Climate Protection Requires a Prosperous Global Solar Photovoltaic Market
— On the China EU Solar Trade Dispute
In order to avoid catastrophic climate change, clean tech and green energy deployment needs to be massively scaled up across the world. The developed world has the same fundamental interests as the developing world on this front.

The EU China solar trade dispute could seriously damage the solar industry chain both in China and the EU. Narrow national interests (in the form of protectionism) are missing the point. Clean tech development and improved production capacity in developing countries should be encouraged and not repressed.

WTO rules and the climate change control mechanisms have multiple connections and implications, and at present the conflicts between the two are widely existent. The anti-dumping rules of the WTO have in practice started to restrict rather than promote market competition. The EU-China solar photovoltaic (PV) trade dispute is another embodiment of the deepening and extensive association of trade and climate management. Linkages between climate change and trade give rise to a range of issues that must be addressed in a holistic and integrated manner in order to achieve the goals of the climate and trade regimes and to promote sustainable development.

The international climate change negotiation has entered a new low-tide phase. The EU and China will play an important role in the negotiation and formulation process of the post-2020 international climate regime. The benevolent interaction between EU and China is the key to the negotiation procession. The solar trade dispute will give rise to a decrease of mutual trust and goodwill, thus directly or indirectly influencing the communication process of the negotiation and potential positions and attitudes of both parties.

The common and biggest interest lies between China and the EU is to support and promote renewable energy together in order to realize global climate protection goals, in particular the common promotion of rapid and orderly development of the solar industry across the world. We call for the promotion of effective global climate and trade governance models, the active dialogue between the EU and China, and the enhancement of communication and cooperation at all levels involving the government, corporations and civil society groups. Resolving disagreements appropriately through negotiation and
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- safeguarding the urgent and long-term common interests of global climate change is the wise thing to do.
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1 Fact

Since the US filed the “anti-dumping” and “anti-subsidy” investigation into China’s PV cell products last year, solar PV companies represented by SolarWorld in Germany and ProSun in Italy filed applications to the European Commission this July calling for “anti-dumping” investigations into PV products manufactured in China. On September 6th, 2012, the European Commission has officially launched the “anti-dumping” investigation for solar products (including silicon modules, batteries and silicon chips) manufactured in China with the total sum exceeding 21 billion US dollars (about the sales volume of China’s solar products to the EU in 2011), accounting for 80% of China’s export volume during 2011.¹ The preliminary ruling will be released in 9 months and the final ruling in 15 months. The EU has also launched an “anti-subsidy” investigation into solar cell panels and main components imported from China. In terms of the import volume of the products concerned, this “anti-dumping” and “anti-subsidy” investigation is by far the biggest trade litigation ever conducted by the EU related to China’s trade.

The Chinese Ministry of Commerce (MOFCOM) made a statement: “China calls for the EU to take the interests of the whole economic and trade cooperation between China and the EU into account, and take serious consideration of the position and suggestions of China and resolve the trade friction related to solar products through negotiation and cooperation.” The European Commission did not make any direct comment. In response to this investigation, China has also launched a trade investigation into polysilicon products produced by the US and South Korea this July. At the beginning of November, MOFCOM declared the launch of the trade investigation into solar grade polysilicon products produced by the EU.

The continuous investigations in the past six months have intensified the trade disputes regarding renewable energy for China and the other countries involved. Given the timeliness and the scale of influence on the industry, this article focuses on the analysis of the “anti-dumping” investigations of the EU, and what impact these investigations may have. However, our positions and opinions are also applicable to

¹ The EU solar PV Industry Association issued a notice on September 25th, declaring that it had filed litigation against China’s solar PV companies. According to European law procedures, a decisions will be made whether or not to launch within 45 days. The discussion in this article focuses mainly on the case of the EU “anti-dumping” complaint.
the “anti-subsidy” investigations of the US and EU, as well as the response of China’s dumping and subsidy charges.

2 Implications of the China-EU PV trade dispute for the global solar industry

2.1 Challenges facing the development of China’s solar industry

As one of the low-carbon and strategic new industries China strives to build, the solar PV industry has realized remarkable achievements through decades of development backed by the support of relevant national policies. For the last four consecutive years China has been the top producer of solar power, and in 2010 the output of China’s solar cell modules increased to 10GW, accounting for 45% of the world’s total output. The yearly output of China’s solar PV industry chain exceeds 300 billion RMB, and the industry employs 300-500 thousand people. From 2009 to 2011, the ratio of China’s solar cells to European total output was about 70-80%. However, China’s solar PV industry still faces many challenges. The major problem lies in China’s excessive emphasis on external demand. Some developed countries are one step ahead with their domestic policy support to the whole industrial chain while China’s domestic supporting policies emphasize production over application, resulting in weak domestic demand. When foreign markets are influenced by periodic imbalances of supply and demand, the result is excess production capacity within the industry. Secondly, across the whole solar PV industry chain, stages with higher profit margins, such as the supply of raw material production devices and downstream installation services, are in the hands of European corporations. Meanwhile China remains at the bottom of the value chain, making it responsible for a large percentage of the pollution and transfer emissions of the global solar PV industry.

Europe, as the biggest export market for China’s solar industry, could place high tariffs on solar products from China once the EU anti-dumping investigation is established, which will make it difficult or impossible for China solar products to enter the market. This will have significant impacts on solar companies and local governments, leading to revenue loss of 300 billion RMB and mass unemployment in China. It may even cause other countries to take protectionist measures against other China export-oriented industries, resulting in more frequent trade disputes.

2 21st Century Economic Report “the 12th five-year-plan “grandly” sets the tone by raising hard index of grid-connectedness for the first time”
2.2 The European solar PV industry is also implicated

The global solar industry has been growing rapidly for the past decade. From 2001 to 2011, the average annual growth rate of global solar PV installation was 58.6%. In 2011, the total global solar PV installed capacity was 70 million KW. The development is particularly strong in Europe. New solar PV installed capacity in Germany was 7.4 million KW in 2010, which made it the largest newly installed power source of the country. In 2011, the EU even achieved a historical breakthrough of newly installed solar PV capacity overtaking wind power. From 2009 to 2011, the solar PV industry experienced a rapid development period, and the proportion of China’s solar products in the EU countries increased on a yearly basis, especially solar cells. In 2011, solar PV cells exported to the EU totaled 20.4 billion US dollars, accounting for 65% of the European market.

The anti-dumping investigation application that the EU has filed against China is fundamentally contrary to the integrated interests of the EU. For Germany, the country with one of the most developed solar industries in Europe, the solar power price has entered into the low price consumption era. Devoid of low-price solar PV products from China in the future, the installation price of their solar power system in the end market is certain to increase greatly, influencing consumers who buy solar power, and delaying the realization of renewable energy consumption targets of all nations in Europe. Although this will create about 10,000 job opportunities in solar mid-stream industry companies within the EU, it can have knock-on effects on upper- and down-stream industry chains including silicon material, supplemental material, equipment and system imported from China, and may also increase costs at endpoint power station generation, which may give rise to about 300,000 job losses.

3 WTO anti-dumping rules restrict rather than promote market competition

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3 National Development and Reform Committee Energy Research Institute Researcher Wang Sicheng China’s solar PV Where is the Dawn Forum 2012-11
4 National Energy Administration: renewable energy development in the 12th five-year-plan 2012-8
The anti-dumping war in international trade has a long history, with the main opposition being against foreign dumpers crowding domestic producers out of markets through low prices, and then setting price monopolies that are harmful to consumers. This process is called predatory price discrimination. The purpose of anti-dumping measures is to safeguard fair competition and protect consumers’ interests. However, in actual operation, it has not been widely agreed if anti-dumping measure accurately target predatory price discrimination. In particular, in the process of the globalization representative of trade liberalization, anti-dumping is a commonly seen trade barrier, which is often regarded as a representation of trade protectionism.

Under The General Agreement on Tariffs and Trade (GATT), the certified criterion of dumping is an exporting price that is higher than normal value. If the domestic markets of exporting countries do not possess the same or similar products, the third-country price or constructed value can be adopted when proper comparison cannot be made. GATT specifies the methods to determine "normal value" and "material injury/retardation", which are directive principles. In the process of practical operation, organizations conducting investigations (the filing party) has much flexibility in evidence obtaining and references selection.

In the anti-dumping litigation against China, China is in an unfavorable position in the investigation process as it is not yet recognized as a marketized economic entity in WTO. The investigators will use this as a reason to choose reference data favorable to its own companies when calculating the extent of the dumping. These factors will have a large impact on the fairness of the tariff rate in the final ruling of the investigation. In this case, owing to the fact that EU has not yet recognized China’s market economic status, the European Commission will choose a market economy country as surrogate country to judge the normal market price of China’s solar products. In this case, the surrogate country is the US. However, there exist obvious comparative disadvantages in this industry (which is the reason why the US launched anti-dumping measures against China). This puts China at a disadvantage in the anti-dumping litigation.

6 Aggrawal,A. (May 2003) The WTO Anti-dumping Code: Issues for Review in Post-Doha Negotiations. Indian Council for Research on International Economic Relations. Working Paper NO. 99: Several ambiguities in the legal provisions such as a number of allowable adjustment with limited interpretation; the use of constructed normal and export values and unrealistic adjustments use of surrogate country methodology for nonmarket economies, asymmetrical comparisons between the export and normal values introduce bias in favor of finding positive dumping margins. Determination of injury margin is subject to even more severe ambiguities and is highly discretionary.
its own anti-dumping investigation), thus the two country’s PV industries are very difficult to compare.

The launch of the anti-dumping investigation does not aim to oppose unfair trade, but to prevent competition. In the anti-dumping investigation launched by EU between 1998 to 2001, the economic basis of 68.2% of the decisions (normal value and material injury/retardation) is questionable.\(^7\) Some anti-dumping cases are in fact retaliatory methods.\(^8\) In the solar industry, this is evident from the close relationship between the timing of the trade friction and the development of the EU battery industry. As shown in the figure below,\(^9\) in 2007 and 2008, Europe’s battery output was similar to that of China. In 2009, the market slowed down, and in addition to the rapid increase in China’s output, the EU’s trade protectionism started to rise, as did the intention to file investigations. In 2010, the market enjoyed favourable circumstances and companies all operated well. However, in 2011, changes started to appear in the industry and intention to file investigations into anti-dumping began to reappear in Europe.

The result of trade wars is always that the interests of some enterprises are protected while the interests of a large number of consumers are harmed. In the context of an


\(^9\) PVNews: European solar cell shipment in 2007-2011
unchanged market scale, the trade war is a zero-sum game between the exporting and importing nation, but consumers are always the victims in this game. The relationship between the timing of the solar PV trade dispute and European PV market reminds us that the best way to resolve this conflict is to expand the market scale, where enterprises from each country can have wider space to compete with each other for higher quality and lower price. In the process, industries develop and consumers benefit.

4 Association of trade and climate management

4.1 Conflicts between climate governance and trade rules

Climate change and actions to address it have a prominent effect upon the economic and international trade of all countries. To abate and adjust to climate change, efforts are required from institutions both at home and abroad, including those specialized in regulating commercial trade. In 2007, at the Indonesia Ministerial Conference, heads of Ministry of Trade from over 30 countries underlined the importance of the connections mentioned above. They recognized that “specific actions to address climate change and the associations among climate change, trade and social development are of great importance to sustainable development.”

WTO member countries have also discussed climate change under the topic of negotiation on environmental goods and services. In many ways, WTO rules have connections with and effects on the governance mechanism of climate change, including WTO laws, Doha negotiation procedures, and the mechanism for settling disputes through the WTO. However, the global community failed to launch a further and more profound discussion about such connections. Nor did they raise any systematic solutions to the existing problems. Thus conflicts continue to emerge.

Certain countries challenge renewable energy support policies by appealing to the WTO represents a conflict between climate governance and trade rules. For example, in 2010 and 2011, Japan and the EU challenged the relevant regulations of the green energy laws of Ontario, Canada. Japan complained about the renewable energy feed-in tariff policy of Ontario, Canada. The US challenged China’s wind power equipment fund. Recently, the EU-China solar PV trade dispute is another example of the deepening and wide association of trade and climate management, and in

--- Chair’s Summary, Trade Ministers Dialogue on Climate Change Issues, convened by the Government of the Republic of Indonesia in conjunction with UNFCCC COP 13, Kyoto Protocol MOP 3 in Bali, Indonesia, December 8-9, 2007, page 1.
terms of trade disputes this case is no exception. However, under the global background of climate change, trade war harms not only consumers’ interests but also the common interests of global climate protection. Although there will be some conflicts in the goals of trade liberalization and climate protection, such as the green barrier that may arise through the implementation of the border carbon tax. In terms of renewable energy, the interest of trade liberalization and the goal of climate protection are highly consistent. In order to realize the goal of global climate management and enhancement of international trade regimes, integrated methods should be adopted that can rationally respond and resolve issues resulting from sustainable development, climate change and trade.

4.2 Implication on climate change negotiations

In the area of climate negotiation, China and the EU’s attitude towards climate protection and a relationship of mutual-trust are of vital importance. With the emergence of new scientific evidence, the uncertainty of the relations between greenhouse gases owing to human activity and the increase in average global temperature is getting smaller. However, the climate negotiations could not keep up with the pace of scientific research, and have even been left behind. The international climate change negotiation has entered a new low-tide phase since the Copenhagen farce. The process has slowed down and the uncertainty continues to increase. New political and economic changes, including the leadership succession of major nations and regions, and the global economic recession, have made it more difficult for the climate negotiation to make progress. The 17th Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) held in Durban last year reached consensus on building a new post-2020 international climate regime for all parties. It provides new opportunities for all nations to make a difference in fighting climate change. Based on international influence and the size of domestic economy and emission, the triangle relationship between Europe, the US and the BASIC countries plays a key role in determining the form, range and effectiveness of the future international climate regime. As there may not be significant changes in American domestic political attitudes towards the climate change issue, leadership responsibility naturally falls on the EU and BASIC countries. With its enormous economic size and mediation role in political balancing, China plays a crucial role in BASIC, which makes the China-EU relationship in international climate change negotiations of particular significance.

China and the EU have repeatedly claimed that they would play a constructive role in the process of establishing good climate regimes, and have taken strong actions on mitigating climate change in their respective territories. A good example is the
renewable energy industry, where both parties play a leading role in the development of the global renewable energy industry. Meanwhile they have strong economic, trade and political ties, and the strategic partnership of mutual benefit and win-win outcomes is in constant development. It is necessary and possible for both parties to negotiate their disputes, however, in reality this expectation has not been met. The EU-China Solar trade dispute is a case in contrast. Trade protectionism expands disputes between the two parties, leading to a decrease in mutual trust and goodwill, in turn directly or indirectly influencing the communication process of the negotiation and potential positions and attitudes of both parties.

5 Suggestions from Civil Society organization

As a Chinese NGO committed to environmental protection and addressing climate change, we believe that in order to face the challenge of global climate change, it is in the interests of both China and the EU to support each other, promote renewable energy, and strive to achieve the goal of global climate protection. Especially, China and the EU should jointly promote the rapid and orderly development of the global solar PV industry. We oppose trade protectionism that harms consumers and corporate interests under the name of industry protection. We call for the promotion of effective global climate and trade governance. In order to achieve this, China and the EU should conduct active dialogues, fair negotiations and seek proper solutions to disagreements, and in turn identify and address the urgent and long-term common interests in dealing with global climate change.

5.1 China and the EU actively conduct political dialogue

To address global climate change and promote the development of renewable energy, the Chinese government should strongly urge the EU to cease investigations, and vice versa, in order to avoid a trade war and reduce the negative affects on the process of international climate negotiations and global emission reduction targets. China and the EU should begin consultations and negotiations as soon as possible, and listen carefully to the legitimate concerns of both industries and seek a proper solution.

The Joint Press Communiqué of the 15th EU-China Summit has given clear directions as to the further strengthening of the EU-China comprehensive strategic partnership and cooperation in multiple areas such as trade, climate change, energy and innovation. Both parties agreed that an open trade and investment environment,
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and resistance to all forms of protectionism were necessary to enable a sustainable economic recovery. They also underlined the need for international cooperation in tackling climate change, agreed to further deepen policy dialogue and pragmatic cooperation on tackling climate change, and to promote low-carbon development under the EU-China Climate Change Partnership. However, the Summit has not given due attention to the overlapping issues of trade, climate change and energy. We suggest that under the framework of EU-China energy high-level dialogue or high-level economic and trade dialogue, as a matter of urgency, a joint working group is established on renewable energy and trade. Through this dialogue there will be space to discuss and establish a negotiation resolution regime related to WTO disputes and reach agreements about relevant issues. During the process, the stakeholders from both sides should fully participate in the discussion and explore the “win-win” method.

5.2 Strong support from sustainable domestic policies
At the current stage, the development of China’s solar industry remains external-oriented while the EU is one step ahead in solar power utilization. When the European debt crisis led to a slow-down in overseas markets, China’s domestic PV market has been overcapacity due to limited connection and demand from the state grid. However, this kind of development model that relies on external demand bears relatively large international emission transfer pressure and is difficult to sustain. It is worth praising the Chinese National Energy Administration who in September launched Policy\textsuperscript{11}, which promotes distributed solar PV development. Later, the relevant ministries and administrative departments decided in November to re-launch a series of demonstration projects of Golden Sun and Solar Photovoltaic Use in Buildings. To deal with the current difficult situation, the government has taken strong measures. We expect that the Chinese government can continuously create a positive macroeconomic environment and send clear messages to the market to support and promote the overall development of the solar industry and promote sustainable internal demand.

This requires the government to overcome the current fragmented support to manufacturing companies, in order to avoid over-production resulting from the distortion of industry competition. It also needs to develop the domestic market for

\textsuperscript{11} National Energy Administration: Notice of Application of Distributed Photovoltaic Power Large Scale Application Experimental Area National Energy Administration Renewable Energy No.(2012) 298.
diverse utilization of PV products and provide enterprises the platform for fair competition. From the global experience, the cost of PV is rapidly decreasing due to the economy of scale and industry learning curve, and due to the increase of fossil fuel prices, government fiscal support for solar may no longer be required to achieve affordable access in no time. But, at this development stage of Chinese market, government subsidies and open market competition can speed up the process of cost reduction. Therefore, the central government should formulate stable public and financial support policies and unveil comprehensive management methods to break the barrier of solar PV generation grid-connectedness. Through a transparent pricing regime, the government should promote long-term feed-in tariffs, provide support through stable credit and diverse financing channels for all kinds of solar generation projects, regulate clean production of the solar industry and promote industry upgrading.

5.3 Communication between Chinese and European companies

China is the largest potential market for solar energy, and a series of incentive policies including the "Golden Sun Demonstration Project" and the "Renewable Energy Development 12th Five-Year Plan" shows that the government supports the development of the domestic solar PV industry. Therefore, from the point of view of resource conditions, policy environment, and the actual demands, Chinese enterprises should have confidence in the solar PV industry. China’s solar PV industry market will get back on the right track gradually as long as the domestic demand increases and enterprises eliminate backward production methods. Meanwhile, superior PV enterprises that represent advanced productivity and management from China and the EU should conduct active communication and negotiation to promote dialogue between industries. In the process, they should establish a standardized and orderly market environment and form a mutually beneficial system of global division and model for industry collaboration. In the meanwhile, enterprises from both sides should work in close cooperation in the field of product development, production and sales, and play their respective comparative advantages to achieve mutual benefit and win-win outcomes.

5.4 Civil society groups promote dialogue

Civil society groups in China and the EU should actively conduct dialogue and coordinate with and support the government and industry in jointly seeking timely and effective resolution of problems such as those discussed here. In order to facilitate the process of negotiating the solar PV anti-dumping cases, long-term
mechanisms for multi-party cooperation are required for the establishment of renewable energy and trade joint working group between high-level representatives from China and the EU. This should be accompanied by the formulation of domestic industry development policies, and should ensure participation and engagement of concerned governments, companies and civil society groups. When progress towards realization of climate change goals came to a halt due to international trade friction and conflict of political interests, civil society groups can play an objective role and offer varying perspectives, whilst going beyond national economic goals and climate politics. This action on climate protection can help the government achieve or even exceed its emission reduction commitments and ensure that relevant economic policies making supplement climate protection. In this process, all parties can work to increase public participation and create dialogue from the angles of global environmental governance, public policy making and public engagement and supervision.

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G:HUB Climate and Finance Policy Center

G:HUB promotes the development and implementation of sound climate and financial policies, and encourages critical dialogue among stakeholders; the Center seeks positive changes in climate and sustainable finance via high-quality research and analysis.

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