

ESMC MEMBERS MEETING: POLICIES AND ACTIONS UPDATES – PROTOCOL

Tuesday, January 23rd, 2024 – 16:00 to 17:30 – Online session through Microsoft Teams

Meeting attendees: Žygimantas Vaičiūnas (Presiding, ESMC), Aishwarya Garg Gujral (Autarq), Amelia Oller Westerberg (ESMC), Ana Isabel Carmona Gutierrez (Maxeon), Bernhard Krause (Singulus), Caterin Salas Redondo (ROSI), Dennis Seibert (PVA Crystal Growing Systems), Eicke Weber (MCPV), Elise Bruhat (Holosolis), Erik Olsson (Midsummer), Francesca Fabris (Futurasun), Frank Siebke (Nexwafe), Gerard De Leede (Solarge), Grzegorz Wisniewski (GIGA PV), Javier Diaz Berrade (CENER), Jens Holm (ESMC), Johan Lindahl (ESMC), Kathrin Theelen (Evolar), Konrad Wiśniewski (GIGA PV), Laura Miranda Perez (Oxford PV), Marc Rechter (MCPV), Marcos Arteaga Zarrua (Stäubli), Niels Schreuder (AGC Glass), Peter Berghofer (Ulbrich), Stefan Rinck (Singulus), Xabier Otaño Eguidazu (Mondragon Assembly).

1. WELCOME AND ACKNOWLEDGMENT OF THE PARTICIPANTS

Žygimantas Vaičiūnas warmly welcomes all participants to the 14th ESMC members meeting on Policies and Actions Updates. He begins by informing that the minutes from the last meeting were distributed with the meeting invitation and provides an overview of the agenda. No objections or concerns regarding the agenda or the minutes from the previous meeting were raised.

2. SITUATION IN EUROPEAN PV MANUFACTURING

As we all know, due to the extensive import of unsustainably low-priced PV modules to the EU in 2022 and 2023, the EU PV module manufacturing industry is currently facing an existential threat. This is created by major stocks and depressed prices and Žygimantas Vaičiūnas explains what ESMC has done during summer and autumn 2023, including January 2024, and shares some recent analyses that have been done.

2.1 Information package (Žygimantas Vaičiūnas & Johan Lindahl)

To illustrate our members' current challenges, the ESMC secretariat has compiled a comprehensive information package, which has been shared with the European Commission in a plea for emergency measures. The analysis reveals a significant disruption in European PV manufacturing when PV module prices in Europe plummeted to around 10 US\$ cents/watt. Consequently, the European PV module manufacturing utilization rate declined from 45% in 2022 to 33% in 2023.

ESMC's recent trade analysis indicates that imports totalled 80-95 GW for both 2022 and 2023, indicating 1-1.5 years' worth of stock consisting solely of imported modules in Europe. Additionally, an extra 800 MW of European-produced modules are sitting in inventories, unable to be sold without European PV manufacturers making substantial losses.

The analysis also shows that in the absence of emergency measures or resilience bonus initiatives, nearly half of the actual operational European PV module manufacturing capacity faces potential closure within next 4-6 weeks, corresponding to 3.4 GW of module manufacturing capacity. Immediate actions is essential to address this critical situation.

2.2 European Commission correspondence (Žygimantas Vaičiūnas & Johan Lindahl)

In July, ESMC alerted the European Commission about the repercussions of the declining module prices for the European PV manufacturing industry through an information note. In the next couple of months (August, September, October, and November), ESMC (along with broader industry initiatives extending beyond our membership) had a series of follow-up meetings and sent letters. Johan Lindahl is reasonably confident that the European Commission is properly informed and understands the situation. However, the urgency for emergency measures has not been fully grasped. He extends his apologies to members and assures them that he and the rest of the secretariat are doing everything to advocate for remedial actions.

A formal and concrete warning about the potential closure of EU PV module production facilities, along with a request for emergency measures, was sent to the offices and cabinets of V. der Leyen, T. Breton, K. Simson, M. Vestager, V. Dombrovskis, M. Šefčovič, and the respective DGs on January 18th. Additionally, a more detailed

communication with an "*information package*", as earlier stated, was sent to the European Commission on January 23rd.

Currently, the Commission has not provided a conclusive response that we are satisfied with, but they have confirmed their active engagement. Vaičiūnas and Lindahl expect to receive feedback and clearer information within next two weeks.

The Commission is taking the matter seriously; however, the real challenge lies in identifying effective solutions, given the absence of a financial resources and the pressing time constraints.

2.2.1 Discussion synthesis:

The discussion touched upon the importance of explaining to the Commission how the request for subsidies and the challenges faced are interconnected with the industry's overall plan to re-shore PV manufacturing to the EU. This involves clarifying to the Commission the industry's situation, considering the existing 1–2 year deployment stock in Europe and the expected price depression in the next 12–18 months together with a clear proposal for resolving the industry's challenges. While recognizing the slow legal framework implementation as one issue, another significant concern is the sub-scale nature of the European industry. We can't only expect the EU to hand out money forever and scaling is a prerequisite for competitiveness without the financial support.

To address this, ESMC's proposal includes emergency measures to bridge legislation gaps until actual legislation to level the playing field is implemented. The goal is to convey a strict and clear message to the European Commission, demonstrating how the industry can recover. The information package outlines the impact on LCOE and highlights modules being sold below manufacturing costs. To this, the members stressed the importance of presenting a roadmap to overcome weaknesses, ensuring a "*we have a plan*" scenario for negotiations of support.

In a reminder, it's emphasized that concrete ideas from members are welcome, as ESMC serves as a link between members and legislators.

2.3 Feedback from the Commission and next steps (Žygimantas Vaičiūnas & Johan Lindahl)

The Commission has provided feedback, indicating that some of the direct support measures proposed by ESMC could potentially clash with OECD rules, once the buy-out scenario of EU PV module inventories would be activated. This information package has now been forwarded to the mid-level within the Commission. Vaičiūnas explains he is thinking of communicating this development to the highest level within the European Commission and considering generating media pressure to underscore the urgency of these necessary measures.

ESMC is also having an extraordinary board meeting this Friday (26th of January) to deliberate on potential emergency measures. If any concrete mandate emerges from this meeting, it will be communicated to the members.

3. NET-ZERO INDUSTRY ACT

3.1 Net-Zero Industry Act — voting in Committee on Industry, Research and Energy – ITRE (Žygimantas Vaičiūnas)

Regarding the negotiations/trilogue meetings, the first one was arranged in December, the second one on January 22nd and the third meeting (expected the final one) is planned for February 6th. Information from sources to Žygimantas appeared that the progress is slow, but expectation is still to finalise the negotiations on time to have possibilities for the adoption of the legal act.

See the more detailed progress report on slide 5 of the presented ppt.

3.1.1 Discussion synthesis (Žygimantas Vaičiūnas)

A question was raised concerning the expected timing for approval of the legislation and if it has been postponed, given that the process is reportedly slow.

Vaičiūnas summarises that the timing that is being pushed quite hard is that the actual voting on the final version in the Parliament should be no later than in April, since in May there will be election campaigns and in June the Parliament elections. This means that the NZIA should be adopted in April at the latest, so the trilogues will probably be finalized in February to meet this timing.

4. REGULATION AGAINST FORCED LABOUR

4.1 EU ban of forced labour (Jens Holm)

The Council, originally planning to adopt its position this Friday, has postponed the decision to the following Friday. This means that trilogue discussions for this legislation are anticipated to start in early to mid-February. Similar to the situation with the NZIA, all three institutions aspire to adopt the regulation before the election campaign starts, which means an agreement by late March.

There are some sensitive areas of discussion. One point is the burden of proof, specifically whether the importers of products or the monitoring authorities should bear the responsibility of proving compliance with the legislation. Another point is that while the remediation of victims holds particular significance for the involved NGOs, the parties in the trilogues may be more focused on reinforcing the implementation timeline, which is discussed to be as long as 3 years.

4.1.1 Discussion synthesis

Holm is asked to elaborate on what the argument is for having such long implementation times of a ban on products made with forced labour. He explains that it in this case revolves around the need for Member States to adequately set up these *competent authorities* and allocate the necessary staffing. By allowing for a longer implementation period, Member States argue that they can ensure a smoother transition and avoid rushed preparations.

Holm, however, disqualifies this argument since the case is likely not that completely new competent authorities will be formed, but rather that the scope of existing agencies in the Member States will broaden to also include forced labour issues. He emphasizes that ESMC's stance is to have the ban implemented as soon as possible to minimize the contribution to human suffering and at the same time to ensure consistency with EU social standards.

5. ECODSIGN REGULATION

5.1 Ecodesign Regulation update (Jens Holm)

The Ecodesign and Energy labelling schemes, previously in *directive forms*, are now transitioning into regulations. In this modification process, PV modules and other product categories that were initially excluded will now be included. The changes will be implemented/adopted through an Implementing Act (Ecodesign) and Delegated Act (Energy labelling), eliminating the need for a trilogue process. Instead, the Commission can independently approve the modifications with a simple yes/no from the Parliament and the Council.

The essence of these regulations lies in establishing minimum environmental criteria (carbon footprint) for the sale of modules in the EU market. Additionally, it will include information requirements on reparability and recyclability. Energy labelling, similar to household appliances, will showcase the energy performance of these products.

The current focus of collaboration with the Commission revolves around the methodology for calculating CO₂ emissions, a long-overdue process that ESMC has been involved in for years. The Commission currently favours the PEF method, which allows the use of market mechanisms in reporting energy use during the manufacturing process, potentially leading to less robust regulations and opening for cheating and greenwashing. ESMC, along with the scientific community, advocates for methodologies like EPEAT or relying solely on the carbon content from national grid mixes to enhance the regulation's accuracy.

Reports from Holm and Lindahl indicate positive meetings with Mr. Polverini. The emphasis was on ensuring that Ecodesign, if robust, could be a valuable tool in preventing greenwashing. The potential negative impact on European companies was stressed.

5.2 Feedback from the Commission on methodology choices (Johan Lindahl)

While the Commission team acknowledges the well-researched methodological arguments, they indicated that there's a need to secure support higher up in the organizational structure of the European Commission. The next step involves sending an industry letter with company signatures, currently under development and scheduled for distribution early next week.

5.3 Antimony in glass (Johan Lindahl)

Johan Lindahl has had a meeting together with glass manufacturers and the Commission's representative Mr. Polverini. In that meeting, the recyclability of PV modules was handled. A proposal to include a mandatory disclosure of antimony content in solar glass, stemming from the ESIA process, was discussed. Antimony-free glass facilitates easier recycling. Lindahl considers the outlook positive to get this added into the regulation.

6. DPP – NEW WORKING GROUP

6.1 New Working Group (Eicke Weber)

Recognizing the time and budget constraints involved in the legislative process, ESMC has introduced the concept of the Domestic Production Portfolio (DPP). This initiative aims to secure commitments from off-takers to include a share of domestic modules in their portfolios. It is essentially a label where off-takers commit to buying a certain part of their products from European sources.

Since the gap between the prices of imports and domestic modules is growing, it becomes more difficult to bridge the gap with direct financial subsidies. At the same time, a consensus is hopefully emerging among off-takers, politicians, and the general population regarding the importance of reducing dependency on imports. Two design pathways are under consideration: one involves internally balanced pricing. If approximately 5–10% of modules in the portfolio are priced three times higher, it will make them very difficult to sell. If they instead are averaged within an overall price increase to the end customer, the impact would be almost negligible. The other solution proposed is to add an upcharge on non-European modules sold in the European Union and create a fund for the collected upcharges to support European manufacturers. The methods of control and administration will be discussed and determined within the Working Group.

The Working Group has made significant progress, agreeing to include cells and modules initially and later expanding to cover the entire value chain with polysilicon, wafers, and ingots as additional requirements. A proposed portfolio/package is in development.

Despite legislative challenges due to WTO and anti-Kartell rules, efforts are underway to introduce DPP as a voluntary commitment, initially by a few percent (5–10%), and then working our way up to 40% in 2030. The goal is to create social pressure for wider adoption, similar to the success of the LEED standard for energy-efficient housing in the U.S. A draft is expected in one week, followed by discussions with off-takers.

It's crucial to note that this initiative should complement, rather than distract from, ongoing pursuits in Europe. The DPP scheme provides a realistic opportunity for swift implementation, generating public pressure if legislative timelines are unfeasible. The commitments of the DPP can extend beyond the NZIA and align with its goals, potentially even strengthening its impact.

Note: If any member is interested in joining this new Working Group, you are welcome to contact Amelia Oller Westerberg at westerberg@esmc.solar.

7. ESIA

7.1 ESIA — New proposed structure (Johan Lindahl)

Johan Lindahl introduces the redesigned structure of the ESIA, developed by the Steering Committee to enhance the efficiency of the Working Groups. Please refer to the ppt slide for an overview of the new framework.

The primary objectives are to introduce a more hands-off approach for the organizations in the Steering Committee and achieve effectiveness by having smaller groups. This shift aims to overcome previous

challenges where significant progress was often hindered, now the hope is to mitigate disruptions caused by certain actors who could intervene at the last moment and stop the progress.

Although this requires increased participation from all involved members, ESMC will maintain responsibility for the Working Group on the supply chain. The ongoing finalization of the *Working Stream/Task Force* on ingots and wafers results in the formation of four task forces, with decisions on task leaders to be made among the manufacturers. The topics are PV-IPCEI, Permitting, PV Passport, and Industry Trade Measures. A meeting in the ESIA Supply Chain working group is scheduled for Friday to delve deeper into these developments and collect interests to become Working Group Leaders.

7.1.1 Discussion synthesis

Carmona Gutierrez proposed having manufacturers as leaders within each group, aligning with the ESIA's manufacturing goal and Johan Lindahl assures that that is the intention. In the non-pricing condition Working Group, this has already been implemented and she feels that it appears to be more effective. Jens Holm has been accepted as a personal expert/resource on ESG and forced labour for the Working Group aiming to find a joint position on this topic. Carmona Gutierrez also offers to answer questions about the responsibilities of a Working Group leader for anyone interested in submitting their interest.

Regarding task forces within the Supply chain Working Group, the process for selecting leaders is yet to be clarified. All information will be presented on Friday, providing an opportunity for volunteers to step forward as leaders.

8. UPCOMING EVENTS

8.1 Events in 2024 (Amelia Oller Westerberg)

Amelia Oller Westerberg shares an update on the four events in the calendar so far that ESMC will participate in/organize in which there are or will be special opportunities for ESMC members.

Participants are encouraged to block these dates in their calendars in case they are interested in joining.

8.1.1 ESMC annual General Meeting, March 11 2024, Frankfurt

This March, it is time for our annual General Meeting (GM) at Crowne Plaza Frankfurt, Frankfurt, Germany, between 11.30 and 18.30. A *save-the-date* has been sent out to all members and physical attendance is highly recommended.

8.1.2 PV CellTech Europe, March 12-13 2024, Frankfurt

To create travel synergies, we organize our annual GM in connection to, and in collaboration with, the conference PV CellTech 2024. ESMC is teaming up as an official partner to PV CellTech, and it is our pleasure to offer a 20% discount on the conference ticket for all ESMC members if you state "ESMC20" when booking.

8.1.3 Intersolar, June 18-21 2024, Munich

Of course, Intersolar is a key event for next year and all attendees are highly recommended to book accommodations and travels well in advance, as the UEFA EURO 2024 will coincide with this event in Munich.

ESMC will offer members to join as co-hosts in our 40 sqm booth in hall A2. We will also host a networking evening at an outside terrace at Augustiner Keller on June 19th. More information will follow.

8.1.4 EU PVSEC, September 23-27 2024, Vienna

For the third time in a row, we are joining EU PVSEC as organizational partners and will participate in the Industry Forum and offer our members to join as co-hosts of our 36 sqm booth at the exhibition. More information will follow about registration, ESMC Member discounts, and offers.

9. NEXT MEETING

The next meeting will be held February 27th and will be called in advance. In case of a need, meeting could be arranged earlier as well.

Meeting ended: 17.27