

Highland Materials, Inc.

Kerf Upcycling Business Opportunity

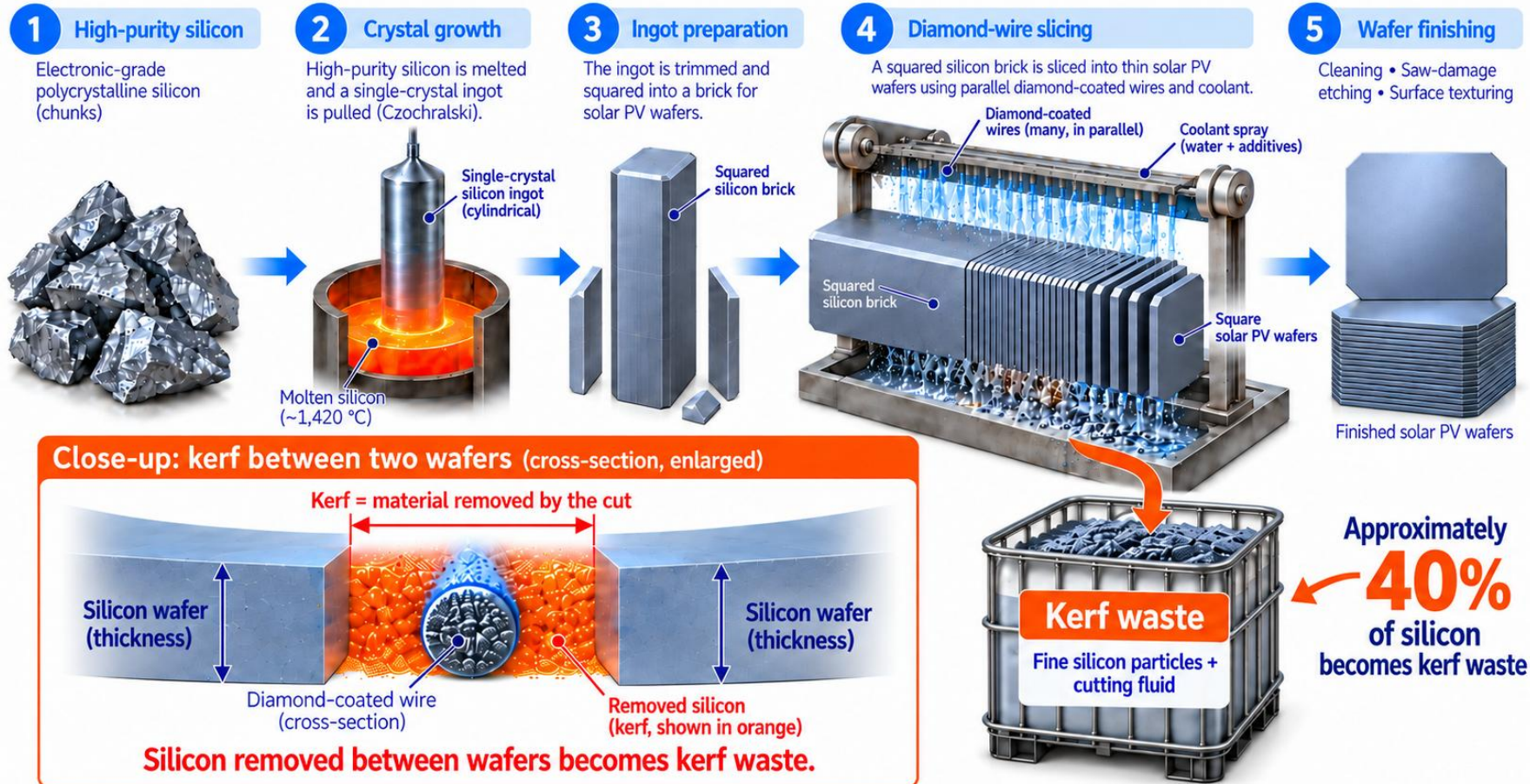
PV Celltech 2026



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Ingot-Wafer Production Creates Significant Silicon Waste

Solar PV wafer manufacturing & kerf waste



A Transformational Opportunity for Ingot & Wafer Manufacturers

~30+% of total wafer cost is due to poly cost ... largest single line item in ingot-wafer production

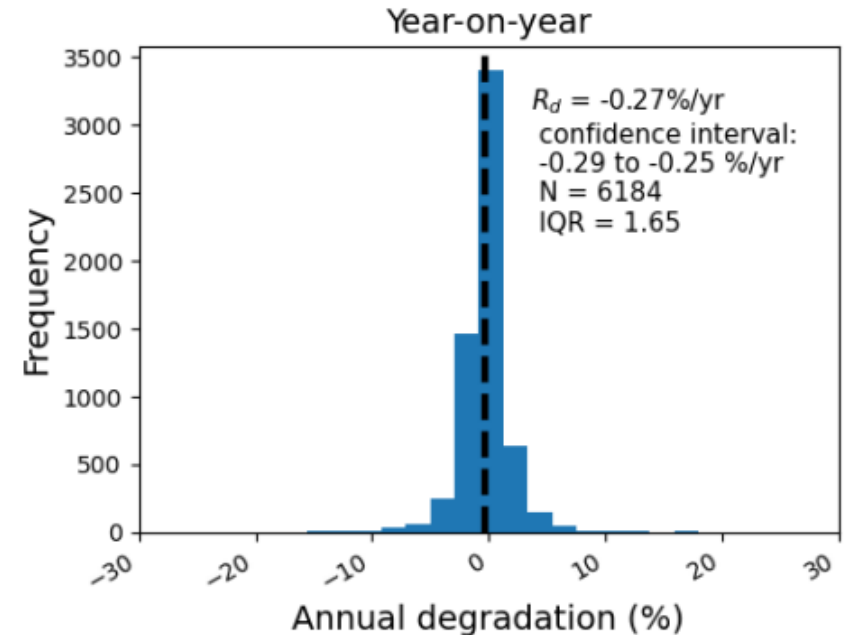
~40+% of poly leaves the ingot-wafer factory as waste

Using upcycled kerf can create ~\$30 million cost savings per ~5 GW, per year, every year

~90% lower GHG impact vs virgin poly

Highland Polysilicon – Long Term Performance Track Record

Modules made with Highland polysilicon display same or better performance v. Siemens process modules



- Reliability – Stable after 16 years
- Testing conducted by National Laboratory of the Rockies (NRL)

Average annual degradation since 2010: 0.27%

(v. 0.25% - 0.40% benchmark)



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Thank you

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