

Net-Zero Construction Implementation Checklist

1. Design & Planning

- Use Revit plug-ins (Carbo Life or EC3) to model embodied carbon
- Choose an appropriate rating system (LEED v5, EDGE Advanced, or GRIHA)
- Align energy modeling with ECBC 2025 or local code requirements
- Conduct early-stage LCA using One Click LCA or Tally

2. Material Selection

- Specify low-carbon concrete with SCMs (e.g., fly ash, GGBS)
- Source materials with verified EPDs (ISO 14025-compliant)
- Consider mass timber or engineered bamboo for structure/envelope
- Pre-qualify vendors based on sustainability credentials and disclosures

3. Construction & Execution

- Integrate BIM-to-LCA workflows for real-time impact tracking
- Choose off-site or modular construction methods where feasible
- Plan site logistics to reduce fuel, waste, and idling emissions
- Track construction emissions for ESG and BRSR reporting

4. Renewable Energy & Operations

- Evaluate feasibility of rooftop or BIPV solar systems
- Plan for battery storage and peak load management
- Integrate smart building systems for energy monitoring
- Register for net metering and green energy incentives

5. Carbon Finance & Certification

- Explore carbon credit registration (Verra, Gold Standard)
- Track project GHG reductions for future monetization
- Align reporting with ESG metrics (e.g., GRESB, BRSR)
- Document compliance for grant eligibility (IRA, GCC, etc.)