EV battery recycling plants in the United States

Company name	Year operations began/to begin	Location	Recycling capacity (metric tons/year)	EV equivalent/year	Jobs (current or projected)	Investment (actual and announced)	Sources
Li-Cycle	2020	Rochester, New York	18,000	36,000	35	?	https://li-cycle.com/rochester-spoke/ https://li-cycle.com/press-releases/u-s-senate-majority-leader-charles-e-schumer-visits-li-cycle-rochester-hub/
Li-Cycle	2022	Phoenix, Arizona	18000	36000		?	https://li-cycle.com/arizona-spoke/; https://www.azcommerce.com/news-events/news/2021/4/li-cycle-to-build-new-lithium-ion-battery-recycling-facility-in-arizona/
Li-Cycle	2022	Tuscaloosa, Alabama	10000	20000	45	?	https://li-cycle.com/in-the-news/li-cycle-opens-battery-recycling-plant-in-alabama/; https://www.businesswire.com/news/home/20221013005221/en/Li-Cycle-Opens-Lithium-ion-Battery-Recycling-Facility-in-Alabama
International Metals Reclamation Company	Operational	Elwood City, Pennsylvania	6,000	12,000			https://www.fastmarkets.com/insights/us-dives-into-lithium-battery-recycling#:~:text=Elwood%20City%2C%20Pennsylvania%2Dbased%20Inmetco,6%2C000%20tpy%20of%20lithium%20batteries.

Omega Harvested Metallurgical	Operational	Winchester, Ohio	?	**?**	**?**	**?**	https://www.ohm-inc.com/
Cirba Solutions	Operational	Wixom, michigan	23,000	46,000	**?**	**?**	**https://battery-news.de/recycling-nordamerika/**
Li Industries	Operational	Blacksburg, Virginia	?	**?**	**?**	**?**	https://www.li-ind.com/
Ascend Elements	Operational	Worcester, Massachusetts	150	300	**?**	**?**	NREL database: https://www.nrel.gov/transportation/li-ion-battery-supply-chain-database.html
Ascend Elements	Q4 2022	Covington, Georgia	30,000	70,000	150	$43 millon	https://ascendelements.com/base-1-sneak-peek/
Ascend Elements *	Late 2023	Hopkinsville, Kentucky	107,143	250,000	400	$1 billion	https://ascendelements.com/ascend-elements-begins-construction-of-apex-1-in-southwestern-kentucky/
Ace Green Recycling	2025	Houston area, Texas	20,000	**?**	**?**	**?**	https://www.prnewswire.com/news-releases/ace-green-recycling-to-build-north-americas-largest-green-battery-recycling-park-in-texas-301543403.html
Ecobat	Late 2023	Casa Grande, Arizona	10,000	**?**	**?**	**?**	https://ecobat.com/2023/02/ecobat-to-build-new-lithium-ion-battery-recycling-facility-in-arizona/
Redwood Materials*	2030	Near Reno, Nevada	?	?	1500	$3.5 billion	https://www.reuters.com/business/autos-transportation/redwood-materials-plans-spend-35-bln-battery-materials-factory-nevada-wsj-2022-07-25/ https://www.energy.gov/lpo/articles/lpo-offers-conditional-commitment-

							redwood-materials-produce-critical-electric-vehicle https://www.technologyreview.com/2022/10/05/1060726/inside-a-battery-recycling-facility/
Redwood Materials*	2030	Charleston, South Carolina	?	?	1500	$3.5 billion	https://www.redwoodmaterials.com/news/announcing-redwood-south-carolina/; https://www.theverge.com/2022/12/14/23509031/redwood-materials-ev-battery-recycling-factory?_hsmi=238937042&_hsenc=p2ANqtz-_tKE40YTvIRiC1CTaAD1bpBKQPcFdRzMK4S-OsWx1QGkVeGwX-TC2bx3r4-_hWCSRFB-feL8nyQC6PL4wXeb_VX63vHg
Li-Cycle	Early 2023	Warren, Ohio	15,000	30,000	35	?	https://li-cycle.com/in-the-news/li-cycle-to-operate-battery-recycling-facility-at-ultium-cells-factory-in-ohio/ https://gmauthority.com/blog/2022/01/li-cycle-holdings-to-process-ultium-cells-scrap-in-ohio/
SungEel HiTech	2024	Atlanta, Georgia	?	?	104	$37 million	https://gov.georgia.gov/press-releases/2022-08-18/gov-kemp-korean-lithium-ion-battery-recycler-sungeel-hitech-build-first
Cirba Solutions*	2024/2025	Lancaster, Ohio	100000	200000	150	$200 million	https://www.cirbasolutions.com/cirba-solutions-secures-over-200-million-investment-to-grow/

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Cirba Solutions*	Late 2024	Columbia, South Carolina	250,000	500,000	300	?	https://www.cirbasolutions.com/world-class-ev-battery-materials-facility-in-south-carolina/
Cirba Solutions*	Mid-2023	Eloy, Arizona	25,000	50,000	110	$200 million	https://www.cirbasolutions.com/new-lithium-ion-battery-recycling-facility-in-eloy-az-announced/
American Battery Technology Company	Announced (permit granted)	Fernley, Nevada	20,000	40,000	50	$5.5 million	https://americanbatterytechnology.com/work-progressing-at-fernley-lithium-ion-battery-recycling-plant/
Total 2023 - operational recycling plants			**105,150**	**220,300**	**220**	**$43 million**	
Total 2023 - operational + announced recycling plants			**652,293**	**1,290,300**	**4,369**	**$8.5 billion**	

Tons of material needed to produce 1 EV battery (metric ton)
0.50

*** EXPLANATIONS ON HOW WE ADDRESSED SOME OF THE MISSING DATA**

For the **Ascend Elements plant** based in Kentucky, recycling capacity was estimated based on the number of electric vehicles (the publicly reported EV equivalent per year) that could be manufactured with the battery-grade material recovered by the plant. We are assuming that about half a metric ton (roughly 500 kilograms) is needed to produce an EV battery.

For the **Cirba Solutions plants**, recycling capacity is not publicly reported so it was estimated based on the annual number of electric vehicles (the publicly reported EV equivalent per year) that could be manufactured with the battery-grade material recovered by the recycling plant. We are assuming that about half a metric ton (roughly 500 kilograms) is needed to produce an EV battery.

For **Redwood Materials**, the recycling capacity of different plants is not publicly reported. The company reports an EV equivalent per year (5 million electric vehicles by 2030), but the number includes the use of both virgin and recycled materials. For this reason, we cannot use a methodology similar to the one described above for Ascend Elements and Cirba Solutions. Read more on Redwood Materials here: https://www.redwoodmaterials.com/news/manufacturing-anode-copper-foil-and-cathode-active-materials/