# EM Core Tools Track – Roadmap v0.5

Last updated: July 18, 2025

## 📌 Overview

This roadmap outlines the current development plan, priorities, and milestone tasks for the EM Core Tools Track version 0.5. This version focuses on baseline generation, scenario management, QA integration, and foundational modules to support compliance modeling and performance analysis.

## ✅ Modules in Progress (v0.5)

* • baseline\_generator.py — Implements Title 24 and ASHRAE 90.1 baseline generation rules using prescriptive logic by zone.
* • scenario\_manager.py — Handles duplication, modification, and locking of user-defined design scenarios.
* • manual\_j\_module.py — WIP. Designed to calculate loads using Manual J logic for residential and MF spaces.
* • shoebox\_generator.py — WIP. Utility to create simplified models for early-stage analysis and batch testing.
* • ZIP Climate Database — Zip-code–based lookup for climate zone, weather file, and prescriptive values.
* • QA and Validation Logic — Generates automated reports and identifies input errors or unrealistic values.
* • LEED/T24 Baseline Logic — Implements code baselines for modeling comparison and energy credit calculation.

## 🔄 Recent Changes

- Migrated baseline logic to new `normalized\_model.json` structure  
- Added support for scenario locking in `scenario\_manager.py`  
- Drafted `shoebox\_generator.py` structure  
- QA logic planning added to roadmap

## 🚧 Outstanding Tasks

- Finalize Manual J load logic and testing  
- Integrate full climate database references  
- Enable batch model generation via `shoebox\_generator.py`  
- Add logic for unmet load hour checks and performance flags

## 📈 v0.6+ Future Items

- Add Appendix G LEED baseline ruleset  
- Create QA dashboard outputs  
- Add validation of geometry, schedules, and systems  
- Link QA logic to Streamlit GUI