Objective: provide the best intelligence on finance, technology and policy trends in new energy technologies, the carbon markets, and water.
TRADE DISPUTES

Source: Bloomberg New Energy Finance
## FOUR PRINCIPAL CHINA-US TRADE CASES

<table>
<thead>
<tr>
<th>Case</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar Cells</td>
<td>US sets final countervailing and antidumping duties on silicon photovoltaic cells from China</td>
</tr>
<tr>
<td>Wind Towers</td>
<td>US imposes preliminary countervailing and antidumping duties on wind towers from China and Vietnam</td>
</tr>
<tr>
<td>Solar Polysilicon</td>
<td>China opens investigation into dumping of solar-grade polysilicon from the US</td>
</tr>
<tr>
<td>Rare Earth Minerals</td>
<td>US, EU and Japan ask the World Trade Organization to rule on China restrictions of export of rare earth minerals, which are used in some clean energy technologies</td>
</tr>
</tbody>
</table>
SITUATION: SOLAR CELLS

• In 2011, US solar cell manufacturers, led by Solarworld, opened the conflict by claiming dumping and unfair subsidies by China
• Two days ago, the US finalised significant duties on imported Chinese cells
• China denies that its support programmes are illegal; says US subsidies are to blame, plus competition from low-cost natural gas
• China has asked the WTO to investigate whether certain US solar subsidies are consistent with trade law
• US installers and project developers, led by SunEdison, say the cell-makers’ claim limits access to the lowest-cost technology
AVERAGE SYSTEM AND MODULE PRICES BY REGION, SYSTEM SIZE, Q1 2008 – Q1 2012 ($/W)

Note: California prices are dated by application date, while Germany and Massachusetts is by installation date. German prices exclude 17% VAT. The inclusion of US sales taxes is not consistently reported by states.

Source: Bloomberg New Energy Finance, BSW Solar, CSI, MA DOER
US IMPORTS OF PHOTOCAPTIVE SEMICONDUCTORS, INCLUDING PHOTOVOLTAIC CELLS, 2007-2011 ($M)

UPCOMING SOLAR DECISIONS

The newly increased import duties will take effect if the US International Trade Commission reaffirms a finding of harm to American manufacturers, which is expected in November.

Solarworld has asked Commerce to expand import duties to also cover panels made in China from cells obtained outside China.

A WTO Dispute Settlement Body will study and report on China’s complaint against solar subsidies by the US.
SITUATION: WIND TOWERS

• Last December, US wind tower manufacturers (DMI Industries, Katana Summit and Trinity Structural Towers) claimed China and Vietnam unfairly subsidise their tower industries and that China also dumps towers in the US.

• The US west coast historically has been a market for Asian towers due to proximity to Pacific production facilities.

• In 2011, falling tower prices and transport costs opened the interior of the US to Asian competition.

• China denies that it illegally subsidises its wind tower industry or dumps product in US.

• Another factor: US wind industry faces a sizable reduction in installations after 2012 due to expiration of a generous production tax credit on 31 December.
US WEST COAST WIND TOWER DEMAND AND IMPORTS FROM CHINA AND VIETNAM, 2007- MAY 2012 (GW)

Note: YTD market for 2012 estimated by number of towers needed to be delivered by end of May 2012 to meet commissioning deadlines. West coast defined as California, Oregon, Washington, Hawaii, Alaska.

CHINA AND VIETNAM TOWERS AS A % OF THE APPLICABLE US MARKET, 2007- MAY 2012 (GW)

YTD market for 2012 estimated by number of towers needed to be delivered by end of May 2012 to meet commissioning deadlines. Applicable market excludes known US domestic supply contracts.

UPCOMING WIND DECISIONS

- Commerce’s International Trade Administration will make a final determination of antidumping and countervailing duties on or about 16 December.

- The International Trade Commission will make a final determination of injury to US tower manufacturers on or about 31 January 2013.

- Next month’s Congressional session is the last opportunity for extension of the production tax credit past 31 December 2012.
China’s Ministry of Trade in July began an investigation of US dumping of polysilicon, the primary component of solar cells. The ministry identified 16 US state-level subsidies as the subjects of investigation. The timeframe of this investigation is one year, with a potential half-year extension. We believe the severity of penalties in this case will be tied to the ultimate severity of US duties on China’s products.
SITUATION: RARE EARTH MINERALS

- Some rare earths are important inputs of wind, energy storage (battery) and solar technologies
- China’s defence of its export restrictions is that they are for environmental protection and sustainable economic development
- Export restrictions for environmental protection are allowed by the WTO only if they are paired with restrictions on production for domestic use
- In 2011, the WTO ruled against China in a similar dispute over bauxite and manganese, finding insufficient restrictions on domestic production
- China sought to block the formation of a Dispute Settlement Body at the WTO, but a DSB was established on 23 July
### China Rare Earth Quotas & Export Utilisation, Tonnes

<table>
<thead>
<tr>
<th>Year</th>
<th>Used Quota</th>
<th>Actual Exports</th>
<th>% Utilisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>19,360</td>
<td>37,580</td>
<td>66%</td>
</tr>
<tr>
<td>2009</td>
<td>21,562</td>
<td>28,583</td>
<td>57%</td>
</tr>
<tr>
<td>2010</td>
<td>30,299</td>
<td>6,959</td>
<td>23%</td>
</tr>
<tr>
<td>2011</td>
<td>30,246</td>
<td>11,646</td>
<td>38%</td>
</tr>
</tbody>
</table>

The export quotas have never been hit but make ‘outside China’ prices higher than ‘China’ prices.

Note: Although the 2010 and 2011 quotas are similar, the 2011 quota covers a larger group of minerals.

Source: China Ministry of Industry and Information, Bloomberg New Energy Finance.
UPCOMING RARE EARTH DECISIONS

The WTO is to determine whether China’s restrictions on exports constitute a violation of rules.

China has stated it will continue to supply the international market but has not indicated whether it will lift/withdraw quotas in the absence of a WTO determination.

Should China take no action, expect trading partners to expand their own rare earth production efforts.
WHAT TO EXPECT IN GENERAL

- Possible new Chinese duties on imports from the US and/or more rigorous enforcement of existing import regulations (licensing, documentation, registration of ships and containers, etc.).

- A slowdown in the rate (29% over the past 12 months) of falling solar module prices in the US market.

- Should current tensions be unresolved, both sides may expand barriers, possibly including unrelated goods and services.

- An interim fix: China and the US make a bilateral deal to cap all duties while the proceedings run their course. Model: APEC last month capped at 5% duties on clean-energy equipment.
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US-CHINA TRADE FRICTION: POLICY IMPLICATIONS

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