



**Asia-Pacific
Economic Cooperation**

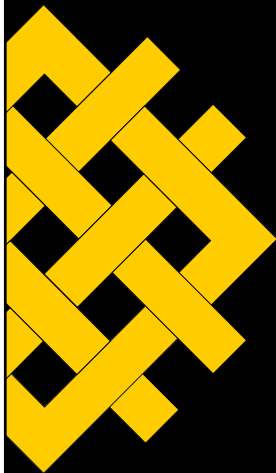
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Non-Tariff Measures in Clean Energy: Next Steps for APEC

Submitted by: World Resources Institute



**Trade Policy Dialogue on Environmental
Goods Non-Tariff Measures
Big Sky, United States
12 May 2011**



Non-Tariff Measures in Clean Energy: Next Steps for APEC

APEC Trade Policy Dialogue on
Environmental Goods Non-tariff
Measures

May 12th, 2010, Big Sky, Montana

Lutz Weischer
World Resources Institute

Agenda

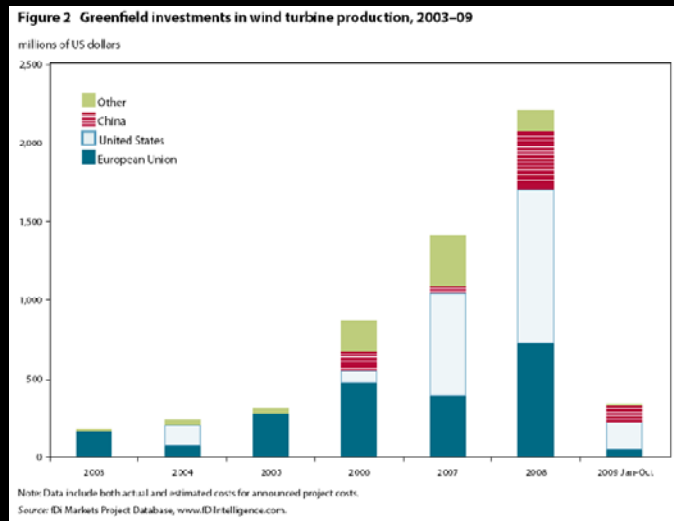
- Trade, investment and NTMs in wind power
- Trade, investment and NTMs in solar PV
- Next Steps for APEC

The global wind power market

- 4 main wind power markets and equipment producers:
 - China
 - United States
 - European Union
 - India
- Investment-driven global integration
- Policy-driven market

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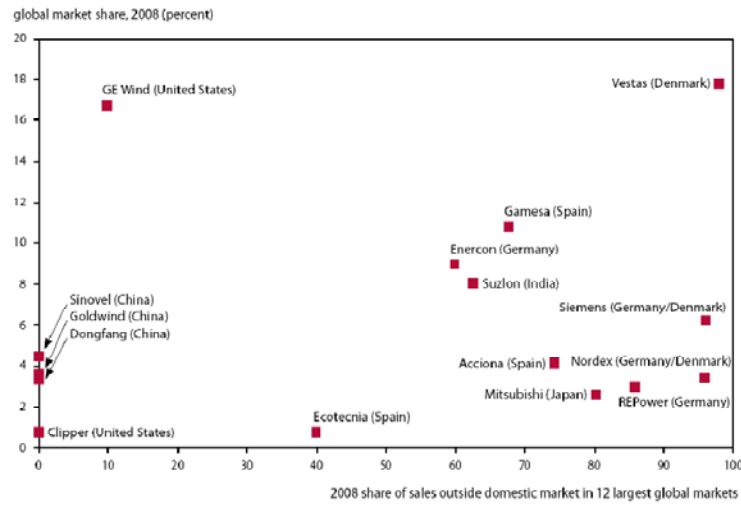
Wind manufacturing follows wind power demand



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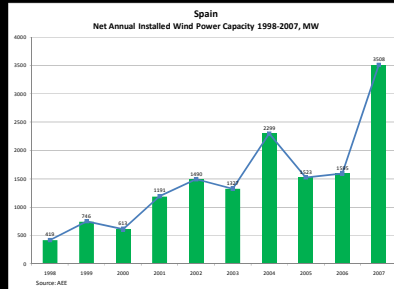
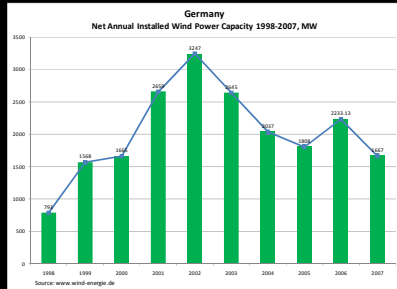
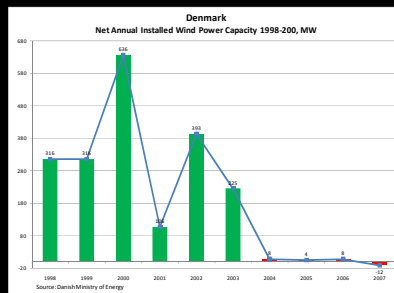
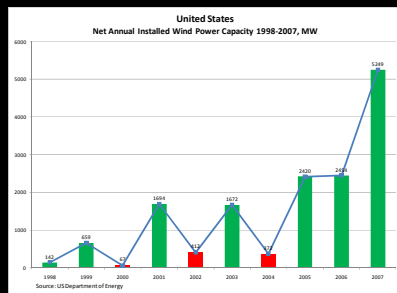
Leading wind turbine manufacturers are all from the large markets

Figure 1 Top 15 wind turbine original equipment manufacturers' major market presence, 2008



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Government support drives the wind market



■ = Years with production tax credit (US) or feed-in tariff (DK, DE, ES) for new wind turbines

■ = Years with no production tax credit (US) or feed-in tariff (DK, DE, ES) for new wind turbines

Relative importance of trade

- Global investment 2008: \$ 51.8 billion
- Global sales 2008: \$ 45 to 50 billion
- Global wind turbine exports (HS 850231) 2008: \$ 4.85 billion
- Trade volume (2006-2008): + >50%
- Project costs (2006-2008): + 20%
- Installed capacity (2006-2008): + 75%

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Relatively low tariffs on wind turbines

Table 8 Average MFN applied and bound duties for wind turbines (HS 8502.31), selected countries

Country	Average MFN applied duty	Average bound duty	Latest year of reporting
Argentina	0.0	35.0	2004
Australia	2.5	5.0	2009
Bangladesh	0.0	n.a.	2005
Brazil	0/1141	35.0	2009
Canada	0.0	6.2	2009
Chile	6.0	25.0	2009
China	8.0	8.0	2008
Colombia	10.0	35.0	2009
Costa Rica	0.0	45.0	2009
Egypt	5.0	10.0	2007
EU 27	2.7	2.7	2008
India	7.5		2008
India	12.5	25.0	2006
India	25.0		2002
Indonesia	10.0	40.0	2007
Israel	0.0	9.2	2000
Japan	0.0	0.0	2006
South Korea	8.0	n.a.	2008
Malaysia	0.0	30.0	2001
Mexico	10.0	37.5	2009
Morocco	2.5	30.0	2002
New Zealand	2.5	16.5	2008
Philippines	1.0	20.0	2008
Taiwan	10.0	10.0	2008
Thailand	10.0	n.a.	2007
United States	1.3	1.3	2008

n.a. = not available

MFN = most favored nation

Note: There is no change in the bound tariff levels for India from 2002 to 2008.

Source: World Trade Organization Integrated Data Base notifications, www.wto.org.

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Non-tariff barriers in the wind sector

- Local-content requirements
 - Have been used by Spain, Brazil, China, Canada
- Political quid-pro-quo expectations
 - Reflected in government procurement and approval processes
- Divergent Standards and Certification
 - Standards are crucial for trade and “bankability”
 - Many countries apply their own standards that are different from each other and from international standards

Agenda

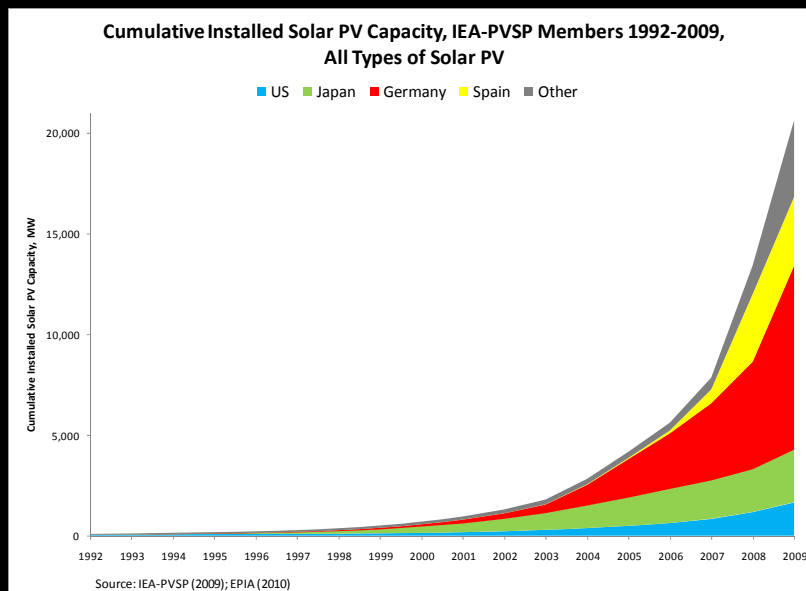
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The global solar PV market

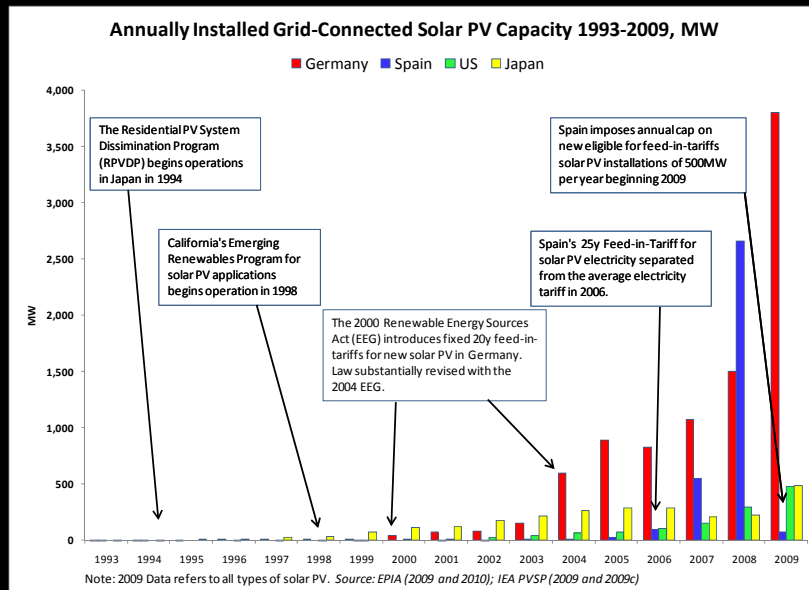
- 4 main markets:
 - Germany
 - Spain
 - United States
 - Japan
- Manufacturing in Asia
- Trade-driven global integration
- Policy-driven market

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Solar PV Growth and Country Distribution



Government Support Drives PV Demand



Solar PV tariffs are relatively low: Silicon

Table 10 Silicon tariffs in major cell/module producing countries

Country	Applied tariff (percent)	Bound tariff (percent)
European Union	0	0
China	4	4
Japan	0	0
Taiwan	0	0
United States	0	0
Malaysia	0	5
Phillipines	3	20
Korea	3	5.5
Australia	0	10
Canada	0	5.5

Note: Table represents last reported MFN applied and bound tariff levels for HS 280461 "Silicon, >99.99% pure." Bound tariffs refer to the level beyond which tariffs cannot be raised without compensating the affected parties, according to WTO law.
Source: WTO tariff download facility; HS code short title according to UN COMTRADE.

Solar PV tariffs are relatively low: equipment

Table 11 Tariffs for select PV components in major markets

Countries (by installed capacity)	Cells and modules		Mounting structures (iron/steel)		Mounting structures (aluminum)		Static converters	
	applied	bound	applied	bound	applied	bound	applied	bound
European Union	0	0	0	0	6-7	6-7	0-3.3	0-3.3
Japan	0	0	0	0	3	3	0	0
United States	0	0	0	0	5.7	5.7	0-1.5	0-1.5
Korea	0	0	0	0	8	13	0-8	0-13
India	0	0	10	40	10	unbound	0-10	0-40
China	0	0	4	4	6	6	0-10	0-10
Australia	0	0	5	7.7	5	5	0-5	0-16

Note: The table gives applied MFN and bound tariff rates for the last year reported. All HS codes mentioned include more than solar PV components, i.e., only a small fraction of trade under each HS code is related to solar PV projects. HS codes included are HS 854140 ("Photosensitive/photovoltaic/LED semiconductor devices"), 730890 ("Structures and parts of structures, iron or steel, not elsewhere specified"), 761090 ("Aluminium structures and parts not elsewhere specified, for construction"), and 850440 ("Static converters, not elsewhere specified"). Short HS code titles according to UN COMTRADE. Source: for tariff information: WTO Tariff Download Facility.

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Non-Tariff Barriers in the solar PV sector

- Nontariff Surcharges and Taxes
 - Sometimes up to 15 percent, often temporary
- Customs Procedures and Inspection
 - Burdensome inspection or licensing requirements
 - Misclassification and Reclassification
- Explicit Local Content Requirements
- Implicit Political Quid-Pro-Quo Expectations
- Divergent Standards and Costly Certification Requirements

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Agenda

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Build a better understanding of technologies and barriers

- Additional studies and surveys for a broader set of technologies and with a regional APEC focus

Addressing non-tariff barriers I

- Border surcharges and taxes
 - Commit to a phase out
- Customs procedures and classification issues
 - Provide technical assistance and training
- Standards
 - Continue SCSC work on solar standards
 - Address wind standards as a next step



Addressing non-tariff barriers II

- Policy dialogue on good practices in renewable energy support
- Help identify acceptable ways to support clean energy in a way that provides domestic economic benefits
- Involve:
 - government (different ministries),
 - private sector/industry associations,
 - independent experts/academia,
 - civil society experts/NGOs/consumer groups
- Build an evidence base on costs and benefits of existing policies



Questions?

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