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Redwood Materials

Redwood Materials is a privately held U.S. battery recycling and critical-materials company founded in 2017 by ex-Tesla CTO JB Straubel: it collects scrap and retired EV packs, repurposes packs that still hold usable capacity into grid storage through Redwood Energy, and recycles the rest into nickel, cobalt, copper and lithium. No audited full-year revenue is published; the company says its recycling and refining business generates "nearly a quarter billion dollars" a year (period unstated, not annualized or estimated here). It closed a \$425M Series E in January 2026 (about \$2.3B raised in total), runs a 12 MW / 63 MWh Crusoe microgrid at 99.2% availability, and cut about 10% of staff in April 2026 while pivoting toward storage (SECONDARY).

BUSINESS MODEL CANVAS

Redwood Materials

Research date: Oct 11, 2026

Evidence-backed · sources in companion brief

KEY PARTNERS

- **Ultium Cells (GM + LG Energy Solution)** — Redwood recycles scrap from its Ohio and Tennessee plants; over 28,000 metric tons received from GM and Ultium to date (FACT).
- **Panasonic and Toyota** — agreed to source Redwood cathode material and copper foil (FACT).
- **Crusoe** — 12 MW / 63 MWh microgrid and 20 more modules (FACT).
- **GM and Rivian** — second-life pack deployments at their own plants (FACT).
- **Google, NVentures, Eclipse, Capricorn, Goldman Sachs Alternatives** — Series E investors (FACT).

KEY ACTIVITIES

- **Collect** — nationwide logistics, with Redwood saying it recovers more than 70% of battery packs in North America (FACT, company statement).
- **Test** — every battery is evaluated to decide reuse versus recycling (FACT).
- **Repurpose** — qualified packs go into modular Redwood Energy systems (FACT).
- **Recycle and refine** — Nevada made 60,000+ metric tons of materials in 2025 (FACT).
- **Build** — South Carolina campus opened Nov 2025 with 20,000 metric tons a year initially (FACT).

KEY RESOURCES

- **Campuses** — Nevada (900 acres) and South Carolina (600 acres, 1,500+ planned jobs over a decade) (FACT).
- **Feedstock** — over 20 GWh a year received; 10,000 GM EV packs in the pipeline (FACT).
- **Pack Manager** — universal integration layer for 100+ EV models sold in the U.S. (FACT).
- **Capital** — \$425M Series E plus earlier rounds, about \$2.3B total (FACT / SECONDARY).

VALUE PROPOSITIONS

- **Closed loop** — scrap and old packs return as materials for new batteries (FACT, Toyota and Ford announcements).
- **Domestic critical minerals** — only domestic source of cobalt at scale, per the company (FACT, company claim).
- **Speed** — Crusoe microgrid built in just under four months (FACT).
- **Cost** — storage "substantially less" than new lithium-ion projects; about half, per Redwood (company claim).
- **Two lives per battery** — storage first, then recycling (FACT).

CUSTOMER RELATIONSHIPS

- **Ford** — started as a strategic recycling relationship (FACT).
- **GM** — scrap, then end-of-life packs, then storage at a Michigan plant (FACT).
- **Crusoe** — 99.2% availability led to a roughly 7x compute expansion (FACT).
- **Rivian** — 100+ second-life packs for its Normal, Illinois plant (FACT).
- **Consumers** — Battery Bin launched Dec 2025 (FACT).

CHANNELS

- **Direct partnerships** — Ford, GM, Toyota, BMW, Panasonic and others (FACT).
- **National logistics network** — recovers 70%+ of NA battery packs per Redwood (FACT, company claim).
- **Battery Bin** — mixed batteries and devices up to 300 Wh (FACT).
- **California program** — started with Ford and Volvo, accepts all lithium-ion and NiMH batteries (FACT).
- **Direct project sales** — Crusoe, Rivian, GM storage sites (FACT).

CUSTOMER SEGMENTS

- **Automakers and cell makers** — Ford, GM, Toyota, BMW, Ultium Cells, Panasonic (FACT).
- **Industrial buyers of metals** — nickel, cobalt, copper, lithium (FACT that materials are produced; buyers not itemized).
- **AI data centers** — Crusoe (FACT).
- **Factories** — Rivian and a GM Michigan plant (FACT).
- **Consumers and fleets** — drop-off bins, Lime and Caterpillar loaders (FACT).

COST STRUCTURE

- **Campuses** — South Carolina was publicly framed as a \$3.5B plan in 2022 coverage (SECONDARY; amount spent not disclosed).
- **Logistics and safety** — nationwide collection, fire-safe storage, ISO 45001 and 14001 certified (FACT).
- **Engineering** — San Francisco R&D footprint quadrupled in Feb 2026 (FACT).
- **Restructuring** — about 135 layoffs, roughly 10%, in Apr 2026 (SECONDARY).
- **Profit status** — not disclosed; CEO says materials "well on its way to profitability" (SECONDARY).

REVENUE STREAMS

- **Recovered metals and refining** — "nearly a quarter billion dollars" a year per Redwood, period unstated (FACT as a company statement).
- **Cathode and copper foil** — Panasonic and Toyota agreed to source; volumes and revenue not disclosed (FACT).
- **Recycling services** — contracts with most North American cell makers, per Redwood (FACT, company claim).
- **Redwood Energy storage** — 12 MW / 63 MWh Crusoe, 10 MWh Rivian, 7.2 MWh GM; pricing not stated (FACT).
- **Not used here: a third-party estimate of about \$200M for 2024 (Sacra)** — not a company figure.

Sources: redwoodmaterials.com/news/general-motors-becomes-first-automaker-to-partner-with-redwood-across-the-full-battery-lifecycle · redwoodmaterials.com/news/redwood-ultium-cells-partnership · redwoodmaterials.com/news/toyota-redwood-cathode-anode · redwoodmaterials.com/news/redwood-materials-announces-final-close-of-425m-series-e · redwoodmaterials.com/news/redwood-and-caterpillar · redwoodmaterials.com/news/redwood-energy-fast-low-cost-storage-to-power-the-age-of-ai-and-a-changing-grid · redwoodmaterials.com/news/redwood-begins-critical-materials-recovery-in-south-carolina · redwoodmaterials.com/news/2025-a-defining-year-for-redwood

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