SolarPower Europe & AIE: The European Association of Electrical Contractors

EU – China: Solar Cells and Modules Trade Case

James Watson, CEO, SolarPower Europe

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With you here today

- **Dr Christian Westermeier**, Board Director SolarPower Europe, Wacker Chemie
- **Sebastian Berry**, Board Director SolarPower Europe, Vice-President UK Solar Trade Association, SolarCentury
- **Evelyne Schellekens**, Secretary General, AIE
- **James Watson**, CEO, SolarPower Europe
- **Kristina Thoring**, Political Communications Advisor, SolarPower Europe

Combined, we represent over 1,3 million European jobs and over 120,000 companies in Europe.

SolarPower Europe's 160 Members Include:

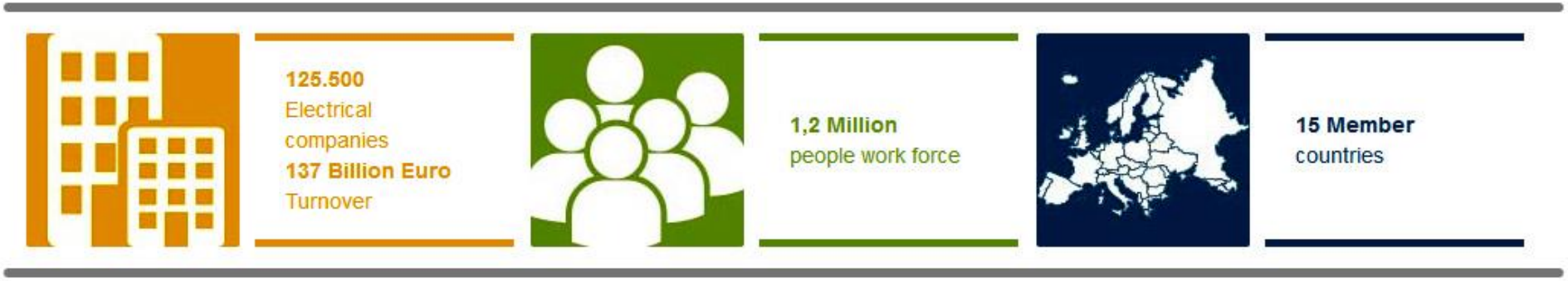
Upstream Members include:

Downstream Members include:

National Associations include:

1954-2016

AIE represents 35% of the total 358.000 Electrical Contracting Companies and **80% of the 1.5 million total workforce within the whole electrical installation sector.**



- Dynamic market with a majority of **SME's**
- Engaging member companies towards EU regulation
- Interaction with EC on EU Directives and AIE's key priorities

For the Union Interest: The duties and MIP should be removed immediately

- Unforeseen negative consequences for 98% of the jobs in the solar sector in Europe:
  - Negative impact on 80% of the European solar manufacturing sector
  - Negative impact on the entire European downstream sector representing 86% of the jobs and 83% of the value of solar in Europe today
- The trade measures on modules and cells must be removed through the Expiry Review

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Impact of the trade measures

Artificially high prices in the EU for modules and cells in an era without high subsidies slows down solar deployment:

- It is clear that the MIP is way above the market price of modules today. The EU has higher prices than the rest of the world because of the MIP and duties. **The EU is paying more for modules than it needs to.**

- Claims that the measures will lead to the re-start of FiTs are unfounded. EU Member States are not opening new support schemes while the MIP and duties are in place for fear of cost to the national purse. (Ireland have confirmed this).

- Today solar must compete for market income through participating in tenders in the EU, price is king.

- The measures make solar more costly than it really is, this makes it impossible to compete in tenders. **This means that the goal of subsidy free solar in Europe is being delayed unnecessarily.**

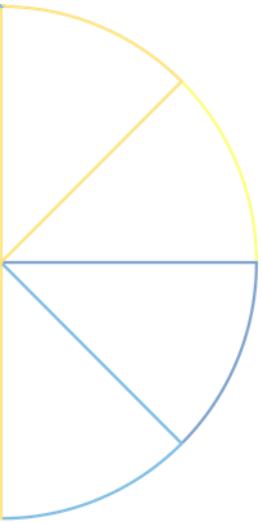
Why does the European upstream solar sector support our position?

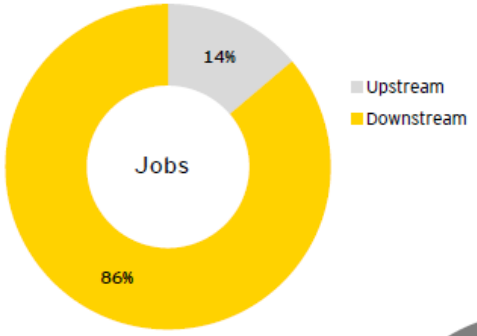
In the EU system cost reduction price pressure is currently on inverter and balance of systems (BOS) manufacturers (Voestalpine, ABB, Fronius, etc.) because of the trade measures. Europe leads in these sectors.

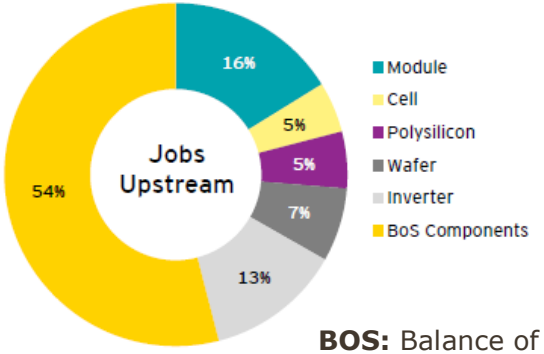
These upstream companies cannot reduce costs as fast as module manufacturers.

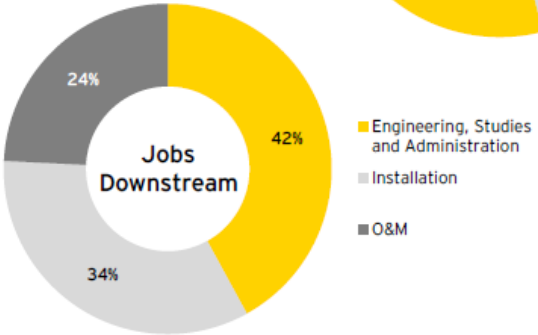
The trade measures have a negative knock-on effect on all other upstream sectors that make up 84% of the upstream jobs in solar in Europe today.

In fact 98% of the jobs in the European solar value chain are negatively impacted by the trade measures.









BOS: Balance of systems, includes:

- Steel mounting frames
- Cables
- Trackers
- Junction boxes

Jobs supported by the solar industry in EU28, by value chain activity in 2014

Figure 12: Direct and indirect jobs supported by the PV industry in EU28, by value chain activity in 2014 (incl. equipment)

Source: EY Study on Solar Jobs and GVA in Europe, December 2015

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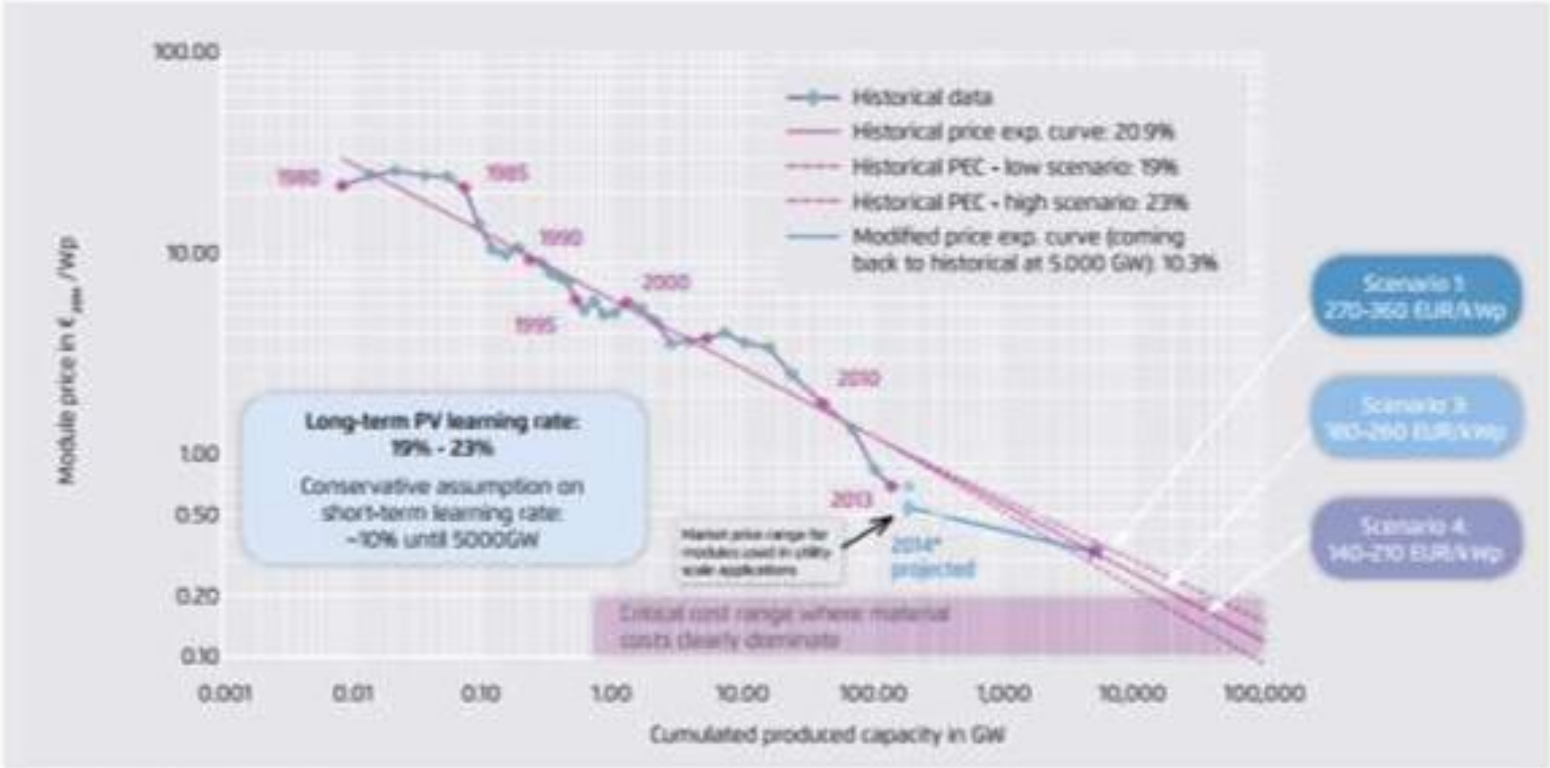
Since 2009 module prices have decreased by 75% and are expected to fall by 25-40% in the next 3 years

Bloomberg New Energy Finance assume a further cost reduction to USD 0.33/W by 2020

Future module prices in different scenarios based on the historical "learning rate" Figure E2



Fraunhofer ISE, own illustration

JRC Study on Challenges for European Module Manufacturers

A study by the European Commission's Joint Research Centre (JRC) in June 2015 found that **the major challenge for European solar module manufacturers to be competitive was achieving economies of scale.**

The report states that:

- **Multi-gigawatt factories are needed producing modules at 40 Euro c/w (the MIP today is 56 Euro c/w) – none exist in Europe**. China and other Asian countries have multi-gigawatt sites (4-5 GW production) (Executive Summary)
- **Continued cost savings in Asian production will come** from cheaper polysilicon, thinner wafers with smaller kerf losses and increased efficiency (page 20)
- **European cell and module production is at about 2GW in 2015** for both products – not enough to feed the EU market (page 9 and 11)
- **There is no mention of Chinese dumping or illegal subsidy in relation to challenges for European module manufacturers in the report**

Impact of the trade measures on the downstream

Price pressure is also passed on to project developers (BayWa r.e., SolarCentury, Enel, etc.) because of the trade measures.

- These downstream companies cannot reduce costs as fast as module manufacturers.
- AIE fully support this position – negative business impact on all electrical installers in Europe due to the increased cost of solar systems.
- **European consumers pay more as the costs of solar are artificially increased for society. This delays deployment – without the trade measures countries such as Slovakia would see grid parity for electricity generated from solar.**

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Trade measures negative impact on consumers

The Solar Trade Association (STA) estimates that **the measures add 7% extra to the cost of a typical domestic solar installation** in the UK, or in other words £397 (€522) extra to a typical domestic solar PV system of just over £6,000 (€7,899).

With regards large-scale solar installations, the STA estimates that the capex of a typical 10MW solar farm in the UK **would be 13% cheaper without the measures**:

Impact of MIP on typical domestic solar PV installation in UK (2016 costs)				
		With MIP		Without MIP (world prices)
Number of panels		14		14
Panel Size (Wp)		270		270
Capacity (kWp)		3.78		3.78
Cost per W (£)	£	0.45	£	0.35
Costs (£)				
Panels	£	1,701	£	1,323
VAT @ 5%	£	1,786	£	1,389
Other costs	£	4,084	£	4,084
VAT @ 5%	£	4,288	£	4,288
Total	**£**	**6,075**	**£**	**5,678**

Impact of MIP on typical solar farm installation in UK (2016 costs)				
		With MIP		Without MIP (world prices)
Capacity (MWp)		10		10
Cost per W (£)	£	0.43	£	0.31
Costs (£)				
Panels		£431k		£308k
Other costs		£534k		£534k
Total Capex		**£965k**		**£842k**

Views from across the EU

Almost all EU Member States support the withdrawal of the measures:

- Our National Solar Associations' letter was signed by 35 European and national associations calling for the measures to be terminated, including: Germany, Greece, Slovakia, the Czech Republic, Malta, Cyprus, Portugal, Italy, Estonia, Slovenia, Poland, Latvia, Sweden, the UK, Ireland, the Netherlands, Hungary, Bulgaria, Romania and Denmark

- An MEP letter signed by all major political groups called for the end of the measures on Chinese solar products in Autumn 2015

Interim Review on Cells

- Cells and modules should be considered together, no need to split them - this does not make sense

- The factors affecting cells also apply to modules: market consolidation, lack of EU production, no economies of scale, no production growth in Europe during the first 2 years of protectionism, negative impact on European solar sector upstream and downstream

- SolarPower Europe now working with many European module manufacturers against the duties on cells, they are disillusioned with the measures which do not reflect their position any more

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Our Conclusion: Remove the Measures Immediately

- Market prices for modules and cells imported from China should be restored to benefit the upstream and downstream EU solar companies
- European module manufacturers main problem is economies of scale, the likely reason they have not taken advantage of the huge global solar boom and continue to decline in capacity
- The Union Interest is overwhelmingly served by removing the measures – jobs and GVA will grow in the solar sector
- The expiration of the trade measures would enable cost reductions for solar power in Europe, thus benefitting end-consumers and reducing the cost of energy provision as a whole, and allowing solar to be subsidy free across the Member States in a much shorter period of time
- Market prices for solar will provide Europe with an opportunity to decarbonise its power generation in a cost efficient way, in line with the objectives the EU has signed up to in COP21

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Delivering solar power for Europe

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