# Energy & Infrastructure Construction — From Mobilisation to Handover

**Step-by-step construction sequence (with the points that matter most)**

*Right data*
*Right criteria*
*Checked results*

## 1 Design Freeze & Permits

- Issued-for-construction drawings
- Permits and conditions
- Interfaces between packages
- Change control from day one

**Late design changes cost the most.**

## 2 Mobilisation & Site Setup

- Site survey and benchmarks
- Access roads and laydown
- Temporary power and water
- HSE plan and induction

**A good laydown saves months.**

## 3 Earthworks

- Cut / fill to the design surface
- Compaction tests
- Drainage before the rains
- Drone volumes vs design

**Measure volumes, don't estimate them.**

## 4 Foundations & Piling

- Pile test programme
- Pile log: depth, refusal, position
- Load tests and coating checks
- Concrete cube tests

**The pile log is evidence.**

## 5 Structures & Erection

- Steel delivery and inspection
- Erection sequence and cranes
- Torque and alignment checks
- Weather windows

**Inspect at delivery, not at erection.**

## 6 Electrical Installation

- Cable pulling and terminations
- Earthing and bonding
- Transformers and switchgear
- Test sheets per circuit

**Every circuit gets a test sheet.**

## 7 Quality Control

- Inspection and test plan (ITP)
- Hold and witness points
- Non-conformity reports
- Third-party inspection

**Close every NCR before handover.**

## 8 Progress & Cost Control

- S-curve: planned vs actual
- Progress by drone, per element
- Earned value
- Claims and variations

**Measure progress weekly.**

## 9 Testing & Commissioning

- Cold and hot commissioning
- Performance tests
- Grid compliance tests
- Punch list

**Test against the contract, not opinion.**

## 10 As-Built & Handover

- As-built vs design comparison
- As-built drawings and records
- O&M manuals and training
- Warranty and defects period

**Built as designed — with evidence.**

## Top 10 checks before handover

1. IFC drawings & permits
2. Laydown & access
3. Measured earthworks
4. Pile log & load tests
5. Delivery inspection
6. Circuit test sheets
7. ITP & NCRs closed
8. Weekly S-curve
9. Contract performance tests
10. As-built evidence

## 💡 Pro tips

- ✓ Fly the site every week
- ✓ Log every pile digitally
- ✓ Compare as-built with design before handover

Screening sequence for knowledge sharing — national codes and project specifications govern.