

ELECTRICITY CONSUMPTION ANALYSIS

NAME IS PRIVATE

Consumer 00999900999 · MSEDCL · HT-VIII(B)

CONTRACT DEMAND

500 KVA

PERIOD

Jun 2025 – May 2026

BILLS ANALYSED

12

BILLING BASIS

kVAh

1 The verdict

You spend about

₹1.48 Cr/year

~₹12.31 L/month across 12 bills · ₹19.36/kVAh



₹55.98 L/year

identified savings, about 38% of your bill. See the plan below.

Across 12 billed months this connection spent ₹1,47,67,502 (about ₹12,30,625 a month) on kVAh billing.

We found ₹55,97,599 a year of addressable cost across 5 opportunities; the single largest is rooftop solar installation at ₹30,01,987 a year.

₹25,95,612 a year of that needs no capital expenditure. Every figure below traces to a bill line, a tariff order, or a stated assumption.

TOTAL CONSUMPTION

7,62,916

kVAh across 12 bills

TOTAL SPEND

₹1,47,67,502

₹19.36/kVAh all-in

AVG MONTHLY BILL

₹12,30,625

per billing cycle

ADDRESSABLE COST

₹55,97,599

₹25,95,612 without capex

2 The year, month by month

Jun '25 ₹12.39 L	Jul '25 ₹14.82 L	Aug '25 ₹13.92 L	Sep '25 ₹12.62 L	Oct '25 ₹11.53 L	Nov '25 ₹11.73 L	Dec '25 ₹11.31 L	Jan '26 ₹11.89 L	Feb '26 ₹11.56 L	Mar '26 ₹12.31 L	Apr '26 ₹13.73 L	May '26 ₹9.88 L
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MONTH	TOTAL ₹	KVAH	KWH	PF	RECORDED MD	BILLED DEMAND	₹/KVAH
Jun 2025	₹12,38,572	72,733	72,657	0.999	304 KVA	375 KVA	₹14.20
Jul 2025	₹14,81,834	84,349	84,239	0.999	238 KVA	375 KVA	₹14.90
Aug 2025	₹13,91,852	71,792	71,662	0.998	230 KVA	375 KVA	₹16.25
Sep 2025	₹12,62,265	62,386	62,216	0.997	236 KVA	375 KVA	₹16.63
Oct 2025	₹11,53,490	60,958	60,690	0.996	230 KVA	375 KVA	₹15.23
Nov 2025	₹11,73,278	61,261	61,088	0.997	235 KVA	375 KVA	₹15.48
Dec 2025	₹11,30,673	57,004	56,806	0.997	225 KVA	375 KVA	₹15.89
Jan 2026	₹11,88,769	59,711	59,536	0.997	223 KVA	375 KVA	₹16.14
Feb 2026	₹11,55,703	57,307	57,158	0.997	219 KVA	375 KVA	₹16.24
Mar 2026	₹12,30,668	59,700	59,500	0.997	211 KVA	375 KVA	₹16.85
Apr 2026	₹13,72,799	69,649	69,433	0.997	250 KVA	375 KVA	₹16.21
May 2026	₹9,87,598	46,066	45,883	0.996	138 KVA	375 KVA	₹16.15
Total / Avg	₹1,47,67,502	7,62,916	7,60,868	0.997	304 KVA	—	₹15.79

The ₹/unit column is the effective variable rate (the bill minus fixed and demand charges, divided by units): what one saved unit is actually worth. The all-in rate including fixed and demand charges was ₹19.36/unit.

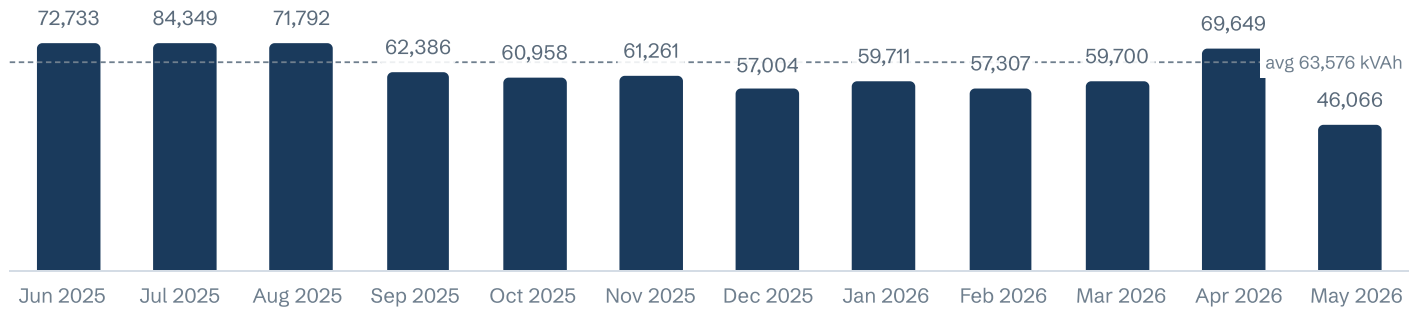
The rate changed during this period

What the DISCOM revised, and by how much.

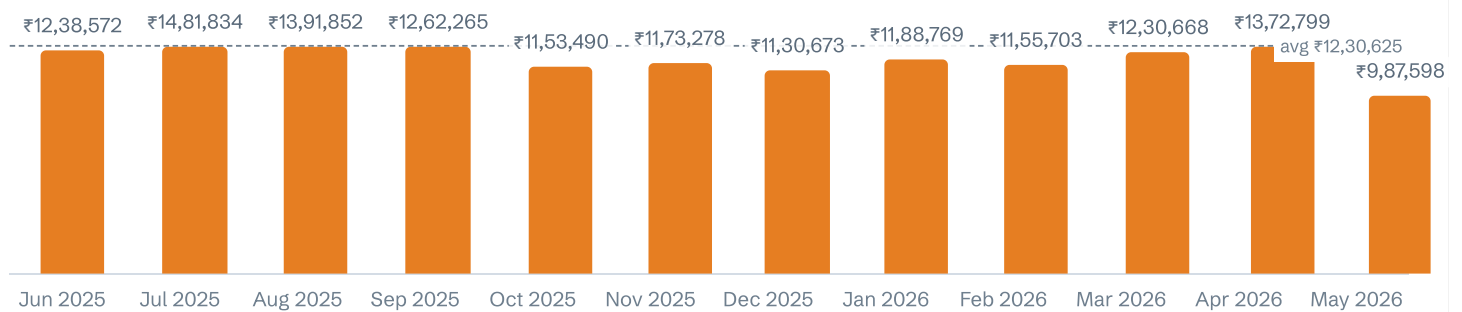
COMPONENT	OLD	NEW	CHANGE
Energy Rate (₹/unit)	11.56	11.21	-3.0%
Demand Rate (₹/KVA)	600	650	+8.3%
Wheeling Rate (₹/unit)	0.74	0.81	+9.5%

3 Consumption & Cost Trend

■ Consumption (kVAh)



■ Monthly cost (₹)



Units on the top chart, monthly spend below. When cost climbs while units fall, the rate is moving, not the consumption.

MONTH	UNITS	Δ UNITS	SPEND ₹	Δ SPEND
Jun 2025	72,657	—	₹12,38,572	—
Jul 2025	84,239	+15.9%	₹14,81,834	+19.6%
Aug 2025	71,662	-14.9%	₹13,91,852	-6.1%
Sep 2025	62,216	-13.2%	₹12,62,265	-9.3%
Oct 2025	60,690	-2.5%	₹11,53,490	-8.6%
Nov 2025	61,088	+0.7%	₹11,73,278	+1.7%
Dec 2025	56,806	-7.0%	₹11,30,673	-3.6%
Jan 2026	59,536	+4.8%	₹11,88,769	+5.1%
Feb 2026	57,158	-4.0%	₹11,55,703	-2.8%
Mar 2026	59,500	+4.1%	₹12,30,668	+6.5%
Apr 2026	69,433	+16.7%	₹13,72,799	+11.6%
May 2026	45,883	-33.9%	₹9,87,598	-28.1%

4 Bill Component Breakdown

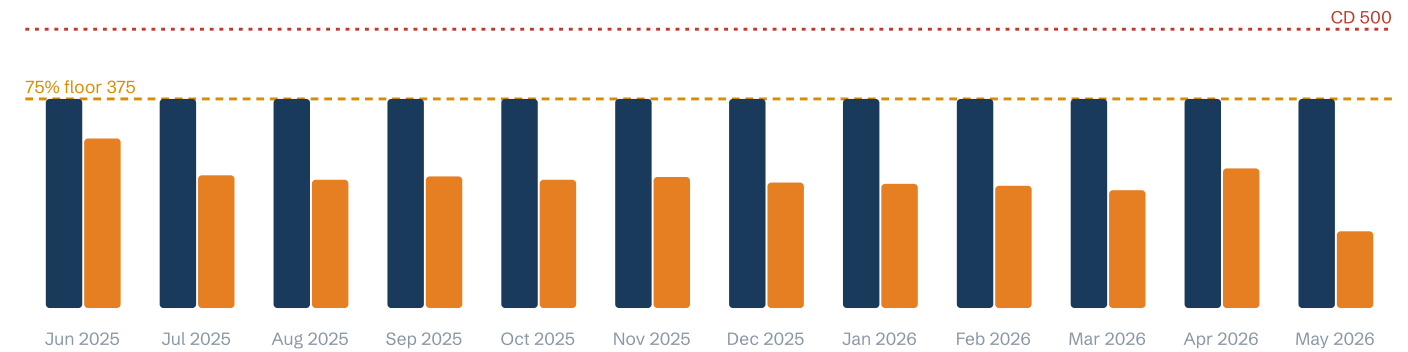


Every charge family, every month: the raw split behind the bill totals. Compact figures; hover any cell for the exact rupees.

MONTH	ENERGY	DEMAND	ELECTRICITY DUTY	WHEELING	FAC	TAX ON SALE	TOD	OTHER
Jun 2025	₹7.95 L	₹2.06 L	₹2.17 L	₹43,640	—	₹13,066	-₹10,548	-₹25,559
Jul 2025	₹9.75 L	₹2.25 L	₹2.58 L	₹62,418	-₹37,957	₹15,152	₹3,338	-₹19,046
Aug 2025	₹8.30 L	₹2.25 L	₹2.41 L	₹53,126	₹28,717	₹12,897	₹10,803	-₹9,594
Sep 2025	₹7.21 L	₹2.25 L	₹2.18 L	₹46,166	₹40,551	₹11,196	₹3,107	-₹2,498
Oct 2025	₹7.05 L	₹2.25 L	₹1.99 L	₹45,109	—	₹10,918	-₹29,391	—
Nov 2025	₹7.08 L	₹2.25 L	₹2.02 L	₹45,333	—	₹11,016	-₹16,603	-₹1,646
Dec 2025	₹6.59 L	₹2.25 L	₹1.93 L	₹42,183	₹8,551	₹15,841	-₹13,351	—
Jan 2026	₹6.90 L	₹2.25 L	₹2.04 L	₹44,186	₹23,884	₹16,609	-₹14,205	-₹482
Feb 2026	₹6.62 L	₹2.25 L	₹1.98 L	₹42,407	₹31,519	₹15,941	-₹19,443	—
Mar 2026	₹6.90 L	₹2.25 L	₹2.02 L	₹44,178	₹23,880	₹16,590	-₹21,462	₹50,387
Apr 2026	₹7.81 L	₹2.44 L	₹2.36 L	₹56,416	₹45,272	₹19,354	-₹1,096	-₹7,934
May 2026	₹5.16 L	₹2.44 L	₹1.69 L	₹37,313	₹11,517	₹12,801	-₹3,362	—
Total	₹87.33 L	₹27.18 L	₹25.36 L	₹5.62 L	₹1.76 L	₹1.71 L	-₹1.12 L	-₹16,370

5 Demand: sanctioned vs used

₹10,71,004 billed above recorded demand across this window. Right-sizing contract demand from 500 to **320 KVA** saves about **₹9,33,696/yr** at zero capex.



■ Billed demand ■ Recorded MD — 75% floor ··· contract demand

Contract demand (now)		500 kVA	what you pay for
Recorded peak		304 kVA	highest you actually used
Billing floor (75%)		375 kVA	your DISCOM bills at least this
Recommended		320 kVA	right-sized to your usage

MONTH	RECORDED MD	BILLED DEMAND	DEMAND CHARGE	OVER-CHARGE
Jun 2025	304 KVA	375 KVA	₹2,05,875	₹38,979
Jul 2025	238 KVA	375 KVA	₹2,25,000	₹82,200
Aug 2025	230 KVA	375 KVA	₹2,25,000	₹87,000
Sep 2025	236 KVA	375 KVA	₹2,25,000	₹83,400
Oct 2025	230 KVA	375 KVA	₹2,25,000	₹87,000
Nov 2025	235 KVA	375 KVA	₹2,25,000	₹84,000
Dec 2025	225 KVA	375 KVA	₹2,25,000	₹90,006
Jan 2026	223 KVA	375 KVA	₹2,25,000	₹91,374
Feb 2026	219 KVA	375 KVA	₹2,25,000	₹93,474
Mar 2026	211 KVA	375 KVA	₹2,25,000	₹98,232
Apr 2026	250 KVA	375 KVA	₹2,43,750	₹81,016
May 2026	138 KVA	375 KVA	₹2,43,750	₹1,54,323
Total over-charge	—	—	—	₹10,71,004

Repeated values are dimmed so the months where something changed stand out. Billed demand below the recorded maximum is normal; the flag is billing at the floor while usage sits far under it.

How billed demand works here: MS&DCL bills each month at the higher of your recorded maximum demand and 75% of contract demand, the billing-demand floor set by its tariff (per Case 75 of 2025 post-

remand, order 25.03.2026 (addendum to Case 217 MYT)). When usage sits below that floor you still pay for the floor quantity, which is why billed demand can read higher than your recorded maximum above.

6 Time-of-Day (TOD) Analysis



☐ A (00:00 Hrs-06:00 Hrs) normal	8,964 units	₹0
☐ B (06:00 Hrs-09:00 Hrs) normal	5,286 units	₹0
☒ C (09:00 Hrs-17:00 Hrs) cheaper	19,037 units	-₹32,011
☐ D (17:00 Hrs-24:00 Hrs) peak	12,778 units	₹28,648

MONTH	A UNITS	B UNITS	C UNITS	D UNITS	NET TOD ₹
Jun 2025	22,083	27,065	11,223	12,362	₹-10,548
Jul 2025	15,569	11,759	31,759	25,263	₹3,338
Aug 2025	14,379	9,168	24,899	23,347	₹10,803
Sep 2025	11,279	8,927	23,335	18,845	₹3,107
Oct 2025	10,795	8,694	24,081	17,389	₹-29,391
Nov 2025	12,510	9,716	20,541	18,495	₹-16,603
Dec 2025	12,636	9,961	17,858	16,548	₹-13,351
Jan 2026	13,687	10,418	18,556	17,051	₹-14,205
Feb 2026	12,515	9,169	19,570	16,053	₹-19,443
Mar 2026	12,376	7,613	21,775	17,936	₹-21,462
Apr 2026	13,776	8,782	27,188	19,902	₹-1,096
May 2026	8,964	5,286	19,037	12,778	₹-3,362

A 00:00 Hrs-06:00 Hrs (normal) · B 06:00 Hrs-09:00 Hrs (normal) · C 09:00 Hrs-17:00 Hrs (rebate window) ·
D 17:00 Hrs-24:00 Hrs (surcharge window) Negative net ToD is money the tariff gave back for good timing.

Regulatory note: MSEDCL Time-of-Day and banking rules are governed by MERC's order in Case 75 of 2025 — quashed by the Bombay High Court, re-decided post-remand on 25 Mar 2026, and currently under APTEL challenge. These figures have changed three times in about a year; verify before high-value decisions.

7 Power factor, load factor & reactive power

Power factor held 0.996–0.999 across 12 months; no penal exposure. Load factor ranged 12.8–23.4%, below the 75% incentive threshold. This is the derived power factor (kWh ÷ kVAh), the true energy-weighted average and the same figure the year table shows; on kVAh billing the printed PF reads near 1.00 by construction and is kept on the Data tab.

Power factor

✓ 0.996

Load factor

• 13%

Above the 0.90 target.

Below 75%; smoothing demand toward 75% unlocks an incentive.

MONTH	POWER FACTOR	STATUS	LOAD FACTOR	LF INCENTIVE
Jun 2025	0.999	● Good	20.2%	—
Jul 2025	0.999	● Good	23.4%	—
Aug 2025	0.998	● Good	19.9%	—
Sep 2025	0.997	● Good	17.3%	—
Oct 2025	0.996	● Good	16.9%	—
Nov 2025	0.997	● Good	17.0%	—
Dec 2025	0.997	● Good	15.8%	—
Jan 2026	0.997	● Good	16.6%	—
Feb 2026	0.997	● Good	15.9%	—
Mar 2026	0.997	● Good	16.6%	—
Apr 2026	0.997	● Good	19.3%	—
May 2026	0.996	● Good	12.8%	—

The reactive worksheet

The raw kWh / kVAh / kVARh story the capacitor advice is built on. Displacement PF strips the leading component; overhead is the billed premium over useful energy.

MONTH	KWH	KVAH	KVARH LAG	KVARH LEAD	DISPLACEMENT PF	OVERHEAD %	RECOVERABLE KVAH	₹ RECOVERABLE
JUN-2025	72,657	72,733	1,119	1,623	1.000	0.1	—	—
JUL-2025	84,239	84,349	1,240	1,966	1.000	0.1	—	—
AUG-2025	71,662	71,792	762	2,244	1.000	0.2	—	—
SEP-2025	62,216	62,386	642	3,005	1.000	0.3	—	—
OCT-2025	60,690	60,958	712	3,301	1.000	0.4	—	—
NOV-2025	61,088	61,261	913	1,977	1.000	0.3	—	—
DEC-2025	56,806	57,004	1,313	2,340	1.000	0.3	—	—
JAN-2026	59,536	59,711	1,339	2,240	1.000	0.3	—	—
FEB-2026	57,158	57,307	1,284	1,973	1.000	0.3	—	—
MAR-2026	59,500	59,700	1,959	1,927	1.000	0.3	—	—
APR-2026	69,433	69,649	3,040	1,353	0.999	0.3	—	—

MONTH	KWH	KVAH	KVARH LAG	KVARH LEAD	DISPLACEMENT PF	OVERHEAD %	RECOVERABLE KVAH	₹ RECOVERABLE
MAY-2026	45,883	46,066	1,365	1,955	1.000	0.4	—	—

Healthy. Power factor already meets the target; no reactive correction is needed.

8 The savings plan

Rooftop Solar Installation

MEDIUM

Plant size **380 kWp** Annual saving **₹30,01,987** Payback **5.4 years**

A 380 kWp rooftop plant generates about 5,47,086 kWh/yr against this connection's own ToD usage pattern, with 47% used on site. Valued at tariff-order rates under net billing, net of ₹7,76,863/yr grid-support charge, it saves ₹30,01,987/yr. Project cost ₹1,86,21,900 including GST (₹45,000/kWp + ₹15,21,900 GST). These are the same worked figures as the Advanced planner.

Do this: Take vendor quotations for a 380 kWp system and apply under the DISCOM's net billing scheme. Adding battery storage lifts the combined saving to about ₹49,94,522/yr; size both in the Advanced tab.

₹30,01,987/yr

₹2,50,166/month

Effort: high

Payback: 5.4 years

Contract Demand Reduction

CRITICAL

Recorded maximum demand (304 KVA) sits well below the 75% billing-demand floor ($75\% \times 500 = 375$ KVA), so you are billed at the floor in most months. The recommended 320 KVA covers your peak with headroom at zero penalty risk. A more aggressive 250 KVA is the cost-optimal point ($\approx ₹10,17,137$ /yr), absorbing 2 rare high-demand months as an occasional penalty; first confirm the 304 KVA peak was a one-off before going that low.

Do this: Apply to the DISCOM for CD reduction from 500 KVA to 320 KVA (zero penalty risk), or 250 KVA for maximum saving if the peak was a one-off. Submit 12 months of recorded MD readings.

₹9,33,696/yr

₹77,808/month

Effort: medium

Payback: Immediate (no capital required)

LED/HVAC/BEE Efficiency

HIGH

Average energy charge of ₹718,398/month. Replacing legacy lighting and HVAC with BEE 5-star rated equipment typically saves 8-10%.

Do this: Conduct an energy audit; replace all T8/T12 fluorescent lamps with LED; replace cooling equipment with BEE 5-star rated units.

₹7,75,872/yr

₹64,656/month

Effort: medium

Payback: 12-24 months

TOD Load Shift

HIGH

A material share of consumption falls in surcharge TOD hours (17:00 Hrs-24:00 Hrs). MSEDCL rewards flexible load moved into the rebate window (09:00 Hrs-17:00 Hrs); the discount applies directly to those units.

Do this: Schedule energy-intensive operations (pumps, compressors, HVAC pre-cooling) into the rebate window (09:00 Hrs-17:00 Hrs) and away from the surcharge hours (17:00 Hrs-24:00 Hrs). Target $\geq 30\%$ of ToD units in the rebate slot.

₹7,38,372/yr

₹61,531/month

Effort: low

Payback: Operational change only

Prompt Payment Discount

ADMIN

MSEDCL offers a discount for bills paid before the due date.

Do this: Set up auto-debit or calendar reminders to pay before the due date every month.

₹1,47,672/yr

₹12,306/month

Effort: low

Payback: Immediate

TOTAL ADDRESSABLE COST

₹55,97,599/year

₹4,66,467/month across 5 opportunities · ₹25,95,612/year needs no capex

OPPORTUNITY	PRIORITY	MONTHLY ₹	ANNUAL ₹	PAYBACK
Rooftop Solar Installation	Medium	₹2,50,166	₹30,01,987	5.4 years
Contract Demand Reduction	Critical	₹77,808	₹9,33,696	Immediate (no capital required)
LED/HVAC/BEE Efficiency	High	₹64,656	₹7,75,872	12-24 months
TOD Load Shift	High	₹61,531	₹7,38,372	Operational change only
Prompt Payment Discount	Admin	₹12,306	₹1,47,672	Immediate
Total	—	₹4,66,467	₹55,97,599	—

S The connection's vitals

Your Scorecard: each lever read against its own healthy range, month by month. No single score is computed and your readings are never compared with other consumers. Updated live on the Scorecard tab.

Power factor

Excellent

PF 0.996 in May 2026

Derived PF (kWh ÷ kVAh) per month; 0.99+ is the kVAh-billing sweet spot. The printed PF on kVAh bills reads ~1.00 and is not used.

Jun '25	Jul '25	Aug '25	Sep '25	Oct '25	Nov '25	Dec '25	Jan '26	Feb '26	Mar '26	Apr '26	May '26
0.999	0.999	0.998	0.997	0.996	0.997	0.997	0.997	0.997	0.997	0.997	0.996

Contract demand fit

Poor

28% of CD used in May 2026

Recorded maximum demand as a share of contract demand. Below 75% you are billed at the floor for capacity never used.

Jun '25	Jul '25	Aug '25	Sep '25	Oct '25	Nov '25	Dec '25	Jan '26	Feb '26	Mar '26	Apr '26	May '26
61%	48%	46%	47%	46%	47%	45%	45%	44%	42%	50%	28%

Time-of-day capture

Good

₹3,362 rebate earned in May 2026

Net ToD ₹ per month. Negative means the tariff paid you back for running in rebate windows.

Jun '25	Jul '25	Aug '25	Sep '25	Oct '25	Nov '25	Dec '25	Jan '26	Feb '26	Mar '26	Apr '26	May '26
-₹10,548	+₹3,338	+₹10,803	+₹3,107	-₹29,391	-₹16,603	-₹13,351	-₹14,205	-₹19,443	-₹21,462	-₹1,096	-₹3,362

Load shape

Needs attention

LF 12.8% in May 2026

Load factor per month. Low LF is often structural (day-only operations) — this reading is informational, not a fault; it matters when chasing the 75%+ LF incentive.

Jun '25	Jul '25	Aug '25	Sep '25	Oct '25	Nov '25	Dec '25	Jan '26	Feb '26	Mar '26	Apr '26	May '26
20%	23%	20%	17%	17%	17%	16%	17%	16%	17%	19%	13%

Payment behaviour

Not assessed

Not assessable from these bills

Prompt-payment discounts and late-payment charges as printed on the bills. Months with neither line are not assessed.

Jun '25	Jul '25	Aug '25	Sep '25	Oct '25	Nov '25	Dec '25	Jan '26	Feb '26	Mar '26	Apr '26	May '26
—	—	—	—	—	—	—	—	—	—	—	—

A Actions taken

Nothing tracked yet. When a measure from the Energy audit is marked **Implemented** with its month, it appears here and the scorecard starts tracking before and after.

Assumptions used: solar capex ₹47,500/kWp · performance ratio 0.78 · sun hours 4/day · O&M 1.5% of capex/yr.
Figures are estimates for decision support, not guarantees.