



Urban Mining in India 2026: Battery Scrap Sourcing, Pricing and Recycling Scale

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A practitioner guide to battery scrap sourcing, pricing, contracts and recycling scale in India's 2026 circular energy market.

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India's battery circularity market in 2026 is no longer defined only by recycling technology choice or black mass recovery yields. The harder question is upstream: who controls battery scrap, at what quality, under which contracts, and with what compliance traceability. For developers, recyclers, lenders, OEMs, utilities and policymakers, the economics of urban mining now matter as much as plant design.

Urban mining, in the Indian battery context, means systematic recovery of valuable materials from end-of-life batteries already circulating across the economy rather than depending only on imported concentrates or primary mining. In practice, that means building reliable pipelines for lithium-ion, lead-acid, telecom backup, data-centre UPS, e-rickshaw, 2W and 3W packs, stationary storage assets, consumer device packs and manufacturing scrap. The firms that aggregate these streams efficiently will shape feedstock security, realised recovery margins and bankability of recycling assets.

This article focuses on a topic deliberately different from plant-level recycling economics: battery scrap sourcing architecture in India in 2026. The key message is simple. Recycling capacity can be built in 12 to 24 months. High-quality scrap networks take years. If your circularity strategy ignores collection density, supplier discipline, logistics compliance and pricing formulas, your IRR assumptions are probably overstated.

Why feedstock security is now the decisive variable

By 2026, announced battery recycling and pre-processing capacity in India is ahead of truly organised domestic scrap availability for many lithium-ion categories. This mismatch is not uniform. Lead-acid collection remains relatively mature, with established kabadi, dealer and refurbisher channels and collection rates that are often estimated in the 85% to 95% range for formal and informal combined markets. Lithium-ion is very different. Collection remains fragmented, chemistry visibility is weak, and channel leakage is high.

Three market developments have increased pressure on feedstock security:

- Rapid EV sales growth in 2W, 3W and bus fleets over 2022-2025 is now translating into rising warranty returns, accident-damaged packs and early retirements.
- Domestic cell, module and pack assembly growth has increased manufacturing scrap, which is high-value feedstock but often locked into OEM relationships.
- EPR enforcement is improving, pushing obligated producers to formalise take-back and documentation rather than rely on loosely verified downstream channels.

For lenders, scrap security is now comparable to fuel linkage in thermal-era project appraisal or module procurement strategy in utility solar. If a recycling asset assumes 80% utilisation from year two but its scrap contracts cover only 30% to 40% of throughput, risk is obvious. Spot-market dependence may work in short bursts, but it weakens bankability, especially when metal prices fall or informal bidders pay cash at the source.



Mapping India's battery scrap pools in 2026

Not all battery scrap is equal. The practical opportunity lies in segmenting scrap pools by volume visibility, collection friction, chemistry confidence and logistics cost.

The most relevant domestic pools in 2026 include:

- EV OEM warranty returns: best documentation quality, stronger chemistry traceability, but usually contractually captive
- Fleet operator retirements: e-bus, 3W cargo, e-rickshaw and delivery fleets; often attractive because packs are concentrated geographically
- Telecom tower batteries: mostly lead-acid historically, but lithium-ion share is rising in high-cycling and remote applications
- Data-centre and UPS batteries: bankable counterparties, planned replacement cycles, relatively clean logistics chain
- Consumer electronics aggregators: high unit count, low pack size, higher sorting cost
- Manufacturing scrap and production rejects: high assay confidence, lower contamination, strong competition among recyclers
- Solar-plus-storage and C&I BESS returns: still small in absolute volume today, but strategically important because data quality is superior

From a recycler's perspective, the best feedstock is not always the highest metal content. It is the feedstock with the lowest total acquisition cost after accounting for collection, packaging, transport, dismantling, discharge, sorting loss, compliance overhead and payment delay.

For example, consumer electronics scrap may show attractive blended cobalt or nickel value per tonne in some streams, but the labour and logistics cost per tonne can be materially higher than for concentrated EV fleet retirements. Likewise, low-value LFP streams can still be economically attractive if sourced in bulk from urban fleet depots with tight transport radii and standard pack formats.

How battery scrap is priced in India today

In 2026, battery scrap pricing in India is moving toward more structured formulas, but the market still sits between informal negotiation and formal assay-based settlement. Pricing generally depends on four variables:

- Chemistry: NMC and NCA streams still command higher value than LFP because of nickel and cobalt content, though LFP volume growth is accelerating
- Form factor and pack condition: cell/module/pack-level pricing differs because dismantling effort and residual safety risk differ
- Assay confidence: well-documented production scrap can price significantly above mixed end-of-life field returns
- Settlement terms: cash-on-pickup, provisional pricing, final assay adjustment and payment cycle materially affect realised economics

Typical market structures include:

- Fixed rupees per kg for common, lower-value or mixed streams
- Metal-linked formulas based on payable content and benchmark prices for nickel, cobalt, lithium or copper



- Revenue-share arrangements where aggregator and recycler split realised downstream value after processing
- Tender-based procurement for OEMs, DISCOM-affiliated entities or large fleet operators

For many organised transactions, pre-processing and impurity assumptions are now central to price discovery. A supplier offering mixed batteries with poor state-of-charge management, damaged casings or weak documentation can see discounts of 10% to 25% versus cleaner equivalent chemistry streams. That discount is rational. Fire risk, labour cost and recovery uncertainty all rise sharply when incoming feedstock quality deteriorates.

An important 2026 trend is widening price dispersion between documented and undocumented scrap. As EPR compliance, audit trails and digital records become more important, recyclers and obligated producers increasingly prefer traceable volumes even if headline purchase prices are slightly higher. This supports better credit generation, lower legal risk and stronger acceptance from institutional investors.

Reverse logistics is where many business plans break

India's battery scrap market is often discussed as if material naturally reaches recyclers once a battery retires. In reality, the largest operational gap is Reverse logistics. Collection, safe temporary storage, discharge protocols, route planning, packaging standards, transporter capability and state-wise documentation create major friction.

For lithium-ion packs, reverse logistics cost can vary dramatically by source category and geography. For concentrated fleet retirements near major urban clusters, cost can be manageable. For dispersed small-format batteries collected through dealer networks, the logistics cost per kg can become punitive. Fire incidents, damaged packs and improper dismantling by untrained handlers can wipe out thin procurement margins.

A practical operating model in 2026 usually includes a hub-and-spoke network:

- Local collection points at dealers, service centres, fleet depots or authorised aggregators
- Regional consolidation hubs for safe storage, triage, discharge and documentation
- Central pre-processing or recycling facilities receiving densified and sorted material

This is one reason Battery Collection Hubs have become important commercially, even though many market participants still underinvest in them. A recycler with 25,000 TPA installed capacity but weak regional aggregation may underperform a smaller competitor with disciplined network design across NCR, Pune, Bengaluru, Ahmedabad, Hyderabad, Chennai and key 2W/3W corridors.

For C&I users, utilities and OEMs, vendor selection should therefore test logistics capability, not just metallurgical claims. Questions should include transporter tie-ups, hazardous handling SOPs, regional storage permissions, digital manifesting, emergency response systems and pack-level traceability.

Contract design: what serious buyers and sellers are doing in 2026

Battery scrap agreements are getting more sophisticated because both sides have learned where value leakage occurs. Well-structured contracts now address not only price but also quality and control.

Key provisions increasingly seen in organised contracts include:

- Minimum monthly or quarterly volume commitments
- Chemistry declarations and contamination thresholds



- Sampling and assay protocol, including dispute resolution lab mechanism
- Packaging, loading and transport responsibilities
- State-of-charge and damaged battery handling norms
- Rejection rights for mixed or unsafe consignments
- EPR-related documentation obligations and digital audit trail requirements
- Payment schedule linked to weighment, assay and final settlement
- Exclusivity clauses for specific OEM, fleet or regional channels

Large counterparties are also separating manufacturing scrap from end-of-life scrap in contracts, since yield certainty and pricing logic differ significantly. For lenders evaluating a recycler or integrated circularity platform, this distinction matters. Manufacturing scrap gives comfort on early-year ramp-up. End-of-life contracts matter more for long-duration defensibility.

Another emerging feature is service-plus-offtake contracting. Under this model, the recycler or advisory-led platform helps design collection systems, training, packaging and compliance workflows for the producer or fleet owner, and in return secures preferred access to resulting scrap. This is where capabilities such as [End-of-life fleet audits](/coreservices/circularityinnovation/endoflifefleetaudits) and EPR compliance create strategic advantage beyond commodity buying.

Policy and compliance signals shaping urban mining

Policy in 2026 is pushing the market toward formalisation, though implementation still varies across states and agencies. Battery Waste Management Rules and associated EPR mechanisms are influencing how obligated entities structure take-back and recycling evidence. At the same time, state pollution control compliance, hazardous transport requirements and factory-level permissions remain practical bottlenecks.

For market participants, the compliance question is no longer whether regulation exists. It is whether the operating model is audit-ready. That means:

- Source-to-destination records for scrap movement
- Verified recycler authorisations and downstream handling chain
- Clear mass balance and processing records
- Documentation adequate for producer responsibility evidence
- Consistency between physical volumes and claimed credits or certificates

This is especially relevant where battery streams overlap with solar, telecom or stationary storage asset owners who are under growing ESG and board-level scrutiny. Corporate offtakers and infrastructure funds increasingly want Circularity reporting that stands up in diligence, not just disposal receipts.

For policymakers, the lesson is that recycling capacity targets alone are insufficient. Urban mining scales when formal channels beat informal ones on convenience, speed and economics. That requires better digital traceability, practical interstate movement norms, stronger enforcement against unsafe handling and more support for compliant collection infrastructure.

What this means for developers, lenders, utilities and C&I users

Different stakeholders should read the battery scrap market differently.

For recyclers and circularity developers:



- Treat feedstock origination as a core business line, not a procurement support function
- Build city-wise and segment-wise sourcing maps with realistic capture-rate assumptions
- Blend high-margin manufacturing scrap with scalable end-of-life channels rather than relying on one source
- Invest in pre-processing, testing and logistics standardisation early

For lenders and investors:

- Underwrite contracted scrap, not nameplate capacity
- Test concentration risk by supplier, chemistry and geography
- Stress-case throughput under weak metal prices and tighter informal competition
- Ask for proof of collection network performance, not only LOIs

For utilities, DISCOMs and public agencies managing storage assets:

- Plan retirement pathways at procurement stage itself
- Include take-back, data retention and end-of-life obligations in storage RFPs
- Evaluate whether [Second-life battery applications]/[coreservices/circularityinnovation/secondlifebatteryapplications) may precede recycling for certain asset classes

For C&I consumers, OEMs and fleet operators:

- Don't sell purely on spot price if traceability, liability and data security matter
- Separate reusable assets, repairable packs and true end-of-life volumes before tendering
- Use structured vendor qualification covering safety, compliance and downstream recovery capability

A realistic 2026 market view is that India will not win circular battery value chains merely by building metallurgical lines. It will win by industrialising urban mining: reliable collection, disciplined contracting, safe logistics, chemistry-aware sorting and compliance-grade documentation. The upstream network is the moat.

The strongest players in this market will look less like commodity scrap buyers and more like integrated infrastructure platforms. They will combine sourcing analytics, channel partnerships, EPR execution, regional hubs, discharge and dismantling protocols, and long-term recycler or refiner relationships. In short, they will connect policy, operations and finance.

For companies exposed to EV fleets, stationary storage, telecom batteries, solar-plus-storage portfolios or manufacturing scrap, 2026 is the right time to redesign circularity strategy around control of material flow, not just disposal compliance. That includes reviewing vendor contracts, retirement schedules, residual-value assumptions and collection architecture.

If your organisation is evaluating battery sourcing networks, compliance-ready collection models or bankable circularity strategies, contact Growthifye's advisory desk. We support clients across [Module & battery recycling]/[coreservices/circularityinnovation/moduleandbatteryrecycling), EPR compliance, reverse-logistics design and broader circular energy value chains.

Explore Growthifye's related capabilities

This analysis connects directly to our advisory practice: [End-of-life fleet audits]/[coreservices/circularityinnovation/endoflifefleetaudits) · [Second-life battery applications]/[coreservices/circularityinnovation/secondlifebatteryapplications) · [Module & battery



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