India 2026 Net Zero Baselines: Emissions Mapping, Abatement Levers and MRV

By Sudarshan Karweer · 03 September 2026 · growthifye.com

How Indian companies can build 2026 net-zero baselines with Scope 1/2/3 mapping, MACC, MRV and finance-ready abatement plans.

Indian companies do not usually struggle because they lack a decarbonisation ambition. They struggle because the baseline is weak. If the emissions inventory is incomplete, if plant-level energy data does not reconcile with utility bills and fuel purchase records, or if Scope 3 categories are selected without materiality logic, every next step becomes unreliable: BRSR Core disclosures, SBTi trajectories, internal capex prioritisation, lender diligence, CBAM preparation and carbon-market participation.

In 2026, this problem is more visible than ever. Large Indian manufacturers, infrastructure platforms, logistics operators, data centres, commercial real estate portfolios and diversified business groups are under pressure from customers, boards, lenders and export markets to show a credible net-zero pathway. But a credible pathway starts with an operational baseline, not a presentation headline.

This article sets out a practical approach for Indian C&I energy consumers, RE developers, lenders, utilities and policymakers to build a 2026-ready net-zero baseline. The focus is on emissions mapping, asset-level abatement levers, data architecture, marginal abatement cost logic and MRV design that can stand up to audit, financing and policy scrutiny.

Why 2026 is the year of baseline discipline in India

Three changes are forcing companies to move beyond generic carbon accounting.

First, disclosure quality expectations have risen. BRSR and BRSR Core have pushed listed entities and their value chains toward stronger data traceability, meter-level evidence, fuel-use reconciliation and supplier data quality.

Second, export and customer pressure is no longer theoretical. European customers are asking for product-level emissions evidence, primary data and decarbonisation plans. Even where formal regulatory exposure is indirect, procurement teams increasingly differentiate suppliers based on emissions intensity and audit readiness.

Third, decarbonisation capex now competes with regular business capex under tighter return thresholds. Boards want to know not just annual tonnes of CO2e reduced, but also cost per tonne, payback period, operational risk, energy-security impact and financing options.

This means a baseline in 2026 must do five things at once:

- quantify Scope 1, 2 and priority Scope 3 emissions
- identify the highest-impact abatement levers by site and process
- support BRSR Core and assurance requirements
- connect with financial models and capex sequencing
- create an MRV backbone for carbon markets, customer claims and internal governance

Step 1: Set the right organisational and operational boundary

Many Indian companies still start with a group-level estimate based on spend, legacy sustainability reports or scattered utility data. That is not enough for investment-grade planning.

A useful baseline begins by deciding the boundary clearly:

- equity share or operational control approach for subsidiaries and JVs
- treatment of leased assets, third-party manufacturing and tolling operations
- inclusion of warehouses, logistics fleets, captive power, DG backup, process vents and fugitive emissions
- treatment of under-construction assets and recently acquired entities

For diversified companies, the baseline should be built at at least three levels:

- corporate inventory for disclosure and target setting
- business-unit inventory for accountability
- site-level inventory for abatement execution

Site-level granularity matters. Two cement grinding units, two textile plants or two commercial campuses may have very different load shapes, fuel mixes, process constraints and renewable-energy access. A corporate average hides where value actually sits.

For Scope 2, Indian companies should distinguish between:

- grid electricity under state DISCOM supply
- captive thermal generation
- rooftop solar
- open access renewable procurement
- banking-adjusted renewable consumption where applicable
- renewable energy attributes and contractual treatment

For Scope 3, the right answer is not to calculate all 15 categories with equal effort. The right answer is to screen material categories first. In Indian industrial and infrastructure contexts, the most material categories often include purchased goods, fuel- and energy-related activities, upstream transport, capital goods, waste, business travel, employee commute, downstream distribution and use-phase emissions for selected products.

Step 2: Build a plant-grade activity data stack, not a spreadsheet-only inventory

The biggest source of error in Indian carbon baselines is not emission-factor selection. It is poor activity data.

A robust 2026 baseline should reconcile four layers of data:

- financial records: fuel invoices, electricity bills, freight contracts, procurement spends
- operational records: production volumes, run hours, throughput, dispatches, fleet kilometres
- instrument data: meter readings, SCADA, BMS, AMI, weighbridge records, stack or process data where relevant
- contractual records: PPAs, open-access schedules, third-party logistics terms, waste disposal manifests, supplier declarations

In practice, companies should create a monthly site-wise data room with ownership tags. For example:

- power data owned by utilities or electrical teams
- coal, gas, HSD, LPG or furnace oil data owned by plant operations and finance
- refrigerant top-up records owned by maintenance teams
- raw-material and packaging volumes owned by procurement and stores
- freight data owned by supply-chain teams
- business travel owned by admin or travel desk

If monthly reconciliation is done from the start, year-end reporting becomes easier and assurance issues drop sharply.

For energy-intensive sites, the baseline should also capture technical sub-meters and process splits. A steel processor, food plant, pharma site or commercial complex should know not only total kWh, but where the load sits:

- chillers and HVAC
- compressed air
- pumping systems
- process heating
- material handling
- lighting and utilities
- IT and data systems

Without end-use visibility, companies jump too quickly to offsets, certificates or broad renewable procurement without addressing avoidable demand.

This is where [Carbon accounting & disclosure](/coreservices/netzerodecarbonisation/carbonaccountinganddisclosure) and [RE-led decarbonisation](/coreservices/netzerodecarbonisation/releddecarbonisation) need to be integrated rather than handled as separate workstreams.

Step 3: Convert inventory data into an abatement map

An emissions baseline is useful only if it points to action. The next step is to translate emissions into a lever-based abatement map.

For a typical Indian industrial or large commercial energy consumer, abatement levers usually fall into six buckets:

- no-regret efficiency
- electrical system optimisation
- renewable electricity procurement
- thermal fuel switching
- process redesign or material substitution
- residual emissions strategy

A practical way to structure this is to assign each site’s emissions into source blocks and match likely interventions.

For example:

- grid power emissions: rooftop solar, open access solar or wind, hybrid procurement, storage-backed supply, energy-efficiency reduction of base load
- DG emissions: solar-plus-storage, gas transition where feasible, reliability redesign, demand management
- boiler or thermic-fluid heater emissions: biomass, electric boilers in selective cases, heat pumps for low- and medium-temperature duty, waste-heat recovery
- furnace emissions: electrification for specific process segments, gas where available, green hydrogen only for hard-to-abate and pilot cases
- logistics emissions: route optimisation, modal shifts, CNG/LNG where relevant, EV fleets for captive last-mile or intra-campus use
- refrigerant emissions: leakage reduction, refrigerant replacement and maintenance discipline

Illustrative economics in 2026 vary sharply by state and use case, but a few market benchmarks matter:

- commercial and industrial DISCOM tariffs in many states remain in the range of roughly Rs 6.5 to Rs 10.5 per kWh depending on demand category, voltage level, TOD and surcharges
- open access renewable landed tariffs for larger consumers commonly fall around Rs 4.0 to Rs 6.5 per kWh depending on state, profile, banking rules, ISTS or intrastate structure and balancing cost
- rooftop solar for quality C&I applications often delivers levelised savings versus retail tariffs, though roof constraints, shadow losses and O&M discipline matter
- battery storage economics are improving, but its value case still depends heavily on demand charges, outage cost, peak shifting and RTC requirements rather than energy arbitrage alone
- industrial heat pumps are increasingly viable for low- and medium-temperature applications, but not a universal substitute for all thermal loads
- green hydrogen remains expensive for broad substitution, so in 2026 it is best reserved for hard-to-abate pathways, pilots, blending strategy and long-term transition planning

The lesson is simple: not every tonne should be treated equally. Some reductions save money immediately. Some need policy support, carbon value or strategic customer pull.

Step 4: Build a MACC that reflects Indian operating reality

A marginal abatement cost curve is often prepared too early and with too little engineering detail. The result is a polished chart that no plant head trusts.

An effective MACC for Indian companies should evaluate each lever against at least these dimensions:

- annual tCO2e reduction
- capex and opex impact
- cost per tCO2e abated
- payback period and IRR
- outage or implementation disruption
- land, roof, interconnection or utility constraints
- technology maturity and vendor availability
- policy dependence
- co-benefits such as water savings, local air-quality improvement or energy-security benefit

A high-quality MACC usually reveals three classes of action.

First, negative-cost levers. These include compressed-air optimisation, VFDs, heat recovery, power factor correction in some cases, HVAC controls, steam-system improvements, leak reduction and operational discipline. They should move first.

Second, low- to medium-cost structural levers. These include open access renewable procurement, selected electrification measures, boiler upgrades, process integration, waste-heat utilisation and fleet transition in targeted applications.

Third, strategic or premium-cost levers. These include deep process redesign, alternative feedstocks, major line retrofits, storage-backed round-the-clock renewable structures, and green hydrogen pilots.

This is where [Net-zero roadmaps & MACC](/coreservices/netzerodecarbonisation/netzeroroadmapsandmacc) becomes materially useful: it allows management to phase actions into 0-2 year, 3-5 year and post-2030 windows instead of treating net zero as a single undifferentiated commitment.

Step 5: Design MRV early so the roadmap is finance-ready

Most companies treat monitoring, reporting and verification as a compliance afterthought. In reality, MRV is what makes a decarbonisation plan bankable, auditable and tradable.

MRV design in 2026 should answer the following questions:

- which data points will be measured directly and which will be estimated
- what is the meter hierarchy at each site
- what documents support each activity-data stream
- who approves monthly emissions data
- how are emission factors version-controlled
- how are baseline recalculations handled after acquisitions, divestments or methodology changes
- how are savings from efficiency or fuel-switch projects verified
- which projects may later require carbon-market methodologies or customer-facing claims support

For lenders and investors, good MRV lowers diligence friction. For corporates, it reduces the risk of overclaiming savings from renewable procurement, double counting across business units or relying on unverifiable supplier declarations.

For carbon-market readiness, the same MRV backbone can support future participation in India's carbon market architecture, bilateral crediting opportunities and Article 6-aligned discussions where relevant. Even if a company does not intend to generate credits immediately, a traceable baseline protects future optionality.

Step 6: Prioritise by cluster, not by headline target alone

A common planning mistake is to begin with a 2030 or 2040 percentage target and then backfill actions. The better method is to build priority clusters.

For Indian C&I users, a practical cluster-based roadmap may look like this:

- Cluster A: sites with high grid tariffs, strong solar-wind access and clean ownership structure for rapid renewable procurement

- Cluster B: sites with high thermal intensity where efficiency and selective electrification can deliver measurable savings
- Cluster C: export-linked sites where product-level emissions traceability and customer reporting are strategic priorities
- Cluster D: acquired or fragmented sites where data quality is weak and the first task is instrumentation and governance
- Cluster E: hard-to-abate assets where near-term action is limited to pilots, fuel optionality and longer-term technology watch

This helps management allocate scarce capex and advisory effort where results will be fastest and most visible.

It also helps policymakers and utilities understand demand patterns. If large C&I clusters move toward open access, hybrid procurement, storage and flexible loads, network planning and tariff design must evolve accordingly.

What a good 2026 baseline deliverable should include

By the end of the baseline exercise, Indian companies should expect more than an inventory report. A strong output set should include:

- Scope 1, 2 and priority Scope 3 inventory with methodology notes
- legal-entity, business-unit and site-level emissions views
- energy-flow and emissions hotspot mapping
- data-quality scoring by source and site
- shortlist of top 10-20 abatement levers with indicative economics
- phased MACC and implementation sequencing
- RE procurement opportunity screening by site and state
- electrification and fuel-switch feasibility flags
- MRV protocol, governance matrix and evidence checklist
- target-setting options aligned to business growth assumptions

For companies with significant lender engagement or capex programs, it should also include a financing lens: which measures fit lease or service models, which need balance-sheet capex, and which should be bundled to improve returns.

The strategic takeaway for Indian industry

In 2026, the quality of the baseline is becoming a competitive variable. Companies with clean boundaries, reconciled activity data, credible abatement economics and strong MRV can move faster on renewable procurement, customer reporting, lender discussions and policy-linked opportunities. Companies without that foundation will keep revising targets, disputing numbers internally and delaying execution.

The real shift is that decarbonisation is no longer only an ESG reporting topic. It is now an operating-cost topic, an export-readiness topic, a financing topic and, increasingly, a market-access topic. That is why emissions mapping must be built with engineering, procurement, finance and plant operations in the same room.

For Indian manufacturers, commercial portfolios, logistics operators, energy developers and financial institutions, the best next step is not another headline commitment. It is a baseline that can survive audit, investment committee review and operational reality.

If your business needs a finance-ready emissions baseline, plant-level abatement mapping or MRV architecture, contact Growthifye's advisory desk. Our teams support Carbon accounting & disclosure, RE-led decarbonisation and implementation-focused net-zero planning across Indian industrial and infrastructure sectors.

Explore Growthifye's related capabilities

This analysis connects directly to our advisory practice: [Carbon accounting & disclosure](/coreservices/netzerodecarbonisation/carbonaccountinganddisclosure) · [Net-zero roadmaps & MACC](/coreservices/netzerodecarbonisation/netzeroroadmapsandmacc) · [RE-led decarbonisation](/coreservices/netzerodecarbonisation/releddecarbonisation) · [Industrial efficiency & electrification](/coreservices/netzerodecarbonisation/industrialefficiencyandelectrification).

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