



South African Photovoltaic Industry Association

SAPVIA- Environmental WG Meeting

Date: 23 September 2025

Time: 12:00-13:30

Chairperson: Patricia Schröder

Declaration of Interest and Prevention of Anti-Competitive Behaviour

Participants of all SAPVIA meetings agree not to engage in or discuss the following topics:

- **Price-Fixing** - current or future prices, pricing strategies, or price changes.
- **Market Division** - allocation of customers, suppliers, territories, or market shares, dividing markets by geographic areas or product lines.
- **Collusive Tendering** - bid-rigging, including agreements on who will submit bids or the terms of bids, information about tender processes or strategies.
- **Production and Supply Control** - agreements to limit or control production, supply, or distribution of products or services, capacity, production quotas, or inventory levels.
- **Boycotts** - agreements to boycott or refuse to deal with specific customers, suppliers, or competitors, collective actions against any market participant.
- **Information Sharing** - competitively sensitive information, including sales volumes, market shares, costs, marketing strategies, future business plans, research and development projects, or investment strategies.
- **Exclusionary Practices** - strategies to exclude competitors from the market or to create barriers to entry, exclusive dealing, tying arrangements, or predatory pricing.
- **Anti-Competitive Agreements** - discussions that could lead to anti-competitive agreements, whether formal or informal, conversations that could be interpreted as attempts to coordinate competitive behaviour.

Facilitator	Patricia Schröder (PS)	Attendees: Kakale Munamati (KM) Eloise Costandius (EC) Espee Hattingh (EH) Siphumelele Mqadi (SM) Monique Daniels (MD) Alecia Pienaar (AP) Steffen Schröder (SS) Zeenath Khan (ZK) Kim Jooste (KJ) Serina Pillay (SP) Fakazile Thusi (FT) Zwivhuya Mutele (ZM) Tarryn Frankland (TF) Janine Brasington (JB) Agreepa Neduvhuledza (AN) Zimkita Bilibana (ZB) Pamela Gama (PG)
Note taker	Thabang Molai (TM)	

Agenda

1.	Opening	Chairperson
	<p>Welcome and Introduction The chairperson welcomed everyone to the working group meeting and acknowledged attendees for making time to attend.</p> <p>Apologies Andrea Siebritz (AS)</p> <p>Minutes The minutes of the previous meeting were accepted as a true reflection of the meeting proceedings.</p> <p>Agenda The agenda was adopted with no amendments</p>	

2.	Focus Areas	
	<p>2.1 Permitting</p> <p>2.1.1 Environmental permitting and licenses</p> <p>2.1.2 South African Defence Force Permits</p> <ul style="list-style-type: none"> • ZB provided a comprehensive update on behalf of Andrea, summarizing progress and developments related to environmental permitting, licenses, and the South African National Defence Force (SANDF) permits. • A meeting with the Energy One Stop Shop (EOSS) was held on 22 August, focusing on addressing challenges and streamlining permitting and regulatory approval processes. • Following the 24 June meeting, members were requested to share specific permitting and approval challenges. These were collated and submitted to the EOSS for attention and resolution. • Main Challenges Identified: • Delays in Section 53 approvals due to bottlenecks within the Department of Mineral Resources and Energy (DMRE). • Issues with consultation processes between Independent Power Producers (IPPs) and mineral or petroleum right holders. • Outdated systems resulting in discrepancies in land and rights information. • Communication gaps between developers and government departments, including outdated contact details and lack of acknowledgment of submissions. • Proposed Solutions and Progress: • The DMRE is developing Standard Operating Procedures (SOPs) to streamline Section 53 processes. • Mandatory consultations between right holders and developers will be implemented to prevent impasses. • Integration of GIS data from various departments to enhance transparency and accuracy of land rights information. • Periodic workshops between stakeholders (including petroleum and mining right holders) to strengthen collaboration. • The Energy One Stop Shop introduced the Single Window Application Portal (SWAP) — an online, automated, and centralised system for managing permits and approvals. 	<p>Andrea S- Lead Elana M Pamela G Joanne D Ndileka M Zimbini N Stephan J Kakale M Monique D</p>

	<ul style="list-style-type: none"> • The portal features GIS-enabled screening tools, decision-tree navigation, and tracking layers for application monitoring. • Its objective is to reduce turnaround times and improve transparency in permitting processes. • SANDF work is underway to resolve delays in issuing Letters of No Objection. Screening criteria and processes are being refined. All SANDF submissions are now coordinated through the Energy One Stop Shop. • ATNS capacity constraints are contributing to delays and EOSS is engaging with ATNS to address these challenges. • MD requested clarity on the scope and process of engaging with the Energy One Stop Shop, specifically regarding whether it assists with individual project issues or entire portfolios, the extent of information required for it to take up a matter, and what constitutes a “long waiting period” or “challenge” before escalation. • ZB clarified that the Energy One Stop Shop (EOSS) assists on a per-project basis, although developers may submit multiple projects if necessary; that specific, project-level information is required for EOSS to intervene effectively; and that, as a guideline, if a department commits to providing feedback within a week or two but fails to respond despite follow-ups, the matter should be escalated to the EOSS for further assistance. • FT asked whether, in light of recent correspondence from SANDF indicating that Letters of No Objection were being temporarily placed on hold, all future submissions should now go through the Energy One Stop Shop. • ZB Confirmed that all applications and communications to SANDF should now be routed through the EOSS. • ZB proposed that members participate in interviews with the Energy One Stop Shop team as part of developing and refining the Single Window Application Portal (SWAP). • The interviews aim to gather on-the-ground insights from industry to help the EOSS ensure the system reflects real permitting experiences and challenges. • PS invited volunteers to indicate their willingness to participate. • Monique Beukes-Daniels (MD), Fakazile Thusi (FK), Kim Jooste (KJ) and Elouise Costandius (EC) confirmed participation. • MD also requested that contact details for the Energy One Stop Shop be shared with members. 	
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	<ul style="list-style-type: none"> • ZB confirmed that she would circulate these details and connect the four nominated members directly with the EOSS to schedule interview sessions. • Mr Lester Bouah - lbouah@thedtic.gov.za • Bharti Daya - bdaya@thedtic.gov.za • EC sought clarification on whether the Energy One Stop Shop interview and related survey were limited to municipal applications. • ZB clarified that the initiative covers all components of the application process, not just municipal approvals. She explained that the portal is designed to be a comprehensive “single window” system—integrating all relevant departments, including municipalities, into one platform. The aim is for each department to have a designated contact person, enabling users to track submissions, improve coordination, and streamline processing across the full permitting chain. 	
	<p>2.1.3 WULA Applications</p> <ul style="list-style-type: none"> • KM reported that the letters concerning Water Use License Applications (WULAs) were submitted to the regional offices of the Department of Water and Sanitation (DWS). However, no formal feedback has been received to date. • Informal communication with DWS officials confirmed that the submissions were received, but that the regional teams are currently overloaded with work and have not yet reviewed the documents. • Noted that EOSS could potentially assist in streamlining communication and follow-ups with DWS. • Committed to forwarding the correspondence to the relevant contacts and to provide a more detailed update at the next meeting once further feedback is available. <p>2.1.4 Mining Permits</p> <ul style="list-style-type: none"> • ZB reported that there was no new feedback on the mining permit applications at this stage. • Noted, however, that many of the mining-related processes were discussed during the recent meeting with the Energy One Stop Shop (EOSS). • Added that representatives from the Mining Rights group also participated in that discussion. To ensure alignment and transparency, ZB committed to sharing the minutes from that meeting, as well as contact details for the EOSS 	<p>Kakale M -Lead Andrea S Fakazile T Elena M</p>

	<p>team, so that members experiencing challenges could follow up directly.</p>	
	<p>2.2 Extended Producer Responsibility (EPR) Regulations</p> <ul style="list-style-type: none"> • PS: • Reported that the Department of Forestry, Fisheries and the Environment (DFFE) had issued proposed amendments to the EPR regulations in early 2024, following extensive engagement with various Producer Responsibility Organisations (PROs) and obligated companies. Industry comments, including inputs collected from members, were submitted, but DFFE has yet to publish the final amendments. • Initially, the publication was expected by March 2025, then postponed to July, and is now anticipated for November–December 2025. • Noted a sharp increase in compliance among companies—particularly in the solar, wind, and battery storage sectors—driven by enforcement letters from DFFE. These letters required companies that had not yet registered or met their EPR obligations to regularise compliance within strict timeframes. • Highlighted that DFFE has also begun engaging with manufacturers and importers regarding end-of-life management of renewable energy products. Patricia requested members to indicate if they had been contacted by DFFE about this initiative. No members indicated so, and she committed to obtaining more clarity for the next meeting. • Observed an increasing volume of end-of-life solar PV modules being returned for treatment, particularly from systems installed between 2010 and 2015, many of which are now being refitted or replaced. • Invited Steffen to provide data on recycling volumes. • SS: • Reported that approximately 7,000 tons of solar PV modules were processed in 2024, that 2025 is tracking toward 10,000 tons—primarily from revamping or re-energization projects of large-scale installations—and that annual volumes could reach 25,000 tons within the next 2–3 years before stabilising and rising again in the next decade as newer panel generations reach end of life. • Explained that while the numbers appear large, they represent a small fraction of total installed capacity. Many 	<p>Patricia S- Lead Espee H Dr Dominic V Steffen S</p>

	<p>older panels remain functional but are replaced due to economic inefficiency, not physical failure.</p> <ul style="list-style-type: none"> Noted that additional inflows of returned solar PV modules are caused by damage during transport or installation (around a 0.5–1% return rate), weather-related damage—particularly hailstorms in Gauteng—and insurance-related replacements following accidents or natural events. SS briefly outlined the solar PV recycling process at their DFFE-licensed facility: Handles all major panel types: silicon-based (mono/polycrystalline), thin-film (CIGS), and cadmium telluride. Process includes frame and junction box removal, recovery of glass, aluminium, copper, and plastics, and separation of the active photovoltaic layer. The recovered materials are reused in industries such as filtration, blasting, and construction, supporting circular economy objectives. Ongoing research and development aims to improve recovery of silicon and silver, though current economics do not yet justify large-scale extraction. The facility has achieved over 80% cost reduction in recycling over the past eight years and now operates competitively with leading European and U.S. recyclers. The long-term goal is to reach cost neutrality—where no net cost is borne by the energy generator for end-of-life management. PS expanded on the topic by highlighting a recent study funded by Circular Energy (the Producer Responsibility Organisation, PRO) and conducted in collaboration with CSR laboratories. Key points from the study include that it provided a full chemical composition breakdown of various solar PV technologies in South Africa, revealed that—contrary to common belief—solar PV modules contain toxic elements and are classified as hazardous waste, and emphasized that the management of end-of-life solar PV modules must comply with the National Waste Management Act and the EPR regulatory framework. Implications for the industry are that companies must properly manage modules when exchanged, damaged, or decommissioned; that the DFFE monitors compliance by reviewing the handling, transportation, and treatment of modules in line with regulations; and that future updates, 	
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	as indicated by Patricia, will provide more information on reuse practices and the development of reuse standards for solar PV modules.	
3.	<p>Any Other Matters</p> <p>3.1 End-of-Life Management and Future Engagements</p> <ul style="list-style-type: none"> • ZB suggested holding a joint session with DFFE and the Manufacturing Working Group to discuss end-of-life management letters and processes. • PS noted that DFFE has already reached out directly to manufacturers and she will follow up to confirm the next steps and share feedback at the next meeting. • DFFE appears to be developing a regulatory framework for end-of-life PV management. • PS proposed arranging a site visit to a recycling facility for interested members to observe the process firsthand. • The group agreed to revisit this item in the next meeting once further details are available. <p>3.2 DFFE Database and Upcoming Meeting</p> <ul style="list-style-type: none"> • ZK raised concerns about the accuracy and frequency of updates to the DFFE's RIA database, noting that it often contains outdated or incomplete information (e.g., missing amendments and expiry dates for EAs). • Requested that this issue be raised in the upcoming DFFE meeting regarding registration and exclusion norms. • ZB agreed and said she would circulate a call for agenda inputs from members and coordinate attendance for those interested in joining the meeting. • Zeenath Khan (ZK), Kim Jooste (KJ), and Fakazile Thusi (FT) volunteered to participate in the meeting. 	
4.	<p>Closure</p> <p>The chairperson thanked all members for their active participation and valuable contributions, emphasizing the importance of the working group in addressing key industry matters, expressed appreciation to everyone for making time to attend, invited members to share future discussion points for upcoming meetings, and officially closed the meeting at 13h15.</p>	Chairperson

Action Items:

NO:	ACTION	BY WHOM
1.	<p>Energy One Stop Shop / Permitting</p> <ul style="list-style-type: none"> Share contact details of the Energy One Stop Shop with members. Connect Monique, Fakazile, Kim, and Eloise with the Energy One Stop Shop team for participation in interviews on the Single Window Application Portal. 	Zimkita B
2.	<p>Water Use Licence Applications (WULA)</p> <ul style="list-style-type: none"> Follow up with DWS regional offices on the status of submitted WULA applications. Forward correspondence on the Energy One Stop Shop to DWS to explore possible process alignment. 	Kakale M
3.	<p>Mining Permits</p> <ul style="list-style-type: none"> Share the minutes (22 Aug) and outcomes from the Energy One Stop Shop meeting once received. 	Zimkita B
4.	<p>DFFE Meeting Preparation (Registration & Exclusion Norms)</p> <ul style="list-style-type: none"> Circulate a call for agenda items and topics members wish to raise ahead of the upcoming DFFE meeting. 	Zimkita B
5.	<p>EPR</p> <ul style="list-style-type: none"> Follow up with the DFFE to determine if there is any reprieve for renewable IPPs in cases where PROs fail to meet their regulatory obligations. Develop a 1-2 page document outlining the industry's experiences and challenges in implementing EPR regulations. <p>The document will be shared with the Environmental Working Group and other members to facilitate discussion and improvement.</p>	Patricia S Patricia S - Lead Steffen S - Lead

