna Products from Canada*, BISD 29S/91, adopted February 22, 1982, paras. 4.10-12.

parties.[120]

In this case, China's regulations provide for export restrictions for the reasons identified in Clauses 1, 2, 3, and 7 of Article 16 of the Foreign Trade Law, which state:

> Article 16. For the following reasons, the States may restrict or forbid the import or export of the relevant goods or technology when:
>
> 1. it is necessary to restrict or forbid the import or export for the purposes of maintaining national security, social public interests or public morality;
>
> 2. it is necessary to restrict or forbid the import or export for the purpose of protecting human health or security, protecting the life or health of any animal or plant, or protecting the environment;
>
> 3. it is necessary to restrict the import or export for the purpose of implementing the measures relating to the import or export of gold or silver;
>
> * * *
>
> 7. it is necessary to restrict the import for the purpose of establishing or accelerating the establishment of a particular domestic industry....[121]

Although China's law does authorize export restrictions for the purpose of "protecting the environment," the public information available to date does not support a finding that China's export restraints on rare earth minerals, antimony, or tungsten were primarily or even substantially designed for implementing conservationist goals.

On the contrary, there is every indication that China's export restraints are primarily intended to facilitate achievement of its commercial goals, including a "technology for

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[120] WTO Appellate Body Report, *United States – Softwood Lumber V (Art. 21.5)*, WT/DS264/AB/RW, adopted Sept. 1, 2006, para. 138; WTO Appellate Body Report, *United States – Hot-Rolled Steel (Japan)*, WT/DS184/AB/R, adopted Aug. 23, 2001, paras. 148, 154.

[121] Foreign Trade Law, art. 16 **(Exhibit II-32)**; Import and Export Regulations, art. 35 **(Exhibit II-33)**.

resources" strategy.[122] For example, statements by policymakers in China indicate that the purpose of controlling rare earth production (by consolidating production among SOEs) and limiting exports is to maintain higher export prices for the minerals and attract more investors to develop an industrial base in rare earths in China:

> Zhao Shuanglian, vice chairman of the Inner Mongolia Autonomous Region, said that "to use moderation in the control of the production of rare earth resources and reduce exports to an acceptable level is to attract more Chinese and foreign investors into the region."
>
> "We should by no means lay too much stress on raising the price of rare earth in the short-term. We are aiming to make Baotou in Inner Mongolia into a world-class rare earth industrial base," he said.[123]
>
> * * *
>
> The sharp decline of the export quota will cause a shortage of around 20,000 tons of rare earth for international users this year, said Zhang Zhong, president of China's largest rare-earth producer, Inner Mongolia Baotou Steel Rare-Earth (Group) Hi-Tech Co.
>
> Against this backdrop of the shortage, Mr. Zhang expects that plenty of foreign companies will start moving their rare-earth processing plants to China as early as this year.
>
> Foreign involvement offers regions rich in rare earth a chance to turn into high-technology centers rather than having just heavy industry. Resource-rich regions all want to expand into the more-profitable downstream proceeding sectors instead of just supplying the raw materials, said a government official with Baotou city in the Inner Mongolia Autonomous Region, one of China's major mining centers. "We are not willing to be the world factory all the time."[124]

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[122] *China Dangles Rare-Earth Resources to Lure Investment,* WALL ST. J. (Aug. 16, 2010) **(Exhibit II-49)** ("...a senior official with China's Ministry of Industry and Information Technology said this past Tuesday last week that while China has used a 'technology for market' strategy before – offering foreign companies low labor costs and access to its fastest growing market – 'now we have the expression 'technology for resources.' The official cited the rare-earth market as workable for this strategy, but warned: 'Difficulties remain if we don't handle it well.'").

[123] *China's Inner Mongolia regulates rare earth export to attract investment: official,* PEOPLE'S DAILY ONLINE (Sept. 2, 2009) **(Exhibit II-11)**.

[124] *China Dangles Rare-Earth Resources to Lure Investment,* WALL ST. J. (Aug. 16, 2010) **(Exhibit II-49)**.

According to Wang Caifeng, deputy director-general of the raw material division at MIIT, the export restrictions affecting rare earth raw materials will encourage the exportation of processed products.[125]

Thus, China's export restraints are an integral part of its strategy to stabilize prices, attract investors, encourage further processing in conjunction with the development of numerous types of green technologies, increase foreign dependence on China's finished goods, and address illegal smuggling operations:[126]

> China's control over rare earth elements has the potential to increase foreign dependence on China for finished goods. China has adopted various policies to further develop the rare earth industry at its roots. China's vision is to increase industrial utilization of rare earth elements in order to draw in more rare earth enterprises, both within and outside of China, to set up operations in Inner Mongolia in the area of rare earth applications. Zhao Shuanglian pointed out that Inner Mongolia wanted to control its rare earth resources so that it could become a major industrial base. Zhao also expressed an interest in attracting more domestic and international interest in Inner Mongolia to develop the rare earth industry. This is an ideal scenario for China because it will give the country complete control over the industry and provide more job opportunities for Chinese citizens in the manufacturing industry. However, for those countries forced to move their production bases to China due to their dependence on rare earth elements, jobs are lost and, perhaps more critical to

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[125] *China Dangles Rare-Earth Resources to Lure Investment,* WALL ST. J. (Aug. 16, 2010) **(Exhibit II-49)**.

[126] *See, e.g., See* Testimony of Terence P. Stewart, Esq., at the U.S. House Committee on Science and Technology, Subcommittee on Investigations and Oversight, Hearing on "Rare Earth Minerals and 21st Century Industry" at 2-3 (March 16, 2010) **(Exhibit II-10)**, *citing* Clint Cox, The Anchor House, Inc. (Research on Rare Earth Elements) at 5 (Dec. 17, 2009), available at <http://theanchorhouse.com> (explaining that China is offering ample supplies of rare earth minerals to foreign companies investing in China); *China's Inner Mongolia regulates rare earth export to attract investment: official,* PEOPLE'S DAILY ONLINE (Sept. 2, 2009) **(Exhibit II-11)**; Jia Hepeng, *Proposed rare metal ban unlikely to impact market* (Oct. 2009) **(Exhibit II-12)** (noting that China's quotas on rare earth materials were intended to maintain the price of rare earth minerals); Wang Qian, *Govt cracks whip on rare earth mining,* CHINA DAILY (May 21, 2010) **(Exhibit II-13)** ("Officials said the rising prices of rare earth have promoted illegal mining activities in the country"); Directory Catalog on Readjustment of Industrial Structure (Version 2005) **(Exhibit II-14)**. Development of a rare metals sector, including the production of antimony and tungsten, will form a separate part of China's 12th Five-Year Plan. *China to cap nonferrous metals production,* PEOPLE'S DAILY ONLINE (July 26, 2010) **(Exhibit II-15)**. China claims that approximately 20,000 tons of rare earths were smuggled out of China in 2008. IAGS, *China's Rare Earth Elements Industry: What Can the West Learn?* at 15 (March 2010) **(Exhibit II-8)**.

> national security, proprietary and even critical technologies will likely be compromised.[127]

Regardless of its intentions, China's export restraints on rare earths, antimony, and tungsten should fail the second prong of the analysis because they have not been made effective in conjunction with comparable restrictions on domestic production or consumption. With respect to tungsten, there are only production quotas on tungsten trioxide and blue tungsten oxide, but export quotas also cover tungstic acid, tungstate, and tungsten powders and products.[128] More significantly, China's production quotas for 2009 and 2010 for rare earths, antimony, and tungsten were all up, not down.[129] For rare earths, in particular, China's export quotas decreased while its production quota increased – ensuring that production would be devoted to downstream domestic industries:

Rare Earth MLR Mining and MIIT Production and Export Quotas[130]
(MT)

	Mining Quota	Concentrate Quota	Export Quota	Export as % Mined	Export as % Conc.
2009	82,320	119,500	50,145	60.91%	41.96%
2010 (est.)	89,200	125,000	30,258	33.92%	24.21%

Indeed, China's recently increased production quotas for rare earths, antimony, and tungsten were consistent with the MLR's plan to increase extraction and utilization targets from 2010 to

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[127] IAGS, *China's Rare Earth Elements Industry: What Can the West Learn?* at 21 (March 2010) **(Exhibit II-8)**.

[128] *See* **Exhibits II-45 & 51**. With respect to rare earths, any decrease in the total output of rare earth concentrates since 2007 has been attributed to the implementation of mandatory planning of rare earth production for total quantity control. Dr. Chen Zhanheng, Deputy Director, Office of the Chinese Society of Rare Earths, *Outline on the Development and Policies of China Rare Earth Industry* (April 7, 2010) **(Exhibit II-50)**.

[129] *See* Table of China's Production Quotas on Rare Earth Minerals, Antimony, and Tungsten **(Exhibit II-51)**. Although mining quotas or "guidelines" exist, they have largely been ignored. Instead, actual mining for rare earths has been slightly under the level of MIIT concentrate quotas. *See, e.g., Roskill Presentation on Rare Earths: A Golden Future or Overhyped?* at 7 (April 1, 2010) **(Exhibit II-39D)**.

[130] **Exhibits II-39 & 51**.

2015.[131] Provisional and local policies also indicated that their main focus was on increasing production of higher value-added rare earth products in China by setting production targets (not caps).[132]

Even if China's production quotas had not increased for these minerals, however, the huge disparity between production and export quotas demonstrates a marked lack of *even-handedness* in the imposition of restrictions upon the production of these minerals, which strongly suggests that the design of these measures was not primarily or substantially aimed at conservation.

2. The "Environmental" Exception Is Inapplicable

China has also publicly defended its measures on the ground that its export restraints are somehow intended to improve the environment,[133] consistent with the exception in GATT 1994 Article XX(b), by reducing the consequential damage to "human, animal or plant life or health" from mining pollution.[134] Specifically, China defended its export restraints as being necessary to protect the environment in an August 27, 2010 media briefing with Chinese Commerce Minster Chen Deming and Japanese Foreign Minister Katsuya Okada.[135] Article XX(b), however, establishes relatively strict requirements on measures that are claimed to be "necessary to protect human, animal or plant life or health." The Appellate Body has interpreted the term "necessary"

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[131] National Mineral Resources Plan (2008-2015), MLR Pub. [2008] No. 309 (Dec. 31, 2008) **(Exhibit II-16)**.

[132] For example, the Jiangxi Province issued guidance in 2007 calling for rare earth mineral producers to strive for sales revenue of RMB 1 billion. Jiangxi Province Rare Earth Industry Development, Guidance Opinion, Jiangxi Province Development and Reform Commission (Jan. 15, 2007) **(Exhibit II-52)**.

[133] *See China defends its policy on rare earth export control,* PEOPLE'S DAILY ONLINE (Aug. 29, 2010) **(Exhibit II-53)**. *See also* Gareth Hatch, *China's Rare Earths Game Plan: Part 1 – The Effects Of Reduced Export Quotas,* TECHNOLOGY METALS RESEARCH (July 14, 2010) **(Exhibit II-54)**.

[134] Gareth Hatch, *China's Rare Earths Game Plan: Part 1 – The Effects Of Reduced Export Quotas,* TECHNOLOGY METALS RESEARCH (July 14, 2010) **(Exhibit II-54)**.

[135] *China Defends Control of Rare Earth Exports as Move to Protect Environment,* BLOOMBERG NEWS (Aug. 28, 2010) **(Exhibit II-55)**.

in Article XX(b) to require consideration of (1) the importance of the interests or values at stake, (2) how the measure contributes to achievement of its objectives and its trade restrictiveness, and (3) whether there are less trade-restrictive "reasonably available" alternatives that provide an equivalent contribution to the achievement of the objective pursued.[136]

While environmental protection is important to all WTO Members, it is not clear why China has decided that export restraints on certain key rare earths, antimony and tungsten were necessary to protect the environment but comparable reductions in domestic production of those minerals or other minerals were not.[137] Indeed, when compared to the mining of other industrial minerals, the amounts of rare earth minerals China has historically produced is dwarfed in comparison by the amounts of cement, lime, salt, nitrogen, soda ash, gypsum, sodium, and phosphate produced:

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[136] Appellate Body Report, *Brazil – Retreaded Tyres,* paras. 143, 156, 178, 210.

[137] The mining of minerals is not a primary cause of environmental pollution in China. According to a recent pollution survey, industrial pollution accounted for 19% of China's pollution, with agricultural activities accounting for 44% and household waste accounting for 37%. *China Concludes Pollution Survey* (Feb. 9, 2010) available at <www.CCTV.com> **(Exhibit II-56)**. For industrial pollution, the Chinese government publicly identified the metal production and non-metal mineral production industries and 5 other industries as the top 7 polluting industries that constitute 51.3% of industrial pollutants survey objects. Ministry of Environmental Protection, National Bureau of Statistics, and Ministry of Agriculture: First National Census of Pollution Sources Bulletin, B. Industrial Pollutants, (a) Basic Conditions, 1. Quantity of Survey Objects (February 6, 2010) **(Exhibit II-57)**. China's air pollution problem, in particular, has long been attributed to the use of coal for energy as well as fuel oil for cars. *See* Joseph Kahn & Jim Yardley, *As China Roars, Pollution Reaches Deadly Extremes,* N.Y. TIMES (Aug. 26, 2007) **(Exhibit II-58)**.

ESTIMATED CHINESE PRODUCTION OF INDUSTRIAL MINERALS[138]
(MT)

	2004	2005	2006	2007	2008
Asbestos	400,000	400,000	360,000	390,000	380,000
Barite	3,900,000	4,200,000	4,400,000	4,400,000	4,600,000
Bentonite	3,000,000	3,100,000	3,200,000	3,300,000	3,300,000
Boron, mine, B_2O_3	135,000	140,000	145,000	145,000	140,000
Bromine	80,000	104,000	124,000	130,000	135,000
Cement, hydraulic	970,000,000	1,068,850,000	1,236,770,000	1,361,170,000	1,388,380,000
Diatomite	390,000	410,000	420,000	420,000	440,000
Dolomite	7,500,000	7,800,000	8,000,000	8,000,000	8,000,000
Feldspar	1,800,000	1,900,000	1,950,000	2,000,000	2,000,000
Fluorspar	2,700,000	2,800,000	3,000,000	3,200,000	3,250,000
Graphite	700,000	720,000	720,000	800,000	800,000
Gypsum	29,000,000	32,000,000	4,200,000	4,800,000	4,600,000
Kaolin	7,000,000	7,720,000	7,520,000	7,380,000	3,850,000
Lime	140,000,000	150,000,000	160,000,000	170,000,000	175,000,000
Lithium minerals, all types	18,000	19,000	20,000	22,000	25,000
Magnesite	6,500,000	6,600,000	6,700,000	8,000,000	10,000,000
Nitrogen, N content of ammonia	34,770,000	37,850,000	40,660,000	42,480,000	41,140,000
Phosphate rack, P_2O_5 equivalent	7,650,000	9,130,000	11,600,000	15,100,000	15,200,000
Potash, marketable K_2O	770,000	1,500,000	1,800,000	2,600,000	2,750,000
Rare earths, rare-earth oxide equivalent	98,000	119,000	133,000	120,000	125,000
Salt	37,100,000	46,610,000	56,630,000	59,760,000	59,520,000
Sodium compounds:					
Mirabilite	6,300,000	6,300,000	6,500,000	6,600,000	6,600,000
Soda ash, natural & synthetic	13,024,000	14,211,000	15,600,000	17,650,000	18,540,000
Strontium carbonate	270,000	300,000	320,000	330,000	335,000
Sulfur	7,150,000	7,710,000	7,760,000	8,460,000	8,610,000
Talc and related minerals	2,200,000	2,300,000	2,400,000	2,000,000	2,200,000

China's 11th Five Year Plan specifically encouraged the further processing of rare earth metal and its applications as well as the production of antimony compounds in conjunction with the

[138] U.S. Geological Survey, *2008 Minerals Yearbook: China (Advance Release)*, at table 1 (Oct. 2009) **(Exhibit II-39B)**.

development of numerous types of green technologies.[139] Even the Ministry of Land and Resources' Notice imposing production quotas on tungsten, antimony, and rare earth mines, identified market trends and supply and demand factors, not the environment, as significant factors in the decision:

> In order to protect and properly utilize our advantageous resources, according to provisions on protective exploitation of specified minerals and implementation of planned exploitation, based on requirements of "Ministry of Land and Resources' Notice on Issuing and Implementing 'National Mineral Resources Plan (2008-2015)'" (Ministry of Land and Resources Pub. [2008] No. 309), after comprehensively studying resource reserves, existing prospecting rights, and mining rights setup, and elements such as international and domestic market demand trend, this Ministry has decided to continue to exercise total production quota control over tungsten and rare earth mines exploitation, and to [start to] exercise total production quota control over antimony mines exploitation. Prior to June 30, 2010, consideration of applications for tungsten, antimony, and rare earth mines exploration permits and mining permits will be suspended ....[140]

According to the Appellate Body, a measure "contributes" to its environmental objectives when "there is a genuine relationship of ends and means between the objective pursued and the measure at issue."[141] The level of contribution necessarily will vary depending on the type of measure imposed. For example, the Appellate Body has explained that measures that produce severe restrictive effects on international trade, like import bans, must make a *material* contribution to the achievement of their objective.[142] As explained above, the prohibition on the

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[139] Directory Catalog on Readjustment of Industrial Structure (Version 2005), sections VIII(11) & (12) **(Exhibit II-14)**. Development of a rare metals sector, including the production of antimony and tungsten, will form a separate part of China's 12th Five-Year Plan. *China to cap nonferrous metals production,* PEOPLE'S DAILY ONLINE (July 26, 2010) **(Exhibit II-15)**.

[140] Ministry of Land and Resources' Notice on Issuance of 2009 Tungsten, Antimony, and Rare Earth Mines Exploitation Total Production Quota, MLR Pub. [2009] No. 49 (May 6, 2009) **(Exhibit II-51A1)** (emphasis added).

[141] WTO Appellate Body Report, *Brazil – Retreaded Tyres,* para. 145.

[142] WTO Appellate Body Report, *Brazil – Retreaded Tyres,* para. 150.

use of non-tariff trade barriers, like export licensing and quotas, forms one of the cornerstones of the GATT system. Therefore, it is likely that China would have to show that its non-tariff export restraints made a material contribution to its environmental objectives. In order to affect the environment, China's export restraints would have to have the effect of reducing overall production levels to reduce the amount of mining and consequent pollution.[143] As indicated in the table above, however, China's production levels of rare earth minerals are still significant and higher than 2004 and 2005 levels.

Assuming *arguendo* that a reduction of mineral exports would make a material contribution to the reduction of pollution in China caused by mining, however, the export restraints imposed are not less trade-restrictive than other "reasonably available" alternatives. For example, other countries have responded to environmental or conservation concerns by directly regulating production, using mining taxes on the income of mine operators, rather than restricting trade.[144] Another effective way to reduce the level of pollution and protect the environment is to require miners to exercise sufficient preventative measures to minimize pollution.[145] Given the extremely trade-restrictive nature of China's series of export restraints on minerals, China should rely on less trade-restrictive production-related or preventative measures to reduce environmental stress.

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[143] Jane Korinek & Jeonghoi Kim, *Export Restrictions on Strategic Raw Materials and Their Impacts on Trade,* OECD Trade Policy Working Papers, No. 95 (March 29, 2010) **(Exhibit II-59)**; *see* Appellate Body Report, *Brazil – Retreaded Tyres,* para. 144.

[144] Jane Korinek & Jeonghoi Kim, *Export Restrictions on Strategic Raw Materials and Their Impacts on Trade,* OECD Trade Policy Working Papers, No. 95, at 4, 22 (March 29, 2010) **(Exhibit II-59)** (noting Chile's response to resource depletion was to apply a mining tax on the income of mine operators).

[145] WTO Appellate Body Report, *Brazil – Retreaded Tyres,* para. 211 (explaining that remedial measures are not alternatives to preventative measures, like import measures).

3. China Cannot Establish That Its Export Restraints Are Consistent With the Chapeau to GATT 1994 Article XX

Finally, to the extent that export restraints are considered to be necessary for, or sufficiently related to, China's environmental or conservationist goals pursuant to Articles XX(b) or (g), those export restraints are being "applied in a manner which would constitute ... a disguised restriction on international trade" within the meaning of the chapeau to Article XX, which states:

> Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, nothing in this Agreement shall be construed to prevent the adoption or enforcement ... of measures [of the type specified in the subsequent paragraphs of Article XX].

According to the Appellate Body, "the chapeau serves to ensure that Members' rights to avail themselves of exceptions are exercised in good faith to protect interests considered legitimate under Article XX, not as a means to circumvent one Member's obligations towards other WTO Members."[146]

Thus, "the language of the chapeau makes clear that each of the exceptions in paragraphs (a) to (j) of Article XX is a *limited and conditional* exception from the substantive obligations contained in other provisions of the GATT 1994...."[147] China's export restraints, however, are not a *limited and conditional* exception from its substantive WTO obligations. Export quotas on rare earth minerals, for example, have been in place since 2004.[148]

It is also highly relevant that China's publicly-announced export restraints for rare earth,

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[146] WTO Appellate Body Report, *Brazil -- Retreaded Tyres,* para. 215.

[147] *See* WTO Appellate Body Report, *United States – Shrimp,* para. 157.

[148] Jia Hepeng, *Proposed rare metal ban unlikely to impact market* (Oct. 2009) **(Exhibit II-12)**.

antimony, and tungsten lacked any projected environmental protection or conservation targets that could not be achieved without the imposition of export restraints on those products. Restrictions that formally meet "the requirements of Article XX(b) will constitute an abuse if such compliance is in fact only a disguise to conceal the pursuit of trade-restrictive objectives."[149] While there have not been many cases establishing a "disguised restriction on international trade" within the meaning of the chapeau, Article 5.5 of the SPS Agreement uses similar language in the case of SPS measures intended to protect against risks to human, plant or animal life or health. In *Australia – Salmon,* for example, the Appellate Body found that various factors could cumulatively support a finding that Australia's import ban resulted in a disguised restriction on international trade based on its failure (1) to conduct an adequate risk assessment, and (2) to control internal movement of salmon products compared to imported products.[150]

With respect to the first factor, Article 5.1 of the SPS Agreement[151] requires WTO Members to base their SPS measures on an assessment of the risks to human, animal or plant life or health. In that context, the Appellate Body concluded that failure to assess those risks was a strong indicator that the measure was, instead, a disguised restriction on trade:

> We note that a finding that an SPS measure is not based on an assessment of the risks to human, animal or plant life or health – either because there was no risk assessment at all or because there is an insufficient risk assessment – is a strong indication that this measure is not really concerned with the protection of human, animal or plant life or health but is instead a trade-restrictive measure taken in the guise of an SPS measure, i.e., a "disguised restriction on international trade". We, therefore, consider that the finding of inconsistency with Article 5.1 is an appropriate warning signal for a "disguised restriction on international trade".[152]

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[149] WTO Panel Report, *EC – Asbestos,* WT/DS135/R, para. 8.236.

[150] WTO Appellate Body, *Australia – Salmon,* WT/DS18/AB/R, paras. 166, 174, 176-177.

[151] Agreement on the Application of Sanitary and Phytosanitary Measures, Article 5.1, in WTO, THE LEGAL TEXTS: THE RESULTS OF THE URUGUAY ROUND OF MULTILATERAL TRADE NEGOTIATIONS at 61 (1999)

[152] WTO Appellate Body, *Australia – Salmon,* para. 166 (emphasis added).

Although GATT 1994 Article XX(b) does not specifically require a risk assessment *per se*, the same logic should apply to establish whether or not a trade-restrictive measure is really a disguised restriction on trade under the chapeau. If a WTO Member is really concerned about the environment and has determined that export restraints are necessary, they will conduct scientific tests to analyze the pollution levels caused by mining certain products, announce the results of those tests, and, if necessary, apply *limited* measures to address the problem.[153] To our knowledge, however, the export restraints at issue were not based on any governmental analysis by MOFCOM to justify specific levels of export controls on rare earths, antimony, and tungsten; their duration; or their expected contribution to environmental protection or conservation.

With respect to the second factor, the Appellate Body in *Australia – Salmon* thought that Australia's distinction in the level of protection imposed by its import ban on ocean-caught fish compared to the absence of controls on the internal movement of salmon products could also support a finding that the measure was a disguised restriction on international trade.[154] Likewise, in the case of minerals, the lack of comparability between production and export quotas and the increase in China's production figures strongly suggests that something other than the environment is motivating China's move to control exports.

There have been a number of conflicting rationales suggested in the media to explain the government's export restraints, in addition to references to the need to protect the "environment." As explained above, reports repeatedly state that the Chinese strategy to regulate the exploitation and exportation of these minerals was also to stabilize prices, attract investors,

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[153] Indeed, a GATT panel in *US – Spring Assemblies* rejected an claim that a U.S. exclusion order was a "disguised restriction on international trade" based on evidence that the order was published in the *Federal Register,* was issued after the validity of a patent and its infringement was clearly established, and was limited to infringing imports. GATT Panel Report, *United States – Imports of Certain Automotive Spring Assemblies,* BISD 30S/107, adopted May 26, 1983, para. 56.

[154] WTO Appellate Body Report, *Australia – Salmon*, paras. 174, 176.

encourage further processing in conjunction with the development of numerous types of green technologies, increase foreign dependence on China's finished goods, and address illegal smuggling operations.[155]

China's environmental woes, however, have become a convenient excuse to justify serious WTO violations.[156] China is already well-aware of the fact that its concerns with respect to low prices, depletion, and the environment could be alleviated by addressing the illegal smuggling of rare earths:

> Smuggling is potentially detrimental to China's rare earth industry because it keeps prices low and depletes resources quicker. Smuggling also indicates a severe lack of control over the industry and can lead to even greater repercussions such as more damage to the environment. Regulations on safe mining practice are nearly impossible to enforce in this type of environment. As it is, because of poor management practices and the large scale of the industry, China already has difficulty in enforcing regulations to improve safety and environmental measures in its rare earth industry.[157]
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> * * *
>
> A major concern surrounding China's practice of mining rare earth elements is the negative impact it has to the environment due to lax

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[155] *See, e.g.*, Testimony of Terence P. Stewart, Esq., at the U.S. House Committee on Science and Technology, Subcommittee on Investigations and Oversight, Hearing on "Rare Earth Minerals and 21st Century Industry" at 2-3 (March 16, 2010) **(Exhibit II-10)**, *citing* Clint Cox, The Anchor House, Inc. (Research on Rare Earth Elements) at 5 (Dec. 17, 2009), available at <http://theanchorhouse.com> (explaining that China is offering ample supplies of rare earth minerals to foreign companies investing in China); *China's Inner Mongolia regulates rare earth export to attract investment: official,* PEOPLE'S DAILY ONLINE (Sept. 2, 2009) **(Exhibit II-11)**; Jia Hepeng, *Proposed rare metal ban unlikely to impact market* (Oct. 2009) **(Exhibit II-12)** (noting that China's quotas on rare earth materials were intended to maintain the price of rare earth minerals); Wang Qian, *Govt cracks whip on rare earth mining,* CHINA DAILY (May 21, 2010) **(Exhibit II-13)** ("Officials said the rising prices of rare earth have promoted illegal mining activities in the country"); Directory Catalog on Readjustment of Industrial Structure (Version 2005) **(Exhibit II-14)**. Development of a rare metals sector, including the production of antimony and tungsten, will form a separate part of China's 12th Five-Year Plan. *China to cap nonferrous metals production,* PEOPLE'S DAILY ONLINE (July 26, 2010) **(Exhibit II-15)**. China claims that approximately 20,000 tons of rare earths were smuggled out of China in 2008. IAGS, *China's Rare Earth Elements Industry: What Can the West Learn?* at 15 (March 2010) **(Exhibit II-8)**.

[156] "In particular, restricting the export of some highly polluting or high-energy consuming products is not the most economically efficient way to protect the environment or reduce energy consumption. Nor are export restraints the best way to conserve natural resources." WTO Secretariat, Trade Policy Review of China, WT/TPR/S/230/Rev.1, at 44 (July 5, 2010) **(Exhibit II-60)**.

[157] IAGS, *China's Rare Earth Elements Industry: What Can the West Learn?* at 15 (March 2010) **(Exhibit II-8)** (emphasis added).

> mining practices. There are a number of potential environmental implications to mining rare earth elements if not done properly. Unfortunately, because of the revenue potential, many rare earth mines have been operating illegally, with no regulation, causing severe environmental hazards, which exacerbates the problem.[158]

China has already acknowledged some of these deficiencies by adopting policies to curb smuggling in its "Rare-Earth Industry Development Plan of 2009-2015."[159]

"China dominates global rare earth production partly because of its willingness until now to tolerate highly polluting, low-cost mining."[160] There have long been serious deficiencies in the pollution control standards for rare earth mining in China that need to be addressed:

> Furthermore, according to statistics conducted within Baotou, where China's primary rare earth production occurs, "all the rare earth enterprises in the Baotou region produce approximately ten million tons of all varieties of wastewater every year" and most of that waste water is "discharged without being effectively treated, which not only contaminates potable water for daily living, but also contaminates the surrounding water environment and irrigated farmlands."
>
> The disposal of tailings also contributes to the problem. Tailings are the ground up materials left behind once the rare earth has been extracted. Often, these tailings contain thorium, which is radioactive. Generally, tailings are placed into a large land impoundment and stored. In the U.S. strict controls are put into place and permits are required to store tailings. According to Wang Caifeng, China's Deputy Director-General of the Materials Department of the Ministry of Industry and Information Technology, producing one ton of rare earth elements creates 2,000 tons of mine tailings. Wang said that China has sacrificed greatly in its extraction of rare earths. While taking steps to solve the problem, China still has a long way to go before it achieves any semblance of control over the environmental damage that occurs from its mining and processing of rare earth elements.

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[158] IAGS, *China's Rare Earth Elements Industry: What Can the West Learn?* at 16 (March 2010) **(Exhibit II-8)** (emphasis added).

[159] *See* IAGS, *China's Rare Earth Elements Industry: What Can the West Learn?* at 15 (March 2010) **(Exhibit II-8)**.

[160] Keith Bradsher, *China Tightens Grip on Rare Minerals,* N.Y. TIMES (Aug. 31, 2009) **(Exhibit II-61)**.

* * *

> While China might have general pollution control standards, the country has never actually worked out pollutant discharge standards for the rare earth industry. As the rare earth industry in China has rapidly grown, there has been no effective way to control the usual pollutants such as ammonia, nitrogen, and thorium dust, which are emitted during the production phase.[161]

China has recognized these deficiencies by adopting its 10th Five-Year Plan for the Development of the Environmental Protection Industry[162] and developing new "Rare Earth Industry Pollutant Discharge Standards" in July 2009.[163] The pollution standards will increase the costs of mining and, therefore, can be expected to address the problems of overcapacity and deregulated exploitation that have caused export prices to drop.[164]

Because improved enforcement of criminal and environmental laws would be far less trade-restrictive to address the problems of illegal mining, lax oversight of mining operations, and inadequate pollution control standards, there is simply no justification for China to rely on export restraints at this time. For these reasons, China should not be able to rely on the exceptions in GATT 1994 Articles XX(b) and (g) to defend its export restraints.

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[161] **Exhibit II-8**, at 16-18.

[162] State Economic and Trade Commission, The 10th Five-Year Plan for the Development of the Environmental Protection Industry (Oct. 12, 2001) **(Exhibit II-62)**.

[163] IAGS, *China's Rare Earth Elements Industry: What Can the West Learn?* at 23-24 (March 2010) **(Exhibit II-8)**; *New Standard on Rare Earth Industry in the Pipeline* (July 22, 2010) available at <www.CRIEnglish.com> **(Exhibit II-17)**; Letter Seeking Comments on National Environmental Protection Standard "Rare Earth Industry Pollutants Discharge Standards" (Draft) Ministry of Environmental Protection MEP Letter [2009] No. 691 (July 7, 2009), available at <http://www.mep.gov.cn/gkml/hbb/bgth/200910/t20091022_175020.htm> **(Exhibit II-63)**.

[164] *New Standard on Rare Earth Industry in the Pipeline* (July 22, 2010) available at <www.CRIEnglish.com> **(Exhibit II-17)**.

III. CHINA'S PROHIBITED SUBSIDIES TO GREEN TECHNOLOGY VIOLATE ITS WTO OBLIGATIONS

A. China's WTO Obligations to Eliminate Prohibited Subsidies

The Agreement on Subsidies and Countervailing Measures ("SCM Agreement") disciplines a variety of trade-distorting subsidies, and China accepted these disciplines when it acceded to the WTO.

To fall within the SCM Agreement disciplines, a government measure must constitute a subsidy. Article 1.1 of the SCM Agreement defines a subsidy as "a financial contribution by a government or any public body" that confers a benefit.[165] Article 1.1(a)(1)(i) explains that a financial contribution includes direct transfers of funds, such as grants, loans, and equity infusions, as well as potential direct transfers of funds or liabilities, such as loan guarantees. The Appellate Body has construed the term "benefit" in Article 1.1(b) of the SCM Agreement in light of the relevant context provided by Article 14 of the Agreement, which provides that the existence of the benefit for programs such as government loans is determined with regard to commercial benchmarks.[166]

Article 3 of the SCM Agreement prohibits two categories of subsidies: those contingent on export performance and those contingent on the use of domestic over imported goods. Such subsidies are deemed specific under Article 2.3, and no further specificity criteria need be met to establish that these types of subsidies violate the SCM Agreement. Article 3 states:

> 3.1 Except as provided in the Agreement on Agriculture, the following subsidies, within the meaning of Article 1, shall be prohibited:

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[165] Agreement on Subsidies and Countervailing Measures, Article 1.1, *in* WTO, THE LEGAL TEXTS: THE RESULTS OF THE URUGUAY ROUND OF MULTILATERAL TRADE NEGOTIATIONS at 231 (1999).

[166] Appellate Body Report, *Canada – Measures Affecting the Export of Civilian Aircraft*, WT/DS70/AB/R, adopted Aug. 20, 1999, para. 155.

> (a) subsidies contingent, in law or in fact, whether solely or as one of several other conditions, upon export performance, including those illustrated in Annex I ;
>
> (b) subsidies contingent, whether solely or as one of several other conditions, upon the use of domestic over imported goods.
>
> 3.2 A Member shall neither grant nor maintain subsidies referred to in paragraph 1.

The Appellate Body has explained that the term "contingent" in Article 3.1(a) of the Agreement means "conditional" or "dependent for its existence on something else."[167] Contingency in law is demonstrated on the basis of the words of the relevant law or regulation at issue.[168] The Appellate Body has applied the same interpretation of contingency in law to prohibited domestic content subsidies under Article 3.1(b) of the SCM Agreement.[169]

China accepted the obligations of the SCM Agreement when it acceded to the WTO, without recourse to the transition periods available to certain developing countries to eliminate prohibited subsidies. Paragraph 10.3 of its Accession Protocol states: "China shall eliminate all subsidy programmes falling within the scope of Article 3 of the SCM Agreement upon accession." This commitment is confirmed in paragraphs 167 and 168 of the Working Party Report on China's Accession, and those paragraphs are incorporated as binding commitments in China's Protocol by virtue of paragraph 342 of the Working Party Report and paragraph 1.2 of the Protocol of Accession.

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[167] Appellate Body Report, *Canada – Aircraft*, para. 166.

[168] *See* Appellate Body Report, *Canada – Aircraft*, para. 100.

[169] *See* Appellate Body Report, *Canada – Certain Measures Affecting the Automotive Industry*, WT/DS139/AB/R, WT/DS142/AB/R, adopted June 19, 2000, para. 123.

Thus, any subsidies maintained by the Government of China that are either contingent on export performance or on the use of domestic over imported product constitute prohibited subsidies that violate Article 3 of the SCM Agreement.

B. China's "Ride the Wind" Program is a Prohibited Domestic Content Subsidy in Violation of SCM Agreement Articles 3.1(b) and 3.2

In 2000, China's Economic and Trade Commission issued its Guidance Opinion on Accelerating Localization of Wind Power Technical Equipment, Guo Jing Muo Zi Yuam [2000] No. 122.[170] All public information indicates that the policy is still in effect. This policy does not appear to have been affected by the NDRC circular in late 2009 that purported to eliminate the 70% domestic content requirement that applies to large wind farm concessions.[171]

The measure gives wind power projects that use localized wind power equipment (that is, wind power equipment produced domestically instead of abroad), access to loan interest subsidies and priority connection to the power grid.[172] Foreign joint ventures operating wind farms that purchase domestic equipment shall also enjoy preferential treatment in terms of value-added taxes and enterprise income taxes.[173]

The program is a prohibited domestic content subsidy that violates Articles 3.1(b) and 3.2 of the SCM Agreement. The program provides direct financial contributions under SCM Agreement Article 1.1(a)(1). The loan interest subsidies, whether provided in the form of a grant or in concessional government loans, are direct financial contributions under SCM Agreement Article 1.1(a)(1). The preferential treatment in terms of VAT and income taxes assessed

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[170] A partial English translation of the policy, together with the Chinese original attached **(Exhibit III-1)**.

[171] *See* NDRC Circular Abolishing the Requirement in the Rate of Localization of Equipment Procurement on Wind Power Projects, NDRC Energy [2009] No. 2991 **(Exhibit III-2)**. *See also* Section IV.B, *infra*.

[172] *See* Guidance Opinion on Accelerating Localization of Wind Power Technical Equipment, Guo Jing Muo Zi Yuam [2000] No. 122 at art. 3 **(Exhibit III-1)**.

[173] *See id.*

provides a direct financial contribution in the form of revenue foregone under 1.1(a)(2) of the SCM Agreement.

The loan interest subsidies and preferential tax rates provide a benefit under SCM Agreement Article 1.1(b). If in the form of a grant, the loan interest subsidy provides a benefit equal to the amount of the grant. If in the form of concessional loans, the loan interest subsidy provides a benefit equal to the difference between the terms of the concessional loan and the terms the recipient could have obtained on a comparable commercial loan. The concessional tax rates provide a benefit equal to the difference between the taxes actually paid and the tax that would have otherwise been due.

The subsidy is *de jure* contingent on the use of domestic over imported goods under SCM Agreement Article 3.1(b). Only projects that used domestic wind power equipment are eligible for the loan interest subsidies, and only joint ventures that purchase local equipment are eligible for the preferential tax rates. Thus, the very terms of the policy itself make clear that the subsidies are only available to firms that use domestic over imported goods. The program is a direct violation of Article 3.1(b) and is a prohibited subsidy that must be eliminated under Article 3.2.

C. China's Special Fund for Wind Power Manufacturing is a Prohibited Domestic Content Subsidy in Violation of SCM Agreement Articles 3.1(b) and 3.2

In 2008, the Ministry of Finance issued the Management Regulations on Special Fund for Wind Power Manufacturing Sector in China, MOF Document [2008] No. 476.[174] The regulations state that a "special fund supporting wind power equipment manufacturing sector

[174] An English translation of the policy is attached **(Exhibit III-3)**. The translation is from the website for the "China Renewable Energy Scale-up Project" of the World Bank, Global Environmental Facility, and Government of China, available on-line at <www.cresp.org.cn/english/encontent.asp?id=981>.

will be allocated from central government budget."[175] The fund provides a grant of 600 RMB per KW for the first 50 units of qualifying wind turbine systems produced in China.[176] The subsidy reportedly represents about five to ten percent of the turbine cost.[177] The fund must be used to cover the cost of research and development activities for new wind power equipment.[178]

Only certain turbine systems are eligible for the subsidy. First, the subsidy is designed to support only "state owned and Chinese controlled joint stock companies conducting wind equipment manufacturing ... within the People's Republic of China."[179] In addition, the wind power equipment must have "Chinese IPR, including self R&D, joint venture, or renovation from introduced technology."[180] The technology owned by the Chinese company must meet certain standards of completeness and the company must own a legitimate trademark for the product.[181] The turbine company must file proof of IPR for the wind turbine and its components as part of the grant application form.[182]

In addition, the completed turbine system must meet specific domestic content requirements to be eligible for the grant. The wind turbine systems themselves must be manufactured, installed, and tested in China to qualify for the subsidy.[183] In addition, the turbine's critical components "must be manufactured by Chinese companies or Chinese

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[175] *See id.* at art. 1.

[176] *See id.* at art. 7.

[177] *See* National Foreign Trade Council, *China's Promotion of the Renewable Electric Power Equipment Industry* (March 2010) at 32 **(Exhibit III-4)**.

[178] *See* Ministry of Finance issued the Management Regulations on Special Fund for Wind Power Manufacturing Sector in China, MOF Document [2008] No. 476, art. 8 **(Exhibit III-3)**.

[179] *See id.* at art. 4.

[180] *See id.* at art. 6(1).

[181] *See id.*

[182] *See id.* at art. 9(1).

[183] *See id.* at art. 6(3).

controlled joint stock companies."[184] Along with its application for the grant, the wind turbine manufacturer must file "Purchase agreements with component manufacturers."[185] Finally, to ensure that the grant is only available to turbine manufacturers that use domestic over imported components, the grant itself is allocated 50 percent to turbine manufacturers and 50 percent to manufacturers of critical components for the turbine: "The grant for critical component manufacturers will be based on production cost principle."[186]

The Special Fund for Wind Power Manufacturing is a prohibited domestic content subsidy that violates Articles 3.1(b) and 3.2 of the SCM Agreement. The Special Fund provides a direct financial contribution under SCM Agreement Article 1.1(a)(1) in the form of a grant from the central government budget. The Fund provides a benefit under SCM Agreement Article 1.1(b) equal to the amount of the grant, 600 RMB per 50 KW of qualifying wind turbine equipment.

The grant is contingent on the use of domestic over imported goods under SCM Agreement Article 3.1(b). Only wind turbine manufacturers that use critical components that have also been manufactured in China may qualify for the grant. A turbine manufacturer that used critical components manufactured by foreign companies or companies outside of China could not qualify for the grant.[187] To apply for the grant the turbine manufacturer must submit copies of the purchase agreements with its suppliers of critical components.[188] The grant itself is partly allocated to such component manufacturers based on the costs of production they incur in

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[184] *See id.* at art. 6(4).

[185] *See id.* at art. 9(4).

[186] *See id.* at art. 7.

[187] *See id.* at art. 6(4).

[188] *See id.* at art. 9(4).

China.[189] Thus, the very terms of the policy itself make clear that the special fund is only available to turbine manufacturers if they use domestic critical components instead of imported components. The program is a direct violation of Article 3.1(b) and is a prohibited subsidy that must be eliminated under Article 3.2.

It should be noted that the subsidy is not exempt from Article 3 merely because it states that the funds granted must be used for research and development activities.[190] While the SCM Agreement provided a limited carve-out for certain research and development subsidies, it does not apply in this case. First, under Article 31 of the SCM Agreement, the exemptions for certain R&D subsidies in Article 8 expired five years after the entry into force of the WTO, or in 2000. In 2001, Members committed to negotiate over proposals to extend such exemptions for developing countries and to exercise due restraint in challenging such measures as part of the Doha Round implementation measures.[191] The commitment to exercise due restraint continues.

Second, it is important to note that Article 8 only carves out certain subsidies from actionability under Parts III and IV of the SCM Agreement – it does not exempt these subsidies from the disciplines of Article 3 of the SCM Agreement, which is in Part II of the Agreement regarding prohibited subsidies. Thus, a domestic subsidy that was specific but was not contingent upon export or domestic content may have been exempt from actionability if it met the terms of Article 8, but an export subsidy or domestic content subsidy cannot benefit from the shelter of Article 8. As noted above, the Special Fund for Wind Power Manufacturing is a prohibited domestic content subsidy, and thus the protections of Article 8 are not available to shield it from Article 3 disciplines.

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[189] *See id.* at art. 7.

[190] *See id.* at art. 8.

[191] *See Implementation-related Issues and Concerns*, WT/MIN(01)/17, (Nov. 20, 2001), para. 10.2.

Third, Article 8.2 of the SCM Agreement states that certain industrial research subsidies are exempt from certain actionable subsidy disciplines, but only if those subsidies are limited to not more than 75 percent of the costs of industrial research or not more than 50 per cent of the costs of pre-competitive development activity. In addition, the subsidies must be limited to coverage of the costs of personnel, instruments, equipment, land, buildings, consultancy services, and overhead and running costs. The Special Fund for Wind Power Manufacturing contains no such limitations.[192]

Finally, it is important to note that the Special Fund for Wind Power Manufacturing does not appear to be covered by the agreement reached between the U.S. and China to eliminate China's 70 percent domestic content requirement for wind farm installations. While an important achievement, the agreement, by its own terms, only applies to the 70 percent domestic content requirement for wind farms. The Special Fund is a separate program aimed at providing financial support to domestic turbine manufacturers that use domestic components – it does not appear to be linked in any way to the 70 percent domestic content requirement for wind farm installations. Moreover, the policy appears to remain in effect even after the announcement of the change in the wind farm domestic content policy was issued on November 25, 2009.[193]

D. China's Export Product Research and Development Fund is a Prohibited Export Subsidy in Violation of SCM Agreement Articles 3.1(a) and 3.2

China maintains a variety of programs to benefit the exportation of products designated as high technology products for export in the Catalogue of Chinese High-Tech Products for

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[192] In addition, even if the program did fall within Article 8, China has not notified the program to the WTO, as required under Article 8.3 of the SCM Agreement. That Article provides that, "A subsidy programme for which the provisions of paragraph 2 are invoked shall be notified in advance of its implementation to the Committee." Absent the required notification, China should not be permitted to invoke Article 8.2 to shield this prohibited subsidy from the Agreement's disciplines.

[193] *See* NDRC Circular Abolishing the Requirement in the Rate of Localization of Equipment Procurement on Wind Power Projects, NDRC Energy [2009] No. 2991 **(Exhibit III-2)**. *See also* Section III.B, *infra*.

Export, first promulgated in 2000 and most recently updated in 2006.[194] The 2006 Catalogue includes a number of green technology products.

Green Tech Products in the 2006 Catalogue of Chinese High-Tech Products for Export

HS Number	Product
84101200	hydro turbine
84101310	impulse hydro turbine
84101320	tubular hydro turbine
84101330	pump hydro turbine
84109010	hydro turbine speed controller
84138100.90	photovoltaic water pump
84191900	solar water heater
85023100	wind turbine
85023900	biomass power system equipment
85023900	solar photovoltaic power generation system
85065000	high-energy lithium primary battery
85078020	lithium-ion battery

China's Ministry of Commerce outlines the programs maintained to support exports of the goods in the 2006 Catalogue on its Chinese-language website for MOFCOM's Department of Scientific and Technological Development and Trade. A translated excerpt is below:[195]

> Regarding policies for promoting export of high-tech products:
>
> In recent years, State Council relevant agencies have issued a series of policies such as "Rejuvenating Trade Through Science and Technology Action Plan," "Rejuvenating Trade Through Science and Technology 'The 10th 5-year' Special Plan," and "Catalogue of Chinese High-tech Products for Export" to promote the export of high-tech products. In particular, the General Office of State Council reissued on Nov. 12, 2003, "The Several Opinions on Further Implementation of the Strategy of Rejuvenating Trade through Science and Technology" which was first issued by the MOFCOM and eight other Departments. The document established the framework of policy system of rejuvenating trade through science and technology, mainly reflecting on the aspects of capital

[194] A partial translation of the 2006 Catalogue, together with the Chinese original, is attached **(Exhibit III-5)**.

[195] A partial translation, together with the Chinese language original is attached **(Exhibit III-6)**.

> support, export loan, export credit insurance, speedy custom clearance, and custom examination, etc.
>
> 1. Capital Support. To promote technology renewal, upgrading, development, and innovation, as well as the international competitiveness of Chinese products, according to "Discount-loan Fund Management Methods for Technology Renewal and Transformation Project" and "Export Product Research and Development Fund Management Methods," China has formally started to provide discount-loans for technology renewal and transformation project since July 2002 and provide capital support for high-tech product R&D since 2003.

The regulations for the administration of the Export Product Research and Development Fund are attached at **Exhibit III-7**. Our research indicates this policy is still in effect and applies to the 2006 Catalogue of Chinese High-Tech Products for Export.

Article 1 of the Export Product R&D Fund policy states that the purpose of the policy is to "increase exports, research and development efforts to further optimize export product mix, [and] improve the technological content of exports and value added."[196] The policy provides research and development grants from the central government's funds for certain export business.[197] The funds are jointly administered by the Ministry of Finance and the Ministry of Commerce (previously known as the Ministry of Foreign Trade and Economic Cooperation).[198] To be eligible for funding, exports must have accounted for 50 percent or more of the applicant enterprise's prior year's sales, or the enterprise's export sales must have exceeded $15 million in the prior year.[199] Projects identified as priorities in China high- and new-technology policies and

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[196] *See* Measures for Administration of Export Product Research and Development Funds, Ministry of Foreign Trade and Economic Cooperation [2002] Circular No. 527, Preamble **(Exhibit III-7)**.

[197] *See id.* at art. 2.

[198] *See id.* at art. 4.

[199] *See id.* at art. 8.

products demonstrating competitiveness in international markets will receive priority in funding.[200]

The Export Product R&D Fund is a subsidy that is contingent on export performance and thus prohibited under SCM Agreement Articles 3.1(a) and 3.2. The Export Product R&D Fund provides a direct financial contribution under SCM Agreement Article 1.1(a)(1) in the form of a grant from the central government budget. The Fund provides a benefit under SCM Agreement Article 1.1(b) equal to the amount of the grant. Only enterprises that export half or more of their sales, or at least $15 million a year, may qualify for the fund. Thus, the very terms of the policy itself make clear that the fund is only available to exporters, and eligibility is contingent on the level of export. The first item in the illustrative list of export subsidies in Annex I of the SCM Agreement accurately describes the Export Product R&D Fund: "The provision by governments of direct subsidies to a firm or an industry contingent upon export performance." The program is a direct violation of Article 3.1(a) and is a prohibited subsidy that must be eliminated under Article 3.2.

While the grants are designed to support research and development, they are clearly export-contingent and thus do not fall within the ambit of the Article 8 SCM Agreement exceptions; as discussed in the previous section, Article 8 is available only to shield certain actionable subsidies that support research and development, not prohibited subsidies.[201]

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[200] *See id.* at art. 7.

[201] Moreover, even if the program did fall within Article 8, China has not notified the program to the WTO, as required under Article 8.3 of the SCM Agreement. That Article provides that, "A subsidy programme for which the provisions of paragraph 2 are invoked shall be notified in advance of its implementation to the Committee." Absent the required notification, China should not be permitted to invoke Article 8.2 to shield this prohibited subsidy from the Agreement's disciplines.

E. Export Credits to Green Technology from China's Export Import Bank Are Prohibited Export Subsidies in Violation of SCM Agreement Articles 3.1(a) and 3.2

As noted above, China maintains a variety of programs to benefit the exportation of products listed in its 2006 Catalogue of Chinese High-Tech Products for Export, which includes a number of green technology products in the hydroelectric, solar, wind, biomass, and battery sectors. One of the means used by the Government of China to promote exports of such products is the provision of export credits at preferential rates from the Export-Import Bank of China ("China ExIm Bank"). These export-contingent loans are not provided in accordance with the OECD's *Arrangement on Officially Supported Export Credits*, and they thus are prohibited subsidies that violate Article 3.1(a) of the SCM Agreement and must be eliminated under Article 3.2.

1. Overview of China ExIm Bank Activities

China ExIm Bank has increased its export credit activities exponentially since joining the WTO. In 2009, China ExIm Bank had more than 6 trillion RMB outstanding on its balance sheet, more than eight times the 714 billion RMB it had outstanding in 2001.[202] In 2008 (the latest year for which comparative data are available), new medium- and long-term official export credits from China totaled $59.6 billion – more than five times the amount granted by the United States.[203] In fact, China granted more in such export credits than all of the G7 countries *combined*.[204]

Hydropower has been a major area of focus and expansion for China ExIm Bank. Just one of the major state-owned Chinese contractors benefitting from China ExIm Bank's support,

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[202] *See* Export-Import Bank of China, ANNUAL REPORT 2009 at 21 **(Exhibit III-8)**.

[203] *See* Export-Import Bank of the United States, REPORT TO THE U.S. CONGRESS ON EXPORT CREDIT COMPETITION AND THE EXPORT IMPORT BANK OF THE UNITED STATES (June 2010) at 11 **(Exhibit III-9)**.

[204] *See id.*

Sinohydro, is now undertaking more than half of the hydropower projects underway around the world.[205] Africa has also been a key region for infrastructure projects supported by financing from China ExIm Bank. In 2001, Chinese contractors accounted for just over 7 percent of the African construction market – by 2008, they had shot to first place with over 42 percent of the market in Africa.[206] During the same period, the market share of U.S. contractors in Africa plummeted from nearly 27 percent to less than 6 percent.[207] According to one analysis, the majority of Chinese construction projects in Africa benefit from export credits and/or concessional lending from the Government of China.[208]

Unfortunately, there is a lack of detailed, official information regarding the projects supported by China ExIm Bank. In response to these concerns, the World Bank recently undertook an intensive research project to construct a database of Chinese-funded infrastructure projects in Africa.[209] The project identified 34 power projects in Africa financed by the Chinese government between 2002 and 2007, at least 17 of which appear to be hydroelectric or gas-fired power plant projects supported by China ExIm Bank.[210] In addition, the International Rivers

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[205] *See* Yang Wanli, *Sinohydro: top hydropower engineering firm*, CHINA DAILY (Oct. 20, 2009) **(Exhibit III-10)**.

[206] *See* Chuan Chen et al., *An Empirical Analysis of Chinese Construction Firms' Entry into Africa*, THE CRIOCM2007 INTERNATIONAL SYMPOSIUM ON ADVANCEMENT OF CONSTRUCTION MANAGEMENT AND REAL ESTATE (2007) at 452 **(Exhibit III-11)**. *See also The 2009 Top 225 International Contractors and Top 225 Global Contractors*, ENGINEERING NEWS-RECORD (Aug. 31, 2009) **(Exhibit III-12)**.

[207] *See id.*

[208] *See* Chuan Chen et al., *An Empirical Analysis of Chinese Construction Firms' Entry into Africa*, THE CRIOCM2007 INTERNATIONAL SYMPOSIUM ON ADVANCEMENT OF CONSTRUCTION MANAGEMENT AND REAL ESTATE (2007) at 459 **(Exhibit III-11)**.

[209] *See* Vivien Foster et al., *Building Bridges: China's Growing Role as Infrastructure Financier for Africa*, The World Bank (2008) **(Exhibit III-13)**.

[210] *See id.* at 65-66.

Network has compiled a current database of dams built around the world by Chinese companies and financiers, more than 30 of which appear to be financed by China's ExIm Bank.[211]

2. China ExIm Bank's Support Mechanisms

China ExIm Bank provides support to exporters of green technology through a variety of means, the primary of which are the export seller's credit and the export buyer's credit.[212] In 2009, these credits supported exports valued at $174.2 billion.[213] The vast majority of credit is in the form of loans disbursed to exporters themselves, with newly signed credit agreements totaling 224 billion RMB in 2009, a 65 percent increase over the newly signed credits in 2008.[214] A key area of focus for the bank's export seller's credits is loans for new- and high-tech products, which accounted for nearly a third of all loans disbursed to exporters in 2009.[215] In addition to export seller's credits, the bank signed agreements for $3.2 billion in new export buyer's credit in 2009, but the bank does not break this amount down by product area.[216]

China ExIm Bank provides additional details regarding the export seller's credit on its website.[217] The bank explains that its capital "comes from fiscal allocation of the Chinese government," and that credit is provided, "for the purpose of lending strong government support in line with relevant national industrial, foreign trade, financial and fiscal policies" and to "support the export of Chinese products and improve their competitiveness in the international

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[211] *See* International Rivers Network, *Dams Built by Chinese Companies and Financiers* **(Exhibit III-14)**.

[212] *See* Export-Import Bank of China, ANNUAL REPORT 2009 at 23-25 **(Exhibit III-8)**.

[213] *See id.* at 23.

[214] *See id.* at 24.

[215] *See id.* at 24.

[216] *See id.* at 25.

[217] *See* China ExIm Bank Website excerpts **(Exhibit III-15)**.

market."[218] The export seller's credit is described as "a loan with large amount, long maturity, and preferential interest rate."[219]

The export seller's credit for new- and high-tech products is available for those goods that appear on the Export List of High- and New-Tech Products or on the List of High and New-tech Products.[220] As noted above, the high-tech export Catalogue includes a number of green technology products in the hydroelectric, solar, wind, biomass, and battery sectors. The general list of new- and high-tech products is even more inclusive, and lists dozens of additional green technology products, including wind, solar, advanced batteries, energy-efficient lighting, biomass, and geothermal products.[221] To be eligible for the credit, an exporter must have achieved $3 million in yearly exports of such products.[222]

The export buyer's credit does not appear to be limited by the type of product, though the bank does require that the Chinese content of exported goods used in the project be no less than half of the contract's total value.[223] The currency of such loans is in U.S. dollars.[224] The bank also advertises concessional loans for large infrastructure projects that are tied to the provision of preferential export buyer's credit for goods procured by the project that are exports from

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[218] *See id.*

[219] *See id.*

[220] *See id.*

[221] *See* Catalogue of Chinese High-Tech Products (2006) **(Exhibit III-16)**.

[222] *See* China ExIm Bank Website excerpts **(Exhibit III-15)**.

[223] *See id.*

[224] *See id.*

China.[225] The loans are medium- and long-term, and have low interest rates.[226] Energy projects are among the infrastructure projects eligible for such preferential financing.[227]

Unfortunately, there is a lack of official, detailed information regarding the terms upon which financing is provided by China ExIm Bank. However, there are various second-hand reports indicating that the terms of this financing are highly concessional, and below the rates at which OECD-member export credit agencies provide financing.[228] In 2010, the U.S. ExIm Bank concluded: "Most of the terms and conditions of their [China ExIm Bank's] financing *did* not and *do* not fit within the OECD guidelines."[229]

This conclusion is supported by several independent studies on the topic. For example, a World Bank study on Chinese-funded infrastructure projects in Africa summarizes the average terms of official Chinese loans to African countries from 2002 through 2006, finding that the interest rates charged are as low as one percent, with financing terms as long as 24 years and grace periods as long as eleven years.[230] Another study of 12 infrastructure projects supported by China ExIm Bank found that interest rates ranged between 2 and 4 percent (with a mean of 2.85 percent), and that terms ranged between 10 and 20 years with grace periods from 3 to 7

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[225] *See id.*

[226] *See id.*

[227] *See id.*

[228] *See, e.g.*, Ryan J. Orr and Jeremy R. Kennedy, *Highlights of recent trends in global infrastructure: new players and revised game rules*, TRANSNATIONAL CORPORATIONS, Vol. 17, No. 1 (April 2008) at 108 **(Exhibit III-17)**; Deborah Brautigam, *China's African Aid: Transatlantic Challenges*, The German Marshall Fund of the United States (April 2008) at 25-26 **(Exhibit III-18)**.

[229] Export-Import Bank of the United States, REPORT TO THE U.S. CONGRESS ON EXPORT CREDIT COMPETITION AND THE EXPORT IMPORT BANK OF THE UNITED STATES (June 2010) at 99 (emphasis in original) **(Exhibit III-9)**.

[230] *See* Vivien Foster et al., *Building Bridges: China's Growing Role as Infrastructure Financier for Africa*, The World Bank (2008) at 46 **(Exhibit III-13)**.

years.[231] A working paper by Japan's Bank for International Cooperation found that non-interest loans appear to continue to be utilized by China to support exports for infrastructure projects, and that the loans include repayment terms of 20 to 30 years with grace periods of 10 to 15 years, on average.[232] A 2010 *Washington Post* investigation confirmed that China ExIm Bank loans continue to be available with terms beyond 20 years and interest rates of less than one percent.[233] A 2008 article on a hydroelectric dam funded by China ExIm Bank in Gabon also states that the loan for the dam has an interest rate of 3 percent and a repayment term of 20 years.[234]

Finally, an April 2010 Chinese-language PowerPoint presentation by China ExIm Bank does provide current interest rate information for export seller's credits for new- and high-technology products.[235] The presentation states that China ExIm Bank's interest rate for loans to exporters of high-tech products is 3.51 percent.[236] The slide notes that commercial bank rates for such loans in China are 5.4 percent.[237] In addition, while commercial bank loans are cited for terms from 1 to 3 years, the presentation notes: "Our rate doesn't go up with the longer term loan (same rate applies to loan ranging from 6 month to 15 year)."[238]

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[231] *See* Paul Hubbard, *Aiding Transparency: What We Can Learn About Chin ExIm Bank's Concessional Loans*, Center for Global Development Working Paper No. 126 (Sept. 2007) at 7 **(Exhibit III-19)**.

[232] *See* Takaaki Kobayashi, *Evolution of China's Aid Policy*, JBICI Working Paper (April 2008) at 20 **(Exhibit III-20)**.

[233] *See* John Pomfret, *China Invests Heavily in Brazil, Elsewhere in Pursuit of Political Heft*, WASH. POST (July 26, 2010) **(Exhibit III-21)**.

[234] *See Gabon to Build New Hydro-Electric Power Station* (Nov. 14, 2008) available on-line at <www.afriquejet.com> **(Exhibit III-22)**.

[235] *See* "China ExIm Bank Businesses," PowerPoint presentation available on-line at <www.zjftec.gov.cn/up_files/进出口银行业务推介资料.ppt> **(Exhibit III-23)**.

[236] *See id.*

[237] *See id.*

[238] *See id.*

3. China ExIm Bank's Export Credits Are Prohibited Export Subsidies

The export credits provided by China ExIm Bank to exporters of green technology and purchasers of China's green technology exports are prohibited export subsidies that violate Article 3.1(a) of the SCM Agreement. The credits provide financial contributions directly from the Government of China, in the form of loans under SCM Agreement Article 1.1(a)(1)(i). The credits are *de jure* contingent on export performance under Article 3.1(a). As explained above, the export seller's credit is available only for products being exported, and firms must reach a minimum level of annual exports to be eligible for the credit. The export buyer's credit is available only for the purchase of exports from China, and the Chinese content of exported goods used in the project must be no less than half of the contract's total value. Finally, the concessional loans provided by the Government of China together with preferential export credits require that Chinese goods be given preference in procurement for the supported project.

The export credits also confer a benefit under Article 1.1(b) of the SCM Agreement. For government loans, Article 14(b) of the SCM Agreement provides that a benefit shall exist if "there is a difference between the amount that the firm receiving the loan pays on the government loan and the amount the firm would pay on a comparable commercial loan which the firm could actually obtain on the market." For the export seller's credit, China ExIm Bank itself advertises the available loans as falling below market rates and being provided for a longer term than that available from commercial lenders. For loans to export buyers and concessional loans tied to export credits, the terms found by various researchers – with interest rates as low as one percent and repayment terms as long as twenty years or more, are clearly far below market rates, and are advertised as such by China ExIm Bank.

Moreover, China ExIm Bank's export credits are not exempt from Article 3 disciplines by virtue of the safe harbor provided for certain export credits in the Illustrative List of Export Subsidies in Annex I to the SCM Agreement. The Appellate Body has explained that item (k) of the illustrative list provides a limited safe harbor for export credits that are in conformity with the OECD *Arrangement on Officially Supported Export Credits*.[239] China is not a member of the OECD *Arrangement*, but, if its export credits were granted in conformity with the interest rate provisions of the *Arrangement*, they would fall within the safe harbor in the second paragraph of item (k).

The burden of proof that an export credit arrangement complies with the interest rate provisions of the OECD *Arrangement* rests with the party seeking to invoke the safe harbor to defend its export credit practices.[240] The OECD *Arrangement* provides a number of guidelines for export credit financing, one of which is a set of minimum Commercial Interest Reference Rates, or CIRRs. As the Appellate Body has explained, "The fact that a particular net interest rate is below the relevant CIRR is a positive indication that the government payment in that case has been 'used to secure a material advantage in the field of export credit terms'."[241] Moreover, it has been noted that compliance with the CIRR minimum interest rate alone is insufficient to fit within the safe harbor, because other terms in the OECD *Arrangement*, including the length of the repayment term and grace periods, also constitute "interest rates provisions" with which compliance is required.[242]

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[239] *See* Appellate Body Report, *Brazil – Export Financing Program for Aircraft*, WT/DS46/AB/R, adopted Aug. 20, 1999, para. 181.

[240] *See* Appellate Body Report, *Brazil – Aircraft*, para. 183.

[241] *See* Appellate Body Report, *Brazil – Aircraft*, para. 182.

[242] *See* Report of the Panel, *Brazil – Export Financing Program for Aircraft (Art. 21.5 – II)*, WT/DS46/RW/2, adopted Aug. 23, 2001, paras. 5.106, 5.246.

Article 20 of the OECD *Arrangement* provides the calculation methodology for CIRRs. However, members of the *Arrangement* have agreed to establish more concessional CIRRs for renewable energy projects, including hydropower projects. Annex IV to the *Arrangement* contains these provisions. The maximum repayment term for such projects is 18 years.[243] CIRRs for renewable energy projects are constructed in conformity with Article 4 of the Annex. The OECD posts current and historical CIRR rates for different currencies on its website.[244] In April of 2010, the CIRR for renewable energy and hydropower loans denominated in U.S. dollars ranged from 4.12 to 5.03 percent.[245]

Finally, while OECD members may provide concessional financing to governments for certain development projects, including renewable energy and certain hydropower projects, there are limits on the extent to which such concessional aid may be tied to export credits for the purchase of exports from the donor country. The maximum repayment term for such tied aid credits is eight and-half years (up to 12 years for power projects), and the minimum interest rate for such credits is that provided in the CIRRs.[246]

China ExIm Bank appears to violate these guidelines in several respects. First, the interest rate advertised by China ExIm Bank for export seller's credits for green technology products in April of 2010 was 3.51 percent, substantially below the 4 and 5 percent CIRRs for renewable projects during that time period.[247] Second, the interest rates reported by secondary

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[243] *See* OECD *Arrangement on Officially Supported Export Credits*, Annex IV, Art. 2 **(Exhibit III-24)**.

[244] *See* OECD Renewable Energy and Hydro CIRRs, Historical Data **(Exhibit III-25)**.

[245] *See id.*

[246] *See* OECD, *Ex Ante Guidance for Tied Aid* (2005 revision) **(Exhibit III-26)**.

[247] The panel in *Korea – Commercial Vessels* found that export seller's credits were not "export credits" within the meaning of the first paragraph of item (k). *See* Panel Report, *Korea – Measures Affecting Trade in Commercial Vessels*, WT/DS273/R, adopted April 11, 2005, para. 7.328. But the panel also noted that it did not consider that "export credits" in the first paragraph of item (k) should necessarily be defined the same way as the term "official export credits" in the second paragraph of item (k). *See id.* at para. 7.321. If seller's credit were also

sources for loans for such projects – some as low as two or one percent – are also substantially below the CIRRs for either renewable projects or tied aid. Third, the terms for a number of loans appear to exceed the maximum of 12 years for tied aid and the maximum of 18 years for renewable projects, with terms stretching to 20 years or longer for many projects. The loans thus fail to comply with the interest rates provisions of the OECD *Arrangement*, and they are not protected by the safe harbor in the second paragraph of item (k) in the illustrative list. They are therefore prohibited export subsidies, and they violate China's commitments under the SCM Agreement.

F. Export Guarantees and Insurance for Green Technology from China's Sinosure Are Prohibited Export Subsidies in Violation of SCM Agreement Articles 3.1(a) and 3.2

In addition to using export credits to benefit the exportation of green technology goods, the government of China also provides generous export credit insurance for such products through the China Export and Credit Insurance Corporation, or Sinosure. The premiums that Sinosure charges for its export credit insurance are not adequate to cover the long-term operating costs and losses of the program. The insurance that Sinosure provides is thus a prohibited subsidy that violates Article 3.1(a) of the SCM Agreement and must be eliminated under Article 3.2.

1. Sinosure's Support for Green Technology Exports

Sinosure was established with capital provided by the Chinese government on December 18, 2001.[248] It describes its missions as follows:

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not included in the term "export credits" in the second paragraph of item (k), no defense would be available under the item for China ExIm's below-market, export-contingent seller's credits. We include this analysis only in the event that such credits were found to constitute "export credits" and thus potentially able to benefit from the safe harbor in the second paragraph of item (k).

[248] *See* "Company Profile," excerpt from Sinosure's website **(Exhibit III-27)**.

> SINOSURE is mandated, in accordance with the Chinese government's diplomatic, international trade, industrial, fiscal and financial policies, to promote Chinese exports and investments, especially exports of high-tech or high value-added capital goods, by means of offering export credit insurance against non-payment risks, and providing services in financing, information and receivables management.[249]

Sinosure has grown rapidly since 2001. In 2002, Sinosure supported $2.96 billion of exports.[250] By 2009, Sinosure underwrote $98.7 billion in export credit insurance for the year, 33 times the volume supported in its first year of operations.[251] The agency plans to maintain its strong growth rate in 2010.[252]

Sinosure states that it has supported exports and investments totaling over $290 billion since its founding.[253] By contrast, the U.S. Overseas Private Investment Corporation reports that its financing and insurance activities since 1971 have supported $188 billion in investment and $72 billion in U.S. exports.[254] This translates into an average annual volume of roughly $6.8 billion supported by OPIC – a mere fraction of the $36 billion in investment and exports supported in the average year by Sinosure.

Consistent with China's industrial policies, Sinosure has focused a significant amount of support on high-tech exports, including green technology products. In 2008, for example, Sinosure insured $11.21 billion in exports of products listed in the 2006 Catalogue of Chinese High-Tech Products for Export. [255] Hydroelectric equipment is among that listed in the

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[249] *Id.*

[250] *See* Sinosure 2003 ANNUAL REPORT at 30 **(Exhibit III-28)**.

[251] *See* Rebecca Ng, *China Export and Credit Aims for Growth in 2010* (April 27, 2010), available at <http://www.insurancenewsnet.com> **(Exhibit III-29)**.

[252] *See id.*

[253] *See* "Company Profile," excerpt from Sinosure's website **(Exhibit III-27)**.

[254] *See* OPIC 2009 ANNUAL REPORT at 4 **(Exhibit III-30)**.

[255] *See* Sinosure 2008 ANNUAL REPORT at 13-14 **(Exhibit III-31)**.

catalogue, and Sinosure has supported the export of goods for hydroelectric projects.[256] Solar technology has also been a key focus for the agency – from January to July of 2009, Sinosure underwrote $1.25 billion in photovoltaic exports from China, covering nearly half of all Chinese exports of the product.[257]

Sinosure's support for green technology exports is not only high in volume, it is also provided on a concessional basis. In 2004, the Ministry of Commerce and Sinosure issued the Notice on the Implementation of the Strategy of Promoting Trade Through Science and Technology by Utilizing Export Credit Insurance, Doc. No. Shang Ji Fa [2004] No. 368.[258] The policy directs Sinosure to increase its support for high-tech exports listed in the Catalogue of Chinese High-Tech Products for Export. In addition, Sinosure's policy is to provide priority levels of approval limits for exports of such products, together with the maximum discount in premium rates.[259]

The package of preferential policies available to high-tech exporters is termed the "Green Express" treatment by Sinosure. In 2009, for example, Sinosure announced the signing of a Strategic Cooperation Agreement with LDK Solar Co., Ltd., a leading Chinese producer of solar wafers.[260] The agreement included a commitment to provide "Green Express" insurance coverage for the company's exports.[261]

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[256] *See id.* at 22.

[257] *See Leading Solar Wafer Manufacturer Works with SINOSURE to Spur Corporate Development with Credit Insurance*, Sinosure website **(Exhibit III-32)**.

[258] A copy of the notice and a partial English translation are attached **(Exhibit III-33)**.

[259] *See id.* at art. 2.

[260] *See Leading Solar Wafer Manufacturer Works with SINOSURE to Spur Corporate Development with Credit Insurance*, Sinosure website **(Exhibit III-32)**.

[261] *See id.*

2. Sinosure's Export Credit Insurance Is a Prohibited Export Subsidy

The insurance provided by Sinosure to cover exports of green technology is a prohibited export subsidy that violates Articles 3.1(a) and 3.2 of the SCM Agreement. The insurance provides a financial contribution, in the form of a potential direct transfer of liability to the government under SCM Agreement Article 1.1(a)(1)(i). The insurance is *de jure* contingent on export performance under Article 3.1(a). The export credit insurance is, by definition, only available to cover the risks of non-payment for goods that are exported from China.

The export credit insurance also confers a benefit under Article 1.1(b) of the SCM Agreement. Article 14(c) of the SCM Agreement provides that a government loan guarantee confers a benefit if

> [T]here is a difference between the amount that the firm receiving the guarantee pays on a loan guaranteed by the government and the amount that the firm would pay on a comparable commercial loan absent the government guarantee. In this case the benefit shall be the difference between these two amounts adjusted for any differences in fees.

As noted above, Sinosure's policy is to provide preferential terms, including maximum approval limits and discounted premium rates, to certain exports favored by China's industrial policies, including green technology exports. These terms ensure that the recipients of such support pay less than they would pay on a comparable commercial loan absent the government guarantee. Sinosure's support for such products thus confers a benefit and constitutes a prohibited export subsidy.

In addition, item (j) in the Illustrative List of Export Subsidies in Annex I to the SCM Agreement lists the following as an example of a prohibited export subsidy:

> The provision by governments (or special institutions controlled by governments) of export credit guarantee or insurance programmes, of insurance or guarantee programmes against increases in the cost of exported products or of exchange risk programmes, at premium

> rates which are inadequate to cover the long-term operating costs and losses of the programmes.

The Appellate Body has explained that the measure of the benefit under item (j) is the overall cost to the government of providing the export credit insurance service.[262] The Appellate Body has further explained that item (j) does not require a precise quantification of the benefit conferred, nor the use of any one particular methodology for calculating that benefit.[263] Instead, what is required is, "a finding on whether the premiums are insufficient and thus whether the specific export credit guarantee program at issue constitutes an export subsidy."[264]

In *US – Upland Cotton*, the Appellate Body upheld a panel's determination that certain export credit guarantee programs constituted prohibited export subsidies. One of the methods relied upon by the panel to determine whether the premiums charged were sufficient to cover the programs' long-term costs and losses was to compare revenue collected to costs incurred under the programs over a decade.[265] Included in the revenue were premiums collected, recovered principal and interest, and interest revenue.[266] Administrative expenses, default claims, and interest expense were included in the costs.[267] Because costs exceeded revenue over the period, the programs were found to constitute prohibited export subsidies.[268]

A full decade of operating revenues and costs is not available for Sinosure, since it was created at the end of 2001. However, Sinosure's annual reports do provide annual revenues and

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[262] *See* Appellate Body Report, *Canada – Measures Affecting the Importation of Milk and the Exportation of Dairy Products (Art. 21.5)*, WT/DS103/AB/RW, WT/DS113/AB/RW, adopted Dec. 18, 2001, para. 93.

[263] *See* Appellate Body Report, *United States – Subsidies on Upland Cotton*, WT/DS267/AB/R, adopted March 21, 2005, para. 665.

[264] Appellate Body Report, *US – Upland Cotton*, para. 666.

[265] *See* Appellate Body Report, *US – Upland Cotton*, para. 668.

[266] *See* Appellate Body Report, *US – Upland Cotton*, para. 668.

[267] *See* Appellate Body Report, *US – Upland Cotton*, para. 668.

[268] *See* Appellate Body Report, *US – Upland Cotton*, para. 668.

costs in income statements from 2002 through 2008.[269] A comparison of revenues and costs over the seven-year period reveals a significant cumulative shortfall of $1.4 to $1.7 billion RMB.[270] These figures are likely conservative, as they include all sources of revenue for Sinosure, not just premiums. In addition, it includes a significant infusion of 174 million RMB reported as an income tax refund in Sinosure's revised 2006 income statement.[271] The refund was not included in Sinosure's original 2006 income statement, and it appears anomalous given that Sinosure appears to have paid no taxes at all in 2002 through 2004 and only a token income tax of 29,000 RMB in 2005.[272]

While data for 2009 and 2010 do not yet appear to be publicly available, there is every indication that Sinosure continues to operate at a loss for the benefit of Chinese exporters. In 2010, despite the fact that the rate of default and claims paid was likely to have grown during the global financial crisis, Sinosure announced it would be reducing its premium rates to even lower levels.[273]

In sum, all public data indicate that Sinosure's export credit insurance program does not charge premiums that are adequate to cover the program's long-term operating costs and losses. The program is therefore an export subsidy under item (j) of the illustrative list, and it is prohibited under Article 3.1(a) of the SCM Agreement. Article 3.2 of the SCM Agreement requires China to eliminate this export-contingent subsidy program.

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[269] Relevant excerpts from Sinosure's annual reports are attached **(Exhibit III-34)**. There does not appear to be an annual report for 2009 publicly available yet. In addition, there appears to be a technical problem on the Sinosure website that prevents viewing the annual report for 2005. However, 2005 figures are included in the 2006 annual report.

[270] Calculations are attached **(Exhibit III-35)**. The range is due to a significant difference in the income statement for 2006 as reported in the 2006 annual report and as revised in the 2007 annual report.

[271] *See* excerpt from Sinosure 2007 ANNUAL REPORT **(Exhibit III-34)**.

[272] *See* 2002 – 2006 income statements from Sinosure's annual reports **(Exhibit III-34)**.

[273] *See* Rebecca Ng, *China Export and Credit Aims for Growth in 2010* (April 27, 2010), available at <http://www.insurancenewsnet.com> **(Exhibit III-29)**.

IV. CHINA'S DISCRIMINATION AGAINST FOREIGN COMPANIES AND GOODS IS INCONSISTENT WITH ITS WTO OBLIGATIONS

A. China's WTO Obligations Not to Discriminate Against Foreign Firms and Goods

Local content or localization requirements favoring domestic products over imported goods violate the national treatment requirement in GATT 1994 Article III:4, which states:

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

In addition, GATT and WTO panels have found that government "advantages" that are contingent upon on a company's voluntary acceptance of an obligation to purchase domestic over imported products violate national treatment obligations in Article III:4.

For example, in *India – Autos,* the panel found that a Ministry of Commerce notice requiring car manufacturers, wishing to import kits and receive approval for an import license, to sign an MOU agreeing to establish production facilities in India and ensure the indigenization (*i.e.,* local content) of components up to a minimum percentage violated Article III:4.[274] Relying on early GATT and WTO decisions involving similar undertakings by private parties, the panel explained that the term "requirement" in Article III:4 could include either (1) "obligations which an enterprise is 'legally bound to carry out'" or (2) "those which an enterprise voluntarily accepts

[274] WTO Panel Report, *India – Autos,* WT/DS146/R, WT/DS175/R, adopted April 5, 2002, paras. 2.5, 7.193, 7.204

in order to obtain an advantage from the government."[275] Therefore, the panel found that the local content conditions in both the public notice and the signed MOUs were "requirements" necessary to gain an advantage consisting of the right to import the products.[276] The panel further found that the conditions affected the internal sale, offering for sale, purchase or use of imported products within the meaning of Article III:4 because they provided an incentive to purchase local products and, therefore, modified the conditions of competition between domestic and imported products in favour of domestic products.[277]

Moreover, GATT and WTO jurisprudence has long elevated substance over form by recognizing the mandatory nature of various requirements that masquerade as non-mandatory "guidance"[278] or encouragement, and the Appellate Body has refused to embrace the "mandatory/discretionary" distinction developed by panels to distinguish between measures that can be challenged "as such" as opposed to "as applied".[279] Even private parties' voluntary acceptance of agreement conditions or requirements to obtain a government advantage has been

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[275] WTO Panel Report, *India – Autos,* para. 7.184. For example, *Canada – FIRA* involved purchase undertakings, *EEC – Parts and Components* involved undertakings to limit use of imported material, and *Canada – Autos* involved undertakings to satisfy domestic value added condition. GATT Panel Report, *Canada – FIRA,* BISD 30S/140, adopted Feb. 7, 1984, para. 5.4; GATT Panel Report, *EEC – Parts and Components*, BISD 37S/132, adopted May 16, 1990, para. 5.19; WTO Panel Report, *Canada – Autos,* WT/DS139/R, WT/DS142/R, adopted June 19, 2000, para 10.129. In *Canada – Autos,* the panel found that the fact that compliance with Canadian value added requirements was not mandatory but a condition to obtain an advantage consisting of the right to import certain products duty-free did not preclude application of Article III:4. WTO Panel Report, *India – Autos,* at para. 7.185, *citing* WTO Panel Report, *Canada – Autos,* para. 10.73. Once voluntary conditions are accepted, however, panels have relied on the fact that the conditions become binding on the company and enforceable by the government. *See Canada – FIRA,* para. 5.4; *India – Autos,* paras. 7.190-91; *Canada – Autos,* paras. 10.118, 10.123 (finding legal status of undertaking in Canadian law not relevant if regarded by the companies as binding).

[276] WTO Panel Report, *India – Autos,* paras. 7.189, 7.193. In other cases, the advantage has been other types of favorable government action, such as suspension of antidumping proceedings (*EEC – Parts and Components* at paras. 5.1, 5.20-21), approval of investment proposals (*Canada – FIRA* at para. 5.4), and availability of an import duty exemption (*Canada – Autos* at para 10.115).

[277] WTO Panel Report, *India – Autos,* paras. 7.195-97, 7.202.

[278] *See* GATT Panel Report, *Japan – Semi-Conductors,* BISD 35S/116, adopted May 4, 1988, at para. 117 (finding the absence of formal legally binding obligation was a difference in form not substance).

[279] *See, e.g.,* Appellate Body Report, *United States – Zeroing (EC),* WT/DS294/AB/R, paras. 206-14 (rejecting argument that panel failed to consider non-mandatory nature of the U.S. zeroing methodology).

considered to be a government *restriction* within the meaning of GATT 1994 Article III:4.[280]

China agreed to additional non-discrimination commitments in its Protocol of Accession. Specifically, China confirmed in paragraph 18 of the Working Party Report (as incorporated in paragraph 1.2 of the Protocol) that it would "provide the same treatment to Chinese enterprises, including foreign-funded enterprises, and foreign enterprises and individuals in China" with respect to the procurement of goods and the conditions under which their goods are produced, marketed or sold.[281] In paragraph 3 of the Protocol, China likewise agreed not to discriminate against foreign individuals, enterprises and foreign-funded enterprises:

> Except as otherwise provided for in this Protocol, foreign individuals and enterprises and foreign-funded enterprises shall be accorded treatment no less favourable than that accorded to other individuals and enterprises in respect of:
>
> (a) the procurement of inputs and goods and services necessary for production and the conditions under which their goods are produced, marketed or sold, in the domestic market and for export....[282]

As explained in more detail below, China has violated these obligations by discriminating against foreign firms and imported goods in the green technology sector.

B. The Concession Bidding Process for Wind and Solar Power Projects

A number of hurdles have completely frustrated the ability of any foreign company to successfully bid on a national wind turbine project in China since 2005.[283] In the wind sector in particular, large wind power projects greater that 50 MW must receive national government

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[280] *See, e.g.*, GATT Panel Report, *Canada – FIRA*, at paras. 5.4, 5.5; GATT Panel Report, *EEC – Restrictions on Imports of Dessert Apples*, BISD 36S/93, adopted June 22, 1989, at paras. 12.8-12.9.

[281] Working Party Report at para. 18 **(Exhibit IV-1)**.

[282] Accession Protocol at para. 3(a) **(Exhibit IV-2)** (emphasis added).

[283] European Chamber, *European Business in China Position Paper 2009-10*, at 110, 112 **(Exhibit IV-3)**.

approval.[284] To encourage large-scale wind farms with a capacity of at least 100 MW, China launched a Wind Power Concession Project in 2004.[285] Under the project, the government-owned power grid companies sign a long-term power purchase agreement ("PPA") with the wind power investors for the purchase of the electricity produced by the wind farms.[286] According to the Law on Renewable Energy, if there are several applications for the construction of the same grid-connected renewable energy power project requiring an administrative license, the licensee must be decided through inviting tender according to law.[287] Therefore, a bidding competition determines which companies will construct and operate the wind farm. In addition to the PPA, the government gives the wind power investor the right to operate a wind farm for a set period of time:

> Through this concession agreement, the government provides the right of wind farm operation to commercial companies, and according to a long-term Power Purchase Agreement (PPA), the commercial companies sell to the power grid companies, which then sell to the end-users. Because the cost of wind power is still higher than the average purchase price of the whole power grid, the difference will ultimately be shared by all the end-users. Therefore the concession policy includes the Concession Agreement, the PPA and Power Price Difference Sharing. The commercial companies who win the right to construct and operate wind farms

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[284] NDRC Circular Regarding Requirements of the Administration of Wind Power Construction, NDRC Energy [2005], Fa Gai Neng Yuan No. 1204, at Section III (July 4, 2005) **(Exhibit IV-4)**; NFTC, *China's Promotion of the Renewable Electric Power Equipment Industry: Hydro, Wind, Solar, Biomass* 56 (March 2010) **(Exhibit IV-5)**; Joanna 1. Lewis, *A Comparison of Wind Power Industry Development Strategies in Spain, India and China* at 14 (July 19, 2007) **(Exhibit IV-6)**.

[285] NFTC, *China's Promotion of the Renewable Electric Power Equipment Industry: Hydro, Wind, Solar, Biomass* 51 (March 2010) **(Exhibit IV-5)**; *see also* State Electricity Regulatory Commission, Measures on Supervision and Administration of Grid Enterprises to Fully Purchase Renewable Energy Power, Order No. 25 of the State Electricity Regulatory Commission (July 25, 2007) **(Exhibit IV-7)**; NDRC, Trial Measures on Administration of the Price and Expense Apportionment of Renewable Energy Power Generation (Jan. 1, 2006) **(Exhibit IV-8)**.

[286] NFTC, *China's Promotion of the Renewable Electric Power Equipment Industry: Hydro, Wind, Solar, Biomass* 51 (March 2010) **(Exhibit IV-5)**.

[287] Law of the People's Republic of China on Renewable Energy (Amended 2009), at art. 13 (April 1, 2010) **(Exhibit IV-9)**.

are selected through bidding.[288]

The terms of the government's concession agreement cover the in-grid tariff, quantity of power to be purchased from the investor, and the total operation period of the wind project.[289]

On October 29, 2009, the Chinese government agreed to "remove local content requirements on wind turbines" used in wind farm concessions and other wind farm projects, which had been set to a prohibitive level of 70%.[290] On December 25, 2009, the NDRC issued a circular abolishing the 70% local content requirement.[291] By January 2010, state media reports indicated that the 70% local content requirement for wind power equipment had been eliminated.[292] China timed its decision to eliminate the specific local content requirement for its developing wind sector when its manufacturers had excess capacity and were ready to expand to international markets.[293]

The circular purporting to eliminate domestic content requirements, while removing the 70% threshold, left intact a policy that requires authorities to take the rate of localization of wind

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[288] *Demonstration of Wind Power Concession Policy to Reduce the Large-Scale Wind Power Price*, APEIS Research on Innovative and Strategy Policy Options: Good Practices Inventory, at 2 (Jan. 5, 2004) **(Exhibit IV-10)**.

[289] Ecoworld, *The World's Most Populous Country Harnesses Wind to Help Power a Burgeoning Economy*, available at <http://www.ecoworld.com/energy-fuels/wind-power-in-china.html> **(Exhibit IV-11)**; Law of the People's Republic of China on Renewable Energy (Amended 2009), at art. 13 (April 1, 2010) **(Exhibit IV-9)**; *Demonstration of Wind Power Concession Policy to Reduce the Large-Scale Wind Power Price*, APEIS Research on Innovative and Strategy Policy Options: Good Practices Inventory, at 1 (Jan. 5, 2004) **(Exhibit IV-10)**.

[290] U.S.-China Joint Commission on Commerce and Trade Press Release at 1 (Oct. 29, 2009) **(Exhibit IV-12)**; NFTC, *China's Promotion of the Renewable Electric Power Equipment Industry: Hydro, Wind, Solar, Biomass* 58 (March 2010) **(Exhibit IV-5)**.

[291] NDRC Circular Regarding Requirements of the Administration of Wind Power Construction, NDRC Energy [2005], Fa Gai Neng Yuan No. 1204 (July 4, 2005) **(Exhibit IV-4)**; NDRC Circular Abolishing the Requirement on the Rate of Localization of Equipment Procurement on Wind Power Projects, NDRC Energy [2009] No. 2991 **(Exhibit IV-13)**.

[292] NFTC, *China's Promotion of the Renewable Electric Power Equipment Industry: Hydro, Wind, Solar, Biomass* 58 (March 2010) **(Exhibit IV-5)**.

[293] *China's Wind Power Equipment Makers Eye Overseas Market*, PEOPLE'S DAILY ONLINE (Oct. 22, 2009) **(Exhibit IV-14)**.

equipment manufacturing into account when awarding wind farm concessions.[294] The NDRC 2005 Circular on construction requirements continues to emphasize the importance of promoting the development of "manufacturing domesticalization of wind electricity equipments." [295] Approval or verification of a wind farm continues to be based in part of the "rate of manufacturing domesticalization of equipments of the wind electricity field."[296] China has thus not eliminated its domestic content requirements in the wind sector.

Moreover, it appears that similar policies are affecting a number of other renewable energy sectors, particularly solar energy. It has been reported that when China authorized its first solar power plant in 2009, the government required that at least 80% of the equipment be made in China.[297] In addition, Ordos City, Inner Mongolia, China is teaming up with First Solar, Inc. (U.S.), the world's lowest cost producer of solar modules and engineered solar power plants, to build a solar power plant in the desert.[298] Under the terms of the MOU with Ordos, First Solar has agreed to (1) develop and construct a 2,000 MW photovoltaic power plant in multiple phases until 2019, (2) "actively participate in the development of the photovoltaic industry in China," (3) "facilitate expansion of the supply chains in China for thin film photovoltaic module production and for the recycling of photovoltaic modules after use," and (4) "actively review the possibility of module and supplier manufacturing sites in Ordos" to support a First Solar factory

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[294] NDRC Circular Abolishing the Requirement in the Rate of Localization of Equipment Procurement on Wind Power Projects, NDRC Energy [2009] No. 2991 **(Exhibit IV-13)**.

[295] NDRC Circular Regarding Requirements of the Administration of Wind Power Construction, NDRC Energy [2005], Fa Gai Neng Yuan No. 1204, at preamble, art. III, concluding paragraph (July 4, 2005) **(Exhibit IV-4)** (emphasis added).

[296] NDRC Circular Regarding Requirements of the Administration of Wind Power Construction, NDRC Energy [2005], Fa Gai Neng Yuan No. 1204, at preamble, art. III, concluding paragraph (July 4, 2005) **(Exhibit IV-4)** (emphasis added).

[297] Keith Bradsher, *China Builds High Wall to Guard Energy Industry,* N.Y. TIMES (July 13, 2009) **(Exhibit IV-15)**.

[298] *See* Doug Palmer, *First Solar Awaiting China Decision on Subsidy*, REUTERS (May 22, 2010) **(Exhibit IV-16)**; First Solar, Inc. Form 8K (Sept. 8, 2009) **(Exhibit IV-17)**.

investment.[299] To that end, the City of Ordos agreed to "generate opportunities to localize the solar value chain, including a feed-in tariff that subsidizes the price of the electricity generated by the project...."[300] The Cooperation Framework Agreement between Ordos and First Solar was signed on November 17, 2009, in the presence of the Chinese Vice Premier, Chinese Vice Minister of the National Energy Administration, and the U.S. Secretary of Energy, Steven Chu.[301]

The domestic content requirements in China's 2005 Circular on construction requirements for wind farms, as well as the domestic content requirements that appear to be emerging for solar power plant approvals, are direct violations of China's obligations under Article III:4 of GATT 1994. The requirements affect the internal sale and use of imported wind and solar equipment in China, and they accord those imported goods treatment less favourable than that accorded to domestic goods. Bidders for wind farm concessions, and, reportedly, solar power concessions, that use imported wind and solar power equipment are less likely to win those concessions than companies that use domestic goods. Because the requirements provide an incentive to purchase local products over imported goods, they modify the conditions of competition between domestic and imported products in favour of domestic products and thus violate Article III:4 of GATT 1994.[302]

In addition to discriminating against imported goods in its awards of wind power and solar power concessions, China also discriminates against foreign companies in the concession process. Foreign companies have long had difficulty successfully bidding on national-level

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[299] First Solar, Inc. Form 8K, at ex. 99.2 (Sept. 8, 2009) **(Exhibit IV-17)** (emphasis added).

[300] First Solar, Inc. Form 8K, at ex. 99.2 (Sept. 8, 2009) **(Exhibit IV-17)** (emphasis added).

[301] *First Solar and Ordos Take Key Step Forward in 2GW China Project*, First Solar News Release (Nov. 17, 2009) **(Exhibit IV-18)**.

[302] WTO Panel Report, *India – Autos*, WT/DS146/R, WT/DS175/R, paras. 7.195-97, 7.202.

wind-based projects due, in part but not exclusively, to the local content requirements discussed above.[303] As a result, no foreign firm (whether invested in China or not) has won a concession from the National Development and Reform Commission for large wind farm installations in China.[304] Even with the recent elimination of the 70% local content requirement for wind projects, companies that are majority foreign-owed are still discriminated against in the bidding process for new installations because they are not considered to be "domestic" companies.

For example, manufacturers of wind turbine equipment have been placed at a disadvantage in the concession bidding process because bids from "domestic" Chinese companies are given a 5% or greater bid preference in the bidding process.[305] In addition, there are reports that China's "indigenous" intellectual property requirements have proven insurmountable and are given a 5 to 10% bid preference in the procurement process.[306] In 2009, the Chinese government reportedly "banned virtually any installation of wind turbines with a capacity of less than 1,000 kilowatts – excluding the 850-kilowatt designs, a popular size for European manufacturers."[307] Foreign companies report that they are left out of the pre-bidding process due to its lack of transparency "many of which are being fully organized and determined before the actual bidding documents are being released."[308] Finally, the competing wind power developers are generally large SOEs that tend to submit unrealistically low bids:

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[303] Austin Ramzy, *Tower of Power,* TIME (Nov. 2, 2009) **(Exhibit IV-19)**.

[304] NFTC, *China's Promotion of the Renewable Electric Power Equipment Industry: Hydro, Wind, Solar, Biomass* 51-57 (March 2010) **(Exhibit IV-5).**

[305] NFTC, *China's Promotion of the Renewable Electric Power Equipment Industry: Hydro, Wind, Solar, Biomass* 54-55 (March 2010) **(Exhibit IV-5)**.

[306] NFTC, *China's Promotion of the Renewable Electric Power Equipment Industry: Hydro, Wind, Solar, Biomass* 54-55 (March 2010) **(Exhibit IV-5)**; Agence France Presse, *China Defends Procurement Rules,* CAPITAL BUSINESS (Dec. 15, 2009) **(Exhibit IV-20)**.

[307] Keith Bradsher, *China Builds High Wall to Guard Energy Industry*, N.Y. TIMES (July 13, 2009) **(Exhibit IV-15)**.

[308] European Chamber, *European Business in China Position Paper 2009-10*, at 113 **(Exhibit IV-3)**.

> The concession model was supposed to promote competition that would allow the government to develop the wind industry at competitive prices. The competing wind power developers have remained large SOEs that are required to fulfil their Renewable Energy Share quota in installed capacity rather than in electricity output. Therefore, they tend to submit bids with extremely low tariffs and very poor profitability, which are based on over-estimations of wind resources, high expectations of electricity generation and underestimations on the cost of wind turbines and their service costs. This puts domestic private and foreign companies at a disadvantage and undermines the original goal of sustainable wind power development.[309]

Because China's Protocol of Accession prohibits the Chinese government from discriminating against non-domestic Chinese enterprises, China's reliance on a series of requirements calculated to eliminate competition from foreign individuals or enterprises in the energy bidding process violates its WTO obligations. It has been reported that China was

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[309] European Chamber, *European Business in China Position Paper 2009-10*, at 208 **(Exhibit IV-3)**. The NDRC has since modified its weighting of price in the concession bids:

> As with early-stage solar development in China, wind development has been driven by a concession process in which a specific project is put out to bid. Developers place their bid on a generation basis (i.e. what kWh rate they would need to receive from the government to operate the project profitably for 25 to 30 years). In the early stages of the concession program, pricing was often the main determinant of the concession winner. Large generation companies would bid extremely low kWh prices, effectively meaning the project would run at a loss for its operating life. Generation companies' primary motivation in winning these concession projects was to meet Renewable Portfolio Standard capacity requirements. As a result, projects were not built according to best practices, and inexpensive components of lower quality were often used. This has resulted in China wind projects having a net capacity utilization factor 10 percent lower than U.S. wind projects on average. The NDRC responded in 2006 by altering the concession criterion, weighting the price as 25 percent of the overall bid evaluation (previously it counted for 40 percent). In 2007, the pricing criterion was changed again, with the median bid used to set the winning price. The government seemed to be giving more weight to factors like turbine quality and developer experience, which had been marginalized in earlier National Level Concession Projects.

Eric Wesoff, *China's Domestic Solar Market: Time to Wake Up*, GREENTECH MEDIA (Jan. 13, 2010), available at <http://www.greentechmedia.com/articles/print/Chinas-Domestic-Solar-Market-Time-to-Wake-Up/> **(Exhibit IV-22)**.

considering a similar concessionary bidding process for the solar sector.[310]

Finally, it should be noted that China's practices in the concession bidding process are not government procurement activities that may be exempt from non-discrimination disciplines. Any argument that China's discriminatory practices should be protected by the exception to national treatment in GATT 1994 Article III:8(a) reserved for "government procurement" should fail for two reasons.

First, the bidding process at issue involves licensing for the installation of wind turbines that would sell the electricity generated by the turbines to the power grid according to a separate power purchase agreement for its resale to third parties.[311] Article III:8(a), however, only applies to government procurement of "products purchased for governmental purposes and not with a view to commercial resale or with a view to use in the production of goods for commercial sale." Therefore, not only does the discriminatory practice not involve a government "purchase," but any energy produced would be resold.[312]

Second, even if the power grid is state-owned, China specifically agreed in paragraph 47 of its Working Party Report (as incorporated in paragraph 1.2 of the Protocol) not to treat laws, regulations and measures relating to the purchases made by state-owned enterprises as

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[310] Doug Palmer, *First Solar Awaiting China Decision on Subsidy,* REUTERS (May 22, 2010) **(Exhibit IV-16)**. Indeed, China's National Energy Administration recently took bids on 13 solar power projects from developers but the lack of any concession agreement from the government resulted in only one bid from a non-Chinese company out of the 135 bids received by more than 40 companies. Andrew Peaple, *For Foreigners, China's Solar Market is Cloudy,* WALL ST. J. (Aug. 18, 2010) **(Exhibit IV-22)**. The government is also tendering bids to develop similar projects in six provinces. *Chint Group to Invest in Gansu Solar Power Projects, Clean Development Mechanism in China*, CHINA DAILY (Aug. 9, 2010) **(Exhibit IV-23)**.

[311] *See, e.g.,* CDM Project Design Form for Inner Mongolia Zhuozi 40 MW Wind Power Project (Version 3.1) at A.2 (Sept. 5, 2007) **(Exhibit IV-24)**.

[312] At least one GATT panel interpreted the term "government procurement" within the meaning of a Government Procurement Agreement between the United States and the EC as calling for an analysis of whether there has been a payment by the government, governmental use of or benefit from the product, and government possession and government control over the obtaining of the product. *See* GATT Panel Report, *United States – Procurement of a Sonar Mapping System,* GPR/DS1/R, para. 4.7 (April 23, 1992) (unadopted).

"government procurement" that would otherwise qualify for the national treatment exception in GATT 1994 Article III:8(a):[313]

> The representative of China confirmed that, without prejudice to China's rights in future negotiations in the Government Procurement Agreement, all laws, regulations and measures relating to the procurement by state-owned and state-invested enterprises of goods and services for commercial sale, production of goods or supply of services for commercial sale, or for nongovernmental purposes would not be considered to be laws, regulations and measures relating to government procurement. Thus, such purchases or sales would be subject to the provisions of Articles II, XVI and XVII of the GATS and Article III of the GATT 1994. The Working Party took note of this commitment.[314]

For these reasons, China's reliance on a series of requirements to discriminate against imported wind and solar equipment, and eliminate competition from foreign individuals or enterprises in the energy bidding process violates its WTO obligations. Given that China's previous commitment to eliminate domestic content requirements for wind farms appears not to have been fully complied with, it is past time that the Chinese government adhere to its WTO obligations by eliminating all domestic content requirements and treating the bids of foreign companies fairly.

C. The Clean Development Mechanism Application Process

China also discriminates against foreign companies that have invested in China but are not wholly-owned or controlled by Chinese parties in identifying companies eligible for participation in Clean Development Mechanism (CDM) projects, including wind, solar, and hydro projects. China is a major user of the Kyoto Protocol's Clean Development

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[313] Working Party Report at para. 47 **(Exhibit IV-1)**; Accession Protocol at para. 1.2 **(Exhibit IV-2)**.

[314] Working Party Report at para. 47 **(Exhibit IV-1)**.

Mechanism.[315] Article 12 of the Kyoto Protocol allows a country with an emission-reduction or emission-limitation commitment under the Protocol to implement an emission-reduction project in certain countries, including China, to earn saleable certified emission reduction (CER) credits, each equivalent to one metric ton of CO2, which can be counted towards meeting Kyoto targets. A CDM project must provide emission reductions that are additional to what would otherwise have occurred. The projects must qualify through a public registration and issuance process and be approved by a "Designated National Authority."[316] In the case of CDM projects in China, China's National Development and Reform Commission serves as the Designated National Authority ("DNA"). It accepts applications for projects for review and approval by a national CDM board consisting of seven governmental agencies.[317] As of July 29, 2010, China's DNA had approved 2640 CDM projects, and Chinese companies had registered 917 CDM projects with the United Nations accounting for almost 61% of all registered projects and almost 50% of all CERs issued.[318]

China does not allow foreign companies that are not wholly-owned or controlled by Chinese companies to apply for Clean Development Mechanism projects. Instead, China requires "project owners" to be either wholly-owned or controlled by Chinese parties.[319] In

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[315] The Clean Development Mechanism is a cooperative mechanism established under the 1997 Kyoto Protocol to promote environmentally friendly investment in emissions projects in developing countries by industrialized countries and businesses. Projects receive credit in the form of "certified emissions reductions," which count against the investors' national reduction targets or can be transferred between countries. UNEP, *Introduction to the Clean Development Mechanism* 3-4, 7 **(Exhibit IV-25)**.

[316] UNFCC Website, *Clean Development Mechanism (CDM)*, available on-line at <http://unfccc.int/kyoto_protocol/mechanisms/clean_ development_ mechanism/items/2718.php> **(Exhibit IV-26)**.

[317] Dep't of Climate Change, NDRC, *Clean Development Mechanism in China FAQs* (Dec. 1, 2004), available at < http://cdm.ccchina.gov.cn/english/NewsInfo.asp?NewsId=831> **(Exhibit IV-27)**.

[318] UNFCCC, *CERs issued by host party*, available at <http://cdm.unfccc.int/ Statistics/Issuance/ CERsIssuedByHostPartyPieChart.html> **(Exhibit IV-28)**. See also Dep't of Climate Change, NDRC, *Clean Development Mechanism in China: 917 Chinese Projects Registered (As of August 25)* **(Exhibit IV-29)**.

[319] NFTC, *China's Promotion of the Renewable Electric Power Equipment Industry: Hydro, Wind, Solar, Biomass* 70 (March 2010) **(Exhibit IV-5)**. "Chinese funded or Chinese-holding enterprises within the territory of

addition, permission requirements state that CDM project activities should "promote the transfer of environmentally sound technology to China."[320] Project owners in China have the following responsibilities:

> Project owner, which refers to the Chinese funded or Chinese-holding enterprises, shall:
>
> 1. Undertake CDM project negotiations with foreign partners;
> 2. Be responsible for construction of the project and report periodically to NDRC on the progress;
> 3. Implement the CDM project activity, develop and implement project monitoring plan to ensure that the emission reductions are real, measurable, long-term and additional, and subject itself to the supervision of NDRC;
> 4. Contract designated operational entities to validate the proposed project activity and to verify emission reductions of the project activity; provide necessary information and monitoring record, and submit the information to NDRC for record purpose; and protect state and business confidential information in accordance with relevant laws and regulations;
> 5. Report to NDRC on CERs issued;
> 6. Assist NDRC and the Board in investigating relevant issues and respond to the inquiries; and
> 7. Undertake other necessary obligations.[321]

As explained above, China confirmed in paragraph 18 of the Working Party Report (as incorporated in paragraphs 1.2 and 3(a) of the Protocol) that it would "provide the same treatment to Chinese enterprises, including foreign-funded enterprises, and foreign enterprises and individuals in China" with respect to the procurement of goods and the conditions under

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China are eligible to conduct CDM projects with foreign partners." Measures for Operation and Management of Clean Development Mechanism Projects in China, at arts. 11, 17 (Nov. 21, 2005), available at <http://cdm.ccchina.gov.cn/english/NewsInfo.asp?NewsId=905> **(Exhibit IV-30)**.

[320] Measures for Operation and Management of Clean Development Mechanism Projects in China, at art. 10 (Nov. 21, 2005) **(Exhibit IV-30)**.

[321] Measures for Operation and Management of Clean Development Mechanism Projects in China, at art. 17 (Nov. 21, 2005) **(Exhibit IV-30)**.

which their goods are produced, marketed or sold.[322] Eligibility requirements or conditions that preclude those companies from applying to participate in CDM projects deny them the ability to become project owners, and they thus discriminate against foreign companies that are not wholly-owned or controlled by Chinese companies.

In addition to this *de jure* discrimination against foreign companies in the CDM process, it appears that there is, in practice, discrimination against foreign content in such projects. This "local" mantra is evident throughout the Clean Development Mechanism project design forms submitted for wind, solar, and hydropower projects in China for government and CDM Executive Board approval. Not surprisingly, those forms repeatedly state that to the project in question contributes to sustainable development by supporting local industries and development in China. For example, in the CDM form submitted to the UN CDM Executive Board, the Inner Mongolia Baotou Bayin Wind Project stated it would "utilize domestic made state-of-the-art wind turbines to contribute [to] the advancement of domestic wind power technology and to promote Chinese wind turbine manufacturing industry."[323] The CDM form submitted by the Shawan Hydropower Station claims that the "project will definitely contribute to the province's economic development by improving the local energy generation infra-structure and providing employment opportunities during both the construction and the operation of the power plant."[324] The CDM form submitted by Gansu Guazhou Ganhekou Fourth Wind Farm Power Generation Project states that the project "will help to stimulate the growth of wind power industry in

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[322] Working Party Report at para. 18 **(Exhibit IV-1)**; Accession Protocol at paras. 1.2, 3(a) **(Exhibit IV-2)**.

[323] CDM Project Design Document Form for Inner Mongolia Baotou Bayin Wind Project (Version 3.1) at A.1 (July 25, 2008) **(Exhibit IV-31)**.

[324] CDM Project Design Document Form for Shawan Hydropower Station at A.2 (June 2, 2010) **(Exhibit IV-32)**.

China."[325] The CDM form submitted by Sichuan Shimian Songlinhe Hongyi Hydropower Project states that the project will "promote the local economic development," "create considerable job opportunities," and "promote the local development in industry, agriculture and service trade."[326] Likewise, the CDM form submitted by the Hunan Tongba Small Hydropower Project states that the project will "promote the local economic development" and "promote the local development in industry and agriculture."[327] The companies are apparently reciting the same lines to receive approval of their CDM projects. This is consistent with the observation that CDM project owners routinely source their wind turbines from domestic Chinese manufacturers through purchase agreements.[328]

Nor is it clear that China could justify these discriminatory actions by relying on the exception to national treatment of goods in GATT 1994 Article III:8(b). Article III:8(b) exempts from the scope of Article III the "payment of subsidies exclusively to domestic producers...." Assuming *arguendo* that the receipt of revenue from the sale of CERs constitutes the receipt of a "subsidy," however, nothing in Article III:8(b) gives China blanket authorization to discriminate between domestic producers based on their relative level of their foreign ownership. China has already agreed in its Accession Protocol not to give foreign-funded enterprises less favourable treatment with respect to the "conditions under which their goods are produced, marketed or

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[325] CDM Project Design Document Form for Gansu Guazhou Ganhekou Fourth Wind Power Generation Project at A.2 (June 25, 2010) **(Exhibit IV-33)**.

[326] CDM Project Design Document Form for Sichuan Shimiam Songlinhe Hongyi Hydropower Project at A.2 (June 29, 2010) **(Exhibit IV-34)**.

[327] CDM Project Design Document Form for Hunan Tongba Small Hydropower Project at A.2 (Aug. 8, 2010) **(Exhibit IV-35)**.

[328] *See* NFTC, *China's Promotion of the Renewable Electric Power Equipment Industry: Hydro, Wind, Solar, Biomass* 71 (March 2010) **(Exhibit IV-5)** (of the ten largest wind turbine projects between 1/08 and 1/10, "all of the turbines employed were made in China, and most, but not all, of the turbines employed were manufactured by Chinese companies"); CDM Validation Report for Inner Mongolia Zhuozi, Report No. 2009-1011, Rev. No. 04, at Section 4.4.1 (July 14, 2009) **(Exhibit IV-36)**.

sold, in the domestic market and for export."[329] By denying foreign companies that are not wholly-owned or controlled by Chinese companies access to Clean Development Mechanism financing, China unfairly limits the conditions under which those companies can participate in China's growing energy market.

D. Localization Requirements in Supplier and Joint Venture Agreements

Local content or localization requirements have been a serious problem for foreign manufacturers of equipment employing green technology, like wind turbines. Not only does the strategy encourage the development of the Chinese input industries – it has already prompted the wholesale emigration of U.S. green technology industries to China once the lower cost "supply chain" for a product is localized there.

The United States and other WTO Members have already raised their concerns about China's local content requirements in the WTO's Transitional Review Mechanism process:

> Before acceding to the WTO, China began revising its laws and regulations on foreign-invested enterprises to eliminate WTO-inconsistent requirements relating to export performance, local content, foreign exchange balancing and technology transfer. However, seven years after China's WTO accession, some of the revised laws and regulations continue to encourage technology transfer, without formally requiring it. U.S. companies remain concerned that this "encouragement" in practice can amount to a "requirement" in many cases, particularly in light of the high degree of discretion provided to Chinese government officials when reviewing investment applications. Similarly, some laws and regulations "encourage" exportation or the use of local content. Moreover, according to U.S. companies, some Chinese government officials in 2009 – even in the absence of encouraging language in a law or regulation – still consider factors such as export performance and local content when deciding whether to approve an investment or to recommend approval of a loan from a Chinese policy bank, which is often essential to the success of a project.

[329] Accession Protocol at para. 3(a) **(Exhibit IV-2)**.

> The United States, the EU, Japan and other WTO members have raised concerns in this area during the annual transitional reviews conducted by the TRIMS Committee. The United States will continue to follow this situation closely in 2010.[330]

These concerns are borne out in a number of agreements involving commitments made by foreign companies to localize their supply chains in China and develop those Chinese industries, whether in MOUs with government entities, purchase agreements with SOEs, or joint venture agreements negotiated with SOEs and subject to government approval.[331] For example, when GE opened its first wind turbine assembly plant in China in 2006, it specifically stated that its "wind plant in Shenyang meets the requirements on wind turbine localization set by China's National Development and Reform Commission."[332] The company signed a Memorandum of Understanding on energy technologies with the NDRC in May of 2006, and GE stated that it had agreed to invest up to $50 million in R&D funds in China, as a part of its "long-term commitment" to the country.[333] While the NDRC's 70% localization requirement for large wind farms has since been rescinded, later GE joint venture agreements also mention the development of a local Chinese supply chain. For example, in March and August of 2009, GE announced it was forming a new joint venture in China to produce large diameter gears and gear box assemblies for wind turbines. According to a media report, "[t]his agreement signifies GE's commitment to development of a local Chinese supply chain and supports China's initiative to

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[330] U.S. Trade Representative, *2009 Report to Congress on China's WTO Compliance* at 67 (Dec. 2009) **(Exhibit IV-37)**; *see* U.S. Trade Representative, *2010 National Trade Estimate Report on Foreign Trade Barriers* **(Exhibit IV-38** at 2**)**.

[331] Chinese law continues to give the government the right to approve or reject joint venture agreements. *See* Law of the People's Republic of China on Chinese-Foreign Equity Joint Ventures, No. 48, at art. 3 (March 15, 2001) **(Exhibit IV-52)**; Law of the People's Republic of China on Chinese-Foreign Contractual Joint Ventures, No. 40, at arts. 4-5 (Oct. 31, 2000) **(Exhibit IV-53)**.

[332] *GE Energy Opens Wind Turbine Assembly Facility In China*, GE Press Release (June 28, 2006), available on-line at <http://www.gepower.com/about/press/en/2006_press/062806.htm> **(Exhibit IV-39)** (emphasis added).

[333] *Id.*

increase wind energy output...."[334] In several instances where GE has been awarded supply contracts for wind farms in China, it has been noted by GE or the press that the turbines for the project will be produced by GE in China.[335] An October 2009 newsletter issued by GE China explained that development of a new wind turbine model to serve the Chinese market was part of GE's "In China, For China" strategy.[336]

Another U.S. company, American Superconductor Corporation, entered into a contract with state-owned Sinovel Wind Power in 2008 for the sale of electrical core components and related software for wind turbines for delivery from 2009 to 2011. The contract specified that "where converters are locally assembled with imported material, localization on converter will be implemented phase by phase according to a localization schedule agreed upon by both parties."[337] By 2010, American Superconductor reported that its power electronic converters were being manufactured in China and the company had localized its component supply in China for the converters.[338] Agreements such as these, negotiated by state-owned companies, directly undermine the utility of any commitment to eliminate, at least on paper, *de jure* domestic content requirements in the green technology sector.

In the solar sector, China has already successfully used the supply chain strategy to become a leading producer of lower-priced solar panels, which has prompted foreign competitors

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[334] Richard A. Kessler, *GE Forms China Joint Venture in Wind Turbine Sales Push*, RECHARGENEWS.COM (Aug. 20, 2009), available at <http://www.rechargenews.com/regions/north_america/article186148.ece> **(Exhibit IV-40)**.

[335] *See, e.g., Milestone Wind Power Project In China To Feature GE Energy Technology*, GE Press Release (Dec. 6, 2005), available at <http://news.thomasnet.com/companystory/471621> **(Exhibit IV-41)**; *Wind Power in China: Shangyi Wind Farm*, GE Wind Power Website, available at <http://www.ge.com/innovation/china_wind/index.html> **(Exhibit IV-42)**.

[336] *See GE Releases Nearshore Wind Turbine for Chinese Market*, GE in China Newsletter No. 49 (Oct. 2009), available at <http://www.ge.com.cn/enewsletter/geinchina49.htm> **(Exhibit IV-43)**.

[337] American Superconductor Corp. Form 8-K, at Ex. 10.1 (June 5, 2008) **(Exhibit IV-44)** (emphasis added).

[338] American Superconductor Corp. Form 10-Q, at 18 (Aug. 5, 2010) **(Exhibit IV-45)**.

to move their productions lines to China:

> U.S. Evergreen Solar Inc. said it will move its assembly line from Massachusetts to China. General Electric Co. said it will shut a facility in Delaware. BP PLC's solar unit said this spring it would stop output in Maryland and rely on Chinese suppliers instead.[339]

According to reports, Evergreen Solar had been producing silicon wafers and cells and assembling them into solar panels at its Devens factory in Massachusetts.[340] To cut costs, Evergreen Solar will now manufacture the solar wafers in China at a facility leased from Jiawei Solarchina Co., Ltd. in Wuhan, China and have them converted into Evergreen Solar-branded panels.[341] Evergreen had considered building its own factory but could not get the necessary financing – it entered into the joint venture agreement with the financial support of an investment fund backed by the Hubei provincial government.[342] As noted above, it also appears that China has included localization requirements in the approval for its first solar power plant and in the agreement with First Solar to build a solar power plant in Ordos City, Inner Mongolia.

Similarly, another U.S. company, ZAP, entered into a joint venture with Chinese and Hong Kong companies to manufacture electric vehicles for the Chinese fleet and taxi market. The joint venture includes a local auto manufacturing partner, Jonway UFO, an established electric power meter manufacturer with a long commercial relationship with the provincial Chinese Electric Power Grid companies, Holley Group, and a infrastructure technology and

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[339] Shai Oster, *World's Top Polluter Emerges as Green-Technology Leader,* WALL ST. J. (Dec. 15, 2009) **(Exhibit IV-46)** ("The Chinese manufacturers can now make [solar panels] a lot cheaper than Europe, the United States and Japan because the whole supply chain is now available in China....").

[340] *Evergreen Solar Plans to Move U.S. Panel Production to China* (Nov. 5, 2009) **(Exhibit IV-47)**.

[341] *Evergreen Solar Finalizes China Manufacturing Agreement* (Aug. 5, 2009) **(Exhibit IV-48)**; *Evergreen Solar Signs Contract Manufacturing Agreement with Jiawei Solar,* Evergreen Solar Press Release (July 30, 2009) **(Exhibit IV-49)**; *Evergreen Solar Plans to Move U.S. Panel Production to China* (Nov. 5, 2009) **(Exhibit IV-47)**.

[342] *Evergreen Solar Plans to Move U.S. Panel Production to China* (Nov. 5, 2009) **(Exhibit IV-47)**. *See also* **Exhibits IV-48 & 49**.

service provider for electronic vehicles, Better World.[343] The joint venture is intended to "cost effectively manufacture EV by working in partnership with a progressive local auto manufacturer..."[344] According to ZAP, the joint venture was formed in Hangzhou to "achieve cost efficiencies and localization of our EV products for China and the Asian market...."[345]

The routine inclusion of localization statements in MOUs, JVs, and purchase contracts strongly suggests that they are necessary for the Chinese government's approval of those projects. While China is likely to argue that its pervasive "encouragement" of local content and localization is not mandatory or binding on the companies, the government's approval of those projects continues to be a mandatory and binding requirement. As noted above, GATT and WTO jurisprudence has long elevated substance over form by recognizing the mandatory nature of various requirements that masquerade as non-mandatory "guidance"[346] or encouragement, and the Appellate Body has refused to embrace the "mandatory/discretionary" distinction developed by panels to distinguish between measures that can be challenged "as such" as opposed to "as applied".[347]

For example, GATT panels have found the Japanese practice of "administrative guidance" to be a traditional tool of enforcing Japanese government policy that could be regarded as a mandatory measure based on its effectiveness despite its lack of transparency.[348]

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[343] ZAP Form 10-K for FY Ending Dec. 31, 2009, at 1-7 **(Exhibit IV-50)**; ZAP Form 8-K (Dec. 11, 2009) **(Exhibit IV-51)**.

[344] ZAP Form 10-K for FY Ending Dec. 31, 2009, at 5 **(Exhibit IV-50)**.

[345] ZAP Form 10-K for FY Ending Dec. 31, 2009, at 7 **(Exhibit IV-50)**.

[346] *See* GATT Panel Report, *Japan – Semi-Conductors,* BISD 35S/116, adopted May 4, 1988, at para. 117 (finding the absence of formal legally binding obligation was a difference in form not substance).

[347] *See, e.g.,* WTO Appellate Body Report, *United States – Zeroing (EC),* WT/DS294/AB/R, adopted May 9, 2006, paras. 206-14 (rejecting argument that panel failed to consider non-mandatory nature of the U.S. zeroing methodology).

[348] *See* GATT Panel Report, *Japan – Semi-Conductors,* at para. 117; GATT Panel, *Japan – Agricultural Products I,* BISD 35S/163, adopted Feb. 2, 1988, paras. 3.2.6 & 5.4.1.4.

To determine whether the measure was effective, the panel applied a two-pronged test that considered (1) whether there were reasonable grounds to believe that sufficient incentives or disincentives existed for the non-mandatory measure to take effect, and (2) whether the operation of the measure was essentially dependent on government action or intervention.[349]

As noted previously, even private parties' voluntary acceptance of agreement conditions or requirements to obtain a government advantage has been considered to be a government restriction within the meaning of GATT 1994 Article III:4. For example, a GATT Panel in *Canada – FIRA* reviewed the consistency with GATT Article III:4 of voluntary undertakings that were made by investors to purchase Canadian goods over imported goods but were not required under Canada's Foreign Investment Review Act or Regulations.[350] The panel pointed out that once the undertakings were accepted, they became part of the conditions under which the investment proposals were approved.[351] Therefore, the panel rejected Canada's argument that the terms of the purchase undertakings were merely private contractual obligations of particular foreign investors and pointed out that the obligations adversely affected the rights of other GATT contracting parties under Article III:4:

> The Panel carefully examined the Canadian view that the purchase undertakings should be considered as private contractual obligations of particular foreign investors vis-à-vis the Canadian government. The Panel recognized that investors might have an economic advantage in assuming purchase undertakings, taking into account the other conditions under which the investment was permitted. The Panel felt, however, that even if this was so, private contractual obligations entered into by investors should not adversely affect the rights which contracting parties, including contracting parties not involved in the dispute, possess under Article III:4 of the General Agreement and which they can exercise on behalf of their exporters. This applies in particular to the rights

[349] GATT Panel Report, *Japan – Semi-Conductors,* at paras. 108-109.

[350] GATT Panel Report, *Canada – FIRA,* BISD 30S/140, adopted Feb. 7, 1984, at para. 5.4.

[351] GATT Panel Report, *Canada – FIRA,* at para. 5.6.

> deriving from the national treatment principle, which – as stated in Article III:1 – is aimed at preventing the use of internal measures "so as to afford protection to domestic production."[352]

Likewise, in this case, the agreements with local content or localization requirements, especially in the green technology area, are encouraged and dependent upon that government's final approval. The evidence shows that China's current strategy continues to be highly effective at ensuring that the resulting agreements satisfy localization requirements. Any requirement to localize supply chains in China – whether voluntarily accepted or not – in order to obtain an advantage in the form of the Chinese government's approval of a project, however, is fundamentally inconsistent with China's GATT 1994 Article III:4 obligations to the extent that the company considers itself to be obligated in any way to adhere to that condition once the project is approved.[353]

E. Price Controls on Rare Earth Minerals

As explained in Section II, China has also apparently decided to use its SOEs to control the prices of rare earth minerals. In areas like the Jiangxi, Fujian, Guangdong, and Hunan provinces as well as the Guangxi Zhuang autonomous region, the central government was expected to implement a plan in July 2010 to establish a unified pricing mechanism for rare earth minerals.[354] According to the plan, the government would publish a unitary price (based on

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[352] GATT Panel Report, *Canada – FIRA*, at para. 5.5 (emphasis added); *see also* GATT Panel Report, *EEC – Restrictions on Imports of Dessert Apples*, BISD 36S/93, adopted June 22, 1989, at paras. 12.8-12.9.

[353] Chinese law continues to give the government the right to approve or reject joint venture agreements and CDM projects. *See* Law of the People's Republic of China on Chinese-Foreign Equity Joint Ventures, No. 48, at art. 3 (March 15, 2001) **(Exhibit IV-52)**; Law of the People's Republic of China on Chinese-Foreign Contractual Joint Ventures, No. 40, at arts. 4-5 (Oct. 31, 2000) **(Exhibit IV-53)**; Dep't of Climate Change, NDRC, *Clean Development Mechanism in China FAQs* (Dec. 1, 2004), available at <http://cdm.ccchina.gov.cn/english/NewsInfo.asp? NewsId=831> **(Exhibit IV-28)**.

[354] *China plans a unified pricing to buoy rare earth prices*, PEOPLE'S DAILY ONLINE (July 8, 2010) **(Exhibit IV-54)**.

negotiation) once a month.[355] The goal is to improve transparency in order to buoy undervalued prices of rare earth minerals and to avoid "cut-throat competition" between producers.[356] According to news reports, two of China's largest state-owned rare earths miners, Baotou Steel Rare Earth High-Tech Co. and Jiangxi Copper Corp., have already announced that they would launch a new unified pricing system for light rare earths intended to prevent its undervaluation.[357]

The new pricing mechanism would complement China's efforts to consolidate the rare earth mining industry into the hands of a few SOEs. By June 2010, China's MIIT and National Development and Reform Commission had sent a draft plan to the State Council, China's highest legislative body, for approval that would limit mining to only a few select SOEs to address the problem of illegal exploitation (that had undervalued the price) and to consolidate reserves. Once approved, the plan would authorize the Ministry of Land and Resources to issue licenses and start allocating resources only to those SOEs. Private enterprises would only be able to collaborate with the selected firms through shareholding.

China's plans, if implemented, are likely to violate its WTO obligations for the following reasons. First, China agreed that it would not impose price controls on any product that was not included in Annex 4 of its Accession Protocol, absent exceptional circumstances and satisfying notification requirements:

> 1. China shall, subject to paragraph 2 below, allow prices for traded goods and services in every sector to be determined by

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[355] *Unified price to buoy rare earth prices*, available on-line at <www.Chinamining.org> (July 8, 2010) **(Exhibit IV-55)**.

[356] *Unified price to buoy rare earth prices*, available on-line at <www.Chinamining.org> (July 8, 2010) **(Exhibit IV-55)**; *China plans to fix rare earth prices – report,* REUTERS (July 8, 2010) **(Exhibit IV-56).**

[357] *China Takes Step to Set Rare-Earth Prices,* WALL ST. J. (Aug. 11, 2010) **(Exhibit IV-57)**; *'Bigger say' set on rare earths market,* CHINA DAILY (Aug. 10, 2010) **(Exhibit IV-58)**; *Dash for Clean Energy a Boon to China's Rare Earth Monopoly,* REUTERS (Aug. 12, 2010) **(Exhibit IV-59)**.

> market forces, and multi-tier pricing practices for such goods and services shall be eliminated.
>
> 2. The goods and services listed in Annex 4 may be subject to price controls, consistent with the WTO Agreement, in particular Article III of the GATT 1994 and Annex 2, paragraphs 3 and 4 of the Agreement on Agriculture. Except in exceptional circumstances, and subject to notification to the WTO, price controls shall not be extended to goods or services beyond those listed in Annex 4, and China shall make best efforts to reduce and eliminate these controls.
>
> 3. China shall publish in the official journal the list of goods and services subject to state pricing and changes thereto.[358]

China's unified pricing mechanism based on the SOEs' "negotiated" prices would be inconsistent with its obligation to allow prices to be determined by market forces. China did not include rare earth minerals in the list of products included in Annex 4 and, to our knowledge, has not yet filed a WTO notification.[359]

Second, China agreed that its SOEs would make sales on the basis of commercial considerations and that the Government of China would not influence their commercial decisions:

> The representative of China further confirmed that China would ensure that all state-owned and state-invested enterprises would make purchases and sales based solely on commercial considerations, e.g., price, quality, marketability and availability, and that the enterprises of other WTO Members would have an adequate opportunity to compete for sales to and purchases from these enterprises on non-discriminatory terms and conditions. In addition, the Government of China would not influence, directly or indirectly, commercial decisions on the part of state-owned or state-invested enterprises, including on the quantity, value or country of origin of any goods purchased or sold, except in a

[358] Accession Protocol at para. 9 **(Exhibit IV-2)**. China further agreed in paragraph 62 of the Working Party Report (as incorporated by paragraph 1.2 of the Accession Protocol) that "price controls would not be used for purposes of affording protection to domestic industries or services providers." Working Party Report at para. 62 **(Exhibit IV-1)**.

[359] Accession Protocol at Annex 4 **(Exhibit IV-2)**.

> manner consistent with the WTO Agreement. The Working Party took note of these commitments.[360]

Even if China's unified pricing mechanism does not qualify as a "price control," the mechanism would still be inconsistent with China's obligation to ensure that its SOEs base their sales prices solely on commercial considerations.

Finally, China confirmed in paragraph 18 of the Working Party Report (as incorporated in paragraph 1.2 of the Protocol) that it would "provide the same treatment to Chinese enterprises, including foreign-funded enterprises, and foreign enterprises and individuals in China" with respect to the procurement of goods and the conditions under which their goods are produced, marketed or sold.[361] In paragraph 3 of the Protocol, China likewise agreed not to discriminate against foreign individuals, enterprises and foreign-funded enterprises:

> Except as otherwise provided for in this Protocol, foreign individuals and enterprises and foreign-funded enterprises shall be accorded treatment no less favourable than that accorded to other individuals and enterprises in respect of:
>
> (a) the procurement of inputs and goods and services necessary for production and the conditions under which their goods are produced, marketed or sold, in the domestic market and for export....[362]

China, however, plans to allocate mining licenses only to a few select SOEs, thereby discriminating against other companies. Foreign companies would be denied any access whatsoever to the mining of rare earth minerals, and their ability to purchase such minerals will be constrained by consolidation and price control by SOE suppliers.

Although China's plans with respect to the rare earth industry may not yet be finalized, China has already started the process of controlling the production and exportation of rare earths

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[360] Working Party Report at para. 46 **(Exhibit IV-1)** (emphasis added).

[361] Working Party Report at para. 18 **(Exhibit IV-1)**.

[362] Accession Protocol at para. 3(a) **(Exhibit IV-2)** (emphasis added).

and consolidating the industry into the hands of a select group of SOEs.[363] Therefore, the United States should closely monitor developments with respect to the imposition of price controls on rare earth minerals as well as the allocation of mining licenses while consideration of this petition is pending.

V. CHINA'S TECHNOLOGY TRANSFER REQUIREMENTS ARE INCONSISTENT WITH ITS WTO OBLIGATIONS

China has historically employed a "technology for market" strategy.[364] In its Accession Protocol, however, China specifically agreed not to impose performance requirements, including the transfer of technology, on investment measures related to trade in goods. Despite those obligations, however, China has continued to condition foreign investment on access to technology, including green technology. As confirmed during the WTO's Trade Policy Review process, "China's overall trade policy objective has remained largely unchanged since its previous Trade Policy Review: to accelerate its opening to the outside world (with a view to introducing foreign technology and know-how), develop foreign trade, and promote sound economic development."[365] As explained below, the Chinese government retains significant control over the technology transfer process because it continues to review joint venture applications and their consistency with government objectives and participates in their negotiation via state-owned enterprises.

Chinese law continues to give the government the right to approve or reject foreign

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[363] Note that antimony and tungsten are already included in Annex 2.A.2 of the Accession Protocol as products subject to state trading.

[364] *See, e.g., China Dangles Rare-Earth Resources to Lure Investment,* WALL ST. J. (Aug. 16, 2010) **(Exhibit V-1)**.

[365] WTO Secretariat's Report, Trade Policy Review: China, WT/TPR/S/230/Rev.1230/Rev.1, at 11, 14-15 (July 5, 2010) **(Exhibit V-2)**.

equity joint venture agreements.[366] China's law on foreign-invested joint ventures also specifically warns foreign investors that the technology they provide as part of their investment in the joint venture must be advanced technology:

> Each party to a joint venture may make its investment in cash, in kind or in industrial property rights, etc. The technology and equipment that serve as a foreign joint venturer's investment must be advanced technology and equipment that actually suit our country's needs. If the foreign joint venturer causes losses by deception through the intentional use of backward technology and equipment, it shall pay compensation for the losses....[367]

According to the regulations, "[t]he technology acquired by the joint venture shall be appropriate and advanced and enable the venture's products to display conspicuous social economic results domestically or to be competitive on the international market."[368] The implementing regulations further specify that any technology transfer agreement signed by the joint venture must be submitted for approval and comply with the following requirements:

> (1) the fees for the use of technology shall be fair and reasonable
>
> (2) unless otherwise agreed upon by both parties, the technology exporting party shall not put any restrictions on the quantity, price or region of sale of the products that are to be exported by the technology importing party
>
> * * *
>
> (4) after the expiry of a technology transfer agreement, the technology importing party shall have the right to use the

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[366] Law of the People's Republic of China on Chinese-Foreign Equity Joint Ventures, No. 48, at art. 3 (March 15, 2001) **(Exhibit V-3)**. China's law on Chinese-Foreign Contractual Joint Ventures also requires government approval and specifically encourages "the establishment of productive contractual joint ventures that are export-oriented or technologically advanced." Law of the People's Republic of China on Chinese-Foreign Contractual Joint Ventures, No. 40, at arts. 4-5 (Oct. 31, 2000) **(Exhibit V-4)**.

[367] Law of the People's Republic of China on Chinese-Foreign Equity Joint Ventures, No. 48, art. 5 (March 15, 2001) **(Exhibit V-3)**.

[368] Regulations for the Implementation of the Law on Sino-Foreign Equity Joint Ventures, art. 41 (July 22, 2001) **(Exhibit V-5)**.

technology continuously ....[369]

Applications to establish equity joint ventures will not be granted if the project involves "nonconformity with the requirements of the development of China's national economy."[370]

According to the implementing regulations, applications will be approved based on the guidelines in the Catalogue of Foreign Investment Industries.[371] The Catalogue of Encouraged Foreign Investment Industries includes over 50 references to "technology" or "new technology," including:

- Manufacture of the equipment of new energy electricity-power (limited to equity joint ventures and cooperative joint ventures): photovoltaic power, geothermal power generation, tidal power generation, wave power generation, rubbish power generation, methane power generation, wind power generation over 1.5M;
- Construction and management of new energy power plants (solar energy, wind energy, magnetic energy, geothermal energy, tide energy and biological mass energy, etc.);
- Development of energy-saving technology;
- Technology for recycling and comprehensive utilization of resource, development and application of the recycling technology of the waste dispelled by enterprises;
- Technology for environment pollution treatment and monitoring;
- Energy-saving and consumption-reduction in chemical fiber production and the new technology to deal with polluted air, water and solid waste; and
- Incubator for hi-tech, new products developing, and incubation of enterprises.[372]

In addition, the Ministry of Science and Technology and the Ministry of Commerce issued a

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[369] Regulations for the Implementation of the Law on Sino-Foreign Equity Joint Ventures, art. 43 (July 22, 2001) **(Exhibit V-5)** (emphasis added).

[370] Regulations for the Implementation of the Law on Sino-Foreign Equity Joint Ventures, art. 4 (July 22, 2001) **(Exhibit V-5)**.

[371] Regulations for the Implementation of the Law on Sino-Foreign Equity Joint Ventures, art. 3 (July 22, 2001) **(Exhibit V-5)**.

[372] Catalogue for the Guidance of Foreign Investment Industries (Amended in 2007), at Sections III.20(7), IV.5 and VIII.6-9, VIII.14 (Oct. 31, 2007) **(Exhibit V-6)**.

Catalogue of Encouraged Hi-Tech Products for Foreign Investment in 2003 for the purpose of encouraging foreign investment in high-tech industries, accelerating the pace of introducing advanced technologies from abroad, strengthening the abilities of internal assimilation and independent innovation, and further improving the quality and level of foreign investments.[373] Once again, the list of encouraged high tech products includes a large number of green technology products, such as:[374]

New Energy and Efficient Energy Saving	Environmental Protection
New Type Energy and Equipment 1 Solar battery and components 2 Photovoltaic generation invertor 3 Photovoltaic generation controller 4 Photovoltaic generation measuring equipment 5 Solar battery production equipment 6 Solar battery production raw material 7 Solar photovoltaic power supply 8 Water battery water pump system 9 Geothermal power generation suite 10 Automatic geothermal constant pressure water supply system 11 Tide power generation suite 12 Wave power generation suite 13 Proton exchange membrane fuel cell (PEMFC) 14 Power generation equipment for proton exchange membrane fuel cell (PEMFC) 15 New type valve controlled panseal maintenance-free lead acid battery 16 Metal hydride-nickel (MH/Ni) powered cell 17 Zinc nickel storage battery 18 Zinc silver storage battery 19 Aeronautic cadmium nickel battery 20 Lithium ion battery 21 Rechargeable non-Hg alkaline manganese battery 22 Cylinder zinc air battery 23 Non-Hg alkaline manganese battery with retention period>5years 24 1000KW and above large-scale parallel wind driven generator group 25 1000KW and above large-scale parallel wind driven generator group blade 26 Concentration and distance inspection system of wind driven power plant 27 Independent wind driven generator group controller and invertor 28 Low-heat small-scale gas turbine generator group	**Atmospheric Pollution Prevention and Control Equipment** 1 Large-scale bag type collector 2 Horizontal electrical precipitator 3 High temperature resistant filtering material 4 (Semi-) Dry stack gas desulfurization suite 5 Wet stack gas desulfurization 6 Low NOX combustion train 7 Stack-gas denitrification suite 8 High-efficiency acid mist purifier 9 Industrial organic waste gas purifier 10 High-efficiency ternary catalyzing and purifying apparatus 11 Purifying device for exhaust air emitted by diesel oil automobile **Water Pollution Prevention and Control Equipment** 12 Belt press filter with concentration and dehydration integrated 13 Horizontal screw centrifugal dehydrator 14 Automatic filter 15 Membrane separating device 16 Sesalination of sea water device 17 Ozonator 18 Chlorine dioxide generator 19 Oxidation unit 20 Membrane electrolyzer 21 Ultraviolet disinfection unit 22 Mechanical face aerator 23 Brush aeration 24 Automatic decanting unit **Solid Waste Disposal Equipment** 25 High-density polythene antiseepage membrane 26 Waste compactor 27 Anaerobic fermentation device for biologically degradable organic waste 28 Domestic waste incineration device 29 Waste incineration & power generation device

[373] Catalogue of Encouraged Hi-Tech Products for Foreign Investment Ministry of Science and the Ministry of Commerce, GuoKeFaJiZi [2003] No. 179, at *preamble* (June 2, 2003) **(Exhibit V-7)**.

[374] [374] Catalogue of Encouraged Hi-Tech Products for Foreign Investment Ministry of Science and the Ministry of Commerce, GuoKeFaJiZi [2003] No. 179 (June 2, 2003) **(Exhibit V-7)**.

New Energy and Efficient Energy Saving	Environmental Protection
29 Sterling generator group 30 Megaton direct coal fluidification equipment 31 Megaton indirect coal fluidification equipment 32 Hydrogen energy generation, reservation and transportation equipment and checkout system 33 Solar airconditioning and heating system 34 Solar drying unit 35 Solar thermal power generation system 36 Biomass pyrolysis system 37 Biomass gasifiying equipment 38 Waste power generation suite 39 Specialized marsh gas power generation equipment **Energy-saving Product** 40 Electric diesel engine and high-pressure fuel injection equipment 41 Electric gasoline engine 42 High power of 50 tons and above direct current arc furnace 43 Amorphous state alloy transformer 44 IGBT contravariant electric welding machine 45 Static reactive compensation equipment 46 600MW and above supercritical turbo power generator group 47 40MW and above combustion turbine power generator group 48 300MW and above large-scale recycling fluidized bed boiler(CFB) 49 Pressure enforced fluidizing cooperative cycling generator group(PFBC) 50 Integrated gasified cooperative cycling generator group(IGCC) 51 300MW and above large-scale air cooling generator group 52 35MW and above large-scale stay column assembly hydroelectric generator group 53 100MW and above large-scale pump storage groups 54 600MW and above nuclear power generator group 55 ±500MV and above extrahigh voltage direct current transmission facilities 56 Cool and heat storage device 57 New type heavy residual oil atomizing nozzle 58 Coal-water slurry burner 59 High-efficiency steam draining valve(leakage rate ≤0.5%) 60 High temperature(≥1000_) ceramic heat exchanger 61 Blower fan of adjustable vane adjustable axle power station 62 Low noise disrotatory booster 63 High pressure compressor for ship and vessel with working pressure ≥15MPa 64 Reclaimed water treatment and recycling system 65 Clean coal suite and device 66 Device for comprehensive utilizing of waste gas, waste liquor and water residue 67 Comprehensive utilizing device of worn-out tyres	30 Incineration device for toxic and harmful solid waste 31 Compressing city refuse collector trunk 32 Deserted foam recycling device 33 Worn-out household appliances recycling and disposal suite 34 Device for power generating by marsh gas in the landfill 35 CNG generating and reserving suite by marsh gas in the landfill **Environment Monitoring Instrument** 36 PM10 automatic sampler and calcimeter 37 SO2 automatic sampler and calcimeter 38 NOX, NO2 automatic sampler and calcimeter 39 O3 automatic monitor 40 CO automatic monitor 41 Automatic sampler and calcimeter for acid rain 42 Automatic sampler and calcimeter for soot and dust 43 Automatic sampler and calcimeter for flue gas 44 Automatic calcimeter for automobile tailor gas 45 Portable calcimeter for harmful and toxic gas 46 Floating air quality monitoring car 47 Intermittent automatic analyzer for organic pollutants in the air 48 COD automatic online monitor 49 BOD automatic online monitor 50 Automatic online monitor for turbidity and conductance 51 DO automatic online monitor 52 TOC automatic online monitor 53 TOD automatic online monitor 54 Automatic online monitor for ammonia nitrogen 55 Calcimeter for oil content 56 Multifunctional onsite monitor for water quality 57 On-vehicle XX-ray fluorescence (XRF) spectrometer 58 Noise spectrum analyzer 59 Vibration gauge 60 Radiation dose monitor 61 Ray analyzer 62 CH automatic monitor 63 Sound insulation and absorption material and device 64 Ventilation silencer 65 Ventilation noise suppressor and silencer 66 Silencer for pressure-reducing and -relieving valves of blast furnace

On April 6, 2010, China's State Council issued a statement providing its opinion that the Catalogue of Foreign Investment Industries should be revised to encourage foreign capital for,

inter alia, high and new technology industries, and new energy, energy-saving and environmental protection industries.[375]

In sum, China's press to gain access to advanced and new technologies, including those in the green technology sectors, from abroad through foreign investment continues well after its WTO accession. China, along with India and Brazil, has even proposed that green technologies be made subject to compulsory licensing.[376] "For international multinationals, technology transfer has long been the quid pro quo of landing deals in China."[377] A group of top executives of U.S. and European companies, including BASF, Siemens, General Electric, Microsoft, and Google, recently voiced their concerns over Chinese policies that put their companies at a competitive disadvantage, including those policies that compelled them to transfer valuable technology to China.[378]

In keeping with national policies, China's state-owned enterprises have routinely demanded that technology transfer be a part of their joint ventures with foreign companies.[379]

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[375] Several Opinions of the State Council on Further Utilizing Foreign Capital, Guo Fa [2010] No. 9, Section I (April 6, 2010) **(Exhibit V-8)**. The National Development and Reform Commission has already issued a circular in light of the State Council's Opinion that instructs lower level commissions charged with approving foreign investments of USD300m (or USD50m if restricted) to encourage foreign investment in high-end manufacturing, high-tech industries, modern service industry, and new energy-saving and environmental protection industries, and to promote foreign investment in the application of new technologies, processes, materials, and equipment, hence restructuring and upgrading traditional industries. Circular of the National Development and Reform Commission on Doing a Good Job in Delegating the Power to Approve Foreign-invested Projects, Fa Gai Wai Zi [2010] No. 914, art. 1 (May 4, 2010) **(Exhibit V-21)**; *see also* Circular of the Ministry of Commerce on Delegating Approval Authority over Foreign Investment to Local Counterparts, Shang Zi Fa [2010] No. 209, art. 1 (June 10, 2010) **(Exhibit V-9)**.

[376] *Chamber Fears Climate Talks Could Set Stage for TRIPS Changes,* INSIDE U.S. TRADE (May 15, 2009) **(Exhibit V-10)**.

[377] *Immelt on China: They Won't Let Us Win*, WALL ST. J. (July 2, 2010) **(Exhibit V-11)**.

[378] Jason Dean, *China is Coming Under Fire,* WALL ST. J. (July 20, 2010) **(Exhibit V-12)**. Some of the same companies also launched a coalition last year to defend intellectual property rights on green technologies in the climate change negotiations. *Companies Launch Coalition to Defend IPR in Climate Change Talks,* INSIDE U.S. TRADE (May 22, 2009) **(Exhibit V-13)**.

[379] *See Immelt on China: They Won't Let Us Win*, WALL ST. J. (July 2, 2010) **(Exhibit V-11)**; *see also* Table Listing Agreements with Chinese SOEs Involving Green Technology Transfer **(Exhibit V-14)**; WTO Secretariat's Report, Trade Policy Review: China, WT/TPR/S/230/Rev.1230/Rev.1, at 70 (July 5, 2010) **(Exhibit V-**

Indeed, a review of SEC filings detailing joint venture agreements between foreign companies and SOEs to produce green technology products all include technology license agreements, confirming that technology transfer is a standard and necessary requirement for joint venture agreements to be approved by the Chinese government. Specifically, the U.S. companies "find they need to share technology as part of the deal,"[380] and they proceed to license their proprietary technologies to the joint venture company for purposes of producing the products in China. For example, as **Exhibit V-14** illustrates, Chinese SOEs have repeatedly secured joint venture agreements with foreign companies, including U.S. companies, to obtain access to the technologies needed to produce green products such as alternate fuel management systems for cars, energy-efficient cars, rechargeable batteries, solar wafers, and coal gasification equipment.[381]

During China's WTO accession process China specifically agreed not to impose, apply, or enforce laws, regulations, or measures relating to the transfer of technology that would be inconsistent with the TRIMs or TRIPs Agreements in the Working Party Report:

> Certain members of the Working Party expressed concern about laws, regulations and measures in China affecting the transfer of technology, in particular in the context of investment decisions. Moreover, these members expressed concern about measures conditioning the receipt of benefits, including investment approvals, upon technology transfer. In their view, the terms and conditions of technology transfer, particularly in the context of an investment, should be agreed between the parties to the investment without government interference. The government should not, for example, condition investment approval upon technology transfer.

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2) (noting that "China's capital market remains heavily dependent on loans provided by state-owned banks, which have lent mainly to SOEs.").

[380] Dana Mattioli, *In China, Western Firms Keep Secrets Close,* WALL ST. J. (Aug. 30, 2010) **(Exhibit V-15).**

[381] Information demonstrating that the Chinese partners or financiers for each one of these joint ventures is a state-owned enterprise is attached at **Exhibit V-22.**

> The representative of China confirmed that China would only impose, apply or enforce laws, regulations or measures relating to the transfer of technology, production processes, or other proprietary knowledge to an individual or enterprise in its territory that were not inconsistent with the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights ("TRIPS Agreement") and the Agreement on Trade-Related Investment Measures ("TRIMs Agreement"). He confirmed that the terms and conditions of technology transfer, production processes or other proprietary knowledge, particularly in the context of an investment, would only require agreement between the parties to the investment. The Working Party took note of these commitments.[382]

China further agreed that permission to invest in China would not be conditioned upon performance requirements, like the use of local inputs or the transfer of technology:

> The representative of China confirmed that upon accession, as set forth in the Draft Protocol, China would comply fully with the TRIMs Agreement, without recourse to Article 5 thereof, and would eliminate foreign-exchange balancing and trade balancing requirements, local content requirements and export performance requirements. Chinese authorities would not enforce the terms of contracts containing such requirements. The allocation, permission or rights for importation and investment would not be conditional upon performance requirements set by national or sub-national authorities, or subject to secondary conditions covering, for example, the conduct of research, the provision of offsets or other forms of industrial compensation including specified types or volumes of business opportunities, the use of local inputs or the transfer of technology. Permission to invest, import licences, quotas and tariff rate quotas would be granted without regard to the existence of competing Chinese domestic suppliers. Consistent with its obligations under the WTO Agreement and the Draft Protocol, the freedom of contract of enterprises would be respected by China. The Working Party took note of this commitment.[383]

In paragraph 1.2 of its Accession Protocol, China incorporated the commitments articulated in paragraphs 46-47, 49, and 203-07 of the Working Party report.[384]

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[382] Working Party Report at paras. 48-49 **(Exhibit V-16)** (emphasis added).

[383] Working Party Report at para. 203 **(Exhibit V-16)** (emphasis added).

[384] Working Party Report at para. 342 **(Exhibit V-16)**; Accession Protocol at para. 1.2 **(Exhibit V-17)**.

In addition, China's Accession Protocol specifically states that China would eliminate and cease to enforce performance requirements made effective through laws, regulations, or other measures and would not enforce contracts imposing such requirements. China also agreed to comply with the TRIMs Agreement and, to that end, ensure that the approval of investment rights by national or sub-national authorities was not conditioned on local content or transfers of technology:

> China shall, upon accession, comply with the TRIMs Agreement, without recourse to the provisions of Article 5 of the TRIMs Agreement. China shall eliminate and cease to enforce trade and foreign exchange balancing requirements, local content and export or performance requirements made effective through laws, regulations or other measures. Moreover, China will not enforce provisions of contracts imposing such requirements. Without prejudice to the relevant provisions of this Protocol, China shall ensure that the distribution of import licences, quotas, tariff rate quotas, or any other means of approval for importation, the right of importation or investment by national and sub national authorities, is not conditioned on: whether competing domestic suppliers of such products exist; or performance requirements of any kind, such as local content, offsets, the transfer of technology, export performance or the conduct of research and development in China.[385]

As explained above, however, the Chinese government retains significant control over the technology transfer process because it continues to review joint venture applications and their consistency with the Catalogue of Foreign Investment Industries and participates in their negotiation via state-owned enterprises.

The United States and other WTO Members have already raised their concerns about China's technology transfer requirements in the WTO's Transitional Review Mechanism process:

> Before acceding to the WTO, China began revising its laws and

[385] Accession Protocol at para. 7.3 **(Exhibit V-17)** (emphasis added).

> regulations on foreign-invested enterprises to eliminate WTO-inconsistent requirements relating to export performance, local content, foreign exchange balancing and technology transfer. However, seven years after China's WTO accession, some of the revised laws and regulations continue to encourage technology transfer, without formally requiring it. U.S. companies remain concerned that this "encouragement" in practice can amount to a "requirement" in many cases, particularly in light of the high degree of discretion provided to Chinese government officials when reviewing investment applications. Similarly, some laws and regulations "encourage" exportation or the use of local content. Moreover, according to U.S. companies, some Chinese government officials in 2009 – even in the absence of encouraging language in a law or regulation – still consider factors such as export performance and local content when deciding whether to approve an investment or to recommend approval of a loan from a Chinese policy bank, which is often essential to the success of a project.
>
> The United States, the EU, Japan and other WTO members have raised concerns in this area during the annual transitional reviews conducted by the TRIMS Committee. The United States will continue to follow this situation closely in 2010.[386]

While China is likely to argue that its "encouragement" of technology transfer is not mandatory or binding on the companies filing foreign equity joint venture applications, the government's approval of those joint venture applications based on the guidelines established in the Catalogues certainly continues to be a mandatory and binding requirement. Moreover, GATT and WTO jurisprudence has long elevated substance over form by recognizing the mandatory nature of various requirements that masquerade as non-mandatory "guidance"[387] or encouragement, and the Appellate Body has refused to embrace the "mandatory/discretionary" distinction developed by panels to distinguish between measures that can be challenged "as

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[386] U.S. Trade Representative, *2009 Report to Congress on China's WTO Compliance* at 67 (Dec. 2009) **(Exhibit V-18)**; *see* U.S. Trade Representative, *2010 National Trade Estimate Report on Foreign Trade Barriers* **(Exhibit V-19** at 2**)**.

[387] *See* GATT Panel Report, *Japan – Semi-Conductors,* BISD 35S/116, adopted May 4, 1988, para. 117 (finding the absence of formal legally binding obligation was a difference in form not substance).

such" as opposed to "as applied."[388]

For example, as explained in Section IV.E, GATT panels have found the Japanese practice of "administrative guidance" to be a traditional tool of enforcing Japanese government policy that could be regarded as a mandatory measure based on its effectiveness despite its lack of transparency.[389] To determine whether the measure was effective, the panel applied a two-pronged test that considered (1) whether there were reasonable grounds to believe that sufficient incentives or disincentives existed for the non-mandatory measure to take effect, and (2) whether the operation of the measure was essentially dependent on government action or intervention.[390]

Even private parties' voluntary acceptance of agreement conditions or requirements to obtain a government advantage has been considered to be a government restriction within the meaning of GATT 1994 Article III:4. For example, a GATT Panel in *Canada – FIRA* reviewed the consistency with GATT Article III:4 of voluntary undertakings that were made by investors to purchase Canadian goods over imported goods but were not required under Canada's Foreign Investment Review Act or Regulations.[391] The panel pointed out that once the undertakings were accepted, they became part of the conditions under which the investment proposals were approved.[392] Therefore, the panel rejected Canada's argument that the terms of the purchase undertakings were merely private contractual obligations of particular foreign investors and pointed out that the obligations adversely affected the rights of other GATT contracting parties under Article III:4:

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[388] *See, e.g.*, WTO Appellate Body Report, *United States – Zeroing (EC)*, WT/DS294/AB/R, adopted May 9, 2006, paras. 206-14 (rejecting argument that panel failed to consider non-mandatory nature of the U.S. zeroing methodology).

[389] *See* GATT Panel Report, *Japan – Semi-Conductors*, para. 117; GATT Panel, *Japan – Agricultural Products I*, BISD 35S/163, adopted Feb. 2, 1988, paras. 3.2.6 & 5.4.1.4.

[390] GATT Panel Report, *Japan – Semi-Conductors*, paras. 108-109.

[391] GATT Panel Report, *Canada – FIRA*, BISD 30S/140, adopted Feb. 7, 1984, para. 5.4.

[392] GATT Panel Report, *Canada – FIRA*, para. 5.4.

> The Panel carefully examined the Canadian view that the purchase undertakings should be considered as private contractual obligations of particular foreign investors vis-à-vis the Canadian government. The Panel recognized that investors might have an economic advantage in assuming purchase undertakings, taking into account the other conditions under which the investment was permitted. The Panel felt, however, that even if this was so, private contractual obligations entered into by investors should not adversely affect the rights which contracting parties, including contracting parties not involved in the dispute, possess under Article III:4 of the General Agreement and which they can exercise on behalf of their exporters. This applies in particular to the rights deriving from the national treatment principle, which - as stated in Article III:1 - is aimed at preventing the use of internal measures "so as to afford protection to domestic production."[393]

Likewise, in this case, the foreign equity joint venture agreements with technology transfer requirements, especially in the green technology area, are highly encouraged by the Chinese government and dependent upon that government's final approval. The agreements reviewed herein were also negotiations with SOEs. The evidence shows that China's current strategy continues to be highly effective at ensuring that the resulting joint venture agreements include technology transfer requirements. Thus, technology transfer continues to be a requirement or "quid pro quo" for foreign equity joint venture agreements in China.

Finally, any argument that the technology transfer conditions imposed by China's own SOEs in the context of commercial negotiations should not be attributed to the Chinese government is even less likely to prevail. The Chinese government continues to control the foreign investment approval process and has unequivocally expressed its desire to receive applications that provide access to green technology. SOEs are ultimately controlled by and answerable to the Chinese government. Indeed, the U.S. government has strongly defended its

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[393] GATT Panel Report, *Canada – FIRA,* para. 5.6 (emphasis added); *see also* GATT Panel Report, *EEC – Restrictions on Imports of Dessert Apples,* BISD 36S/93, adopted June 22, 1989, paras. 12.8-12.9.

treatment of Chinese SOEs as "public bodies" in the context of countervailing duty investigations.[394]

In other cases, WTO panels have treated state-owned entities as public bodies.[395] For example, in *Canada – Periodicals,* the panel rejected arguments that Canada Post's application of postal rates was not attributable to the Canadian government for purposes of GATT 1994 Article III:4 because it operated on a "commercial" basis with a "distinct legal personality." Instead, the panel applied a two-pronged test articulated in *Japan – Semi-Conductors* to determine whether the pricing policy of Canada Post was a "government measure."[396] In that case, the panel found that the Canadian government exercised sufficient control over Canada Post's non-commercial activities because (1) it had the power to instruct Canada Post to change its rates, which provided sufficient incentive to maintain their pricing policy, and (2) the Canada Post's operation was generally dependent on government action.[397]

A later panel in *Korea – Commercial Vessels* likewise rejected the argument that identification of a "public body" should depend upon whether it operates on commercial terms for purposes of the SCM Agreement.[398] Instead, an entity will constitute a "public body" if it is controlled by the government (or other public bodies) and then any action by that entity will be attributable to the government.[399] In that case, the panel found that an export credit agency, KEXIM, was controlled by the Government of Korea based on evidence that it was (1) 100

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[394] U.S. First Written Submission in *United States -- Anti-Dumping and Countervailing Duties (China),* WT/DS379, paras. 87-88 (May 27, 2009).

[395] *See, e.g.,* WTO Panel Report, *Korea – Commercial Vessels,* WT/DS273/R, adopted April 11, 2005, para. 7.47-50.

[396] WTO Panel Report, *Canada – Periodicals,* WT/DS31/R, adopted July 30, 1997, paras. 5.33-34, 5.36.

[397] WTO Panel Report, *Canada – Periodicals,* paras. 5.35-36.

[398] WTO Panel Report, *Korea – Commercial Vessels,* paras. 7.46-47.

[399] WTO Panel Report, *Korea – Commercial Vessels,* para. 7.50.

percent owned by the GOK or other public bodies, (2) the operations of KEXIM were presided over by a President appointed by the President of Korea and a Deputy and Executive Directors appointed by the finance minister, and (3) Ministerial approval of the annual KEXIM operation program, including "basic directions."[400]

Applying the same test to conditions imposed by SOEs in the context of joint venture negotiations, it is clear that the actions of SOEs are attributable to the Chinese government because (1) SOEs' assets are owned by the GOC,[401] (2) foreign equity joint venture agreements must be approved by the Chinese government, and (3) a technology transfer condition is consistent with the government's policy on foreign investment. Therefore, the actions or omissions of a SOE imposing technology transfer requirements in joint venture agreements should be attributable to the GOC, whether or not they are made independently or pursuant to specific directions from the Chinese government.

For these reasons, China's continued imposition of technology transfer conditions on foreign companies' ability to invest in China to produce green technology goods is inconsistent with its obligations under the paragraphs 1.2 and 7.3 of the Accession Protocol.

VI. CHINA'S DOMESTIC SUBSIDIES FOR GREEN TECHNOLOGY HAVE CAUSED SERIOUS PREJUDICE TO THE INTERESTS OF THE UNITED STATES AND ARE THUS ACTIONABLE UNDER WTO RULES

A. Legal Framework for Actionable Subsidies Under the SCM Agreement

1. Definition of Actionable Subsidy

To be actionable under Article 5 of the SCM Agreement, a measure must qualify as a subsidy within the meaning of Article 1 of the SCM Agreement and be specific within the

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[400] WTO Panel Report, *Korea – Commercial Vessels*, paras. 7.50-54.

[401] *See China: Description of Selected Government Practices and Policies Affecting Decision Making in the Economy*, USITC Pub. 3978, at xi (Dec. 2007) **(Exhibit V-20)**.

meaning of Article 2 of the SCM Agreement. Article 1.1 of the SCM Agreement defines a subsidy as a "financial contribution by a government or any public body within the territory of a Member" that confers a benefit. A financial contribution exists where, *inter alia*:

> (i) a government practice involves a direct transfer of funds (e.g. grants, loans, and equity infusion), potential direct transfers of funds or liabilities (e.g. loan guarantees);
>
> (ii) government revenue that is otherwise due is foregone or not collected (e.g. fiscal incentives such as tax credits);
>
> (iii) a government provides goods or services other than general infrastructure, or purchases goods;
>
> (iv) a government makes payments to a funding mechanism, or entrusts or directs a private body to carry out one or more of the type of functions illustrated in (i) to (iii) above which would normally be vested in the government and the practice, in no real sense, differs from practices normally followed by governments;[402]

Subsidies confer a benefit within the meaning of Article 1.1(b) of the SCM Agreement when "they place the recipient in a better position that they otherwise would have been in the market."[403] The Appellate Body has construed the term "benefit" in Article 1.1(b) of the SCM Agreement in light of the relevant context provided by Article 14 of the Agreement.[404]

A subsidy is considered "specific" if it is limited to an industry or enterprise or "group" thereof.[405] Pursuant to Article 2.1(a) of the SCM Agreement, "[w]here the granting authority, or the legislation pursuant to which the granting authority operates, explicitly limits access to a subsidy to certain enterprises, such subsidy shall be specific."[406]

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[402] SCM Agreement, Article 1.1(a).

[403] Panel Report, *United States – Subsidies on Upland Cotton*, WT/DS267/R, adopted Sept. 8, 2004, para. 7.1116.

[404] Appellate Body Report, *Canada – Measures Affecting the Export of Civilian Aircraft*, WT/DS70/AB/R, adopted Aug. 20, 1999, para. 155.

[405] SCM Agreement, Article 2.1.

[406] SCM Agreement, Article 2.1(a).

2. Adverse Effects and Serious Prejudice

According to Article 5 of the SCM Agreement, a specific subsidy may be actionable if it causes, through its use, "adverse effects to the interests of other Members."[407] There are three types of "adverse effects" identified in Article 5 of the SCM Agreement: (1) injury to the domestic industry; (2) nullification or impairment of benefits; and (3) serious prejudice to interests.[408] Members are required to provide evidence of adverse effects for an otherwise permissible subsidy to be actionable.

The term "serious prejudice to the interests of another Member" in Article 5(c) of the SCM Agreement has the same meaning as in GATT 1994 Article XVI:1.[409] Article XVI:1 addresses any subsidy which operates directly or indirectly to increase exports (or reduce imports) of any product from its territory which causes or threatens to cause serious prejudice to the "interests of any other contracting party." Consistent with GATT 1994 Article XVI:1, the term "serious prejudice" in Article 5 of the SCM Agreement includes "threat of serious prejudice."[410] The panel in *US – Upland Cotton* confirmed that the existence of the threat of serious prejudice, in and of itself, is sufficient to trigger the remedies for actionable subsidies provided in Article 7 of the SCM Agreement.[411]

Article 6.3 of the SCM Agreement states that "serious prejudice ... may arise in any case where one or several of the following apply:"

> (a) the effect of the subsidy is to displace or impede the imports of a like product of another Member into the market of the subsidizing Member;

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[407] SCM Agreement, Article 5.

[408] This petition does not involve a claim under Articles 5(a) or 5(b).

[409] *See* SCM Agreement, n.13.

[410] *See* SCM Agreement, n.13.

[411] Panel Report, *US – Upland Cotton*, para. 7.1497.

> (b) the effect of the subsidy is to displace or impede the exports of a like product of another Member from a third country market; [or]
>
> (c) the effect of the subsidy is a significant price undercutting by the subsidized product as compared with the price of a like product of another Member in the same market or significant price suppression, price depression or lost sales in the same market;[412]

A claim of serious prejudice is distinguishable from a claim of injury. The panel in *Korea-Vessels* explained this distinction:

> In short, we see serious prejudice as an entirely different concept from injury. Rather than having to do with the condition of a particular domestic industry within the territory of a Member (the subject matter of an injury analysis), in our view serious prejudice has to do in the first instance with the negative effects on a Member's *trade interests* in respect of a product caused by another Member's subsidization. Article 6.3 demonstrates this in providing that the recognized "adverse effects" of subsidies on these interests include, in the context of serious prejudice, lost import or export volume or market share in respect of a given product (displacement or impedance, more than equitable share), and adverse price effects (implying lost trade revenue/income in respect of the product), or some combination thereof, in variously-defined markets.[413]

An analysis of the "effect of the subsidy" need not meet the same threshold of causation required in an injury case. While panels have taken a "but for" approach to analyzing the effect of the subsidy, *i.e.*, that "but for" the subsidy, the serious prejudice would not have occurred, they have also explained that there is no non-attribution requirement in SCM Articles 5 and 6.[414] That serious prejudice is the "effect of the subsidy" is sufficient, even if some other factor may also

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[412] This petition does not involve claims under Article 6.3(d).

[413] Panel Report, *Korea – Measures Affecting Trade in Commercial Vessels*, WT/DS273/R, adopted March 7, 2005, para. 7.578 (dispute not appealed to the Appellate Body). That is not to say that the impact on the domestic industry is not relevant, it is just not required. *Id.* at para. 7.579.

[414] *See, e.g.*, Panel Report, *Korea – Commercial Vessels*, paras. 7.613-7.615. This does not mean that other causal factors may not be examined in that they may attenuate the affirmative causal link or render insignificant the effect of the subsidy. *Id.* at paras. 7.616-7.617.

have similar effects.[415] Further, while precise quantification of the subsidy in question is not required, the magnitude of a subsidy can be an important factor in an analysis of the effect of the subsidy on prices.[416] The type of subsidy has also been considered an important factor in the causation analysis.[417]

In addition, a serious prejudice analysis does not require that each program be evaluated in segregation: "to the extent a sufficient nexus ... exists among the subsidies at issue so that their effects manifest themselves collectively, we believe that we may legitimately treat them as a 'subsidy' and group them and their effects together."[418] A strong temporal coincidence of the subsidies in question and the market effects will suggest a causal link between the two.[419]

As to the timeframe to consider, the SCM Agreement provides guidance in the context of claims under Articles 6.3(b)[420] and 6.3(d),[421] namely, that at least a one year period shall be examined for claims under the former and that the three-year period prior to the grant of the subsidy should be examined for the latter. As to Articles 6.3(a) and 6.3(c), the SCM Agreement is silent. In *US – Upland Cotton*, however, the Appellate Body found that in terms of Article 6.3(c), the effects of a subsidy may be manifested over a period longer than simply the year in which they were granted.[422] In that case, the Appellate Body upheld the panel's findings that the effect of subsidies provided in marketing years 1999 through 2002 was significant price

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[415] *See* Appellate Body Report, *US – Upland Cotton*, paras. 438, 455.

[416] *See* Appellate Body Report, *US – Upland Cotton*, para. 461.

[417] *See, e.g.*, Panel Report, *US – Upland Cotton*, paras. 7.1349-50.

[418] Panel Report, *US – Upland Cotton*, para. 7.1192 (issue not appealed to the Appellate Body).

[419] *See, e.g.*, Panel Report, *Indonesia – Certain Measures Affecting the Automobile Industry*, WT/DS54/R, WT/DS55/R, WT/DS59/R, WT/DS64/R and Corr.1, 2, 3, and 4, adopted July 23, 1998, para. 14.214.

[420] SCM Agreement, Article 6.4 (requiring that the displacement or impedance be shown over an "appropriately representative period" which "shall be at least one year").

[421] SCM Agreement, Article 6.3(d) (requiring that market share of the subsidizing Member be assessed on the basis of the share it had during the three years prior to the grant of the subsidies).

[422] *See* Appellate Body Report, *US – Upland Cotton*, para. 477.

suppression, even though the panel did not specify which subsidies had effects in which years.[423] It is also the case that subsidies that have since expired may still be considered under a serious prejudice analysis, as such measures "may have had adverse effects at the time they were in effect" and "may still have lasting effects."[424]

According to the *EC – Large Civil Aircraft* panel report, the reference period in a serious prejudice analysis should reflect the nature of subsidies provided as well as the nature of the industry producing the subsidized product. In *EC – Large Civil Aircraft,* the panel found that a reference period from 2001 to 2006 was reasonable in an industry with long development and production time-frames for models with a relatively long life once put into service that benefitted largely from "one-off subsidies" and subsidies benefitting the development and production of the product for many years.[425] The panel noted that different time periods could be relevant to the assessment of adverse effects in different cases.[426] While it is appropriate to take into account the most recent available, relevant, and reliable data, "an improvement in the situation in the most recent period does not preclude a finding of present adverse effects."[427]

a. Displacement or Impedance of Imports in the Subsidizing Member's Market

Article 6.3(a) of the SCM Agreement provides that serious prejudice may arise where "the effect of the subsidy is to displace or impede the imports of a like product of another Member into the market of the subsidizing Member." The panel in *Indonesia – Autos*, while finding that evidence of a loss in relative market share as contemplated in Article 6.4 would not

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[423] Appellate Body Report, *US – Upland Cotton*, paras. 483, 484.

[424] *See* Panel Report, *US – Upland Cotton*, para. 7.1201 (issue not appealed to Appellate Body).

[425] Panel Report, *European Communities and Certain Member States – Measures Affecting Trade in Large Civil Aircraft,* WT/DS316/R, paras. 7.17104, 1710, 1713, n.5148.

[426] Panel Report, *EC – Large Civil Aircraft,* n.5148.

[427] Panel Report, *EC – Large Civil Aircraft,* para. 7.1713.

ipso facto satisfy the requirements of Article 6.3(a), nonetheless concluded that market share data could be highly relevant to the displacement or impedance analysis under Article 6.3(a).[428] In that case, though the panel found that the close correlation in time between the introduction of the subsidized product in question and the decline in EC market share suggested a causal link, it ultimately rejected the serious prejudice claim because the absolute volume of EC sales did not decline and the growth in the market was largely attributable to sales of the subsidized product.[429]

The panel in *EC – Large Civil Aircraft* also found market share information to be highly relevant to its Article 6.3(a) analysis, and noted that "data showing that Boeing's market share in the EC market decreased over the relevant reference period would, in our view, be sufficient to evidence a 'displacement' phenomenon."[430] The panel rejected the argument that displacement or impedance must be demonstrated on a sale by sale basis, explaining that such an approach was not required.[431] Instead, the panel relied on six years of market share data based on the relative quantities of subsidized products and competing like products delivered in the subsidizing Member.[432] Because the market share of the subsidized product increased at the expense of the market share of the product exported from the U.S. over the period when subsidies were granted, the panel found that the United States did establish that the effect of subsidies was to displace

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[428] Panel Report, *Indonesia – Autos,* paras. 14.210-11.

[429] Panel Report, *Indonesia – Autos,* para. 14.214-14.217.

[430] Panel Report, *EC – Large Civil Aircraft,* paras. 7.1738-40. The panel noted that such data, on its own, would not be sufficient to demonstrate impedance of exports.

[431] Panel Report, *EC – Large Civil Aircraft,* para. 7.1751.

[432] Panel Report, *EC – Large Civil Aircraft,* para. 7.1751-52, n.5246 (noting that the market share approach was consistent with previous dispute settlement reports in Panel Report, *Indonesia – Autos,* para. 14.211, Panel Report, *Korea – Vessels,* para. 7.555).

imports of a like product from the United States into the European market, and thus that serious prejudice had arisen under Articles 6.3(a) and 5 of the SCM Agreement.[433]

b. Displacement or Impedance of Exports from a Third Country Market

Article 6.3(b) of the SCM Agreement provides that serious prejudice may arise where "the effect of the subsidy is to displace or impede the exports of a like product of another Member from a third country market." Article 6.4 provides one means of demonstrating displacement or impedance within the meaning of Article 6.3(b), but not the only means.[434] The panel in *EC – Large Civil Aircraft* recognized that the similarity between Articles 6.3(a) and (b) called for a similar analysis of displacement or impedance: "we consider that the two provisions address the same phenomenon, only in different markets."[435] In both cases, the relevant question is "whether the changes in market shares are caused by the subsidy."[436] The panel in *EC – Large Civil Aircraft* also noted that Article 6.3(b) did not contain any requirement that the displacement or impedance of exports from a third country market rise to any particular level or degree.[437]

c. Significant Price Undercutting by the Subsidized Product or Lost Sales In the Same Market

Article 6.3(c) provides that serious prejudice may arise where, "the effect of the subsidy is a significant price undercutting by the subsidized product as compared with the price of a like product of another Member in the same market or significant price suppression, price depression or lost sales in the same market." The panel in *US – Upland Cotton* interpreted the term "same market" in Article 6.3(c) as permitting any local, regional, national, continental or global

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[433] Panel Report, *EC – Large Civil Aircraft*, para. 8.2(a).

[434] Panel Report, *EC – Large Civil Aircraft*, para. 7.1769.

[435] Panel Report, *EC – Large Civil Aircraft*, para. 7.1760.

[436] Panel Report, *EC – Large Civil Aircraft*, para. 7.1769.

[437] Panel Report, *EC – Large Civil Aircraft*, n.5322.

geographical area as long as the conditions for competition constitute a "market" for the product in that area.[438] The Appellate Body agreed with this interpretation, and explained that "two products may be in the 'same market' even if they are not necessarily sold in the same place and at the same time, as long as they are engaged in actual or potential competition."[439]

The Appellate Body has agreed that the term "significant" connotes something that is important, notable, or consequential, and that the significance may vary from case to case.[440] Moreover, the Appellate Body has noted: "Article 6.3(c) does not set forth any specific methodology for determining whether the effect of a subsidy is significant price suppression. There may well be different ways to make this determination."[441] In the *EC – Large Civil Aircraft* dispute, the panel stated:

> The "significance" of any degree of price suppression may vary from case to case, depending upon the factual circumstances, and may not solely depend upon a given level of numeric significance. Other considerations, including the nature of the "same market" and the product under consideration may also enter into such an assessment, as appropriate in a given case. ... We cannot believe that what may be significant in a market for upland cotton would necessarily also be applicable or relevant to a market for a very different product.[442]

The panel in *Korea – Commercial Vessels* explained that something that is "significant" is "important or consequential" and concurred with prior panels in reading the term "significant" as a "*de minimis* concept intended to screen out very small, unimportant price effects that might be caused by subsidies but that would have no real impact in the market."[443]

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[438] Panel Report, *US – Upland Cotton*, para. 7.1237.

[439] *See* Appellate Body Report, *US – Upland Cotton*, paras. 412-414.

[440] Appellate Body Report, *US – Upland Cotton*, paras. 426-427.

[441] Appellate Body Report, *US – Upland Cotton*, para. 427.

[442] Panel Report, *EC – Large Civil Aircraft*, para. 7.1793-6.

[443] Panel Report, *Korea – Commercial Vessels*, para. 7.571.

Article 6.5 provides that price undercutting within the meaning of Article 6.3(c) can be shown through a demonstration of price comparisons at the same level of trade and at comparable times or, if impossible, can be shown on the basis of export unit values. In the *EC – Large Civil Aircraft* dispute, the panel explained that the scenario in Article 6.5 was not the exclusive means of demonstrating price undercutting, though it did provide useful guidance for the nature of the analysis of price undercutting even where it did not form the basis of a price undercutting claim.[444]

The *EC – Large Civil Aircraft* dispute was the first dispute involving allegations of lost sales to demonstrate serious prejudice under Article 6.3(c).[445] Given that the EC did not dispute the existence of lost sales in that case, the panel considered the number of units sold and the dollar amounts involved in those sales to find significant lost sales.[446]

B. Chinese Support Measures for Renewable Energy Are Subsidies Within the Meaning of the SCM Agreement

The measures through which China provides support to domestic producers of green technology products are subsidies within the meaning of SCM Agreement Article 1 in that they involve financial contributions within the meaning of SCM Agreement Article 1.1(a)(1) and they confer benefits to the recipient within the meaning of SCM Agreement Articles 1.1(b) and 14. In addition, these subsidies are specific within the meaning of SCM Agreement Article 2.

China has provided broad-based subsidies to renewable energy product producers, as well as subsidies directed to producers of products within certain renewable energy sub-sectors, such as wind power, solar power, hydropower, biomass, lighting, automobiles, etc. Particular Chinese

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[444] Panel Report, *EC – Large Civil Aircraft*, para. 7.1834.

[445] Panel Report, *EC – Large Civil Aircraft*, para. 7.1842.

[446] Panel Report, *EC – Large Civil Aircraft*, para. 7.1845.

renewable energy measures establishing incentive polices and authorizing subsidies and preferential tax treatment are identified and described below.

C. General Policy Measures and Subsidies in Support of Renewable Energy Industries

1. Renewable Energy Law **(Exhibit VI-1)**

China's Renewable Energy Law was adopted at the 14th Session of the Standing Committee of the 10th National People's Congress on February 28, 2005 (effective January 1, 2006). The purpose of the Renewable Energy Law is "to promote the development and utilization of renewable energy, improve the energy structure, diversify energy supplies, safeguard energy security, protect the environment, and realize the sustainable development of the economy and society." (Article 1). For purposes of this law, "renewable energy" means "non-fossil energy of wind energy, solar energy, water energy, biomass energy, geothermal energy, and ocean energy, etc." (Article 2). The law states that the "development of utilization of renewable energy" is "the preferential area for energy development" and that the Government will promote "the construction and development of the renewable energy market by establishing total volume for the development of renewable energy and taking corresponding measures." (Article 4). Further, the law "encourages economic entities of all ownerships to participate in the development and utilization of renewable energy." (Article 4).

The law directs the State Council to set middle and long-term national goals for the development and utilization of renewable energy. (Article 7). Provincial and local authorities are directed to prepare renewable energy development and utilization plans as well. (Article 8). The law calls for development guidance catalogs for renewable energy industries and for national technical standards for renewable energy electric power and relevant products. (Articles 10 and 11).

The law promotes scientific and technical research in renewable energy and "allocates funding" to support such research. (Article 12). The law supports grid-connected renewable power generation (Article 13), and requires grid enterprises to buy power produced with renewable energy. (Article 14). The State Council will determine the grid power price of renewable energy power generation projects (Article 19), and any excess between the set price and the average conventional power price "shall be shared in the selling price." (Article 20).

The law established a "renewable energy development fund" to support various activities, including scientific and technological research, establishing standards, rural renewable energy projects, independent renewable power systems in remote areas, surveys of renewable energy resources, and localized production of the equipment for the development and utilization of renewable energy. (Article 24).

In addition, the law provides that financial institutions may offer preferential loans with a financial interest subsidy to renewable energy development and utilization projects listed in the national renewable energy industrial development guidance catalogue (Article 25) and that the Government may provide tax benefits to projects listed in such catalog (Article 26).

This policy measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) to the extent that it authorizes and provides for direct transfers of funds to renewable energy industries and to the extent that it authorizes and directs that tax preferences be provided to renewable energy industries. This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to enterprises engaged in renewable energy power generation.

According to reports, China will commit 1.5 trillion RMB ($184 billion) to developing renewable energy through 2020.[447]

2. Eleventh Five Year Plan (2006-2010) **(Exhibit VI-2)**

In the Eleventh Five Year Plan, issued in March 2006, China stated its goals and policies with respect to renewable energy. In Part III, Ch.12.4 of the Eleventh Five Year Plan, China stated that it would vigorously develop renewable energy by implementing preferential tax, investment, and mandatory market share policies, encourage the production and consumption of renewable energy, and increase renewable energy's share in primary energy consumption. China stated that it would vigorously develop wind power by building 30 large-scale wind power projects with 100,000 kilowatts or more power, and build wind power bases with a million kilowatts of power in Inner Mongolia, Hebei, Jiangsu, Gansu, and other regions. China stated that it would accelerate the development of biomass energy, support the development of power generation through straw, waste incineration, and landfill gas, construct a group of straw and forestry and wood power plants, and increase the production capacities of biomass briquette, fuel ethanol, and biodiesel. China also stated that it would actively develop and utilize solar energy, geothermal energy, and ocean energy.

While the Eleventh Five Year Plan is a broad policy measure, it provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) to the extent that it establishes a national policy to support development of renewable energy and serves as a basis for other measures implementing specific subsidies and tax benefits for renewable energy industries. Such subsidies confer a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 when

[447] *See Renewable Energy Gets Huge Outlay*, CHINA DAILY, Nov. 8, 2005 **(Exhibit VI-79)**.

considered in conjunction with other specific measures implementing subsidies and tax benefits for renewable energy industries.

3. Circular of the National Development and Reform Commission on Printing and Distributing Catalog for the Guidance of the Industrial Development of Renewable Energy, Fa Gai Energy [2005] No. 2517 **(Exhibit VI-3)**

This guidance catalog identifies 88 renewable energy development projects that all national, provincial, and local authorities should support through measures such as research and technological development support, investment, and equipment manufacture. It covers a wide variety of projects concerning power generation and equipment manufacture in wind energy, solar energy, biomass energy, geothermal energy, ocean energy and water (hydro) energy. Listing in this catalogue means that such projects are eligible for preferential tax treatment or special designated funding.

This catalog establishes a national policy to encourage and support renewable energy projects. It provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) when considered in conjunction with other measures implementing specific subsidies and tax benefits for renewable energy industries pursuant to the national policy. This catalog confers a benefit within the meaning of SCM Agreement Article 1.1(b). This catalog is specific within the meaning of SCM Agreement Article 2 in that it is specific to renewable energy industries.

4. Decree of the National Development and Reform Commission No. 40, Directory Catalogue on Readjustment of Industrial Structure (Version 2005) (Dec. 2, 2005) **(Exhibit VI-4)**

The NDRC Directory Catalogue on Readjustment of Industrial Structure (No. 40) identifies various green energy industries and projects which are approved for government encouragement and support. Among the approved projects were the following: electricity

generation through hydropower, wind energy, solar energy, geothermal energy, ocean energy, biomass energy, etc.; nuclear energy projects; development and production of new energy-saving, environmental-friendly building materials; renewable energy equipment manufacture; energy-efficient automobiles and fuel; and manufacture of advanced high-tech environmental-friendly batteries and cells (i.e., mercury-free alkali manganese batteries; nickel hydrogen batteries; lithium ion batteries; high-capacity, airproof, maintenance free lead acid cells; fuel cells; zinc air cells; and solar cells).

Catalogue 40 establishes a national policy to encourage and support renewable energy projects. It provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) when considered in conjunction with other measures implementing specific subsidies and tax benefits for renewable energy industries pursuant to the national policy.[448] Catalogue 40 confers a benefit within the meaning of SCM Agreement Article 1.1(b). Catalogue 40 is specific within the meaning of SCM Agreement Article 2 when considered in conjunction with other measures implementing specific subsidies and tax benefits for renewable energy industries as a result of their listing in the catalogue.

5. National Medium- and Long-Term Program for Science and Technology Development (2006-2020) **(Exhibit VI-5)**

The National Medium- and Long-Term Program for Science and Technology Development (2006-2020) was issued in June 2006. This program sets outs China's development goals and provides guidelines. Among the priorities identified in this program are a number of goals for green technology sectors including:

[448] The Commerce Department has found that the listing of an industry as "encouraged" in the Directory Catalogue on Readjustment of Industrial Structure (NDRC, Decree No. 40) supports a finding that countervailable policy loans have been provided to the industry. *See, e.g., Certain New Pneumatic Off-the-Road Tires*, 73 Fed. Reg. 40480 (July 15, 2008) (Final Affirmative CVD Determination) and accompanying Issues and Decision Memo (July 7, 2008) at 13.

Renewable energy: emphasis on the development of large wind power generators; cost-effective technologies for solar photovoltaic batteries; technologies for solar-based power generation; technologies for built-in solar energy building structures; and technologies for developing and utilizing biomass and geothermal energy.

Energy-efficient and New Energy-based automobiles: priorities include development of hybrid, alternative fuel, and fuel cell automobiles, and technologies for high-efficiency and low-emission internal combustion engines, fuel cell engines, accumulator batteries, driving motors, and other critical components.

Efficient energy material technology: priorities include critical technologies for solar cell related materials and associated key technologies, critical technologies for fuel cell materials, high volume hydrogen storage material technology, efficient rechargeable cell materials and associated key technologies.

The program also sets out financial and tax policies that should be used to encourage and support research and development in the priority sectors. These include: deductible VAT for equipment purchases; implementing a range of taxation holiday policies; pre-tax deduction of enterprise R&D expenditure; accelerating depreciation of instruments and equipment used in R&D activities; and enacting tax holiday policies for procuring advanced scientific instruments and equipment.

This program is a broad national policy measure. It provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) to the extent that it establishes a national policy to support development of renewable energy and serves as a basis for other measures implementing specific subsidies and tax benefits for renewable energy industries. This program confers a benefit within the meaning of SCM Agreement Article 1.1(b). This program

is specific within the meaning of SCM Agreement Article 2 when considered in conjunction with other specific measures implementing specific subsidies and tax benefits for renewable energy industries pursuant to the national policies outlined in the program.

6. Medium and Long-Term Development Plan for Renewable Energy in China (Abbreviated Version), Fa Gai Neng Yuan [2007] No. 2174 (Sept. 2007) **(Exhibit VI-6)**

This measure was formulated to speed up the development of renewable energy, promote energy conservation and reduce pollutants, mitigate climate change, and better meet the requirements of sustainable social and economic development. It puts forward the guiding principles, objectives and targets, priority sectors, and policies and measures for the development of renewable energy in China up to 2020.

The measure states that the renewable energy sectors with the greatest resource base and development potential in China are hydropower, biomass energy, wind energy, and solar energy. Article 2 states that the guiding principles of China's medium and long-term renewable energy development plan will be to: implement the Renewable Energy Law; adopt renewable energy development as a key strategic measure; speed up the development and deployment of hydropower, wind power, solar energy, and biomass energy; promote technical progress; increase market competitiveness; and increase the share of renewable energy in China's overall energy consumption mix.

The plan states that China will adopt economic policy incentive measures to promote renewable energy development. (Article 2.4). Among the measures to be adopted to support renewable energy are:

- Tariff and cost-sharing: The government will set renewable energy prices and all of the excess expense of renewable power over conventional power borne by the

grid companies in their purchase of renewable power will be passed to all of society by a surcharge to the retail price of power; and

- Fiscal input and tax incentives: The government will set up a renewable energy fund and will support renewable energy development and R&D through preferential tax policies.

This plan establishes a national policy to encourage and support renewable energy projects through such measures as funding and tax preferences. It provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) when considered in conjunction with other measures implementing specific subsidies and tax benefits for renewable energy industries pursuant to this national policy. This plan confers a benefit within the meaning of SCM Agreement Article 1.1(b). This plan is specific within the meaning of SCM Agreement Article 2 in that it is specific to renewable energy industries.

7. Eleventh Five Year Plan for Renewable Energy (2008) **(Exhibit VI-7)**

The Eleventh Five Year Plan for Renewable Energy was issued in March 2008 and was created to accelerate the development of renewable energy and to better meet the requirements for attaining sustainable, social, and economic development. This Plan set out China's policies and incentive measures that would be implemented to develop the following renewable energy sectors: hydropower, biomass, wind power, solar energy, and renewable energy applications in rural areas.

Generally, China stated that it would invest more government funds towards renewable energy, as well as provide financial and tax incentives, such as public budget subsidies and tax exemptions. In addition, China stated that it would invest more than 1 billion RMB towards renewable energy technology R&D and industrialization. In particular, China would provide support to solar PV generation, grid-connected PV stations, solar thermal, and hydrogen and fuel

cells under the national science and technology programs such as the Technology Breakthrough Program, the 863 Program, and the 973 Program.

With respect to wind power generation, China also noted that it would implement a wind electricity tariff and cost sharing policies. With respect to solar energy, China stated that it would provide subsidies from the national budget for demonstration projects of electrification, solar roof, and landmark building PV and grid-connected PV stations. In addition, a solar power feed-in tariff would be set by the government and any additional cost, compared with conventional thermal power standard prices, would be shared. With respect to renewable energy development in rural areas, China stated that it would implement rural renewable energy tax policies and regulations to encourage public and private investment in rural areas.

This Plan establishes a national policy to encourage and support renewable energy projects through such incentive measures as government funding and tax preferences. It provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) when considered in conjunction with other measures implementing specific subsidies and tax benefits for renewable energy industries pursuant to this national policy. This plan confers a benefit within the meaning of SCM Agreement Article 1.1(b). This plan is specific within the meaning of SCM Agreement Article 2 in that it is specific to renewable energy industries.

8. Law of the People's Republic of China on Renewable Energy (Amended 2009) (April 1, 2010) **(Exhibit VI-8)**

In 2009, China amended the Renewable Energy Law. Amended Article 14 provided that grid enterprises will purchase in full the on-grid electricity of grid-connected renewable energy power projects which meet the technical standards for grid connection within the areas covered by their grids. Amended Article 20 provided that if the expenses incurred by a grid enterprise in purchasing renewable energy power at the fixed on-grid power price are higher than those

calculated at the average on-grid price of the power generated from conventional energy, the difference would be compensated by levying a renewable energy power surcharge on all the electricity sold throughout the country. Amended Article 24 provided that a renewable energy development fund shall be set up from sources including the special annual funds allocated from State finance and the incomes from the renewable energy surcharge in power price. This renewable energy development fund is to be used to compensate the difference in expenses and for other supporting activities. In addition, amended article 24 states that if a grid enterprise cannot recover the grid connection expenses and other relevant expenses from the power sale price, it may apply for subsidies from the renewable energy development fund.

The amended Renewable Energy Law provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) to the extent that it provides for a government-directed transfer of funds to renewable energy producers and a direct transfer of funds to grid enterprises (subsidies from the energy development fund). This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to a group of enterprises (renewable energy producers and grid enterprises).

9. Trial Measures on Administration of the Price and Expense Apportionment of Renewable Energy Power Generation (2006) **(Exhibit VI-9)**

This measure was formulated in compliance with the Renewable Energy Law and the Price Law of China. It was intended to promote the development of the renewable energy power generation industry. The measure's scope includes wind, biomass, solar, geothermal and ocean power generation. The measure encourages power end-users to purchase electricity from renewable energy sources and provides that the government will establish renewable energy pricing. For grid enterprises that purchase power from renewable energy sources, the difference

between the government-set price and the price for conventional coal-based energy will be covered by a renewable energy tariff surcharge assessed on electricity end-users, which grid enterprises will include in their sales price.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) to the extent that the tariff surcharge constitutes a government-directed transfer of funds to enterprises producing renewable energy. This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is directed to specific enterprises engaged in specific renewable energy power generation projects.

10. Circular and Relevant Regulations on the Administration of Power Generation from Renewable Energy, NDRC Energy [2006] No. 13 **(Exhibit VI-10)**

These regulations apply to power generation from hydro, wind, biomass, solar, geothermal and ocean power generation. The regulations provide that a feed-in tariff for renewable energy power generation projects should be set by the pricing department of the State Council. The incremental costs from purchasing and selling non-hydro renewable energy power by the grid enterprises will be amortized among all power end-users in China and the detailed methods will be formulated separately.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) to the extent that the feed-in tariff constitutes a government-directed transfer of funds to producers of renewable energy. This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is directed to specific enterprises engaged in specific renewable energy power generation projects.

11. Ministry of Finance, Interim Measures of the Ministry of Finance for the Administration of the Special Fund for the Development of Renewable Energy, Cai Jian [2007] No. 371 (May 30, 2006). **(Exhibit VI-11)**

Under this measure, special funds were established by the State Council finance department and are used to support the development and utilization of renewable energy resources. Activities eligible for special funds include: scientific and technological research, standards formulation, rural renewable energy projects, independent electric power systems with renewable energy resources in remote regions, surveys of renewable energy resources, and localized manufacture of equipment and devices that facilitate the development and utilization of renewable energy resources. The special funds will be distributed primarily as grants and loans with deducted interest. The measure notes that the special funds will mainly be used to support development of petroleum substitutes (i.e., bio-ethanol fuel, biodiesel etc.), space heating and cooling (i.e., solar energy and geothermal energy in buildings), and power generation (i.e., wind power, solar energy, and ocean energy).

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) in that it provides for a direct transfer of funds (grants and loans with deducted interest). This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is directed to specific enterprises engaged in specific renewable energy projects.

12. Catalogue of Encouraged Hi-Tech Products for Foreign Investment, Ministry of Science and Technology and the Ministry of Commerce, GuoKeFaJiZi [2003] No. 179 (June 2, 2003) **(Exhibit VI-12)**

The Catalogue of Encouraged Hi-tech Products for Foreign Investment (2003) was formulated to direct provinces, municipalities, autonomous regions and other relevant departments to conduct their work to encourage foreign investment in the high-tech industry, to accelerate the pace in introducing advanced technologies from abroad, to strengthen the abilities

of internal assimilation and independent innovation, and to further improve the quality and level of foreign investment.

The encouraged high-tech products listed in the Catalogue are classified into 11 types, among which are new energy and efficient energy saving, and nuclear applied technology. The new energy and efficient energy saving products and projects include: solar batteries and photovoltaic generation; geothermal power generation; and a range of advanced high-tech batteries and cells.

This Catalogue establishes a national policy to encourage and support certain renewable energy projects. It provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) when considered in conjunction with other measures implementing specific subsidies and tax benefits for renewable energy industries pursuant to this catalogue and the national policy. This Catalogue confers a benefit within the meaning of SCM Agreement Article 1.1(b). This Catalogue is specific within the meaning of SCM Agreement Article 2 when considered in conjunction with other measures implementing specific subsidies and tax benefits for renewable energy industries as a result of their listing in the catalogue.

13. Guiding Opinions of China Banking Regulatory Commission for Commercial Banks on Improving and Intensifying Financial Services to Hi-tech Enterprises, Yin Jian Fa [2006] No. 94 (Dec. 28, 2006) **(Exhibit VI-13)**

The purpose of this measure is to implement some auxiliary policies of the "National Outlines for Medium and Long-term Planning for Scientific and Technological Development (2006-2020)", creating a financial environment for supporting and encouraging independent innovations, and guiding commercial banks to improve and intensify the provision of financial services to hi-tech enterprises. In this measure, "commercial banks" are state-owned commercial

banks, joint stock commercial banks, urban commercial banks, rural commercial banks, rural cooperative banks and rural credit cooperatives.

This measure identifies hi-tech enterprises for which commercial banks should provide credit support in accordance with national industrial policy and investment policy. Such enterprises include: enterprises approved in the National Outlines for Medium and Long-term Planning for Scientific and Technological Development (2006-2020); enterprises undertaking government-approved hi-tech projects; and enterprises in new energy and energy conservation.

This measure sets out a national policy that commercial banks will support renewable energy projects through such means as credit support. It provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) when considered in conjunction with other measures implementing specific credit support measures for renewable energy industries pursuant to this national policy. This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to hi-tech enterprises, including new energy and energy conservation industries.

14. Circular of China Banking Regulatory Commission on the Printing and Distributing of the Detailed Rules for Implementing the Policies on Policy Finance for Supporting Major National Scientific and Technological Projects Yin Jian Fa [2006] No. 95 (Dec. 28, 2006) **(Exhibit VI-14)**

This measure implements auxiliary policies for the National Outlines for Medium and Long-term Planning for Scientific and Technological Development (2006-2020) (National Outline), creates a favorable financial environment for independent innovations, encourages and leads policy banks and other financial institutions to provide major national scientific and technological projects with financial services, and strengthens policy finance support for independent innovations and industrialization. In this measure, "policy finance" refers to the

financial services provided by financial institutions as required by the state to designated projects, industries, or regions in order to achieve certain policy goals.

This measure identifies various major national scientific and technological projects that are to be supported by policy banks, including major special projects in the "Planning Outline" and major projects in the main national scientific and technological plans. Energy projects are among those identified as priority topics and special projects in the National Medium- and Long-Term Program for Science and Technology Development (2006-2020). Such projects include the following: industrial energy efficiency; clean, efficient coal development and utilization; low-cost, large-scale development and utilization of renewable energy resources; super large-scale electric power transmission and distribution; hydrogen and fuel cell technology; distributive energy supply technology; fast neutron reactor technology; and magnetic contained fusion technology.

This measure implements national policies on policy finance supports for scientific and technological projects that the government encourages. It provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) to the extent that policy finance supports are provided by financial institutions pursuant to the government's policy. This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to enterprises engaged in certain encouraged scientific and technological projects, including certain green energy projects.

15. Circular of the Ministry of Science and Technology, National Development and Reform Commission, the Ministry of Land Resources, the Ministry of Construction on Printing and Transferring Several Opinions on Promoting Development Zone for New and High Technology Industries to Further Develop and to Increase Independent Innovation Capacity, Guo Ke Fa Gao Zi [2007] No.152 **(Exhibit VI-15)**

This measure implements the National Medium-and-Long-Term Program for Scientific and Technological Development (2006-2020) (Guo Fa [2005] No.44) ("Program"). It creates an environment favorable to independent innovation, promotes development zones for new and high technology, and builds up independent innovation capability.

The measure identifies "key tasks" for promoting high and new tech enterprises, which include fiscal and financial supports. The measure states that national policy banks will give credit support to national infrastructure projects within high and new technology development zones, public utility projects and innovative activities. Among the priority projects identified in the National Medium-and-Long-Term Program for Scientific and Technological Development are renewable energy projects, energy-efficient and new energy-based automobiles, and efficient energy material technology. *See* **Exhibit VI-5.**

This measure sets out a national policy that high and new tech enterprises will be supported by fiscal and financial supports. It provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) when considered in conjunction with other measures implementing specific fiscal and financial support measures for certain renewable energy projects, *i.e.*, renewable energy projects, energy-efficient and new energy-based automobiles, and efficient energy material technology projects, pursuant to the national policy. This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to

enterprises engaged in certain renewable and new energy projects that the government has selected for promotion.

16. Circular on the Printing and Distribution of Interim Measures for the Allocation of Revenues from Price Surcharge of Electric Power Generated From Renewable Energy **(Exhibit VI-16)**

This measure is intended to promote development of the renewable energy power generation industry and to ensure the rational allocation of the price surcharge for electric power generated from renewable energy. In this measure, power generation from renewable energy refers to electric power from wind, biomass, solar, ocean, and geothermal energy. The measure provides that the price surcharge for electric power generated from renewable energy is to be charged to end users along with electricity fees and gathered by provincial grid enterprises. It states that the price surcharge shall be included in provincial revenues, and be used as a subsidy to the price of electric power generated from renewable energy in the local province. It further states that the subsidy covers the difference between the on-grid electricity price for renewable energy electric power generation and the benchmark price of electricity generated from conventional means (coal-fuelled).

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) to the extent that the price surcharge constitutes a government-directed transfer of funds to enterprises producing renewable energy. This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is directed to specific enterprises engaged in specific renewable energy power generation projects.

17. NDRC and SERC Notice on Measures for Renewable Electricity Surcharge Subsidies and Quota Trade System in the year 2006, Ordinance Code NDRC Price [2007] No. 2446 **(Exhibit VI-17)**

This measure sets out the renewable electricity tariff surcharges and price subsidies in the year 2006. The renewable energy electricity tariff subsidies cover the difference between the price for renewable energy power generation and the local coal-based power price. It also covers grid connection costs. This measure identifies the subsidized projects and amounts in annexes. The subsidized projects involve wind, biomass, and solar energy generation. Under this measure, where the collected renewable electricity surcharges are not sufficient to cover provincial renewable energy power subsidies, a renewable energy power surcharge quota will be issued to provincial utility companies to cover the deficit.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) to the extent that the price surcharge and subsidies constitute a government-directed transfer of funds to enterprises producing renewable energy. This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is directed to specific enterprises engaged in specific renewable energy power generation projects.

18. NDRC and SERC Notice on Measures for Renewable Electricity Surcharge Subsidies and Quota Trade System from January to September, 2007, Ordinance Code NDRC Price [2008] No. 640 **(Exhibit VI-18)**

This measure sets out the renewable electricity tariff surcharges and price subsidies for the period January-September 2007. The renewable energy electricity tariff subsidies cover the difference between the price for renewable energy power generation and the local coal-based power price. It also covers grid connection costs. This measure identifies the subsidized projects and amounts in annexes. The subsidized projects involve wind, biomass, and solar energy generation. Where the collected renewable electricity surcharges are not sufficient to

cover provincial renewable energy power subsidies, a renewable energy power surcharge quota will be issued to provincial utility companies to cover the deficit.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) to the extent that the price surcharge and subsidies constitute a government-directed transfer of funds to enterprises producing renewable energy. This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is directed to specific enterprises engaged in specific renewable energy power generation projects.

19. NDRC and SERC Notice on Measures for Renewable Electricity Surcharge Subsidies and Quota Trade System during the period from October 2007 to June 2008, Ordinance Code NDRC Price [2008] No. 3052 **(Exhibit VI-19)**

This measure sets out the renewable electricity tariff surcharges and price subsidies for the period October 2007-June 2008. The renewable energy electricity tariff subsidies cover the difference between the price for renewable energy power generation and the local coal-based power price. It also covers grid connection costs. This measure identifies the subsidized projects and amounts in annexes. The subsidized projects involve wind, biomass, and solar energy generation. Where the collected renewable electricity surcharges are not sufficient to cover provincial renewable energy power subsidies, a renewable energy power surcharge quota will be issued to provincial utility companies to cover the deficit.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) to the extent that the price surcharge and subsidies constitute a government-directed transfer of funds to enterprises producing renewable energy. This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within

the meaning of SCM Agreement Article 2 in that it is directed to specific enterprises engaged in specific renewable energy power generation projects.

20. Equipment Manufacturing Industry Restructuring and Revitalization Plan (2009) **(Exhibit VI-20)**

This measure creates an equipment manufacturing program for the period 2009-2011. Among other areas, the measure identifies the following policy measures that the government should follow to develop equipment manufacturing: implement value-added tax policy; increase investment; support equipment exports through improved export tax rebate policy and encouraging financial institutions to increase export credit funds; adjust tax incentives such as customs duties and import VAT to encourage imports of key components; and implement subsidies for energy-saving products.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) in that government revenue otherwise due is foregone or not collected (through adjusted customs duties and import VAT) and provides for a direct transfer of funds (subsidies for energy-saving products and export credits). This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to the equipment manufacturing industry.

21. Several Opinions of the State Council on Expediting the Rejuvenation of the Equipment Manufacturing Industry, State Council Pub. [2006] No. 8 (Feb. 23, 2006) **(Exhibit VI-21)**

This measure provides that the government will increase policy and financial support and strengthen guidance for key technology equipment and products. The government will establish a special fund to provide key support for the needs of key national construction projects and technology advancement projects. The government will also strengthen incentive policies, such

as pre-tax deductions for enterprises' research and development expenses, in order to encourage enterprises to increase research and development investment.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) in that government revenue otherwise due is foregone or not collected (tax deductions) or there is a direct transfer of funds (special fund). This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to the equipment manufacturing industry.

22. Circular and Catalogue for Enterprise Income Tax Preferences for Environmental Protection and Energy and Water Saving Programs (Trial), Cai Shui [2009] No. 166 **(Exhibit VI-22)**

The Catalogue of Enterprise Income Tax Preference in Environmental Protection and Energy and Water Saving Programs includes, among others selected for preferential tax treatment, programs to transform existing high energy consumption buildings through energy saving technology, and programs to integrate solar energy, photothermal, and photoelectric technology into existing buildings. Eligible programs must be undertaken pursuant to national industrial policies and relevant national standards for energy saving and environmental protection. Enterprises engaged in these programs are eligible for enterprise income tax preferences.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) in that government revenue otherwise due is foregone or not collected. This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to enterprises engaged in certain government-approved energy saving programs undertaken pursuant to

national industrial policies and relevant national standards for energy saving and environmental protection.

23. 863 Program (1986) **(Exhibit VI-23)**

The 863 Program is a national program supporting research and development in high-tech industries. One of the program's major tasks was to achieve breakthroughs in key technologies for environmental protection, resource conservation, and energy development to further China's sustainable development. Among the priority projects of the program were projects in the fields of energy technology and resource and environmental technology. Over the period 2001-2005, China appropriated 20 billion RMB for the 863 program. In the Eleventh Five-Year Plan, China established ten priority areas for the 863 program, four of which are related to green technology (hydrogen and fuel cells, energy efficiency, clean coal, and renewable energy. China will invest 1.12 billion RMB ($172 million) in these areas, allocated as follows: hydrogen and fuel cells (75 million RMB/year); energy efficiency (75 million RMB/year); clean coal (45 million RMB/year); and renewable energy (29 million RMB/year).[449]

This program provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) to the extent that it provides a direct transfer of funds through grants and other means to support research and development of energy technology. This program confers a benefit within the meaning of SCM Agreement Article 1.1(b). This program is specific within the meaning of SCM Agreement Article 2 in that it provides support to a specific group of industries, including certain green technology industries.

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[449] *See An Emerging Revolution; Clean Technology Research, Development and Innovation in China*, available at <http://www.chinafaqs.org/files/chinainfo/ChinaFAQs_Clean_Technology_in_China_0.pdf> **(Exhibit VI-80)**.

24. 973 Program (1997) **(Exhibit VI-24)**

The 973 Program is a national program supporting basic research in a number of sectors, including energy, resource conservation, and environmental protection. Over the period 1998-2008, the 973 program invested 8.2 billion RMB ($1.3 billion) in 382 projects, 28 percent of which were in the fields of energy, natural resources conservation, and environmental protection.[450]

This program provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) to the extent that it provides a direct transfer of funds through grants and other means. This program confers a benefit within the meaning of SCM Agreement Article 1.1(b). This program is specific within the meaning of SCM Agreement Article 2 in that it provides support to a specific group of industries, including the energy, natural resources conservation, and environmental protection industries.

25. International Science and Technology Cooperation Program on New and Renewable Energy (2007) **(Exhibit VI-25)**

This program was launched in November 2007. One of the goals of the program was to help China to introduce cutting-edge technologies from foreign countries and at the same time support the dissemination of Chinese technologies abroad. Under this program, research of basic sciences and applicable technologies in the following areas will be given priority: solar power generation and building-integrated solar energy; biomass fuels and biomass power generation; wind power generation; hydrogen energy and fuel cells; and natural gas hydrate. The measure states that funds would be established to support this program.

This program provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) to the extent that there is a direct transfer of funds through grants and other

[450] *See* **Exhibit VI-80.**

means to support research and development of new and renewable energy. This program confers a benefit within the meaning of SCM Agreement Article 1.1(b). This program is specific within the meaning of SCM Agreement Article 2 in that it provides support to a specific group of industries producing new and renewable energy.

26. Hunan Province: Opinions Regarding Accelerating the Development in the Environmental Protection Industry, Xiang Zheng Fa [2009] No. 36 (Nov. 2009) **(Exhibit VI-26)**

Under this measure, the Hunan provincial government will give support to key projects and key enterprises in the environmental protection industry, through priority treatment in the granting of land, preferential tax policies (150% deduction for R&D expenses), establishing special funds to guide the development of the industry, and encouraging support from financial institutions.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) in that it provides for direct transfer of funds, foregoes government revenue otherwise due, and provides government-owned goods (land). This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to the environmental protection industry.

27. Yunnan Province: Interim Measures for Administering the Special Fund of the Renewable Energy Development in Yunnan Province, Cai Jian [2006] No. 237 (Aug. 2007) **(Exhibit VI-27)**

This provincial special fund is to be used specifically to support renewable energy development, including biomass, wind energy, solar energy, hydro power, geothermal energy, and other non-fossil energy. The fund will support R&D, standard formulation, demonstration projects, local production of related equipment, etc. The fund will provide support in the form of grants (without obligation to repay) and loan interest discounts (no more than 3% annual interest,

and the absolute value of the discount shall be no more than RMB 3 million per project). The project applicant can choose the form of support.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) in that it provides for a direct transfer of funds (grants without obligation to repay and loan interest subsidies). This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is directed to specific industries producing renewable energy.

28. Shaanxi Province: Several Opinions Regarding Further Accelerating the Development of New Energy, Shan Zheng Fa [2009] No. 65 (Dec. 3, 2009) **(Exhibit VI-28)**

Under this measure, the provincial government will strengthen its policy support for renewable energy, and accelerate building three bases: solar and wind power generation in the northern region, solar photovoltaic (PV) and new energy equipment manufacturing in the middle region, and hydro power in the southern region. The focus will be on cultivating two major industries: solar PV and wind power. The measure states that the province will strive to turn new energy into its strategic leading industry and key advantageous industry. The measure notes several specific projects and sets out various goals. Under this measure, the province will perfect the investment and financing mechanism for new energy development. In particular, the government will encourage credit support from financial institutions, direct credit guarantee institutions to provide loan guarantees to new energy enterprises, and explore financing options such as loan interest discounts and small-amount loans. The government will also increase fiscal support for new energy development by expanding preferential fiscal and tax policies, implementing existing national and provincial tax reduction and exemption policies, using national debt funds and the central budget renewable energy special fund, promoting construction of Golden Sun demonstration projects and PV building integration projects,

providing priority support for new energy key projects, and using all kinds of existing provincial special funds to provide key support for new energy research and development, resources exploration, PV power generation, wind power, and localized equipment manufacturing. In addition, provincial and local power companies are directed to purchase PV power, wind power, and other new energy projects' on-grid electricity in full.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) to the extent that it calls for direct transfers of funds (loan guarantees, loan interest subsidies, small-amount loans), and to the extent that government revenue otherwise due is foregone or not collected (tax reductions and exemptions). This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is directed to specific renewable energy industries.

29. Ningxia Hui Autonomous Region: Plans for the Development of the Industrial Cluster of Equipment Manufacturing in the Ningxia Region, Ning Zheng Fa [2008] No. 135 (Nov. 25, 2008) **(Exhibit VI-29)**

Pursuant to this measure, the provincial government will give support in terms of land, market access, investment, and tax preferences to energy industry projects. This measure also lists specific investment amounts in specific projects.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) in that it provides for a direct transfer of funds through investment, foregoes government revenue otherwise due through fiscal incentives such as tax preferences, and provides goods or services (*e.g.*, land). This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is directed to certain renewable energy industries.

30. Ningxia Hui Autonomous Region: Plans for a New Round Technological Renovation of Ningxia Industry (2008-2012) (Sept. 2009) **(Exhibit VI-30)**

Pursuant to this measure, the provincial government will support the development of technology transformation projects and recycling projects through financial support such as the use of special supporting funds, loan interest discounts, tax reductions and exemptions, and by encouraging banks to extend credit.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) to the extent that government revenue otherwise due is foregone or not collected (tax reductions and exemptions) or there is a direct transfer of funds (special supporting funds, loans, and loan interest subsidies). This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to enterprises engaged in certain technology transformation projects and recycling projects.

31. Notice of the State Development Planning Commission and the Ministry of Science and Technology on Issues Concerning Further Support to Renewable Energy Development, Ji Ji Chu [1999] No. 44 **(Exhibit VI-31)**

This measure applies to renewable energy, which means wind energy, solar photovoltaic energy, biomass energy, geothermal energy, and ocean energy. The measure states that the State Development Planning Commission and the Ministry of Science and Technology shall actively support renewable energy projects. The measure provides that banks should give priority to renewable energy projects with respect to basic construction loan arrangements. The loans should be provided primarily by the national banks but commercial banks are also encouraged to participate. For large and medium renewable energy projects of 3000 kilowatts or greater which have been approved by the State, a loan interest discount of 2 percent will be provided.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) in that it provides for a direct transfer of funds (loan interest discounts). This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to enterprises engaged in specific renewable energy projects.

32. Land Administration Law of the People's Republic of China (Amended in 2004) **(Exhibit VI-32)**

The Land Administration Law provides for allocation of land if it is to be used for major energy projects. Article 53 of the Land Administration Law provides that if a construction unit needs to use state-owned construction land for an approved project, it shall apply to the Land Administration Department for approval. Article 54 provides that a construction unit that wishes to use state-owned land shall get it by such means of compensation as assignment. However, if land is to be used for major energy, communications, water conservancy and other infrastructure projects supported by the State, the land may be allocated upon government approval.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) in that it authorizes the government to provide goods (land). This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to enterprises engaged in certain major energy projects.

33. Guiding Catalogue of Foreign Investment Industries (Amended in 2007) (Oct. 31, 2007) **(Exhibit VI-33)**

The Guiding Catalogue of Foreign-Invested Industries (2007) lists the following encouraged green energy projects that are eligible for preferential treatment:

III. Manufacturing industries

(18) Special-Purpose Equipments Manufacturing Industry

58. Manufacturing of special-purpose equipments for solar battery production

(20) Electric Machines and Equipments Manufacturing Industry

1. Manufacturing of key equipments for power stations of supercritical units of 600,000 KW or 1,000,000 KW (limited to Chinese-foreign equity and cooperative joint ventures): boiler feed pumps, circulating pumps, main-steam circuit high-temperature and high-pressure valve with the working temperature of more than 400 degrees C, the working pressure of more than 20Mpa

2. Manufacturing of key equipments for 1,000,000 KW level nuclear power stations (limited to Chinese-foreign equity and cooperative joint ventures): pumps and valves at nuclear level I and II

3. Manufacturing of equipments for and technology of desulfurization, denitration, cloth dust collector of power stations

4. Design and manufacturing of obturators of nuclear power and power equipments

5. Manufacturing of heavy casting and forging used for nuclear power equipments

6. Electricity transmission and transformation equipment (limited to Chinese-foreign equity and cooperative joint ventures): amorphous state alloy transformer, bushing used for high-pressure electrical appliance of 500 KV or more, actuating mechanism used for high-pressure switch, autonomous integral contact, dry-type reactor for HVDC, design and manufacturing of large-power crystal valve pipe for DC converter Valve of 6 inches, manufacturing of materials of electrical appliance's contacts fulfilling the EU RoHS Orders, and Pb,Cd-free solder

7. Manufacturing of power generation suite or key equipments for new energy ((limited to Chinese-foreign equity and cooperative joint ventures): equipments for photovoltaic generation, geothermal power generation, tide power generation , wave power generation, waste power generation suite, marsh gas power generation, wind driven power generation of 1.5 MW or more

(21) Communication Equipments, Computers and Other Electronic Equipments Industry

18. Manufacturing of hi-tech "green" batteries such as dynamical nickel-hydrogen batteries, zinc nickel storage battery, zinc silver storage battery, lithium ion battery, high-volume closed-cycle maintenance-free lead acid batteries, solar batteries, cylindrical-model zinc-gas batteries

19. Manufacturing of high-brightness light-emitting diode (LED) with the light-emission efficiency of more than 501m/W, LED epitaxial

wafer (blue light) with the light-emission efficiency of more than 501m/W, white luminotron with the light-emission efficiency of more than 501m/W and the power of more than 200mW

(23) Other Manufacturing Industries

1. Development and utilization of clean coal technology products (coal gasification, coal liquefaction, water gas, and industrial section coal), and manufacturing of equipments

IV. Industries of Production and Supply of Electric Power, Coal Gas, and Water

3. Construction and operation of power plants with priority to electricity generation
4. Construction and operation of nuclear power plants (controlled by the Chinese parties)
5. Construction and operation of new energy source power plants (including solar energy, wind energy, magnetic energy, terrestrial heat energy, tide energy, biomass energy, etc.)

This Catalogue establishes a national policy to encourage and support certain green energy projects. It provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) when considered in conjunction with other measures implementing specific subsidies and tax benefits to green energy industries pursuant to this catalogue. This Catalogue confers a benefit within the meaning of SCM Agreement Article 1.1(b). This Catalogue is specific within the meaning of SCM Agreement Article 2 in that it is specific to enterprises engaged in certain green energy projects which the government has selected for encouragement.

34. Notice and Interim Measures for the Administration of Financial Subsidy Fund for Renewable and Energy-Saving Building Materials, Cai Jian [2008] No. 677 **(Exhibit VI-34)**

This measure provides that the government will establish special funds to support the production and use of renewable and energy-saving building materials. For purposes of this measure, renewable and energy-saving building materials mean the renewable building materials and the new type energy-saving building materials made from wastes like building waste. The subsidy provided by this measure primarily consists of loan interest discounts for increasing the production capacity of enterprises producing renewable and energy-saving building materials, as

well as expenditures approved by the Ministry of Finance related to the production and use of renewable and energy-saving building materials.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) in that it provides for a direct transfer of funds (loan interest discounts and other government expenditures). This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to enterprises producing renewable and energy-saving building materials.

35. Interim Measures for Administration of Financial Subsidy Funds for Promotion of High-efficiency and Energy-saving Products (May 18, 2009) **(Exhibit VI-35)**

This measure provides that special funds will be used by the central government to support the promotion and application of high-efficiency and energy-saving products, expand the market share of high-efficiency and energy saving products, and enhance the energy efficiency level of energy-using products. The measure states that the subsidies will be provided to enterprises manufacturing high-efficiency and energy-saving products who sell such products at subsidized prices.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) in that it provides for a direct transfer of funds (subsidies). This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to enterprises manufacturing high-efficiency and energy-saving products.

36. Enterprise Income Tax Law [2007] No. 63 (March 16, 2007) (effective Jan. 1, 2008) **(Exhibit VI-36)**

The Enterprise (or Corporate) Income Tax Law provides for preferential treatment to certain high-tech energy projects. Article 27 states that certain income may be eligible for tax exemption or tax reduction, including:

- income from investment and operation of infrastructure projects with key state support (such as electricity and hydroelectricity);
- income from engaging in qualified projects of environmental protection or energy and water conservation.

Article 28 provides that high and new technology enterprises that require key state support are subject to a reduced tax rate of 15 percent (the regular rate is 25 percent).

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) in that government revenue otherwise due is foregone or not collected. This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that the tax preference is specific to certain high-tech energy projects.

37. Notice of Ministry of Finance People's Republic of China and State Administration of Taxation on Increasing Export Tax Rebate Rates on Some Commodities, Cai Shui [2009] No. 88 **(Exhibit VI-37)**

In this measure, the government increased the export tax rebate rates on certain products. Included among these are the following renewable energy products:

8483900001	Transmission parts of wind power generation equipments (including gears, gear shelves, internal gear rings, retaining plates, gear shafts, gearbox housings)
85061011002	Hg-free primary button cell and battery with alkaline Zn-Mn
85061012002	Mercury-free cylindrical primary button cell and battery with alkaline Zn-Mn
8506101900	Other primary cell and battery with alkaline Zn-Mn
8506109000	Other primary cells and batteries with MnO2

For these products, the export tax rebate rate is raised to 15 percent.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) in that government revenue otherwise due is foregone or not collected. This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to certain selected commodities, including certain renewable energy products.

38. Public Announcement No. 4 on Issues concerning Implementation by Customs of the Catalogue of Priority Industries for Foreign Investment in Central and Western Regions (Revised 2008) (Jan. 9, 2009) **(Exhibit VI-38)**

This measure identifies priority industries for foreign-funded projects in the Central and Western regions that are eligible for preferential treatment. This catalogue lists the following renewable energy industries.

Shanxi Province:

20 Comprehensive utilizations of energy, such as power generation or heating by using waste heat of middling coal and coking-oven gas.

Inner Mongolia Autonomous Region:

8 Deep processing of rare earths and production of applied rare earths products

Jilin province:

12 Production of wind and bio-energy power generation equipment (limited to joint equity or cooperation)

Heilongjiang Province:

18 Production of power-grid intelligent management and control system equipment

Chongqing Municipality:

15 Production of power generation equipment by using solar, wind and other new energies and parts and components thereof (limited to joint equity and cooperation)

Gansu Province:

6 Deep processing of rare earths and production of applied rare earths products

13 Wind and solar energy power generation and equipment manufacturing industry thereof (limited to joint equity and cooperation)

Ningxia Hui Autonomous Region:

12 Development and production of wind and solar energy power generation equipment (limited to joint equity and cooperation)

Xinjiang Uygur Autonomous Region (incl. Xinjiang Production and Construction Corp):

16 Development and production of wind and solar energy power generation equipment (limited to joint equity and cooperation)

This Central-Western Catalogue provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) when considered in conjunction with other measures implementing specific subsidies or tax benefits to the renewable energy industries identified in the list as priority industries for Central-Western investment. The Central-Western Catalogue confers a benefit within the meaning of SCM Agreement Article 1.1(b). The Central-Western Catalogue is specific within the meaning of SCM Agreement Article 2 when considered in conjunction with other specific measures implementing specific subsidies and tax benefits to the renewable energy industries identified as priority industries in the Central-Western Catalogue.

39. Catalogue of Chinese High-Tech Products (2006) **(Exhibit VI-39)**

The Catalogue of Chinese High-Tech Products (2006) lists high-tech products that are eligible for certain tax exemptions and reductions under the Enterprise Income Tax Law. The high-tech products listed in the Catalogue include a number of green technology related products under the categories of new energy equipment and highly energy-efficient products. These products include solar energy products, wind power products, biomass energy products, ocean energy products, advanced batteries, and other high-tech products. *See* Catalogue at 72, Category 7, New Energy and Energy-efficiency.

This Catalogue establishes a national policy to encourage and support certain high-tech products. It provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) when considered in conjunction with other measures implementing specific tax benefits for high-tech products pursuant to this catalogue and the national policy. This Catalogue confers a benefit within the meaning of SCM Agreement Article 1.1(b). This Catalogue is specific within the meaning of SCM Agreement Article 2 in that it is specific to enterprises engaged in producing certain high-tech products and when considered in conjunction with other measures implementing specific tax benefits for high-tech products as a result of their listing in the catalogue.

D. Wind Subsidies

1. Notice of Several Opinions on Further Promoting Wind Power Development, Economic and Trade Commission, ETC Electricity [1999] No. 1286 (Nov. 22, 1999) **(Exhibit VI-40)**

This measure states that the government will increase financial investment into wind power development, encourages multi-channel financing, and indicates that local electricity supervising agencies should purchase all on-grid electricity at the approved price and encourage domestic wind power equipment production.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) in that it provides for a direct transfer of funds to wind energy producers to the extent that it directs government authorities to purchase electricity at a set price and that price is higher than it otherwise would have been, and to the extent that it authorizes financing support. This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is directed to the wind energy industry.

2. Ride the Wind Program: Notice of Guidance for Accelerating the Localization of Wind Power Equipment, Guo Jing Muo Zi Yuam [2000] No. 122 **(Exhibit VI-41)**

This measure provides that demonstration wind farms that use localized wind power technical equipment may receive loan interest subsidies.[451] Wind power projects that use localized equipment shall be deemed priority projects and have priority to connect to the grid. In addition, the measure provides that wind farms constructed by foreign joint ventures that purchase local equipment may enjoy preferential treatment in terms of value-added tax and enterprise income tax.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) in that it provides for a direct transfer of funds to the extent that the government provides financial support in the form of loan interest discounts, and in that government revenue otherwise due is foregone or not collected (through VAT and income tax preferences). This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to the wind power industry.

3. National Debt Wind Power Program: Implementation Plans for National Debt Wind Power Program, Zi Yuan [2000] No. 046 **(Exhibit VI-42)**

The National Debt Wind Power Program is a program designed to use the national debt special fund from the 2000 National Key Technology Transformation Project (the fourth batch of national debt special fund projects) to build demonstration wind farms that use 80,000 kilowatts of domestic wind turbine.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) to the extent that there is a direct transfer of funds to support the construction of

[451] This measure is also addressed above in Section III - Prohibited Subsidies.

demonstration wind farms. This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to the wind power industry.

4. Notice on National Defense Science and Technology Industry Wind Power Equipment Industry Development Guideline (2007-2020), Commission of Science and Technology Industry for National Defense (Sept. 18, 2007) **(Exhibit VI-43)**

This measure sets out various development goals for the wind power equipment industry. It states that the government will provide financial support to key technologies, product development, and R&D in the wind power equipment industry.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) in that it provides for a direct transfer of funds to the extent that it directs the government to provide financial support. This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to the wind power equipment industry.

5. Management Regulations on Special Fund for Industrialization of Wind Power Manufacturing Sector in China, MOF Document [2008] No. 476 (Aug. 2008) **(Exhibit VI-44)**

This measure provides that a special fund supporting the wind power equipment manufacturing sector will be allocated from the central government budget.[452] The special fund will be used to provide grants to those companies who research and develop market accepted technologies and products. The special fund will be used to support state-owned and Chinese-controlled stock companies conducting wind power equipment manufacturing within China. The special fund will be used to support new development of a company's first 50 MW-scale wind turbine systems and components. The allocated grant will depend on equipment capacities and

[452] This measure is also addressed above in Section III - Prohibited Subsidies.

regulated standards. A 600 RMB per kilowatt grant from the special fund will be provided to the first 50 units of wind turbine systems that qualify. The grant will be allocated to turbine manufacturers and critical component manufacturers, each accounting for 50 percent. In principle, the grant for critical component manufacturers will be based on production cost.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) in that it provides for a direct transfer of funds through a special funds grant. This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to enterprises producing wind power equipment.

6. Adjustment of Tax Incentive Policies for Imported Large Power Wind Turbine System Key Components and Raw Materials, MOF Customs & Tax [2008] 36 **(Exhibit VI-45)**

This measure adjusted the tax policies for the import of key components and raw materials used to produce large power wind turbine systems. It provides that, from January 1, 2008, the import tax and import VAT will be levied on imported key components and raw materials used to develop and manufacture large power wind turbine systems by domestic manufacturers. The measure provides that the import tax and VAT will be returned later. The returned import tax must be used by the enterprise to support the enterprises' new product development and innovation capacity building. This measure applies to wind turbine generating systems with unit power capacity no less than 1.2MW, and which have annual sales of at least 50 complete wind turbine units (excluding control systems), 150 blades, or 50 generator/gearbox units. For newly approved domestic and joint venture projects, the import tax exemption ended on May 1, 2008 for imports of wind generation systems of less than 2.5MW. For domestic investment and joint venture projects approved before May 1, 2008, the import tax exemption ceased after November 1, 2008 for imports of wind generation systems of less than 2.5MW.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) in that government revenue otherwise due is foregone or not collected to the extent that import tax and VAT exemptions are provided. This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to enterprises that import the components and materials used to produce large power wind turbine systems.

7. Notice of the Ministry of Finance and the State Administration of Taxation about Policies regarding the Value Added Tax on Products Made through Comprehensive Utilization of Resources and Other Products, Cai Shui [2008] No. 156 (Dec. 9, 2008) **(Exhibit VI-46)**

This measure provides for:

- Full VAT refund for sales of self-produced electricity or heat generated by garbage (municipal solid waste, crop straw, bark waste, sewage sludge, and medical waste);
- 50% VAT refund for sales of self-produced electricity generated by wind power;
- Full VAT refund for sales of self-generated biodiesel (no less than 70% of the raw materials must be animal and vegetable oil waste).

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) in that government revenue otherwise due is foregone or not collected. This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to enterprises providing specific types of electric power generation and a specific type of fuel.

8. Notice and Provisional Measures for Administration of Land Use for Engineering Construction and Environmental Protection of Wind Electricity Field, Fa Gai Neng Yuan [2005] No. 1511 **(Exhibit VI-47)**

This measure was enacted to support the development of wind power electricity. Article 4 provides that the land required for construction of wind electricity fields shall be nationalized:

> The land for engineering construction of wind electricity field shall be calculated and nationalized based on the actual acreage to be

> occupied. Thereinto, the wind electricity assembling set in the wind electricity field under non-close administration shall be nationalized in virtue of the basic and actual acreage to be occupied; other permanent land for wind electricity field shall be nationalized based on the actual acreage to be occupied; and the provisional land for construction shall be duly handled referring to the relevant provisions.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) in that it authorizes the government to provide goods (land). This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to the wind power industry.

E. Solar Subsidies

1. Notice concerning the implementation of the Golden Sun Demonstration Project and Golden Sun Demonstration Project Interim Measures for Financial Assistance Fund Management (July 2009) **(Exhibit VI-48)**

This measure establishes funding to support the demonstration and industrialization of key technologies in the photovoltaic industry (Golden Sun demonstration project). The measure provides that financial resources will be used to strengthen management, improve capital efficiency, standardize project management, and create a formulated approach. The Golden Sun Demonstration Project is a combination of financial assistance, technological support, and market approaches in order to accelerate the industrialization and development of the domestic photovoltaic power industry, and to promote the progress of PV power generation technology. Subsidy-eligible projects include various PV power generation demonstration projects, construction of large-scale grid-connected PV power generation demonstration projects in solar energy rich regions, development and industrialization of key PV technologies, and PV power generation capacity building. The amount of the subsidy varies based on the level of advanced technology, market development, and other factors. Grid connected PV power generation projects, consisting of PV systems and supporting transmission and distribution projects, can

receive a subsidy equal to 50 percent of the total investment. For an independent photovoltaic power generation system in distant areas without electricity, projects can receive a subsidy equal to 70 percent of the total investment.

It has been reported that, after announcing the program in November 2009, 314 projects were approved, with over 630 MW of installed capacity.[453]

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) in that there is a direct transfer of funds (50% and 70% subsidies). This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to the photovoltaic industry.

2. MOF Notice regarding Issuance of Interim Measures on Financial Subsidies for Building Integrated Solar PV Applications, MOF Construction [2009] No. 129 **(Exhibit VI-49)**

This measure provides for special funding within the central budget to subsidize demonstration and expansion efforts for building integrated solar photovoltaic (BIPV) applications. The Fund will be used for (1) subsidies for building integrated solar PV applications to be installed in urban, rural, and remote areas; (2) subsidizing BIPV system technical codes and standard formulation activities; and (3) subsidizing BIPV critical technology integration and promotion activities. This measure sets out conditions to receive government subsidies (installed capacity not less than 50 KWP, etc.) and encourages local government authorities to promulgate and implement incentive policies for solar PV technologies deployment. The standard subsidy amount was RMB 20/Wp in 2009.

[453] *See* EPIA and SEIA, SEIZING THE SOLAR SOLUTION: COMBATING CLIMATE CHANGE THROUGH ACCELERATED DEPLOYMENT (Dec. 2009) at 11 **(Exhibit VI-81)**.

It has been reported that nearly 600 applications for these subsidies were received from 30 provinces for a total capacity of 600 MW, of which 111 projects were approved in October 2009, for a total government cost of 1.27 billion RMB.[454]

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) in that it provides for a direct transfer of funds (special fund subsidies). This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to enterprises engaged in certain solar energy projects (integrated solar photovoltaic (BIPV) applications).

3. Notice on Printing and Distributing Solar Photovoltaic Building Demonstration Project Application Guidelines, Cai Ban Jian [2009] No. 34 (April 16, 2009) **(Exhibit VI-50)**

This measure provides a subsidy for solar PV building integration projects. In 2009, the subsidy was RMB 15.00/watt or RMB 20.00/watt, depending on the method of solar PV building integration. Future annual subsidy standards will be appropriately adjusted according to the industry's development.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) in that it provides for a direct transfer of funds (subsidies). This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to enterprises engaged in certain solar PV building integration projects.

[454] *See* EPIA and SEIA, SEIZING THE SOLAR SOLUTION: COMBATING CLIMATE CHANGE THROUGH ACCELERATED DEPLOYMENT (Dec. 2009) at 11 **(Exhibit VI-81)**.

4. Shandong Province Energy Fund (2007) **(Exhibit VI-51)**

In 2007, Shandong Province established a RMB 2.133 billion fund to support energy conservation and emissions reductions. With this fund, Shandong will subsidize the construction and adoption of solar hot water supply systems by hotels, schools and other establishments.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) in that it provides for a direct transfer of funds. This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to enterprises engaged in certain energy conservation and emissions reduction projects, including enterprises producing solar hot water.

F. Biomass Subsidies

1. Notice and Interim Measures for the Administration of Subsidy Funds for the Energy Regeneration and Utilization of Straws and Stalks, Cai Jian [2008] No. 735 **(Exhibit VI-52)**

This measure provides that the central government shall arrange funds to support the industrialized development of straws and stalks in accordance with the Renewable Energy Law. For this measure, "straws and stalks" refers to the straws and stalks of paddy, wheat, corn, beans, oil plants, cotton, tuber crops and other crops, and residues of agricultural products derived from primary processing operations. Support shall be given to enterprises that engage in regenerative energy production by virtue of straws and stalks, including the straw and stalk briquette fuel, straw and stalk gasification, straw and stalk dry distillation, etc. Grid-connected power generation projects using straws and stalks will be subject to the supporting policies provided for in the "Tentative Management Measures for Price and Sharing of Expenses for Electricity Generation from Renewable Energy"(Fa Gai Jia Ge [2006] No.7). Subsidies shall be provided pursuant to that measure.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) in that it provides for support measures pursuant to policies set out in Tentative Management Measures for Price and Sharing of Expenses for Electricity Generation from Renewable Energy. This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to enterprises engaged in regenerative energy production from straws and stalks.

G. Automobile Subsidies

1. Auto Industry Adjustment and Revitalization Plan (March 23, 2009) **(Exhibit VI-53)**

This measure provides:

- Reduced passenger vehicles purchase tax: from January 20, 2009 through December 31, 2009, the vehicle purchase tax for passenger vehicles with engines of 1.6 liters or less would be reduced and levied at the tax rate of 5 percent.
- Investment in technology advancement and transformation: over the next three years, a special fund of RMB 10 billion will be used to advance technology, to support manufacturers to upgrade their products, to improve energy saving, and to develop new energy vehicles and special parts.
- Promotion of energy-saving and new energy vehicles: the government will launch a national energy-saving and new energy vehicle project, subsidized with central budget funds, to support large and medium cities to promote hybrid vehicles, pure electric vehicles, fuel cell vehicles, and other energy-saving and new energy vehicles. Local governments will promote the use of new energy vehicles in priority areas such as urban public transportation, rental, public service, sanitation, postal service, and airports.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) to the extent that government revenue otherwise due is foregone or not collected (reduced vehicle tax) or there is a direct transfer of funds (special funds and loan interest subsidies funds). This measure confers a benefit within the meaning of SCM Agreement Article

1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to certain enterprises in the automotive sector.

2. Notice of Ministry of Finance People's Republic of China and State Taxation Administration on the Reduction of Vehicle Purchase Tax of the Passenger Vehicles of 1.6 Liters and Below Displacements, Cai Shui [2009] No. 12 **(Exhibit VI-54)**

This measure was enacted to expand domestic auto demand and promote the development of the automobile industry. The measure provided that for the period January 20, 2009 through December 31, 2009, the vehicle purchase tax for passenger vehicles with engines of 1.6 liters or less would be reduced and levied at the tax rate of 5 percent.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) in that government revenue otherwise due is foregone or not collected (reduced vehicle tax). This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to enterprises engaged in producing and selling certain passenger vehicles.

H. Subsidies for Energy-Efficient Lighting

1. Ministry of Finance, National Development and Reform Commission, Interim Administrative Measures for High-Efficiency Lighting Products Promotion Financial Subsidy Fund, Cai Jian [2007] No. 1027 (Dec. 28, 2007) **(Exhibit VI-55)**

China intends to phase out incandescent lighting. The Ministry of Finance has announced a program to subsidize the sale of 50 million low-energy bulbs in China. Under the program, consumers will purchase efficient light bulbs at a discount price and the light bulb companies will be reimbursed by the government for the price difference between the discount price and the price that otherwise would apply. Consumers will pay half (50%) of the price agreed to by the manufacturers and the government. Businesses will pay 30 percent of that price.

This measure provides a financial contribution within the meaning of SCM Agreement Article 1.1(a)(1) in that it provides for a direct transfer of funds (reimbursed price difference). This measure confers a benefit within the meaning of SCM Agreement Article 1.1(b). This measure is specific within the meaning of SCM Agreement Article 2 in that it is specific to enterprises engaged in producing energy-efficient light bulbs.

I. China's Subsidies for Green Technology Have Caused Serious Prejudice to the Interests of the United States

China's massive subsidies to green technology are believed to have caused serious prejudice to the interests of the United States in a broad array of product areas and markets, from the U.S., to China, to third country markets. It is difficult in many cases to quantify the effects of these subsidies due to a lack of consistent information regarding demand and production trends in a number of product areas, as well as a lack of uniformity in the classification of green technology products with the harmonized system. A recent report released by Senator Ron Wyden (D-OR), prepared in collaboration with staff from the U.S. International Trade Commission, estimates that the U.S. trade deficit in environmental goods grew from $3.6 to $3.9 billion from 2007 to 2009, with much steeper increases in some individual categories.[455] China is listed as a top import source for many of the products examined in the report.[456] General trends in U.S.-China trade in green technologies are reviewed in Section I.F, above.

Due to the lack of consistent public data available for many products, these serious prejudice claims focus on the harm China's domestic subsidies have caused in two key green technology sectors: wind power and solar power. As demonstrated below, China's subsidies to

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[455] *See* Senator Ron Wyden, U.S. TRADE IN ENVIRONMENTAL GOODS: FOLLOW-UP REPORT TO MAJOR OPPORTUNITIES AND CHALLENGES TO U.S. EXPORTS OF ENVIRONMENTAL GOODS (May 20, 2010) at 15-16 **(Exhibit VI-56)**.

[456] *See id.* at 18-19.

its domestic wind and solar equipment manufacturers have displaced U.S. exports to China and third markets, and caused significant price undercutting and lost sales for American producers and workers in the U.S. market. The subsidies are thus actionable under Articles 5 and 6 of the SCM Agreement.

1. China's Wind Subsidies Have Caused Serious Prejudice

As explained above, China provides a broad range of subsidies to its domestic wind equipment manufacturers, including grants, tax concessions, preferential loans, support for research and development, land, and other subsidies. The drive to subsidize China's wind manufacturers has been particularly intense since 2006, the year when China's Renewable Energy Law, 11th Five Year Plan, and National Medium- and Long-Term Plan for Science and Technology Development all came into effect. Additional support measures for wind power manufacturing have been issued since 2006.[457]

The measures passed in 2008 were particularly significant. The measures for the administration of the Special Fund for Industrialization of Wind Power Manufacturing established a special fund to support Chinese companies conducting wind power equipment manufacturing within China, granting such firms 600 RMB per kW for the first 50 qualifying wind turbine systems produced.[458] The subsidy reportedly represents about five to ten percent of the turbine cost.[459] The measure requires recipients to use domestically manufactured components in their wind turbines to be eligible for the subsidy.[460]

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[457] *See, e.g.*, **Exhibits VI-43 – 45**.

[458] *See* **Exhibit VI-44**. This subsidy is also challenged as a prohibited domestic content subsidy under Section III, above. In the event it is not considered a prohibited subsidy, it should be included in the actionable subsidy analysis.

[459] *See* National Foreign Trade Council, *China's Promotion of the Renewable Electric Power Equipment Industry* (March 2010) at 32 **(Exhibit VI-57)**.

[460] *See id.*

Also in 2008, the Ministry of Finance changed its policy and instructed that import VAT and import taxes would be levied on key components and raw materials used to manufacture large wind turbine systems, and that such taxes would be reimbursed to domestic producers of downstream wind power equipment.[461] To qualify for the rebate, domestic producers are required to have annual sales of at least 50 complete wind turbine units, 150 blades, or 50 generator/gearbox units.[462] The refund policy reportedly generated $21 million in funding for the top three Chinese wind equipment manufacturers in 2008 and $80 million in such funding for these firms in 2009.[463]

In combination, these subsidy programs operate to reward domestic wind equipment manufacturers for their use of domestic components, to impose increased costs on manufacturers utilizing imported components unless they produce a minimum volume of downstream equipment, and to lower the overall costs of production through a variety of tax breaks, concessional loans, and other benefits. These policies have had their intended effect on the market since 2006, displacing U.S. exports of wind power equipment to China while also displacing U.S. exports of wind power equipment to the most significant wind market in the world, Europe. In addition, China's subsidies have caused significant lost sales for U.S. producers of wind energy equipment in the U.S. market.

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[461] *See* **Exhibit VI-45**.

[462] *See id.*

[463] *See* JOINED AT THE HIP: THE US-CHINA CLEAN ENERGY RELATIONSHIP at 23 **(Exhibit VI-58)**.

a. China's Wind Subsidies Have Displaced United States Exports to China Under Article 6.3(a)

China's domestic market for wind power equipment has grown dramatically since 2006. According to the Global Wind Energy Council, installations of wind power generating capacity in China increased nearly ten-fold from 2006 to 2009, more than doubling every year.[464]

China's Installed Wind Power Generating Capacity[465]

	2006	2007	2008	2009
MW	2,599	5,910	12,020	25,805
% Annual Growth	106.27%	127.40%	103.38%	114.68%

While China's demand for wind power equipment has been growing rapidly, its domestic manufacturing base has grown even more quickly. China became the world's second-largest wind power market in terms of total demand in 2009, but its manufacturing industry for wind power equipment is already the world's largest, leading to serious concerns about overcapacity in China's domestic wind manufacturing base.[466]

At the same time that China's domestic market has grown more than ten-fold, U.S. exports of key wind power equipment to China have plummeted. U.S. exports of wind generating sets (HTS 850231) and the gears and gearing used in wind turbines (HTS 848340) have been particularly hard hit.

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[464] Global Wind Energy Council, GLOBAL WIND 2009 REPORT at 27 **(Exhibit VI-59)**.

[465] *See id.*

[466] *See id.* at 26, 29.

China's Imports of U.S. Wind Equipment[467]

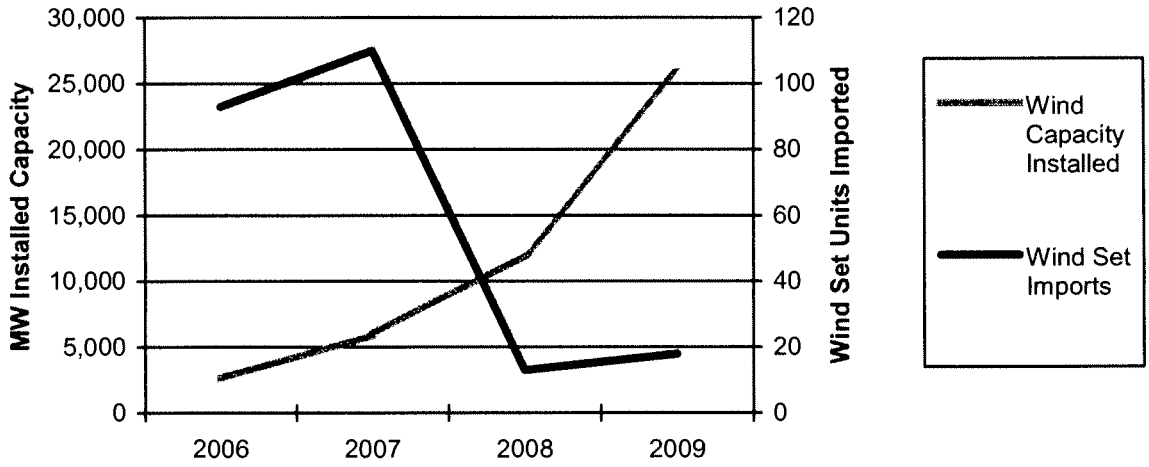
	2006	2007	2008	2009	% Change
Generating sets, electric, wind powered	93	110	13	18	- 80.65%
Gears and gearing, other than toothed	15,086,944	20,651,060	15,903,609	5,174,560	- 65.70%

China's imports of complete wind-powered electricity generating sets from the U.S. have fallen by 81 percent since 2006. While the U.S. exported 93 sets to China in this category in 2006 (more than twice the previous year's annual volume), by 2009 China imported only 18 such sets from the U.S. The sharpest decline occurred in 2008, coinciding with China's two 2008 measures to reward domestic manufacturers, tax imports, and boost domestic equipment production. China's imports from the U.S. of the gears and gearing used in wind turbines have also fallen sharply during the period, by nearly two-thirds. After rising and falling in 2007 and 2008, imports contracted dramatically in 2009, the year after the two 2008 measures went into effect.

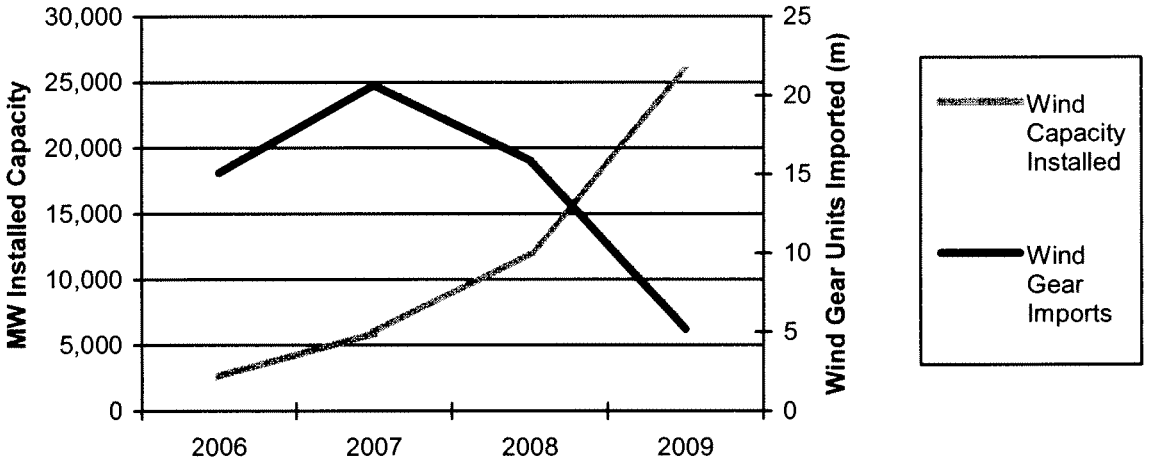
The decline in U.S. exports is not attributable to encroachment from other import sources – total imports by China in the two categories also dropped during the period. The decline is also clearly not attributable to any decline in China's domestic market demand overall for wind power equipment. As noted above, installations of wind power capacity more than doubled in 2006, 2007, 2008, and 2009. Yet imports from the U.S. of the sets that would be installed in this growing sector dwindled to less than 20 percent of their previous volume over the period. And by 2009 China's imports of U.S. gears and gearing used in wind turbines were only one third what they were in 2006.

[467] China Import Statistics for HS 848340 and 850231 **(Exhibit VI-60)**.

China's Wind Demand and Wind Set Imports from the U.S.



China's Wind Demand and Wind Gear Imports from the U.S.



The data clearly show that the effect of China's wind subsidies has been to displace China's imports of wind sets and wind gears from the United States. As the panel in *EC – Large Civil Aircraft* found, data showing that the market share of imports decreased over the relevant reference period would "be sufficient to evidence a 'displacement' phenomenon" within the

meaning of Article 6.3(a).[468] Moreover, it is clear in this case that volume lost to U.S. exporters has accrued to the benefit of subsidized Chinese producers, who have grown in capacity during the period. But for the significant subsidies to China's wind equipment manufacturers, imports from the U.S. would be expected to grow commensurate with the growth in China's demand, or, at a minimum, not to plummet while demand was surging.

There is also a clear temporal coincidence between China's subsidies to its wind manufacturers and the sharp declines in U.S. imports, supporting the conclusion that the subsidies caused the loss of import volume.[469] As noted above, China ramped up its subsidies to wind equipment manufacturers in 2006, and particularly in 2008, at the same time U.S. exports were displaced. Moreover, China's subsidy programs – particularly the two 2008 programs that require use of domestic content, tax imports, and reward domestic producers based on their volume of production – were structured and designed to decrease reliance on imports, increase the localization of manufacturing, lower production costs, develop a complete wind supply chain within China, and incentivize domestic production. The structure and design of the subsidy programs at issue further support the conclusion that these programs caused the observed decline in imports.[470]

In sum, China's subsidies to its wind equipment manufacturers have displaced U.S. exports of key wind equipment within the meaning of Article 6.3(a) of the SCM Agreement, and caused serious prejudice to the interests of the United States under Article 5(c) of the SCM Agreement. China should therefore eliminate the subsidies or take the appropriate steps to eliminate their adverse effects, consistent with Article 7.8 of the SCM Agreement.

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[468] Panel Report, *EC – Large Civil Aircraft*, paras. 7.1738-40.

[469] *See, e.g.*, Panel Report, *Indonesia – Autos*, para. 14.214.

[470] *See* Panel Report, *US – Upland Cotton*, paras. 7.1349-50.

b. China's Wind Subsidies Have Displaced United States Exports to Europe Under Article 6.3(b)

Europe is the largest market for wind power in the world, with nearly twice the installed wind generating capacity of the United States and nearly three times that of China.[471] Europe's domestic market for wind power equipment has grown significantly since 2006, though much less rapidly than China's. According to the Global Wind Energy Council, installations of wind power generating capacity in Europe increased by 56 percent from 2006 through 2009.[472]

Europe's Installed Wind Power Generating Capacity[473]

	2006	2007	2008	2009
MW	48,029	56,531	64,719	74,767
% Annual Growth	18.56%	17.70%	14.48%	15.53%

U.S. exporters have been prevented from sharing equitably in the growth of Europe's wind market due to displacement by subsidized exports from China. The displacement is most marked in U.S. exports of the steel towers and lattice masts used to construct wind towers (HS 730820).[474]

In 2009, China's exports of towers and lattice masts to Europe were nearly 19 times greater in volume than they had been in 2006. During the same period, U.S. exports of the same product to Europe declined by more than a third. As a result, China's share of Europe's total

[471] Global Wind Energy Council, GLOBAL WIND 2009 REPORT at 27 (China had 25,805 MW of installed capacity in 2009), 35 (Europe had 74,767 MW of installed capacity in 2009), and 63 (The U.S. had 35,064 MW of installed capacity in 2009) **(Exhibit VI-59)**.

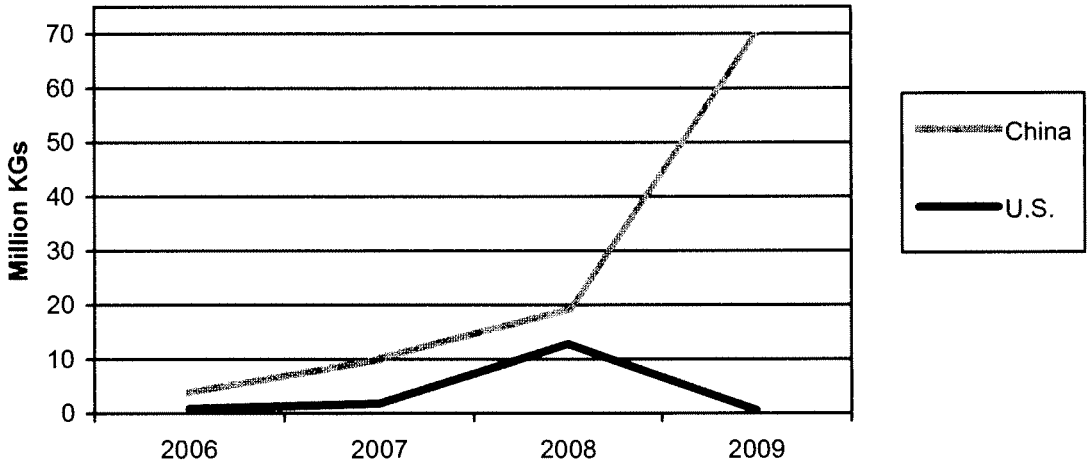
[472] *See id.* at 35.

[473] *See id.*

[474] Eurostat Import Statistics for HS 730820 **(Exhibit VI-61)**

imports in the category ballooned from less than 3 percent to more than 26 percent, while the U.S. share of the European import market dropped by more than half.

European Imports of Towers and Lattice Masts



The loss in U.S. export volume appears to be directly caused by China's domination of the market. While overall European imports in the category did rise in 2006, imports from China rose more than twenty times faster than the total, and now account for more than a quarter of all European imports in the category. In addition, the loss does not appear to be due to displacement from European producers, since they appear to have lost ground as well. World imports and imports from China, in particular, were growing much faster than demand in Europe, leading to a large increase in market share. While European demand grew by 56 percent over the period, total imports grew by 82 percent, imports from China grew by 1,762 percent, and imports from the U.S. dropped by a third.

Subsidization of Chinese producers over the period appears to have played a key role, as Chinese prices (based on export average unit values) consistently undercut those for U.S. producers.

Average Unit Value of European Imports of Towers and Lattice Masts (Euros/ton)

	2006	2007	2008	2009
U.S.	2,373	1,686	1,964	3,636
China	1,049	1,320	1,270	2,277
Price Undercutting	55.78%	21.72%	35.33%	37.37%

The data clearly show that the effect of China's wind subsidies has been to displace U.S. exports of towers and lattice masts to Europe. There has been a dramatic shift in market share as China's exports grew nearly nineteen times over and U.S. exports fell by a third. As the panel in *EC – Large Civil Aircraft* explained, the relevant question in an Article 6.3(b) inquiry is "whether the changes in market shares are caused by the subsidy."[475] But for the significant subsidies to China's wind equipment manufacturers, imports from the U.S. would be expected to grow commensurate with overall imports, or, at a minimum, not to shrink while Europe's demand was rising.

There is also a clear temporal coincidence between China's subsidies to its wind manufacturers and the sharp rise in China's exports and decline in U.S. exports, supporting the conclusion that the subsidies caused the loss of import volume.[476] As noted above, China ramped up its subsidies to wind equipment manufacturers in 2006, and particularly in 2008, at the same time U.S. exports were displaced. Moreover, China's subsidy programs were structured and designed to lower costs of credit, land, R&D and other needed inputs while rewarding increased production – the result is lower prices for Chinese exports, higher volumes of exports, and price undercutting leading to a displacement of U.S. exports. The structure and

[475] Panel Report, *EC – Large Civil Aircraft*, para. 7.1769.

[476] *See, e.g.*, Panel Report, *Indonesia – Autos*, para. 14.214.

design of the subsidy programs at issue further support the conclusion that these programs caused the observed decline in imports.[477]

In sum, China's subsidies to its wind equipment manufacturers have displaced U.S. exports of key wind equipment within the meaning of Article 6.3(b) of the SCM Agreement, and caused serious prejudice to the interests of the United States under Article 5(c) of the SCM Agreement. China should therefore eliminate the subsidies or take the appropriate steps to eliminate their adverse effects, consistent with Article 7.8 of the SCM Agreement.

c. China's Wind Subsidies Have Caused Significant Lost Sales for U.S. Producers in the U.S. Market Under Article 6.3(c)

The U.S. wind market has grown at a healthy pace since 2006, though much less rapidly than China's. According to the Global Wind Energy Council, installations of wind power generating capacity in the United States tripled from 2006 through 2009.[478]

U.S. Installed Wind Power Generating Capacity[479]

	2006	2007	2008	2009
MW	11,575	16,824	25,068	35,064
% Annual Growth	26.52%	45.35%	49.00%	39.88%

Despite this growth, U.S. producers have been losing sales in the American market due to imports of wind power equipment from China that are rising much more quickly than domestic demand. The lost sales have been starkest in the market for the steel towers and lattice masts used to construct wind towers (HS 730820).[480]

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[477] *See* Panel Report, *US – Upland Cotton*, paras. 7.1349-50.

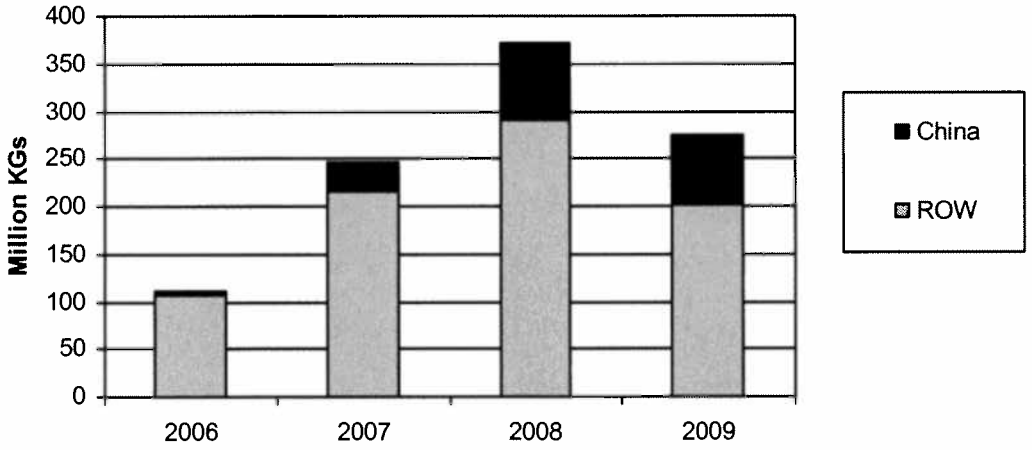
[478] *See* Global Wind Energy Council, GLOBAL WIND 2009 REPORT at 35 **(Exhibit VI-59)**.

[479] *See id.*

[480] U.S. Import Statistics for HS 730820 **(Exhibit VI-62)**.

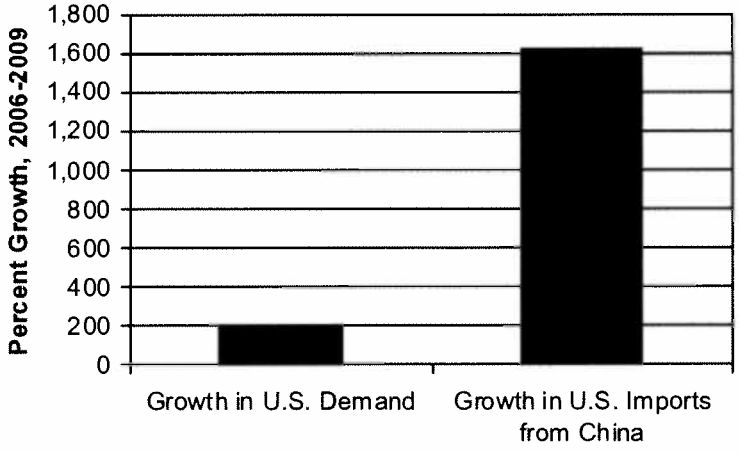
In 2009, China's exports of towers and lattice masts to the U.S. were more than 17 times greater in volume than they had been in 2006. During the same period, total U.S. imports of towers and lattice masts from the rest of the world grew by only 89 percent. As a result, China was able to seize a full 26 percent of the U.S. import market in 2009, up from only four percent of imports in the category in 2006.

U.S. Imports of Towers and Lattice Masts



While U.S. imports in the category from the rest of the world rose less than half as quickly as U.S. demand over the period, imports from China grew more than seven times faster than U.S. demand, absorbing an increasing portion of the available market from U.S. producers.

U.S. Wind Demand and Towers and Lattice Masts Imports from China



The sales U.S. producers lost in the period cannot be attributed to imports from other countries, which were rising more slowly than demand. The loss in market share is directly attributable to China's rapid influx into the U.S. market. The data show that the effect of China's wind subsidies has been to cause significant lost sales to U.S. producers of towers and lattice masts in their own home market.

The panel in *EC – Large Civil Aircraft* found lost sales to be significant on the basis of the number of sales and dollar amounts involved.[481] Here, the volume of sales – more than a quarter of all U.S. imports – and the rapid rate of increase by China support a finding of significant lost sales over the 2006 to 2009 period. There is a clear temporal coincidence between China's subsidies to its wind manufacturers and the sharp rise in China's exports to the U.S.[482] This causal link is made all the clearer by the fact that China's trend in export growth diverged so starkly from overall U.S. import and market demand trends. But for the massive subsidies to China's wind equipment manufacturers, China could not have achieved its growing presence in the U.S. market.

In sum, China's subsidies to its wind equipment manufacturers have caused U.S. producers to experience significant lost sales in the U.S. market within the meaning of Article 6.3(c) of the SCM Agreement, and caused serious prejudice to the interests of the United States under Article 5(c) of the SCM Agreement. China should therefore eliminate the subsidies or take the appropriate steps to eliminate their adverse effects, consistent with Article 7.8 of the SCM Agreement.

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[481] Panel Report, *EC – Large Civil Aircraft*, para. 7.1842.

[482] *See, e.g.*, Panel Report, *Indonesia – Autos*, para. 14.214.

2. China's Solar Subsidies Have Caused Serious Prejudice

As explained above, China provides a broad range of subsidies to its domestic solar equipment manufacturers, including grants, tax concessions, preferential loans, support for research and development, land, and other subsidies. The drive to subsidize China's solar manufacturers has been particularly intense since 2006, the year when China's Renewable Energy Law, 11th Five Year Plan, and National Medium- and Long-Term Plan for Science and Technology Development all came into effect. The Golden Sun and Golden Roofs programs adopted in 2009 provide additional subsidies for the development and industrialization of key photovoltaic technologies.

In combination, these subsidy programs dramatically lower the overall costs of production through a variety of tax breaks, concessional loans, and other benefits, while providing direct subsidies to research and development and to the production of advanced photovoltaic technologies. Together, these policies have propelled China to the position of the top producer of solar panels in the world. China now accounts for 30 percent or more of all solar panels produced worldwide.[483] The sector is highly-export oriented, and it exports 90 to 95 percent of its production.[484]

In 2009, the massive growth in China's heavily subsidized solar sector, particularly in the number of producers of polysilicon, precipitated a crash in global prices for polysilicon and for the solar panels made from it. In August of 2009, *The New York Times* reported on the impact of subsidized Chinese companies on the solar market:

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[483] *See* Shai Oster, *World's Top Polluter Emerges as Green-Technology Leader*, WALL ST. J. (Dec. 15, 2009) **(Exhibit VI-63)**.

[484] *See* Jiangsu Photovoltaic Industry Association, STUDY ON PV MARKET AND PRODUCTS IN JIANGSU (March 8, 2010) at 2 **(Exhibit VI-64)**.

> Chinese companies have already played a leading role in pushing down the price of solar panels by almost half over the last year. Shi Zhengrong, the chief executive and founder of China's biggest solar panel manufacturer, Suntech Power Holdings, said that Suntech is selling solar panels on the US market for less than the cost of the materials, assembly and shipping to build market share.
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> * * *
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> Since March Chinese governments at the national, provincial, and even local level, have been competing with one another to offer solar companies ever more generous subsidies, including free land, and cash for research and development. State-owned banks are flooding the industry with loans at considerably lower interest rates than available in Europe or the US.
>
> Suntech, based in Wuxi, is on track to pass Q-Cells of Germany, to become the world's second-largest supplier of PV cells, which would put it behind only First Solar in Tempe, Arizona. Hot on Suntech's heels is a list of Chinese corporations backed by entrepreneurs, local governments and even the military, all seeking to capitalize on an industry deemed crucial by China's top leadership.[485]

The Wall Street Journal reported a 50 percent drop in polysilicon prices by the end of 2009, due mostly to a glut in supply caused by the flood of new Chinese entrants to the market.[486] A U.S. Commercial service analysis of the sector in December of 2009 stated:

> Chinese PV manufacturers still rely on a low price strategy. The price of polysilicon has dropped from $200 to $300 per kilogram to $60 per kilogram. That means at the same product quality level, foreign companies are unable to compete with Chinese companies in terms of price. That is why Chinese companies have more and more market share in American and European markets.[487]

The view was echoed by a private industry analyst in the spring of 2010:

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[485] Keith Bradsher, *China Racing Ahead of U.S. in the Drive to Go Solar*, N.Y. TIMES (Aug. 24, 2009) **(Exhibit VI-65)**.

[486] *See* Shai Oster, *World's Top Polluter Emerges as Green-Technology Leader*, WALL ST. J. (Dec. 15, 2009) **(Exhibit VI-63)**.

[487] U.S. Commercial Service, CS CHINA ENERGY UPDATE, Issue 5 (Dec. 2009) **(Exhibit VI-66)**.

> Doerr [the analyst] pointed to the 50% growth in the market share held by the Chinese solar industry in the 4th quarter of 2009, which was much more impressive than the gains made by the U.S. solar industry, which only showed a 16% growth rate. Unlike the U.S., where the solar industry can only get limited financing due to the current credit crisis, the Chinese government has provided abundant financing for green projects .... As Doerr aptly remarked, "the results of their policies are really staggering."[488]

The 2009 drop in polysilicon prices forced panel prices down significantly, with the Solar Energy Industries Association reporting a fall in average panel prices of 40 percent from 2008 to 2009.[489]

As China's subsidized solar producers expanded production and drove down prices, U.S. producers and workers suffered.

In November of 2009, Evergreen Solar announced it was moving solar panel assembly from its factory in Devens, Massachusetts to China.[490] The facility employed 577 workers, and the number of jobs affected is unknown.[491] The CEO of Evergreen explained that government support for China's solar industry made continued production in the U.S. no longer viable:

> Evergreen Solar CEO Rick Feldt went to Washington, D.C., and met with Energy Secretary Steven Chu and Commerce Secretary Gary Locke. He told them Chinese government policies made U.S. production uncompetitive. But the Obama appointees do "not quite [have] the understanding that we think is necessary about what's actually happening in this industry," Feldt told financial analysts on Feb. 9. "The United States keeps talking about keeping jobs. You go to the President's State of the Union Address and he said, 'I want to keep jobs in the United States.' It's easy if you say it, but you've got to do something to do that."

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[488] *Is China Beating the U.S. in Green Technology Development?* (Mar. 7, 2010) **(Exhibit VI-67)**.

[489] *See* Solar Energy Industries Association, U.S. SOLAR INDUSTRY YEAR IN REVIEW 2009 SUPPLEMENTAL CHARTS (May 12, 2010) **(Exhibit VI-68)**.

[490] *See Evergreen Solar Plans to Move U.S. Panel Production to China* (Nov. 5, 2009) **(Exhibit VI-69)**.

[491] Erin Ailworth, *Evergreen solar to shift some operations to China*, BOSTON GLOBE (Nov. 4, 2009) **(Exhibit VI-70)**.

> Without an adequate response from the U.S. government to counter competitive forces working against domestic production, "we are going to China as quickly as we can," Feldt told the analysts. "The issue for us is just how long does it take to get there. We've got the China operations underway as we speak." The company expects to spend $50 million this year on its Wuhan, China, facility.
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> * * *
>
> "The fact is, if the Chinese are going to continue to sell near marginal cost because they get the support of the Chinese government, that's just the way the world is. Either you get German ministers talking about it, you get the United States talking about it, but all we can hope for is this: that the U.S. government will not let the Chinese replace the Middle East for access to solar energy," said [Evergreen CFO] El-Hillow.
>
> In response to the Chinese competitive challenge, Evergreen Solar has two options. It can try to counter China's advantage by reducing its costs in Massachusetts as low as possible, or "get to China as fast as we can," said El-Hillow.[492]

Other U.S. solar manufacturers have come to the same conclusion, shuttering facilities, cutting jobs, and moving production to China in response to the overwhelming unfair advantage conferred by the Chinese government's huge solar subsidies. In July of 2009, Schott Solar, Inc. announced it was closing its solar panel manufacturing facility in Billerica, Massachusetts, eliminating 180 jobs.[493] In October of 2009, GE announced it was closing its solar panel facility in Newark, Delaware, laying off 82 workers.[494] The decision to shut down was due to "overcapacity levels that are twice demand and industry pricing that's below the cost of producing the panels."[495] In March of 2010, BP Solar announced that it was terminating the

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[492] Richard A. McCormack, *Evergreen Solar Heads to China "As Quickly As We Can,"* MANUFACTURING & TECHNOLOGY NEWS (Mar. 5, 2010) **(Exhibit VI-71)**.

[493] *See SCHOTT Solar Streamlining North American Production* (June 20, 2009) **(Exhibit VI-72)**.

[494] *See* Yuliya Chernova, *GE to Close Its Solar Panel Manufacturing Plant in Delaware*, DOW JONES CLEAN TECHNOLOGY INSIGHT **(Exhibit VI-73)**.

[495] *Id.*

silicon casting, wafering, and cell manufacturing performed at its facility in Frederick, Maryland, eliminating 320 jobs.[496] BP cited the steep decline in solar prices as its primary motivation for moving to a more low cost supply base.[497] News reports indicated BP would be relying more heavily on Chinese suppliers for its sales in the U.S.[498]

The massive subsidized growth of China's solar industry has inflicted serious prejudice on U.S. producers and workers. As explained in more detail below, China's subsidies have displaced or impeded U.S. exports of solar cells and panels to third country markets under Article 6.3(b). In addition, they have resulted in significant price undercutting and caused significant lost sales of solar cells and panels under Article 6.3(c).

a. China's Solar Subsidies Have Displaced United States Exports to Europe Under Article 6.3(b)

Europe is the largest market for solar power in the world. In 2009, the cumulative installed solar electricity capacity in Europe was 15,943 MW, nearly 70 percent of the world's total installed capacity.[499] Europe's domestic market for solar power equipment has grown dramatically since 2006. According to the European Photovoltaic Industry Association, installations of solar capacity in Europe were five times greater in 2009 than they were in 2006.[500]

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[496] *See BP Solar Completes Manufacturing Restructuring With Closure of Frederick, MD Factory* (March 26, 2010) **(Exhibit VI-74)**.

[497] *See id.*

[498] *See* Yuliya Chernova, *GE to Close Its Solar Panel Manufacturing Plant in Delaware*, DOW JONES CLEAN TECHNOLOGY INSIGHT **(Exhibit VI-73)**.

[499] *See* European Photovoltaic Industry Association, GLOBAL MARKET OUTLOOK FOR PHOTOVOLTAICS UNTIL 2014 at 5 **(Exhibit VI-75)**.

[500] *See id.*

Europe's Installed Solar Power Capacity[501]

	2006	2007	2008	2009
MW	3,309	5,279	10,338	15,943
% Annual Growth	41.35%	59.53%	95.83%	54.22%

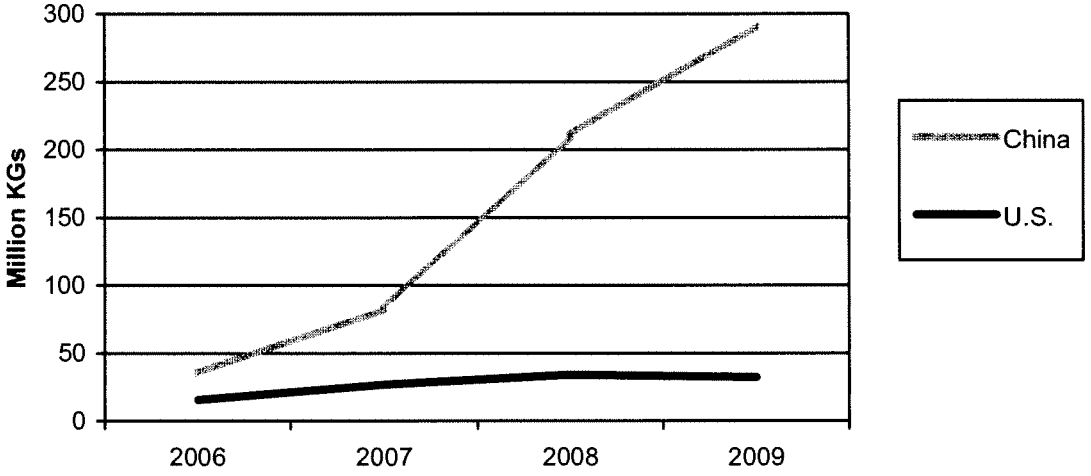
U.S. exporters have been prevented from sharing equitably in the growth of Europe's solar market due to displacement by subsidized exports from China. The displacement is most marked in U.S. exports of solar panels and cells classified in HS 854140.[502]

In 2009, China's exports of solar panels and cells to Europe were more than eight times greater in volume than they had been in 2006. U.S. exports of the same product to Europe doubled from 2006 to 2008, but then dropped by nearly 2 million KG in 2009, despite over 50 percent growth in the European market during the year. As a result, China was able to increase its share of the European import market from 21 to 34 percent from 2006 to 2009. During the same period, the U.S. share of the import market dropped from 9.5 percent to only 3.7 percent. In 2006, China shipped twice as many solar cells and panels to Europe as the U.S. – by 2009 China was shipping nine times as much as the U.S.

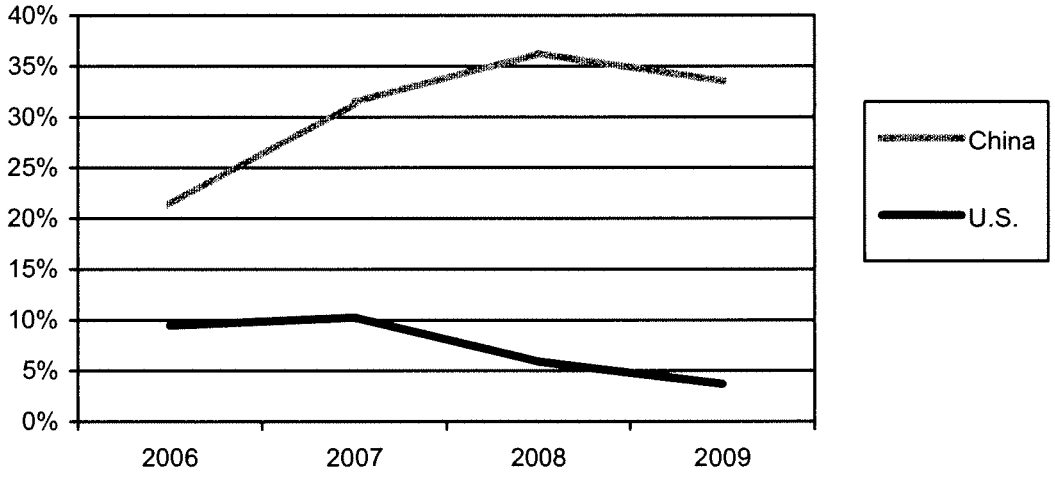
[501] *See id.*

[502] Eurostat Import Statistics for HS 854140 **(Exhibit VI-76)**.

European Imports of Solar Cells and Modules



Shares of Europe Import Market for Solar Cells and Modules



The loss in U.S. export volume in the period appears to be directly caused by China's domination of the market. Though overall European imports in the category did rise since 2006, imports from China rose nearly twice as fast as imports from other countries, and now account for more than a third of all European imports in the category. In addition, the loss does not appear to be due to displacement from European producers, since they do not appear to have gained ground

during the period either. Europe's imports from the world were growing as fast as Europe's demand, and imports from China in particular were growing much faster than demand. Though European demand in 2009 was five times the level it had been in 2006, total imports were also five times greater, and imports from China were eight times greater.

As explained above, subsidization of Chinese producers over the period appears to have played a key role not just in surging production and exports throughout the period, but also in the massive price collapse in 2009. In 2009, the first year U.S. cell and panel exports to Europe fell despite the region's growing demand, was also the same year that prices from China started to steeply undercut U.S. producers. Average import unit values for cells and panels from China fell by 36 percent from 2008 to 2009, while U.S. unit values actually rose slightly. As a result, Chinese producers were able to undersell their American competitors by a 20 percent margin in the European market.

The data clearly show that the effect of China's solar subsidies has been to displace U.S. exports of solar cells and modules to Europe. There has been a dramatic shift as China's share of EU imports grew from 21 to 34 percent, while the U.S. share of EU imports sharply declined from nearly ten percent to less than four. As the panel in *EC – Large Civil Aircraft* explained, the relevant question in an Article 6.3(b) inquiry is "whether the changes in market shares are caused by the subsidy."[503] But for the significant subsidies to China's solar equipment manufacturers, imports from the U.S. would be expected to grow commensurate with overall imports, or, at a minimum, not to shrink while Europe's demand was rising.

There is also a clear temporal coincidence between China's subsidies to its solar manufacturers and the sharp rise in China's market share and decline in the U.S. share,

[503] Panel Report, *EC – Large Civil Aircraft*, para. 7.1769.

supporting the conclusion that the subsidies caused the loss of import volume.[504] As noted above, China ramped up its subsidies to solar equipment manufacturers in 2006, resulting in oversupply and a crash in prices in 2009, the same year that China undercut U.S. prices and U.S. exports to Europe started to fall. Moreover, China's subsidy programs were structured and designed to lower costs of credit, land, R&D, and other needed inputs while rewarding increased production. The structure and design of the subsidy programs at issue further support the conclusion that these programs caused the observed price undercutting and decline in Europe's imports from the United States.[505]

In sum, China's subsidies to its solar equipment manufacturers have displaced U.S. exports of solar cells and panels within the meaning of Article 6.3(b) of the SCM Agreement, and caused serious prejudice to the interests of the United States under Article 5(c) of the SCM Agreement. China should therefore eliminate the subsidies or take the appropriate steps to eliminate their adverse effects, consistent with Article 7.8 of the SCM Agreement.

b. China's Solar Subsidies Have Caused Significant Price Undercutting and Lost Sales for U.S. Producers in the U.S. Market Under Article 6.3(c)

The U.S. market for solar power has grown at a healthy pace since 2006. By 2009, cumulative installations of photovoltaic power generating capacity in the United States were more than two-and-a-half times their level in 2006.[506]

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[504] *See, e.g.*, Panel Report, *Indonesia – Autos*, para. 14.214.

[505] *See* Panel Report, *US – Upland Cotton*, paras. 7.1349-50.

[506] *See* European Photovoltaic Industry Association, GLOBAL MARKET OUTLOOK FOR PHOTOVOLTAICS UNTIL 2014 at 5 **(Exhibit VI-75)**.

U.S. Installed Solar Power Generating Capacity[507]

	2006	2007	2008	2009
MW	624	831	1,173	1,650
% Annual Growth	30.27%	33.17%	41.16%	40.66%

Despite this growth, U.S. producers have been losing market share in the U.S. For example, Energy Information Administration statistics show the market share of domestic producers of PV cells and modules falling from 2006 to 2008.[508] From 2008 to 2009, the U.S. Solar Energy Industries Association reports that U.S. PV module production only grew by 7 percent[509] – an anemic growth rate in a market where domestic demand was expanding by 41 percent. The result was a further decline in market share for U.S. producers. These lost sales in the American market are due to imports of solar panels from China that are rising much more quickly than domestic demand. These solar panels are classified under U.S. HTS 8541406020.[510]

In 2009, U.S. imports of solar panels from China were nearly four times greater than they had been in 2006. During the same period, U.S. imports of solar panels from other nations actually fell by 16 percent. As a result, China's share of the U.S. import market leapt from 14 percent to more than 42 percent from 2006 to 2009. The shift in market share was most pronounced from 2008 to 2009, as global prices plunged due to China's subsidized overcapacity.

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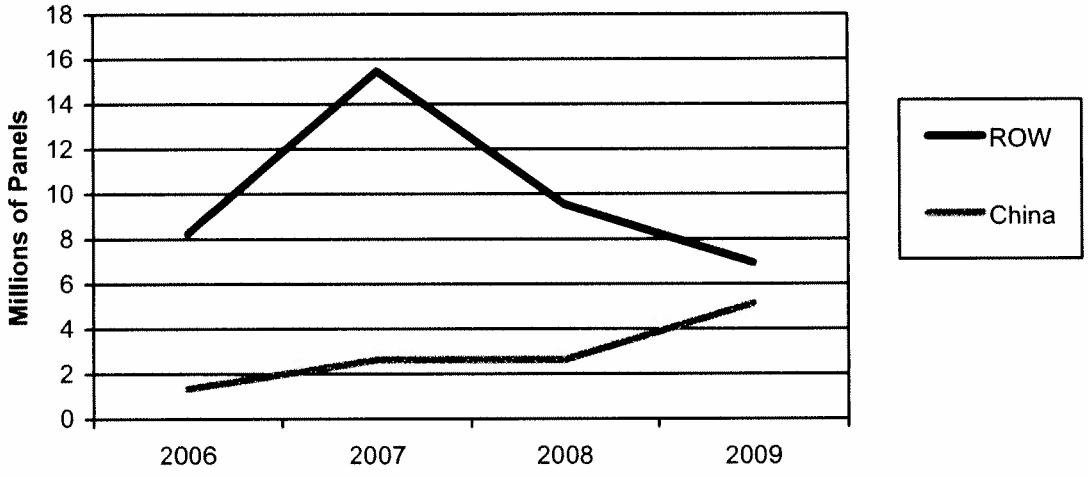
[507] *See id.*

[508] *See* EIA Solar Industry Data **(Exhibit VI-77)**.

[509] *See* Solar Energy Industries Association, U.S. SOLAR INDUSTRY YEAR IN REVIEW 2009 SUPPLEMENTAL CHARTS (May 12, 2010) **(Exhibit VI-68)**.

[510] U.S. Import Statistics for HS 8541406020 **(Exhibit VI-78)**.

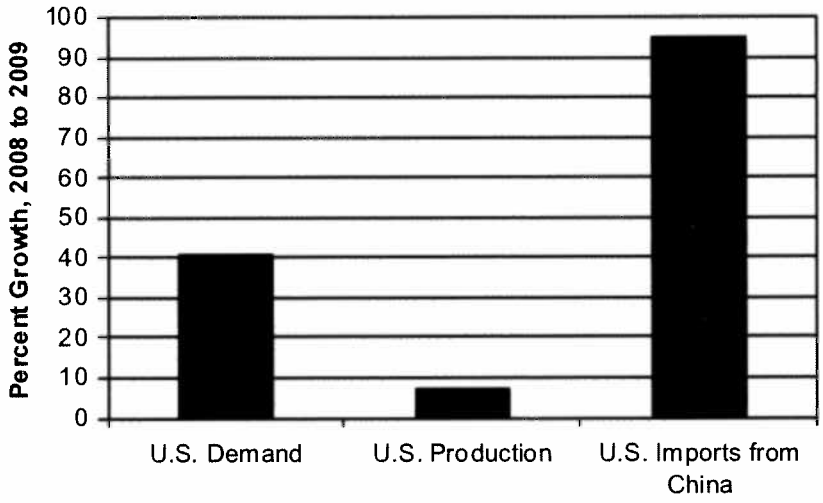
U.S. Imports of Solar Panels



Because China's exports grew more rapidly than U.S. demand, China was able to capture a larger share of the U.S. market. In 2008, the U.S. imported 7,687 panels from China for each new MW of PV capacity installed. In 2009, the figure had risen to 10,735 panels imported from China for each new MW of capacity installed, a jump of nearly 40 percent.

A comparison of the growth rates in U.S. demand, U.S. production, and imports from China, clearly demonstrates China's surging share of the U.S. market as prices collapsed in 2009.

U.S. Solar Demand, Production, and Imports from China



The sales U.S. producers lost in the period cannot be attributed to imports from other countries, which were falling. Instead, the loss in market share is directly attributable to China's rapid influx into the U.S. market. The data show that the effect of China's solar subsidies has been to cause significant lost sales to U.S. producers of solar panels in their own home market.

The causal link is only further supported by price data for the period. In 2009, the year of the price collapse due to subsidized oversupply from China, average import unit values for panels from China undersold average unit values for imports from the rest of the world by 40 percent. As reviewed above, the deep price undercutting by subsidized Chinese producers in 2009 was cited by U.S. manufacturers as the reason for their decision to cease production of solar panels in the U.S. and shift production or sourcing to China.

The panel in *EC – Large Civil Aircraft* found lost sales to be significant on the basis of the number of sales and dollar amounts involved.[511] Here, the volume of sales – more than a 40 percent of all U.S. imports – and the rapid rate of increase by China support a finding of significant lost sales over the 2006 to 2009 period. There is a clear temporal coincidence between China's subsidies to its solar manufacturers and the sharp rise in China's exports to the U.S.[512] This causal link is made all the more clear by the fact that China's trend in export growth diverged so starkly from overall U.S. trends in terms of demand, domestic production, and imports from the rest of the world. But for the massive subsidies to China's solar equipment manufacturers, China could not have achieved its growing presence in the U.S. market.

In sum, China's subsidies to its solar equipment manufacturers have caused U.S. producers to experience significant price undercutting and significant lost sales in the U.S. market within the meaning of Article 6.3(c) of the SCM Agreement, and caused serious

[511] Panel Report, *EC – Large Civil Aircraft*, para. 7.1842.

[512] *See, e.g.*, Panel Report, *Indonesia – Autos*, para. 14.214.

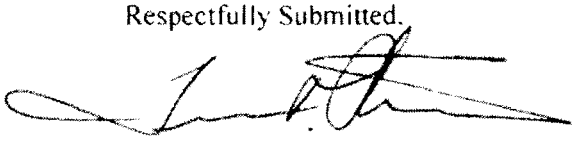
prejudice to the interests of the United States under Article 5(c) of the SCM Agreement. China should therefore eliminate the subsidies or take the appropriate steps to eliminate their adverse effects, consistent with Article 7.8 of the SCM Agreement.

VII. CONCLUSION

This petition details the broad range of WTO-inconsistent policies that China has employed to vault ahead of the United States as a leading producer and exporter of green technologies. These policies include prohibited subsidies, discriminatory laws and regulations, technology transfer requirements, restrictions on access to critical materials, and massive domestic subsidies that have caused serious prejudice to U.S. interests. Together, these policies have given Chinese producers an upper hand in accessing investment, technology, raw materials, and markets, while denying these same opportunities to U.S. producers. The Chinese government has invested hundreds of billions of dollars in these policies to unfairly advantage its producers and exporters, undercutting U.S. producers and workers and distorting world trade.

America's workers have already suffered too many lost jobs, closed factories, and abandoned communities to sit idly by while other countries flout the rules and manipulate the system to gain a lead in the most important manufacturing sector of the future. As the President has explained, the nation that leads the clean energy economy will lead the global economy. If America is to be that nation, it must ensure it can compete in an environment where all nations play by the rules they have agreed to. Investigation of the practices detailed in this petition will be an important step towards that goal.

Respectfully Submitted,



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