Electra

Thank you for the opportunity to comment on the proposed amendment to delay the Solar Panel Stewardship and Takeback Program. As the founder of Electra, a solar panel registry and reverse logistics platform, we have been working diligently over the past two years to develop a cost-effective and efficient solution to support the Washington solar industry in managing the end-of-life (EOL) of solar panels. While we recognize the complexity of the issues, we firmly believe that delaying the program to 2029 is not the solution.

Electra Has a Viable Solution Ready for 2025

Electra is ready to launch a stewardship plan that aligns with the original July 1, 2025 deadline. Our platform has been specifically designed to meet the requirements outlined in the law, providing manufacturers with a compliant, efficient, and cost-effective pathway to fulfill their EOL responsibilities. Several manufacturers have already shown interest in our plan and support this program as a way to comply with WA's stewardship requirements while maintaining affordability for customers.

Our program is specifically structured NOT to add significant cost to manufacturers or the installation price of solar panels. At $0.02 per watt for manufacturers and $0.02 per watt for panel owners, this amounts to approximately 0.7% of the total installation cost. For example, on a 5kW system costing around $10,000 (post-tax credit), Electra's registration fee totals $200 ($100 from the manufacturer and $100 from the panel owner). This shared-cost model minimizes financial impact while supporting a comprehensive EOL solution.

If WA's program is delayed, manufacturers may face even higher compliance costs when volumes increase, especially without the economies of scale that Electra's network effect provides by coordinating collection and logistics for multiple brands. Using existing e-waste solutions, where infrastructure and recycling capacity are not set up for large-format glass panels, would be inefficient and more costly in the long term. It's critical that Washington acts now to build an optimized system while panel volumes are low, so that we are ready to manage the inevitable surge in retired panels in the coming years.

Industry-Wide Implications and the Growing Need

With nearly 727 MW already deployed in WA and 113 MW installed before 2017 (representing 100,000-200,000 orphaned panels), the urgency to put a sustainable solution in place is clear. Over the next five years, SEIA projects an additional 300 MW installed annually, adding significantly to the amount of materials in our state without a plan to manage them. By delaying until 2029, Washington risks seeing hundreds of thousands of orphaned panels accumulate in landfills, costing more to address retroactively.

The original 2025 deadline was set in 2017, giving manufacturers ample time to prepare for compliance. Delaying for another four years undermines the legislative process and weakens the impact of environmental policies, creating further uncertainty for businesses and a lack of accountability for waste management. We believe there is no new technology or "better" solution

on the horizon that would make waiting beneficial. In fact, the opposite is true: now is the time to start, when there is an opportunity to fine-tune processes and build a robust system for the future.
A Unique Opportunity to Build a Framework That Scales

The delay would also jeopardize the momentum we've built in forming a coalition of responsible manufacturers. Manufacturers like REC, Jinko, and others have expressed a willingness to comply with a program if it is cost-effective and functional. By setting up a solution now, we can create a scalable framework that will work not only for Washington but also for states like California, Colorado, and Oregon, which are expected to implement similar regulations in the near future. Delaying Washington's program could have a ripple effect, stalling progress nationwide.

Electra's platform is designed to handle the unique challenges of managing large-format solar panels. Unlike traditional e-waste systems, our platform accounts for the specific logistics, fragility, and handling protocols that solar panels require. Our integrated tracking and data reporting mechanisms allow manufacturers to monitor the entire lifecycle of their panels and receive detailed insights for ESG reporting. This system will help companies meet sustainability commitments and gain a competitive advantage in an industry that increasingly values transparency and circularity.

Risks of Delaying to 2029

Escalating Waste and Landfill Accumulation: Delaying would lead to a substantial accumulation of orphaned solar panels in landfills, which contradicts the state's clean energy goals and causes long-term environmental damage.

Loss of Data and Opportunity to Refine the Program: With no data collected, Washington will miss out on crucial insights to optimize logistics, recycling processes, and compliance frameworks, leaving the program vulnerable to inefficiencies once volumes surge.

Increased Compliance Costs for Manufacturers in the Long Run: The longer Washington delays, the more it will cost manufacturers to comply when the law finally goes into effect. Delaying increases the likelihood of rushed, inefficient solutions in 2029, leading to higher operational costs.

Weakening Legislative and Regulatory Credibility: Delaying a law passed in 2017 sets a precedent of inaction, making it harder to pass and enforce future environmental legislation. It suggests that Washington is unwilling to stand by its own environmental commitments.

Missed Economic Opportunities: Washington risks missing out on creating a circular economy for solar panel materials, which could generate green jobs and attract investment into sustainable technology and infrastructure.

Backtracking on Leadership in Clean Energy: Delaying to 2029 would put Washington behind other states and weaken its reputation as a leader in clean energy and sustainable policy implementation.

Conclusion

We urge the Department of Ecology to maintain the original 2025 deadline. Electra's solution is ready and capable of supporting a successful, equitable program for solar panel EOL management. Now is the time to act, to test, refine, and implement a system that will serve Washington for

decades. By maintaining the 2025 timeline, Washington can lead the way in solar circularity, setting an example for the rest of the country.

Thank you for considering our comments.

Simplify Your Solar Panel Stewardship with ELECTRA™

Your Partner in PV Recycling & Compliance

Electra is a digital platform designed to help solar manufacturers meet their end-of-life (EOL) responsibilities for photovoltaic (PV) panels. Our system registers every panel sold in the state, streamlining logistics, data collection, and reporting to ensure compliance with Washington's takeback mandate—whether it goes into effect in 2025 or is delayed.

Why Commit to Electra Now?

Proactive Compliance: Prepare ahead of time for Washington's upcoming takeback mandate, regardless of delays. Avoid scrambling for solutions when the legislation is inevitably enacted.

Data-Driven Insights: Gain access to real-time market insights, including panel registrations, regional market share, and anticipated panel retirements. Use this data to sharpen your marketing, sales, and customer engagement strategies.

Cost Efficiency: Electra's stewardship program offers a low-cost solution at $0.02 per watt, significantly cheaper than developing an in-house plan. Optimized logistics minimize transportation costs and maximize efficiency.

Key Benefits to Manufacturers

Streamlined Reporting: Automatically track panel data—such as serial numbers, installation dates, and locations—and generate compliance reports for the Washington Department of Ecology.

Enhanced Sustainability Messaging: By joining Electra, we'll handle public outreach and education required, ensuring customers have the information they need to responsibly manage panels at the end of their lifecycle. This reinforces your commitment to a greener future.

Simplified Warranty Claims: Electra's platform optionally links panel registrations with warranty data, providing a streamlined process for manufacturers and customers to resolve claims efficiently.

How Electra Works

Panel Registration: Every panel sold into Washington is registered, tracking key data like make, model, serial number, and installation details.

Takeback Program: When panels reach their end of life, they can be easily dropped off for recycling or reuse. Electra handles all logistics and ensures compliance with state regulations.

Data & Reporting: Manufacturers have access to detailed reports on where their panels are installed, estimated retirement timelines, and recycling/reuse statistics.

Key Metrics for Your Team

$0.02/watt:
A low-cost solution compared to in-house compliance plans.

300MW/year:
Estimated market size for solar panel sales in Washington—be prepared ahead of time.

85% Carbon Footprint Reduction:
By using Electra, you help divert panels from landfills and contribute to a significant reduction in CO_2 emissions.

Real-Time Data:
Access to exclusive insights on your market share and lifecycle data across Washington.

Electra is not just a compliance tool—it's a sustainability and marketing goldmine.

Join us now, and lead the charge in responsible solar panel lifecycle management.

Take Action Now

Commit to Electra's 6-month service agreement from July to December 2025. With potential delays in the mandate, now is the time to secure your place as a leader in EOL stewardship and sustainability.

Join a Growing Consortium: **We aim to unite manufacturers in creating a sustainable, efficient solution.**

Pre-pay for 500KW Registration: **A small commitment of $10,000 ensures your participation and readiness for the upcoming mandate.**

Through partnerships with vetted and approved collectors, haulers, and recyclers, we ensure the most cost-effective and environmentally responsible solution for moving panels to reuse or high-recovery recycling, minimizing costs and emissions.

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We are the only stewardship program dedicated solely to managing the entire lifecycle of solar panels.

https://goelectra.io

Partnering with Electra: The Smart Choice for PV Manufacturers