EMPOWER GREEN

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Planning factory capex before financial close: four ways to treat each cost line

A factory’s total cost and the money it needs on day one are different numbers. The second decides how much equity is needed at financial close and how large the first loan must be. With lenders cautious about new solar and battery plants, getting that number right matters more than ever. In one line-by-line review, carried out by a member of our team in a previous role, about a third of the day-one need could move without making the plant any smaller.

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In brief

Who it is for

Founders, CEOs, CFOs and investors in clean-energy manufacturing projects, such as solar, battery and component plants, heading for a project loan anywhere; and technology partners who contribute capital to plants abroad.

What's in it

1. **Why it matters now**
   Why day-one funding matters now
2. **The basics**
   Two different numbers
3. **The method**
   Four ways to treat a cost line, What one line-by-line review found, The financial model has to carry it
4. **The outcome**
   What it means for each party to a factory project
5. **The plan**
   What to do next: the steps to financial close

Why it matters now

- Lenders are cautious about new solar and battery factories, after overcapacity and failures such as Northvolt's.
- The equity needed at close depends on day-one funding, not total cost.

The method

- Label every cost line: correct, defer, asset-light or negotiate.
- In one review, the day-one need fell by about a third, with capacity unchanged.

What lenders need

- Lenders approve a quarterly integrated model they can test, not a list of savings.
- The ramp-delay case shows whether the plan survives a late start.

What to do now

- Reconcile the numbers and remove double counts first.
- Split the capex into phases, and carry them through the model.

Why it matters now

Lenders are wary of new clean-tech factories, so day-one funding matters

- **Too much capacity.** The world could make about 1,315 GW of solar modules in 2025 but installed 664 GW, so factories ran at about half their capacity (Enerdata).
- **Plans ahead of plants.** In India, only 21.6% of the battery manufacturing capacity identified by Mercom is operating. The rest is being built or announced.
- **A warning from Europe.** Northvolt raised about US$15bn but filed for bankruptcy in March 2025, after order cancellations and trouble scaling production.
- **What lenders want.** Founders and CEOs must show how much the plant needs on day one, how the rest is paid for and what happens if the ramp-up slips.

Who gains. Founders and CEOs who can show a lean, well-tested day-one plan.

Who loses out. Projects whose capex lists mix day-one needs with later phases.

~49%

Average utilisation of the world's module factories in 2025
Enerdata, Jul 2026

What it means

A factory that needs less money on day one, with a tested plan for the rest, is easier to finance.

What to do

Separate day-one funding from the total project cost before you approach lenders.

A project's total cost and its day-one funding need are different numbers

- **Total project cost.** Lenders appraise the full cost: plant and equipment, costs before start-up, interest during construction, contingency and some working capital.
- **Day-one capex.** This is what must be funded at financial close for the plant to start producing, including the contingency lenders insist on.
- **What can wait.** Later production lines, test equipment an outside lab can cover, interiors and software for products not yet sold can usually come later.
- **Why it matters.** The day-one figure drives the equity needed at close, the size of the first loan and how much the owners are diluted.

Who gains. Founders and CEOs who split day-one needs from later phases, and so put in less equity at close.

Who loses out. Founders and CEOs who present one undivided capex list and fund all of it up front.

What it means

Splitting day-one needs from later phases changes the size of the equity cheque, not the size of the plant.

What to do

Rebuild the capex schedule as day one and later phases, with a clear trigger for each later item.

The method

Each cost line can be corrected, deferred, made asset-light or renegotiated

Approach	What it means	The trade-off	Typical examples
Correct	Remove double counts, outdated quotes and items already in a contractor's scope.	None. It makes your numbers more credible.	Old and new civil-works quotes both included; certification budgeted twice.
Defer	Build it later, as production rises, and pay from operating cash or extra borrowing.	Production must ramp up on plan, or the funding gap stretches.	Phase-2 lines; environmental test chambers; software for a second product.
Asset-light	Rent, outsource or license instead of owning.	A higher cost per unit, and you depend on a provider.	External test labs; leased buildings; licensed technology.
Negotiate	Get new quotes, based on the real scope, for lines with only a budget estimate.	It takes time, and some lines come back higher.	Sheds and interiors; the substation; technology fees per unit.

What it means

Labelling every line with one of four approaches makes each trade-off visible to the board and the lender.

What to do

Label each line, write its trade-off next to it, and let the founder or CEO decide how far to go.

In one review, the day-one need fell by a third with the plant unchanged

- **Double counts.** About 14% of the original project cost was counted twice, in civil works and certification. It was removed at once.
- **Unquoted lines.** About 11% sat in civil-works lines with no quotes, where there was real room to negotiate.
- **Technology fee.** A lump-sum technology fee became a fee per unit, and part of its scope moved to local suppliers.
- **Deferral.** Test-lab items already marked as phase 2 were formally moved to a later phase.
- **The result.** The day-one need fell by about a third, mostly through deferral. Capacity did not change, and deferral alone did not cut total cost.

About this case

A battery storage manufacturing plant, reviewed in 2026 by a member of our team in a previous role. The figures are rounded and anonymised.

A third

Fall in the day-one funding need, with plant capacity unchanged

One 2026 review, previous role

What it means

Most of the gain came from timing, not from cutting the plant, so the plan depends on the ramp-up.

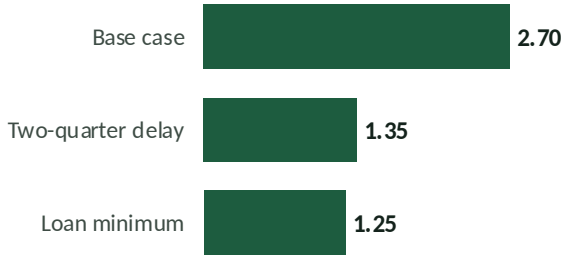
What to do

Remove double counts first, then get real quotes for unquoted lines before deciding what to defer.

Lenders approve a model they can test, not a list of savings

- **The model.** Lenders want a quarterly model in which profit and loss, balance sheet and cash flow are linked, so they can run their own stress tests.
- **Two outputs.** The review produces a register of every cost line and its treatment, and a model that carries each phase through to the loan terms.
- **The key test.** If commissioning slips by two quarters, deferred spending and loan payments fall due at the same time.
- **In the case above.** That delay cut debt-service cover from about 2.7 times to 1.35 times, just above the loan's minimum of 1.25 times.

Debt-service cover in the case above (times)



What it means

Deferral relies on early cash from operations, so the delay case decides whether lenders accept it.

What to do

Show lenders the ramp-delay case, and the cash buffer that survives it.

The outcome

A tested day-one plan makes a factory easier to finance

Founders, CEOs and CFOs

- Fund what day one needs, not the whole plan up front.
- Prove the plan survives a slower ramp-up.

Equity investors

- A smaller day-one need means less dilution at close.
- Check the trigger for each deferred item.

Lenders

- Expect a register and an integrated model, not a list of savings.
- Test the ramp-delay case and the reserve account.

Technology partners

- Fees per unit instead of lump sums ease day-one funding.
- Agree what is deferred, and who pays if the ramp-up slips.

The plan

Six steps from a capex list to a loan approval

1	**Reconcile the numbers**	Match the capex in the model to the CEO's vendor sheet, line by line: vendor, country, quote status and remarks. Remove double-counts first.
2	**Label each line**	Mark each line as correct, defer, asset-light or negotiate, and write the trade-off next to it. The founder or CEO decides how far to go on each. Nothing is assumed.
3	**Split it into phases**	Rebuild the capex schedule as day one and later phases. Note what triggers each deferred item: a volume reached, a certification gained or an offtake signed.
4	**Build it into the model**	Carry the phases through the integrated model. Run the ramp-delay case. Size the DSRA and the contingency the lender will require.
5	**Know the order lenders follow**	Lenders usually want an independent project report first, then their own credit approval; in India this often means the detailed project report, a credit rating and then sanction. Equity usually has to be in, or committed, before the loan is first drawn.
6	**Keep it on track**	Review progress every week until close, with a named owner for each open quote. Keep the register up to date. After close, it becomes the way you control capex.

Words used in this paper

Capex
Capital expenditure: the money spent on building and equipping a plant.

Total project cost
The lender's full figure for a project (in India, the Cost of Project): capex, pre-operative costs, interest during construction, contingency and some working capital.

Day-one capex
The money that must be funded at financial close for the plant to start producing.

Financial close
The point when a project's financing is signed and money can start to be drawn.

Sanction
In Indian banking, a lender's formal approval of a loan, set out in a sanction letter.

Asset-light
Renting, outsourcing or licensing something instead of owning it.

Commissioning
Getting a new plant up and running.

DSCR
Debt-service cover ratio: the cash available to pay the debt, divided by the payments due.

DSRA
Debt service reserve account: cash set aside to meet loan payments.

Covenant
A condition in a loan that the borrower must keep to, such as a minimum DSCR.

Sources

1. Anonymised and rounded results from a 2026 capex review and financial-close readiness assignment, carried out by a member of our team in a previous role
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3. Mercom India, “India’s downstream battery storage manufacturing capacity reaches 86 GWh” (22 October 2026). mercomindia.com
4. ESS News, “Northvolt files for bankruptcy in Sweden” (12 March 2025). ess-news.com
5. General project-finance practice on project cost, debt-service reserve accounts and cover covenants; terms vary by lender

Figures were checked on 9 November 2026. The case figures are rounded and anonymised, and lenders’ terms vary. This is general information, not legal, tax or investment advice.

EMPOWER GREEN

Talk to us

We can build the model, go through your capex line by line and get the project report ready for the lender’s review.

hello@empowergreen.co.uk

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