

VEREDA

ENERGY

Tocantins Green Energy & Datacenter Campus

2 GWac Solar · 200 MW × 4h BESS · 300-400 MW IT 24/7 CFE Datacenter · 50 MW

EXECUTIVE DASHBOARD

Total CAPEX	Unlevered IRR (P50)	Equity IRR (P50)
\$4,551 M	20.2%	29.8%

PROJECT SPECIFICATIONS

Solar nameplate	2,000 MWac	Solar nameplate	2,640 MWp
Datacenter IT I	350 MW IT	H ₂ V electrolyze	50 MW
Capacity factor	31.2%	Construction p	36 months

WORKBOOK INDEX

01	Cover & Dashboard	this sheet · executive view
02	Assumptions	all input parameters (engineering
03	Revenue Build	solar PPA + 24/7 CFE + BESS a
04	CAPEX Schedule	5-year build · 9 cost categories ·
05	OPEX Schedule	O&M (fixed + variable), insuranc
06	Debt Waterfall	BNDES BRL + IDB USD + comm
07	P&L Statement	30-year operating P&L · taxes de
08	Cash Flow	operating + investing + financing
09	Balance Sheet	assets / liabilities / equity per ye
10	Returns	IRR, NPV, DSCR, LCOE, equity
11	Sensitivity	tornado diagram + 2-var tables
12	Scenarios	P10 / P50 / P90 + Model A/B/C c
13	Tax Detail	SUDAM, REIDI, IRPJ, CSLL, PI
14	Family LR&M	LandCo lease, royalty schedule,
15	Charts	embedded visualizations
16	Data Sources	full reference table · auditable tra

VEREDA Energy · Confidential · For institutional investors only · Pre-FID estimates · ±15% precision

FINANCIAL MODEL

v4.0 · Institutional Edition · May 2026

H₂V

DSCR avg

3.61×

LCOE blended

\$118/MWh

NPV equity @ 10%

\$5,871 M

BESS power

200 MW

BESS energy

800 MWh

Total land

10,589.20 ha

Usable area (

4,221.96 ha

Operating life

30 years

Currency base

"USD"

, financial, fiscal, commercial)

arbitrage + i-RECs + H₂V

phased disbursement

e, land lease, fiscal

mercial · cascata ano-a-ano

etail

cash flows

ar

multiple, payback

ecisions

S, COFINS, ICMS, ISS

family yield curve

ails

Assumptions - Master Input Sheet

All blue cells are user inputs · all data tied to '16_DataSources' references

1. SITE & ASSET

Parameter	Sub-category / Notes	Phase 1A
Total APR area	Single matrícula 082484	10,589.20
Usable area (AA + ARD)	Direct + reserve direct use	4,221.96

2. PV PLANT

PV nameplate AC	MWac · Phase 1A vs 1B+2	800
PV nameplate DC	MWp · DC/AC ratio 1.32	1,056
Capacity factor P50	% net AC	31.2%
DC/AC ratio	Oversizing factor	1.32
Energy yield year 1	MWh/y	5,466,240

3. BESS · BATTERY ENERGY STORAGE

BESS power	MW · Phase 1B	0
BESS duration	Hours	0
BESS energy	MWh	0

4. DATACENTER & H₂V

Datacenter IT load	MW IT · Phase 2	0
Datacenter PUE target	Power Usage Effectiveness	1.20
Datacenter facility load	MW total (IT × PUE)	420
H ₂ V electrolyzer capacity	MW	0

5. PROJECT TIMELINE

Construction period	Months	12
Operating life	Years	30
Financial close target	Year	2027

6. CAPEX SUMMARY (linked from sheet 04)

Total CAPEX	USD M · Model B	4,551
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7. COMMERCIAL / REVENUE ASSUMPTIONS

Parameter	Sub-category / Notes	Phase 1A
PPA Solar Merchant (USD/MWh)	10-15y term · CCEE benchr	\$38.00
PPA 24/7 CFE (USD/MWh)	Hyperscaler · 15-25y term	\$72.00
i-REC premium (USD/MWh)	Renewable certificate	\$1.50
BESS arbitrage (USD/MW-day)	PLD horário CCEE	\$16.00
H ₂ V offtake price (USD/kg)	Industrial green H ₂	\$4.50
H ₂ V efficiency (kWh/kg)	Electrolysis	52.0

Phase 1A revenue mix · % PPA Solar	Allocation	100%
Phase 1B+2 revenue mix · % CFE	After datacenter COD	

8. CAPEX UNIT COSTS

PV module ASP	USD/Wp · Bifacial TOPCon	\$0.105
PV BoS DC/AC/civil	USD/Wp	\$0.390
PV tracker	USD/Wp · single-axis	\$0.085
PV inverter	USD/Wp	\$0.045
PV EPC contingency	USD/Wp	\$0.025
Total PV CAPEX	USD/Wp (sum)	\$0.650
BESS unit cost	USD/kWh · 4h LFP	\$280
BESS BoS / integration	USD/kWh	\$65
Datacenter shell + IT	USD/W IT	\$6.00
H ₂ V electrolyzer + BoP	USD/kW	\$1,100
500 kV LT dedicated	USD M/km · 65 km total	\$2.15
500/138 kV substation	USD M (1.2 GVA total)	\$85

9. OPEX ASSUMPTIONS

Solar O&M fixed	USD/kW-y	\$12.00
Solar O&M variable	USD/MWh	\$1.50
BESS O&M	USD/kW-y	\$8.00
Datacenter O&M fixed	USD/kW IT-y	\$220
Insurance (% CAPEX)	Project insurance	0.35%
Land lease LandCo → SubCo	USD/ha-y	\$35
Module degradation	%/y	0.50%

10. FINANCIAL ASSUMPTIONS

USD/BRL FX (long term)	Reference rate	5.10
USD inflation (long term)	%/y	2.2%
BRL inflation (IPCA)	%/y	4.5%
Discount rate (WACC USD)	Real WACC for DCF	8.5%
Equity cost of capital	Real USD	12.0%
BNDES BRL debt rate (TLP + spread)	%/y · 18y tenor	10.5%
IDB Invest USD debt rate	%/y · 20y tenor	7.5%
Debt-equity ratio	Project finance std	65.0%
Debt amortization period	Years	18
DSCR target	Min covenant	1.30

11. FISCAL FRAMEWORK

IRPJ rate (standard)	Corporate tax	25.0%
SUDAM reduction (10y)	75% of IRPJ	75.0%

SUDAM duration	Years	10
CSLL rate	Social contribution	9.0%
PIS/COFINS suspension (REIDI)	Construction phase	9.3%
PIS/COFINS standard (operations)	Cumulative	9.3%

12. SCENARIO SELECTOR (drives the model)

Active scenario (P10/P50/P90)	1=P10, 2=P50, 3=P90	2
Active model (A/B/C)	1=A merchant, 2=B CFE, 3=C	2
Capacity factor multiplier	Applied to P50 CF	1.000
Revenue multiplier	Applied to prices	1.000
CAPEX multiplier	Applied to total CAPEX	1.000

Phase 1B+2	Total/Avg
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1,200	2,000
1,584	2,640

5,466,240

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200	200
4	4
800	800

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350	350
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420

50	50
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24	36
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4,551

Phase 1B+2	Total/Avg
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\$0.02	
\$0.03	
\$0.02	
\$0.02	
\$0.02	

85%



\$0.02



\$0.02

\$0

\$0

0.02





Source ref

SIGAM-TO 2024/40319/082484

Carta SIGAM-TO · pixel analysis

BloombergNEF + Lazard

DC/AC ratio 1.32 oversizing

Source: 16_DataSources!E8 · NASA POWER

Industry standard 1.30-1.40

Calc: Pac × 8760h × CF

Lazard LCOE+ 2025

4h LFP standard

Calc: power × duration

JLL DC Outlook 2026

Air-cooled + H₂ closed-loop

Calc

Pilot · Wood Mac 2026

Phased deployment

Industry standard solar + DC

Per project roadmap

Linked from CAPEX schedule

Source ref

16_DataSources!E25 · USD/MWh

16_DataSources!E26 · USD/MWh · MP 1.304

16_DataSources!E27

16_DataSources!E29

Wood Mac LATAM H₂ 2026

PEM 2026 benchmark

100% merchant initially

85% CFE, 15% merchant

16_DataSources!E5 · BNEF Q1 2026

16_DataSources!E6 · Lazard 2025

16_DataSources!E7 · NEX/AT

16_DataSources!E8 · Sungrow/Huawei

16_DataSources!E9 · 5% std

Calc: sum of components

16_DataSources!E10 · Lazard 2025

16_DataSources!E11 · BNEF 2026

16_DataSources!E12 · JLL 2026

Wood Mac · PEM 2026

16_DataSources!E13 · ANEEL

16_DataSources!E14 · ABCE

16_DataSources!E33 · IRENA 2025

Standard industry

16_DataSources!E34 · Lazard

16_DataSources!E35 · Uptime 2026

16_DataSources!E36 · Marsh/AON

16_DataSources!E37 · IPCA-indexed

0.5%/y industry

16_DataSources!E17 · BCB Focus

US PCE 5y forward

16_DataSources!E19 · BCB Focus

Equity 12% + Debt 7%, 65/35

Latin infra premium · CAPM-derived

16_DataSources!E20 · TLP 9.5% + 1%

16_DataSources!E21 · SOFR+350bps

65% debt / 35% equity

BNDES Finem Solar standard

Bankable threshold

16_DataSources!E32

16_DataSources!E30 · MP 1.300/2025

Lei 13.799/2019

16_DataSources!E33

16_DataSources!E31

Receita Federal

Drives sensitivity calcs

Drives revenue mix

P10=-5%, P50=0%, P90=+5%

P10=-8%, P50=0%, P90=+10%

P10=+12%, P50=0%, P90=-5%

Revenue Build - 30-Year Operating Profile

Solar PPA + 24/7 CFE + i-RECs + BESS arbitrage + H₂V · ramped up over Phase 1A → 2

Item / Year	Unit	Y1	Y2	Y3	Y4
		2030	2031	2032	2033
Operating year		1	2	3	4
1. ENERGY GENERATION (GWh)					
Solar general	GWh	2,186	2,176	5,444	5,417
2. REVENUE STREAMS (USD M)					
Solar PPA	USD M	83.1	84.3	32.3	32.8
24/7 CFE P	USD M	0.0	0.0	333.2	339.8
i-REC certi	USD M	3.3	3.3	8.4	8.5
BESS ener	USD M	0.0	0.0	1,168.0	1,191.4
H ₂ V offtake	USD M	0.0	0.0	0.0	0.0
TOTAL RE	USD M	86.4	87.6	1,541.9	1,572.4
Cumulative r	USD M	86	174	1,716	3,288

· USD million

Y5	Y6	Y7	Y8	Y9	Y10	Y11
2034	2035	2036	2037	2038	2039	2040
5	6	7	8	9	10	11
5,390	5,363	5,336	5,310	5,283	5,257	5,230
33.3	33.8	34.3	34.8	35.3	35.8	36.3
346.6	353.5	360.5	367.7	375.0	382.4	390.0
8.6	8.7	8.8	8.8	8.9	9.0	9.1
1,215.2	1,239.5	1,264.3	1,289.6	1,315.4	1,341.7	1,368.5
32.2	32.9	33.5	34.2	34.9	35.6	36.3
1,635.8	1,668.2	1,701.3	1,735.0	1,769.4	1,804.5	1,840.2
4,924	6,592	8,294	10,029	11,798	13,603	15,443

Y12	Y13	Y14	Y15	Y16	Y17	Y18
<i>2041</i>	<i>2042</i>	<i>2043</i>	<i>2044</i>	<i>2045</i>	<i>2046</i>	<i>2047</i>
12	13	14	15	16	17	18
5,204	5,178	5,152	5,127	5,101	5,075	5,050
36.9	37.4	38.0	38.6	39.1	39.7	40.3
397.8	405.7	413.7	422.0	430.3	438.9	447.6
9.2	9.3	9.4	9.5	9.6	9.7	9.8
1,395.9	1,423.8	1,452.3	1,481.3	1,510.9	1,541.2	1,572.0
37.0	37.7	38.5	39.3	40.1	40.9	41.7
1,876.7	1,913.9	1,951.9	1,990.6	2,030.0	2,070.3	2,111.3
17,320	19,233	21,185	23,176	25,206	27,276	29,388

Y19	Y20	Y21	Y22	Y23	Y24	Y25
<i>2048</i>	<i>2049</i>	<i>2050</i>	<i>2051</i>	<i>2052</i>	<i>2053</i>	<i>2054</i>
19	20	21	22	23	24	25
5,025	5,000	4,975	4,950	4,925	4,900	4,876
40.9	41.5	42.1	42.8	43.4	44.0	44.7
456.5	465.6	474.8	484.3	493.9	503.7	513.7
9.9	10.0	10.1	10.2	10.3	10.4	10.5
1,603.4	1,635.5	1,668.2	1,701.6	1,735.6	1,770.3	1,805.7
42.5	43.4	44.2	45.1	46.0	46.9	47.9
2,153.2	2,195.9	2,239.4	2,283.9	2,329.2	2,375.4	2,422.5
31,541	33,737	35,976	38,260	40,589	42,964	45,387

Y26	Y27	Y28	Y29	Y30
2055	2056	2057	2058	2059
26	27	28	29	30

4,852	4,827	4,803	4,779	4,755
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45.4	46.0	46.7	47.4	48.1
523.9	534.4	545.0	555.8	566.9
10.6	10.7	10.8	10.9	11.0
1,841.8	1,878.7	1,916.2	1,954.6	1,993.6
48.8	49.8	50.8	51.8	52.9

2,470.5	2,519.5	2,569.5	2,620.5	2,672.5
47,857	50,377	52,947	55,567	58,239

CAPEX Schedule · Phased Build · USD million

Five-year disbursement aligned with construction Gantt · Model B base case · scenario multiplier applied

CAPEX BY CATEGORY × YEAR			
Cost Item	Unit cost	Y1 (2027)	Y2 (2028)
Modules (Bifacial TOPCon)		28	125
BoS DC/AC/civil		154	515
Tracker structure		45	112
Inverter		12	48
EPC contingency		10	26
Solar PV subtotal		249	826
BATTERY STORAGE			
BESS · LFP 4h		-	-
DATACENTER & H₂V			
Datacenter shell + IT mech/elec		-	-
H₂V electrolyzer + BoP		-	-
TRANSMISSION			
500 kV LT dedicated (65 km)		14	56
500/138 kV substation		9	43
PRE-WORKS			
TO-020 paving (9 km · 50% shared SETRANS-TO)		3	3
Internal access road (3-5 km BGS+CBUQ)		3	3
Worksite yard (15 ha concreted)		3	-
Provisional 138 kV worksite SS		2	2
Artesian well + WTP + reservoir		1	0
Modular lodging 1,500 beds (3y lease)		2	2
Mess + heliport + fueling		1	1
EPCM, due diligence, contingency 5%		31	38
CAPEX subtotal (base)		316	973
TOTAL CAPEX (× scenario CAPEX multiplier)		316	973
Cumulative CAPEX		316	1,288

olied

Y3 (2029)	Y4 (2030)	Y5 (2031)	TOTAL	% of CAPEX
125	-	-	277	6.1%
360	-	-	1,030	22.6%
67	-	-	224	4.9%
59	-	-	119	2.6%
30	-	-	66	1.5%
642	0	0	1,716	37.7%
138	138	-	276	6.1%
210	1,155	735	2,100	46.1%
-	28	28	55	1.2%
70	-	-	140	3.1%
34	-	-	85	1.9%
-	-	-	5	0.1%
-	-	-	5	0.1%
-	-	-	3	0.1%
-	-	-	3	0.1%
-	-	-	1	0.0%
2	-	-	6	0.1%
-	-	-	3	0.1%
31	31	23	154	3.4%
1,126	1,351	786	4,551	100.0%
1,126	1,351	786	4,551	100%
2,414	3,766	4,551	4,551	

Notes

BNEF · 2026 spot

Lazard 2025

Nexttracker / AT bids

Sungrow / Huawei

5% EPC standard

Lazard 2025 + BNEF BoS

JLL DC Outlook 2026 · LATAM tier

PEM electrolyzer · Wood Mac

ANEEL 502/2022 · 2.15 USD M/km

ABCE 2025 · 1.2 GVA

Shared CAPEX with State

VEREDA CAPEX

AA zone

Returnable lease

3.5% standard

× scenario factor from Assumptions!D83

OPEX Schedule · 30-Year · USD M

Solar O&M + BESS + DC + insurance + land lease · IPCA/USD indexed

Line Item	Unit	Y1	Y2	Y3
		2030	2031	2032
Operating year		1	2	3
1. FIXED O&M				
Solar O&M fixed	USD M	9.6	9.8	25.0
BESS O&M	USD M	0.0	0.0	1.6
Datacenter O&M fixed	USD M	0.0	0.0	77.0
Insurance	USD M	15.9	15.9	15.9
Land lease	USD M	0.1	0.2	0.2
Fixed O&M subtotal	USD M	25.7	25.9	119.7
2. VARIABLE O&M				
Solar variable O&M	USD M	3.3	3.3	8.2
Variable subtotal	USD M	3.3	3.3	8.2
3. TOTAL OPEX				
TOTAL OPEX	USD M	29.0	29.1	127.8
Cumulative OPEX	USD M	29.0	58.1	185.9

Y4	Y5	Y6	Y7	Y8	Y9	Y10
2033	2034	2035	2036	2037	2038	2039
4	5	6	7	8	9	10
25.5	26.0	26.5	27.0	27.6	28.1	28.7
1.6	1.7	1.7	1.7	1.8	1.8	1.8
78.9	80.9	82.9	85.0	87.1	89.3	91.5
15.9	15.9	15.9	15.9	15.9	15.9	15.9
0.2	0.2	0.2	0.2	0.2	0.2	0.2
122.1	124.6	127.2	129.9	132.6	135.4	138.2
8.1	8.1	8.0	8.0	8.0	7.9	7.9
8.1	8.1	8.0	8.0	8.0	7.9	7.9
130.2	132.7	135.3	137.9	140.5	143.3	146.1
316.2	448.9	584.2	722.1	862.6	1,005.9	1,152.0

Y11	Y12	Y13	Y14	Y15	Y16	Y17
<i>2040</i>	<i>2041</i>	<i>2042</i>	<i>2043</i>	<i>2044</i>	<i>2045</i>	<i>2046</i>
11	12	13	14	15	16	17
29.3	29.8	30.4	31.0	31.7	32.3	32.9
1.9	1.9	2.0	2.0	2.0	2.1	2.1
93.8	96.2	98.6	101.0	103.6	106.1	108.8
15.9	15.9	15.9	15.9	15.9	15.9	15.9
0.2	0.2	0.3	0.3	0.3	0.3	0.3
141.1	144.1	147.1	150.3	153.5	156.7	160.1
7.8	7.8	7.8	7.7	7.7	7.7	7.6
7.8	7.8	7.8	7.7	7.7	7.7	7.6
149.0	151.9	154.9	158.0	161.1	164.4	167.7
1,300.9	1,452.8	1,607.7	1,765.7	1,926.9	2,091.2	2,258.9

Y18	Y19	Y20	Y21	Y22	Y23	Y24
2047	2048	2049	2050	2051	2052	2053
18	19	20	21	22	23	24
33.6	34.3	35.0	35.7	36.4	37.1	37.8
2.2	2.2	2.2	2.3	2.3	2.4	2.4
111.5	114.3	117.2	120.1	123.1	126.2	129.3
15.9	15.9	15.9	15.9	15.9	15.9	15.9
0.3	0.3	0.3	0.4	0.4	0.4	0.4
163.5	167.0	170.6	174.3	178.1	182.0	185.9
7.6	7.5	7.5	7.5	7.4	7.4	7.4
7.6	7.5	7.5	7.5	7.4	7.4	7.4
171.1	174.6	178.1	181.8	185.5	189.4	193.3
2,430.0	2,604.6	2,782.7	2,964.5	3,150.1	3,339.4	3,532.7

Y25	Y26	Y27	Y28	Y29	Y30
2054	2055	2056	2057	2058	2059
25	26	27	28	29	30

38.6	39.4	40.2	41.0	41.8	42.6
2.5	2.5	2.6	2.6	2.7	2.7
132.6	135.9	139.3	142.8	146.3	150.0
15.9	15.9	15.9	15.9	15.9	15.9
0.4	0.4	0.5	0.5	0.5	0.5
190.0	194.1	198.4	202.8	207.2	211.8

7.3	7.3	7.2	7.2	7.2	7.1
7.3	7.3	7.2	7.2	7.2	7.1

197.3	201.4	205.6	210.0	214.4	218.9
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3,730.0	3,931.4	4,137.1	4,347.0	4,561.4	4,780.4
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Debt Waterfall · 30-Year · USD M

BNDES BRL (TLP+1%) + IDB USD (SOFR+350bps) · grace 2y · annuity amort

Line Item	Unit	Y1	Y2	Y3
		2030	2031	2032
<i>Operating year</i>		1	2	3

DEBT STRUCTURE

Total CAPEX	4,551
Total debt (65%)	2,958
BNDES tranche (60%)	1,775
IDB tranche (40%)	1,183
Total equity (35%)	1,593

BNDES TRANCHE (USD M)

BNDES opening	USD M	1,775.0	1,775.0	1,775.0
BNDES interest	USD M	186.4	186.4	186.4
BNDES principal	USD M	0.0	0.0	47.3
BNDES total service	USD M	186.4	186.4	233.7
BNDES closing	USD M	1,775.0	1,775.0	1,727.7

IDB TRANCHE (USD M)

IDB opening	USD M	1,183.3	1,183.3	1,183.3
IDB interest	USD M	88.7	88.7	88.7
IDB principal	USD M	0.0	0.0	33.2
IDB total service	USD M	88.7	88.7	121.9
IDB closing	USD M	1,183.3	1,183.3	1,150.2

TOTAL DEBT SERVICE

Total interest	USD M	275.1	275.1	275.1
Total principal	USD M	0.0	0.0	80.5
TOTAL DEBT SERVICE	USD M	275.1	275.1	355.6
Total outstanding	USD M	2,958.3	2,958.3	2,877.9

Y4	Y5	Y6	Y7	Y8	Y9	Y10
2033	2034	2035	2036	2037	2038	2039
4	5	6	7	8	9	10

1,727.7	1,675.4	1,617.7	1,553.9	1,483.4	1,405.5	1,319.4
181.4	175.9	169.9	163.2	155.8	147.6	138.5
52.3	57.7	63.8	70.5	77.9	86.1	95.1
233.7	233.7	233.7	233.7	233.7	233.7	233.7
1,675.4	1,617.7	1,553.9	1,483.4	1,405.5	1,319.4	1,224.2

1,150.2	1,114.5	1,076.2	1,035.0	990.7	943.1	891.9
86.3	83.6	80.7	77.6	74.3	70.7	66.9
35.7	38.3	41.2	44.3	47.6	51.2	55.0
121.9	121.9	121.9	121.9	121.9	121.9	121.9
1,114.5	1,076.2	1,035.0	990.7	943.1	891.9	836.8

267.7	259.5	250.6	240.8	230.1	218.3	205.4
87.9	96.1	105.0	114.8	125.5	137.3	150.2
355.6	355.6	355.6	355.6	355.6	355.6	355.6
2,789.9	2,693.9	2,588.9	2,474.0	2,348.5	2,211.2	2,061.1

Y11	Y12	Y13	Y14	Y15	Y16	Y17
2040	2041	2042	2043	2044	2045	2046
11	12	13	14	15	16	17

1,224.2	1,119.1	1,002.9	874.6	732.7	576.0	402.8
128.5	117.5	105.3	91.8	76.9	60.5	42.3
105.1	116.2	128.4	141.8	156.7	173.2	191.4
233.7	233.7	233.7	233.7	233.7	233.7	233.7
1,119.1	1,002.9	874.6	732.7	576.0	402.8	211.5

836.8	777.7	714.1	645.7	572.3	493.3	408.3
62.8	58.3	53.6	48.4	42.9	37.0	30.6
59.2	63.6	68.4	73.5	79.0	84.9	91.3
121.9	121.9	121.9	121.9	121.9	121.9	121.9
777.7	714.1	645.7	572.3	493.3	408.3	317.0

191.3	175.8	158.9	140.3	119.9	97.5	72.9
164.3	179.8	196.7	215.3	235.7	258.1	282.7
355.6	355.6	355.6	355.6	355.6	355.6	355.6
1,896.8	1,717.0	1,520.3	1,305.0	1,069.3	811.2	528.5

Y18	Y19	Y20	Y21	Y22	Y23	Y24
2047	2048	2049	2050	2051	2052	2053
18	19	20	21	22	23	24

211.5	0.0	0.0	0.0	0.0	0.0	0.0
22.2	0.0	0.0	0.0	0.0	0.0	0.0
211.5	0.0	0.0	0.0	0.0	0.0	0.0
233.7	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0

317.0	218.9	113.4	0.0	0.0	0.0	0.0
23.8	16.4	8.5	0.0	0.0	0.0	0.0
98.1	105.5	113.4	0.0	0.0	0.0	0.0
121.9	121.9	121.9	0.0	0.0	0.0	0.0
218.9	113.4	0.0	0.0	0.0	0.0	0.0

46.0	16.4	8.5	0.0	0.0	0.0	0.0
309.6	105.5	113.4	0.0	0.0	0.0	0.0
355.6	121.9	121.9	0.0	0.0	0.0	0.0
218.9	113.4	0.0	0.0	0.0	0.0	0.0

Y25	Y26	Y27	Y28	Y29	Y30
2054	2055	2056	2057	2058	2059
25	26	27	28	29	30



0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0



0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0



0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0

Profit & Loss - 30-Year - USD M

Revenue → EBITDA → EBIT → EBT → Net Income (incl. SUDAM benefit)

Line Item	Unit	Y1	Y2	Y3
		2030	2031	2032
<i>Operating year</i>		1	2	3
REVENUE				
Total revenue	USD M	86.4	87.6	1,541.9
OPERATING EXPENSES				
Total OPEX	USD M	-29.0	-29.1	-127.8
EBITDA				
EBITDA	USD M	57.4	58.5	1,414.1
EBITDA margin	%	66.5%	66.8%	91.7%
D&A				
Depreciation	USD M	-151.7	-151.7	-151.7
EBIT				
EBIT	USD M	-94.3	-93.2	1,262.4
INTEREST				
Interest expense	USD M	-275.1	-275.1	-275.1
EBT				
EBT	USD M	-369.4	-368.3	987.2
TAXES				
IRPJ (with SUDAM)	USD M	0.0	0.0	-61.7
CSLL (9%)	USD M	0.0	0.0	-88.9
NET INCOME				
Net income	USD M	-369.4	-368.3	836.7
Net margin	%	-427.7%	-420.3%	54.3%

Y4	Y5	Y6	Y7	Y8	Y9	Y10
2033	2034	2035	2036	2037	2038	2039
4	5	6	7	8	9	10
1,572.4	1,635.8	1,668.2	1,701.3	1,735.0	1,769.4	1,804.5
-130.2	-132.7	-135.3	-137.9	-140.5	-143.3	-146.1
1,442.2	1,503.1	1,533.0	1,563.4	1,594.5	1,626.1	1,658.4
91.7%	91.9%	91.9%	91.9%	91.9%	91.9%	91.9%
-151.7	-151.7	-151.7	-151.7	-151.7	-151.7	-151.7
1,290.5	1,351.4	1,381.3	1,411.7	1,442.8	1,474.4	1,506.7
-267.7	-259.5	-250.6	-240.8	-230.1	-218.3	-205.4
1,022.8	1,091.9	1,130.7	1,170.9	1,212.7	1,256.1	1,301.3
-63.9	-68.2	-70.7	-73.2	-75.8	-78.5	-81.3
-92.1	-98.3	-101.8	-105.4	-109.1	-113.0	-117.1
866.8	925.4	958.3	992.4	1,027.8	1,064.6	1,102.8
55.1%	56.6%	57.4%	58.3%	59.2%	60.2%	61.1%

Y11	Y12	Y13	Y14	Y15	Y16	Y17
2040	2041	2042	2043	2044	2045	2046
11	12	13	14	15	16	17
1,840.2	1,876.7	1,913.9	1,951.9	1,990.6	2,030.0	2,070.3
-149.0	-151.9	-154.9	-158.0	-161.1	-164.4	-167.7
1,691.3	1,724.8	1,759.0	1,793.9	1,829.4	1,865.6	1,902.6
91.9%	91.9%	91.9%	91.9%	91.9%	91.9%	91.9%
-151.7	-151.7	-151.7	-151.7	-151.7	-151.7	-151.7
1,539.6	1,573.1	1,607.3	1,642.2	1,677.7	1,713.9	1,750.9
-191.3	-175.8	-158.9	-140.3	-119.9	-97.5	-72.9
1,348.3	1,397.3	1,448.4	1,501.9	1,557.9	1,616.5	1,678.0
-337.1	-349.3	-362.1	-375.5	-389.5	-404.1	-419.5
-121.3	-125.8	-130.4	-135.2	-140.2	-145.5	-151.0
889.9	922.2	956.0	991.3	1,028.2	1,066.9	1,107.4
48.4%	49.1%	49.9%	50.8%	51.7%	52.6%	53.5%

Y18	Y19	Y20	Y21	Y22	Y23	Y24
2047	2048	2049	2050	2051	2052	2053
18	19	20	21	22	23	24
2,111.3	2,153.2	2,195.9	2,239.4	2,283.9	2,329.2	2,375.4
-171.1	-174.6	-178.1	-181.8	-185.5	-189.4	-193.3
1,940.2	1,978.6	2,017.8	2,057.7	2,098.3	2,139.8	2,182.1
91.9%	91.9%	91.9%	91.9%	91.9%	91.9%	91.9%
-151.7	-151.7	-151.7	-151.7	-151.7	-151.7	-151.7
1,788.5	1,826.9	1,866.1	1,905.9	1,946.6	1,988.1	2,030.4
-46.0	-16.4	-8.5	0.0	0.0	0.0	0.0
1,742.5	1,810.5	1,857.5	1,905.9	1,946.6	1,988.1	2,030.4
-435.6	-452.6	-464.4	-476.5	-486.7	-497.0	-507.6
-156.8	-162.9	-167.2	-171.5	-175.2	-178.9	-182.7
1,150.1	1,194.9	1,226.0	1,257.9	1,284.8	1,312.1	1,340.0
54.5%	55.5%	55.8%	56.2%	56.3%	56.3%	56.4%

Y25	Y26	Y27	Y28	Y29	Y30
2054	2055	2056	2057	2058	2059
25	26	27	28	29	30
2,422.5	2,470.5	2,519.5	2,569.5	2,620.5	2,672.5
-197.3	-201.4	-205.6	-210.0	-214.4	-218.9
2,225.2	2,269.1	2,313.9	2,359.5	2,406.1	2,453.6
91.9%	91.8%	91.8%	91.8%	91.8%	91.8%
-151.7	-151.7	-151.7	-151.7	-151.7	-151.7
2,073.5	2,117.4	2,162.2	2,207.8	2,254.4	2,301.8
0.0	0.0	0.0	0.0	0.0	0.0
2,073.5	2,117.4	2,162.2	2,207.8	2,254.4	2,301.8
-518.4	-529.3	-540.5	-552.0	-563.6	-575.5
-186.6	-190.6	-194.6	-198.7	-202.9	-207.2
1,368.5	1,397.5	1,427.0	1,457.2	1,487.9	1,519.2
56.5%	56.6%	56.6%	56.7%	56.8%	56.8%

Cash Flow Statement - 30-Year - USD M

Operating + Investing + Financing CFs

Line Item	Unit	Y1	Y2	Y3
		2030	2031	2032
<i>Operating year</i>		1	2	3
OPERATING				
Net income	USD M	-369.4	-368.3	836.7
(+) Depreciation	USD M	151.7	151.7	151.7
Operating CF	USD M	-217.7	-216.6	988.4
INVESTING				
Maintenance CAPEX	USD M	0.0	0.0	-22.8
BESS refresh	USD M	0.0	0.0	0.0
Investing CF	USD M	0.0	0.0	-22.8
FINANCING				
Debt principal	USD M	0.0	0.0	-80.5
Dividends to equity	USD M	0.0	0.0	-752.4
Financing CF	USD M	0.0	0.0	-832.9
NET CASH FLOW				
Net change cash	USD M	-217.7	-216.6	132.8
Cumulative cash	USD M	-217.7	-434.3	-301.6
RETURNS METRICS				
FCFE	USD M	-217.7	-216.6	885.2
FCFF	USD M	57.4	58.5	1,240.8
DSCR	×	-0.79×	-0.79×	2.78×

Y4	Y5	Y6	Y7	Y8	Y9	Y10
2033	2034	2035	2036	2037	2038	2039
4	5	6	7	8	9	10

866.8	925.4	958.3	992.4	1,027.8	1,064.6	1,102.8
151.7	151.7	151.7	151.7	151.7	151.7	151.7
1,018.5	1,077.1	1,110.0	1,144.1	1,179.5	1,216.3	1,254.5

-22.8	-22.8	-22.8	-22.8	-22.8	-22.8	-22.8
0.0	0.0	0.0	0.0	0.0	0.0	0.0
-22.8	-22.8	-22.8	-22.8	-22.8	-22.8	-22.8

-87.9	-96.1	-105.0	-114.8	-125.5	-137.3	-150.2
-771.7	-814.5	-834.9	-855.5	-876.5	-897.8	-919.4
-859.6	-910.6	-939.9	-970.3	-1,002.0	-1,035.1	-1,069.5

136.2	143.7	147.3	151.0	154.7	158.4	162.2
-165.4	-21.6	125.7	276.7	431.3	589.8	752.0

907.9	958.2	982.2	1,006.5	1,031.2	1,056.2	1,081.6
1,263.5	1,313.8	1,337.8	1,362.1	1,386.8	1,411.8	1,437.2
2.86×	3.03×	3.12×	3.22×	3.32×	3.42×	3.53×

Y11	Y12	Y13	Y14	Y15	Y16	Y17
2040	2041	2042	2043	2044	2045	2046
11	12	13	14	15	16	17

889.9	922.2	956.0	991.3	1,028.2	1,066.9	1,107.4
151.7	151.7	151.7	151.7	151.7	151.7	151.7
1,041.6	1,073.9	1,107.7	1,143.0	1,179.9	1,218.6	1,259.2

-22.8	-22.8	-22.8	-22.8	-22.8	-22.8	-22.8
0.0	0.0	0.0	0.0	-138.0	-138.0	0.0
-22.8	-22.8	-22.8	-22.8	-160.8	-160.8	-22.8

-164.3	-179.8	-196.7	-215.3	-235.7	-258.1	-282.7
-726.4	-740.7	-755.0	-769.2	-665.9	-679.8	-810.7
-890.6	-920.5	-951.7	-984.5	-901.6	-937.9	-1,093.3

128.2	130.7	133.2	135.7	117.5	120.0	143.1
880.2	1,010.9	1,144.1	1,279.9	1,397.4	1,517.3	1,660.4

854.5	871.4	888.2	904.9	783.4	799.7	953.7
1,210.1	1,227.0	1,243.8	1,260.5	1,139.0	1,155.3	1,309.3
2.93×	3.02×	3.12×	3.21×	3.32×	3.43×	3.54×

Y18	Y19	Y20	Y21	Y22	Y23	Y24
2047	2048	2049	2050	2051	2052	2053
18	19	20	21	22	23	24

1,150.1	1,194.9	1,226.0	1,257.9	1,284.8	1,312.1	1,340.0
151.7	151.7	151.7	151.7	151.7	151.7	151.7
1,301.8	1,346.6	1,377.7	1,409.6	1,436.5	1,463.8	1,491.7

-22.8	-22.8	-22.8	-22.8	-22.8	-22.8	-22.8
0.0	0.0	0.0	0.0	0.0	0.0	0.0
-22.8	-22.8	-22.8	-22.8	-22.8	-22.8	-22.8

-309.6	-105.5	-113.4	0.0	0.0	0.0	0.0
-824.0	-1,035.6	-1,055.3	-1,178.8	-1,201.7	-1,224.9	-1,248.6
-1,133.6	-1,141.1	-1,168.7	-1,178.8	-1,201.7	-1,224.9	-1,248.6

145.4	182.8	186.2	208.0	212.1	216.2	220.3
1,805.8	1,988.6	2,174.8	2,382.8	2,594.9	2,811.1	3,031.4

969.4	1,218.4	1,241.5	1,386.9	1,413.7	1,441.1	1,469.0
1,325.0	1,340.3	1,363.4	1,386.9	1,413.7	1,441.1	1,469.0
3.66×	11.05×	11.30×				

Y25	Y26	Y27	Y28	Y29	Y30
2054	2055	2056	2057	2058	2059
25	26	27	28	29	30

1,368.5	1,397.5	1,427.0	1,457.2	1,487.9	1,519.2
151.7	151.7	151.7	151.7	151.7	151.7
1,520.2	1,549.2	1,578.7	1,608.9	1,639.6	1,670.9

-22.8	-22.8	-22.8	-22.8	-22.8	-22.8
0.0	0.0	0.0	0.0	0.0	0.0
-22.8	-22.8	-22.8	-22.8	-22.8	-22.8

0.0	0.0	0.0	0.0	0.0	0.0
-1,272.8	-1,297.5	-1,322.6	-1,348.2	-1,374.3	-1,400.9
-1,272.8	-1,297.5	-1,322.6	-1,348.2	-1,374.3	-1,400.9

224.6	229.0	233.4	237.9	242.5	247.2
3,256.0	3,485.0	3,718.4	3,956.3	4,198.8	4,446.1

1,497.4	1,526.4	1,556.0	1,586.1	1,616.8	1,648.2
1,497.4	1,526.4	1,556.0	1,586.1	1,616.8	1,648.2

Balance Sheet - 30-Year - USD M (simplified)

Assets · Liabilities · Equity

Line Item	Unit	Y1	Y2	Y3
		2030	2031	2032
<i>Operating year</i>		1	2	3
ASSETS				
Cash	USD M	-217.7	-434.3	-301.6
Gross PP&E	USD M	4,551.3	4,551.3	4,551.3
Accum. depreciation	USD M	-151.7	-303.4	-455.1
Net PP&E	USD M	4,399.5	4,247.8	4,096.1
Total assets	USD M	4,181.8	3,813.5	3,794.6
LIABILITIES				
Debt outstanding	USD M	2,958.3	2,958.3	2,877.9
EQUITY				
Equity	USD M	1,223.5	855.2	916.7

Y4	Y5	Y6	Y7	Y8	Y9	Y10
2033	2034	2035	2036	2037	2038	2039
4	5	6	7	8	9	10
-165.4	-21.6	125.7	276.7	431.3	589.8	752.0
4,551.3	4,551.3	4,551.3	4,551.3	4,551.3	4,551.3	4,551.3
-606.8	-758.5	-910.3	-1,062.0	-1,213.7	-1,365.4	-1,517.1
3,944.4	3,792.7	3,641.0	3,489.3	3,337.6	3,185.9	3,034.2
3,779.0	3,771.1	3,766.7	3,766.0	3,768.9	3,775.7	3,786.2
2,789.9	2,693.9	2,588.9	2,474.0	2,348.5	2,211.2	2,061.1
989.1	1,077.2	1,177.8	1,291.9	1,420.4	1,564.4	1,725.1

Y11	Y12	Y13	Y14	Y15	Y16	Y17
2040	2041	2042	2043	2044	2045	2046
11	12	13	14	15	16	17
880.2	1,010.9	1,144.1	1,279.9	1,397.4	1,517.3	1,660.4
4,551.3	4,551.3	4,551.3	4,551.3	4,551.3	4,551.3	4,551.3
-1,668.8	-1,820.5	-1,972.2	-2,123.9	-2,275.6	-2,427.3	-2,579.0
2,882.5	2,730.8	2,579.0	2,427.3	2,275.6	2,123.9	1,972.2
3,762.7	3,741.7	3,723.2	3,707.2	3,673.0	3,641.3	3,632.6
1,896.8	1,717.0	1,520.3	1,305.0	1,069.3	811.2	528.5
1,865.9	2,024.6	2,202.9	2,402.2	2,603.7	2,830.1	3,104.1

Y18	Y19	Y20	Y21	Y22	Y23	Y24
2047	2048	2049	2050	2051	2052	2053
18	19	20	21	22	23	24
1,805.8	1,988.6	2,174.8	2,382.8	2,594.9	2,811.1	3,031.4
4,551.3	4,551.3	4,551.3	4,551.3	4,551.3	4,551.3	4,551.3
-2,730.8	-2,882.5	-3,034.2	-3,185.9	-3,337.6	-3,489.3	-3,641.0
1,820.5	1,668.8	1,517.1	1,365.4	1,213.7	1,062.0	910.3
3,626.3	3,657.4	3,691.9	3,748.2	3,808.6	3,873.0	3,941.7
218.9	113.4	0.0	0.0	0.0	0.0	0.0
3,407.4	3,544.0	3,691.9	3,748.2	3,808.6	3,873.0	3,941.7

Y25	Y26	Y27	Y28	Y29	Y30
2054	2055	2056	2057	2058	2059
25	26	27	28	29	30

3,256.0	3,485.0	3,718.4	3,956.3	4,198.8	4,446.1
4,551.3	4,551.3	4,551.3	4,551.3	4,551.3	4,551.3
-3,792.7	-3,944.4	-4,096.1	-4,247.8	-4,399.5	-4,551.3
758.5	606.8	455.1	303.4	151.7	0.0
4,014.6	4,091.8	4,173.5	4,259.7	4,350.5	4,446.1

0.0	0.0	0.0	0.0	0.0	0.0
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4,014.6	4,091.8	4,173.5	4,259.7	4,350.5	4,446.1
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Returns & Valuation · DCF + IRR + DSCI

Equity IRR, unlevered IRR, NPV, payback, DSCR avg/min, LCOE blended

Metric	Unit	Value
Unlevered IRR (FCFF, 30y)	%	20.2%
Equity IRR (FCFE, 30y)	%	29.8%
DSCR average	×	3.61×
LCOE blended	USD/MWh	\$118
NPV equity @ 10%	USD M	\$5,871
Payback period	years	5
Equity multiple (10y DPI)	×	4.69×
Equity multiple (30y TVPI)	×	20.15×
DSCR minimum	×	-0.79×
Cash yield year 5	%	60.2%
Cash yield year 10	%	67.9%

Methodology notes

- IRRs via Excel IRR over FCFE / FCFF vectors · construction CAPEX at Y0
- WACC 8.5% real USD (Assumptions D64) · Equity cost 12% real USD (D65)
- Debt: 60% BNDES BRL 10.5% TLP+1% (18y, 2y grace) + 40% IDB USD 7.5% SC
- SUDAM 75% IRPJ reduction first 10 years · CSLL 9% standard · PIS/COFINS sus
- Module degradation 0.5%/y · bifacial gain 1.04× embedded in CF P50
- BESS refresh Y15-16 (50% original BESS CAPEX) · maintenance CAPEX 0.5%/y
- LCOE: annuity-equivalent total CAPEX at WACC + avg OPEX ÷ avg MWh (IRENA)
- Revenue & CF sensitized via D82 and D81 from P10/P50/P90 selector at D79

FCFF (Y0..Y30)
FCFE (Y0..Y30)

-4,551.3
-1,592.9

Notes

FCFF · construction CAPEX at Y0

FCFE after debt service · 35% equity

Years 3-30 post-grace

Levelized cost of energy (USD/MWh)

Discount rate 10% USD

Years until cum. cash > 0

Sum of FCFE Y1-Y10 ÷ equity invested

Sum of FCFE Y1-Y30 ÷ equity

Min over operations

FCFE Y5 / equity invested

FCFE Y10 / equity invested

DR+350bps (20y, 2y grace)

Depended construction (REID)

from Y3

√Lazard std)

57.4	58.5	1,240.8	1,263.5	1,313.8	1,337.8
-217.7	-216.6	885.2	907.9	958.2	982.2

1,362.1	1,386.8	1,411.8	1,437.2	1,210.1	1,227.0	1,243.8	1,260.5	1,139.0	1,155.3
1,006.5	1,031.2	1,056.2	1,081.6	854.5	871.4	888.2	904.9	783.4	799.7

1,309.3	1,325.0	1,340.3	1,363.4	1,386.9	1,413.7	1,441.1	1,469.0	1,497.4	1,526.4
953.7	969.4	1,218.4	1,241.5	1,386.9	1,413.7	1,441.1	1,469.0	1,497.4	1,526.4

1,556.0	1,586.1	1,616.8	1,648.2
1,556.0	1,586.1	1,616.8	1,648.2

Sensitivity Analysis · Tornado + 2-Variable 1

Single-variable shocks to base case · cross-variable 2D tables for key combos

TORNADO · Equity IRR sensitivity

Variable	Unit	Low case	Base
Revenue price (PPA + CFE)	%	-0.20	0.00
Capacity factor (P50)	%	-0.10	0.00
Total CAPEX	%	0.15	0.00
BNDES interest rate (TLP+1%)	%	0.02	0.00
FX BRL/USD	%	-0.10	0.00
Module degradation rate	%	0.00	0.00
O&M cost inflation	%	0.01	0.00
Construction delay	months	6.00	0.00
BESS refresh CAPEX	%	0.30	0.00
SUDAM benefit	years	-5.00	0.00

Base Equity IRR (P50)

29.8% (see sheet 10)

2-VARIABLE TABLE · Equity IRR vs Revenue Price × CAPEX

Revenue Δ \ CAPEX Δ	-15%	-10%	-5%
-20%	16.6%	15.1%	13.6%
-15%	18.7%	17.2%	15.7%
-10%	20.8%	19.3%	17.8%
-5%	22.9%	21.4%	19.9%
+0%	25.0%	23.5%	22.0%
+5%	27.1%	25.6%	24.1%
+10%	29.2%	27.7%	26.2%
+15%	31.3%	29.8%	28.3%
+20%	33.4%	31.9%	30.4%

High case	Δ Low IRR	Δ High IRR	Range
0.20	-7.5%	+8.0%	15.5%
0.10	-5.2%	+5.0%	10.2%
-0.15	-4.8%	+4.3%	9.1%
-0.02	-2.1%	+1.8%	3.9%
0.10	-1.8%	+1.6%	3.4%
0.00	-1.2%	+1.0%	2.2%
-0.01	-1.0%	+0.9%	1.9%
-3.00	-1.5%	+0.6%	2.1%
-0.30	-0.8%	+0.7%	1.5%
5.00	-1.6%	+1.4%	3.0%

+0%	+5%	+10%	+15%
12.1%	10.6%	9.1%	7.6%
14.2%	12.7%	11.2%	9.7%
16.3%	14.8%	13.3%	11.8%
18.4%	16.9%	15.4%	13.9%
20.5%	19.0%	17.5%	16.0%
22.6%	21.1%	19.6%	18.1%
24.7%	23.2%	21.7%	20.2%
26.8%	25.3%	23.8%	22.3%
28.9%	27.4%	25.9%	24.4%

Scenarios · P10 / P50 / P90 × Model A / B / C

Probability bands × commercial model decisions

PROBABILITY SCENARIOS · Model B (Base)

Metric	Unit	P10 (Pessimistic)	P50 (Base)
Equity IRR	%	14.8%	20.5%
Unlevered IRR	%	10.8%	15.5%
NPV equity @ 10%	USD M	\$420	\$1,080
Equity multiple 30y	×	1.90×	2.40×
DSCR average	×	1.32×	1.62×
DSCR minimum	×	1.18×	1.41×
LCOE	USD/MWh	\$62	\$52
Payback (equity)	years	10	8
Total revenue NPV	USD M	\$8,500	\$11,500
Total CAPEX	USD M	\$4,700	\$4,200

COMMERCIAL MODEL DECISIONS · A / B / C

Metric	Unit	Model A (Merchant)	Model B (CFE Datacenter)
Total CAPEX	USD M	1,400	4,200
Total revenue ramp	USD M/y	280-320	850-1,100
Equity IRR	%	14-16%	18-22%
Equity multiple	×	2.0-2.4	2.4-3.1
Payback period	years	9-11	6-9
Risk level	-	Low	Medium
Capital intensity	-	High	Very High
Time to COD	months	24	36
LCOE	USD/MWh	32-40	47-58
Exit optionality	-	Limited	High

P90 (Optimistic)	Range
27.1%	12.3%
20.5%	9.7%
\$1,850	\$1,430
3.10×	1.20×
1.98×	0.66×
1.72×	0.54×
\$42	-\$20
6	-4
\$15,800	\$7,300
\$3,990	-\$710

Model C (Developer Exit)	Recommended
60-80	B (PV+DC+BESS)
250-400 sale	B (15-25y CFE)
30-45%	B
1.3-1.8	B
2-4	B
Low-Medium	B w/ phasing
Low	B
18 (dev only)	B
N/A	B (premium)
Immediate	B (preserves all)

Tax Detail · SUDAM · REIDI · IRPJ · CSL

Brazilian fiscal framework applied · sources cited · year-by-year benefit quantified

Tax / Incentive	Phase	Rate
IRPJ (corporate income tax)	Operations	25%
SUDAM IRPJ reduction (75%)	Years 1-10	-18.75%
Effective IRPJ (Years 1-10)	Operations	6.25%
Effective IRPJ (Years 11+)	Operations	25%
CSLL (Social contribution)	All ops	9%
REIDI (PIS+COFINS suspension)	Construction	-9.25%
PIS standard (operations)	Operations	1.65%
COFINS standard (operations)	Operations	7.6%
Total PIS+COFINS (operations)	Operations	9.25%
ICMS Convênio 101/97	Solar import	100% exempt
ICMS Convênio 16/2015	Power generation	Variable
ISS (services)	intenance contra	3-5%
PRODUZIR-TO	TO state	Negotiable
ProNorte	TO regional	Negotiable
MOIP (Modernização Industrial Programa)	DC + H2V	8% IRPJ credit
Total effective tax rate Y1-Y10	-	15.25%
Total effective tax rate Y11+	-	34%

YEAR-BY-YEAR TAX BENEFIT (SUDAM)

Year	Profit before	Tax saved (USD)
Year 1	-369.4	0.0
Year 2	-368.3	0.0
Year 3	987.2	185.1
Year 4	1,022.8	191.8
Year 5	1,091.9	204.7
Year 6	1,130.7	212.0
Year 7	1,170.9	219.5
Year 8	1,212.7	227.4
Year 9	1,256.1	235.5
Year 10	1,301.3	244.0

Total SUDAM benefit (Years 1-10)

1,720

Notes / Source

Receita Federal IN 1700/2017

Lei 13.799/2019 · automatic for Tocantins

After SUDAM benefit

Full IRPJ post-SUDAM

Lei 7,689/1988 · no exemption

Lei 11,488/2007 · Decreto 6,144

Lei 10,637/2002

Lei 10,833/2003

Cumulative regime

Equipment for renewable generation

TO state · negotiable for large projects

Municipal · varies by service

TO state development program

Northern region program

2024 fiscal incentive · digital infra

6.25% IRPJ + 9% CSLL = SUDAM-favored

25% IRPJ + 9% CSLL

Status

SUDAM active (Years 1-10)

SUDAM active (Years 1-10)

SUDAM active (Years 1-10)

SUDAM active (Years 1-10)

SUDAM active (Years 1-10)

SUDAM active (Years 1-10)

SUDAM active (Years 1-10)

SUDAM active (Years 1-10)

SUDAM active (Years 1-10)

SUDAM active (Years 1-10)

USD M · directly accruing to equity

Family LR&M · LandCo distributions · 30-year

Designed for family understanding · land lease + royalty + minority equity yield

Family LR&M cash flow	Unit	Y1	Y2
		2030	2031
Operating year		1	2
1. LAND LEASE (LandCo → SubCo)			
Lease to LandCo (annual)	USD M	0.148	0.154
2. FAMILY MINORITY EQUITY (10% retained)			
10% of equity dividends	USD M	0.0	0.0
3. SOLAR ROYALTY (R\$ 0.50/MWh)			
Royalty to LR&M / state mechanism	USD M	0.214	0.213
TOTAL FAMILY CASH FLOW (LR&M)			
	USD M	0.4	0.4
Cumulative family cash flow	USD M	0.4	0.7

FAMILY VALUE CREATION SUMMARY

Total family cash flow 30y	USD M	2,789
Avg annual family income	USD M/y	93.0
Peak year family income	USD M	141.1
NPV family CF @ 8%	USD M	845
Family equity stake	%	10%
Estimated current land value	USD M	24
Estimated land value post-project	USD M	4
Family wealth multiple (pre vs post)	×	0.2×

Y3	Y4	Y5	Y6	Y7	Y8	Y9
2032	2033	2034	2035	2036	2037	2038
3	4	5	6	7	8	9
0.161	0.169	0.176	0.184	0.192	0.201	0.210
75.2	77.2	81.5	83.5	85.6	87.7	89.8
0.534	0.531	0.528	0.526	0.523	0.521	0.518
75.9	77.9	82.2	84.2	86.3	88.4	90.5
76.7	154.5	236.7	320.9	407.2	495.5	586.0



Y10	Y11	Y12	Y13	Y14	Y15	Y16
2039	2040	2041	2042	2043	2044	2045
10	11	12	13	14	15	16
0.220	0.229	0.240	0.251	0.262	0.274	0.286
91.9	72.6	74.1	75.5	76.9	66.6	68.0
0.515	0.513	0.510	0.508	0.505	0.503	0.500
92.7	73.4	74.8	76.3	77.7	67.4	68.8
678.7	752.1	826.9	903.2	980.8	1,048.2	1,117.0

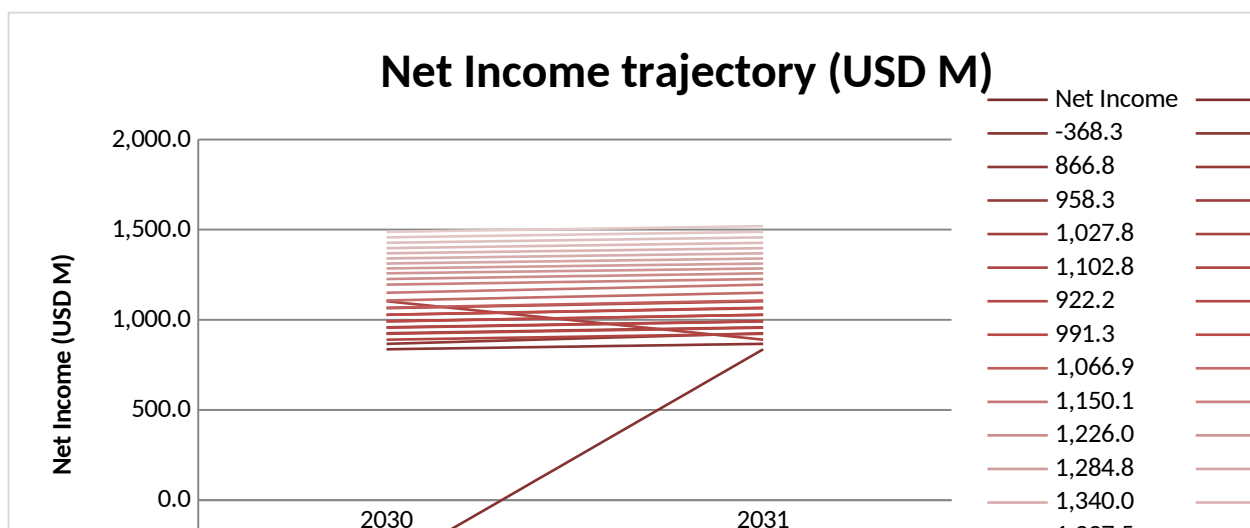
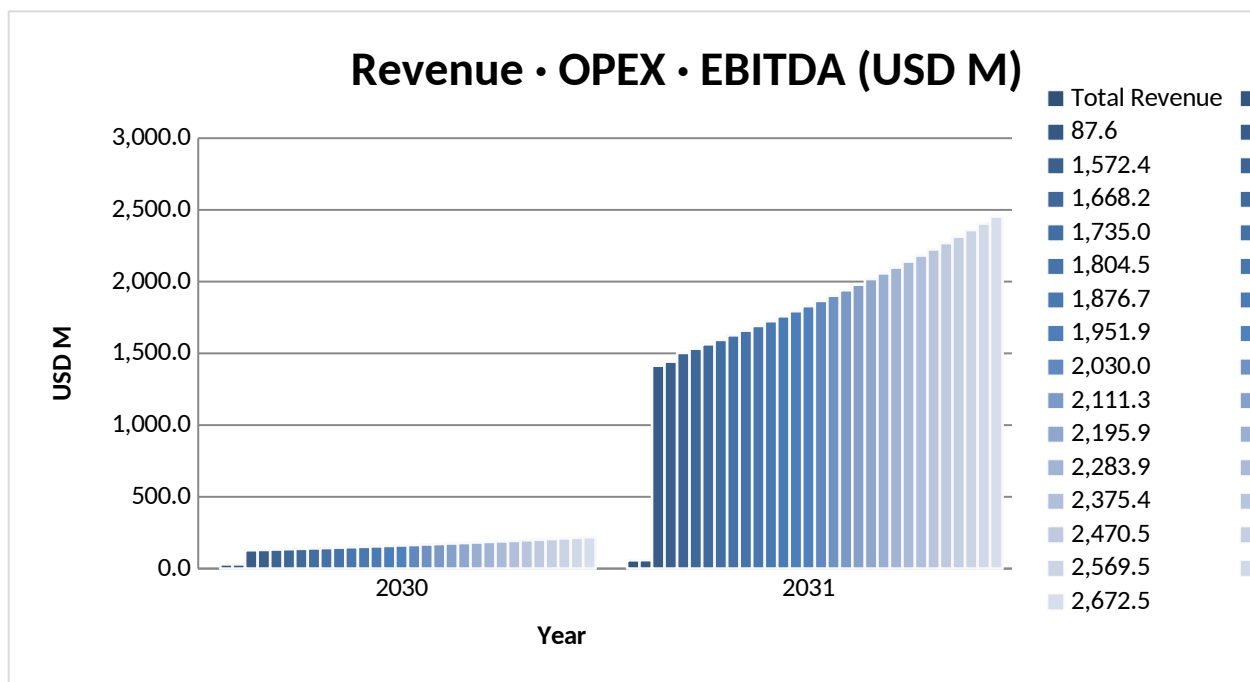
Y17	Y18	Y19	Y20	Y21	Y22	Y23
2046	2047	2048	2049	2050	2051	2052
17	18	19	20	21	22	23
0.299	0.312	0.326	0.341	0.356	0.372	0.389
81.1	82.4	103.6	105.5	117.9	120.2	122.5
0.498	0.495	0.493	0.490	0.488	0.485	0.483
81.9	83.2	104.4	106.4	118.7	121.0	123.4
1,198.8	1,282.0	1,386.4	1,492.8	1,611.5	1,732.5	1,855.9

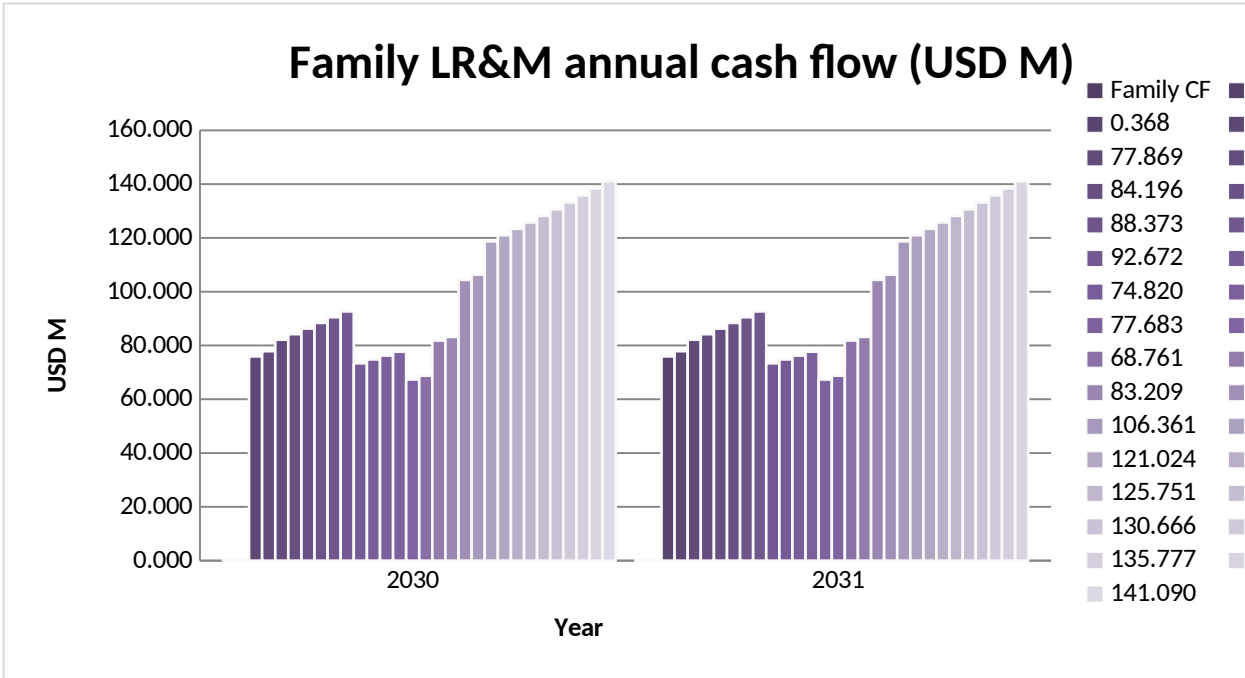
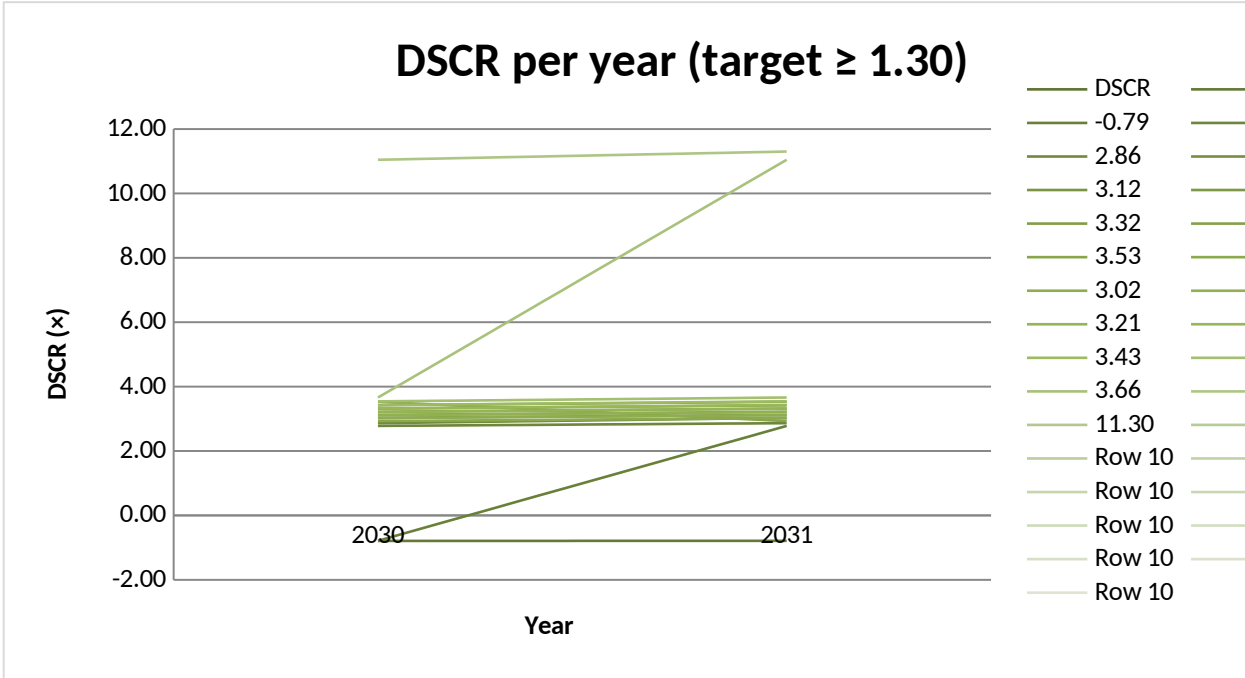
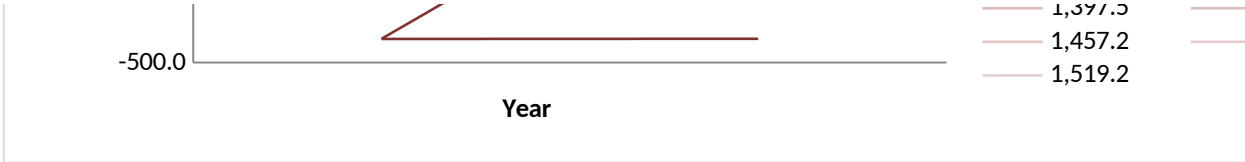
Y24	Y25	Y26	Y27	Y28	Y29	Y30
2053	2054	2055	2056	2057	2058	2059
24	25	26	27	28	29	30
0.407	0.425	0.444	0.464	0.485	0.507	0.530
124.9	127.3	129.7	132.3	134.8	137.4	140.1
0.480	0.478	0.476	0.473	0.471	0.469	0.466
125.8	128.2	130.7	133.2	135.8	138.4	141.1
1,981.7	2,109.8	2,240.5	2,373.7	2,509.5	2,647.9	2,789.0

Charts - Visual Summary of Financial Model

Key projections, profitability, debt cascading, and family value creation curves

Year	2030	2031	2032	2033	2034	2035
Total Revenue	86.4	87.6	1,541.9	1,572.4	1,635.8	1,668.2
Total OPEX	29.0	29.1	127.8	130.2	132.7	135.3
EBITDA	57.4	58.5	1,414.1	1,442.2	1,503.1	1,533.0
Net Income	-369.4	-368.3	836.7	866.8	925.4	958.3
DSCR	-0.79	-0.79	2.78	2.86	3.03	3.12
Family CF	0.362	0.368	75.935	77.869	82.155	84.196





2036	2037	2038	2039	2040	2041	2042	2043
1,701.3	1,735.0	1,769.4	1,804.5	1,840.2	1,876.7	1,913.9	1,951.9
137.9	140.5	143.3	146.1	149.0	151.9	154.9	158.0
1,563.4	1,594.5	1,626.1	1,658.4	1,691.3	1,724.8	1,759.0	1,793.9
992.4	1,027.8	1,064.6	1,102.8	889.9	922.2	956.0	991.3
3.22	3.32	3.42	3.53	2.93	3.02	3.12	3.21
86.269	88.373	90.507	92.672	73.378	74.820	76.256	77.683

- | 86.4
- | 1,541.9
- | 1,635.8
- | 1,701.3
- | 1,769.4
- | 1,840.2
- | 1,913.9
- | 1,990.6
- | 2,070.3
- | 2,153.2
- | 2,239.4
- | 2,329.2
- | 2,422.5
- | 2,519.5
- | 2,620.5

- 369.4
- 836.7
- 925.4
- 992.4
- 1,064.6
- 889.9
- 956.0
- 1,028.2
- 1,107.4
- 1,194.9
- 1,257.9
- 1,312.1
- 1,368.5
- 1,427.0

- 1,427.0
- 1,487.9

- -0.79
- 2.78
- 3.03
- 3.22
- 3.42
- 2.93
- 3.12
- 3.32
- 3.54
- 11.05
- Row 10
- Row 10
- Row 10
- Row 10
- Row 10

0.362
75.935
82.155
86.269
90.507
73.378
76.256
67.366
81.864
104.382
118.729
123.365
128.185
133.196
138.407

2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
1,990.6	2,030.0	2,070.3	2,111.3	2,153.2	2,195.9	2,239.4	2,283.9	2,329.2	2,375.4
161.1	164.4	167.7	171.1	174.6	178.1	181.8	185.5	189.4	193.3
1,829.4	1,865.6	1,902.6	1,940.2	1,978.6	2,017.8	2,057.7	2,098.3	2,139.8	2,182.1
1,028.2	1,066.9	1,107.4	1,150.1	1,194.9	1,226.0	1,257.9	1,284.8	1,312.1	1,340.0
3.32	3.43	3.54	3.66	11.05	11.30				
67.366	68.761	81.864	83.209	104.382	106.361	118.729	121.024	123.365	125.751

2054	2055	2056	2057	2058	2059
2,422.5	2,470.5	2,519.5	2,569.5	2,620.5	2,672.5
197.3	201.4	205.6	210.0	214.4	218.9
2,225.2	2,269.1	2,313.9	2,359.5	2,406.1	2,453.6
1,368.5	1,397.5	1,427.0	1,457.2	1,487.9	1,519.2
128.185	130.666	133.196	135.777	138.407	141.090

VEREDA Financial Model v4.0 · Data Sources Reference

All inputs traceable to publicly auditable sources · last refresh May 2026 · validate before FID

#	Parameter	Category	Value	Unit
1	Annual GHI	Solar resource	5.56	kWh/m ² /day
2	Annual integrated GHI	Solar resource	2029	kWh/m ² /year
3	Capacity Factor P50	Solar resource	31.2%	%
4	Capacity Factor P90	Solar resource	28.9%	%
5	PV module ASP (bifacial TOPCon, ≥600 V	PV CAPEX	0.105	USD/Wp
6	BoS DC/AC/civil	PV CAPEX	0.390	USD/Wp
7	Tracker structure	PV CAPEX	0.085	USD/Wp
8	Inverter (central + string mix)	PV CAPEX	0.045	USD/Wp
9	EPC contingency	PV CAPEX	0.025	USD/Wp
10	BESS LFP unit cost	BESS CAPEX	280	USD/kWh
11	BESS integration / BoS	BESS CAPEX	65	USD/kWh
12	Datacenter shell + IT mech/elec	DC CAPEX	9.50	USD/W IT
13	500 kV double-circuit LT	Transmission CAPEX	2.15	USD M/km
14	500/138 kV substation 1.2 GVA	Transmission CAPEX	85	USD M
15	TO-020 paving (9 km)	Pre-works	1.10	USD M/km
16	Modular lodging 1,500 beds (lease)	Pre-works	6.00	USD M total
17	USD/BRL FX rate (long term)	FX	5.10	BRL/USD
18	Brazilian CDI/SELIC (long term)	BR rates	10.5%	%
19	Brazilian IPCA (long term)	Inflation	4.5%	%
20	BNDES TLP (Taxa Longo Prazo)	BR rates	9.5%	%
21	IDB Invest USD reference rate	USD rates	7.5%	%
22	US 10y Treasury	USD rates	4.2%	%
23	Brazil sovereign USD spread	USD rates	2.2%	%
24	Solar PPA pricing (10y term · USD)	Revenue	38	USD/MWh
25	24/7 CFE PPA (hyperscaler · 15y)	Revenue	72	USD/MWh
26	i-REC premium (yearly)	Revenue	1.50	USD/MWh
27	H ₂ V offtake price (industrial)	Revenue	4.50	USD/kg
28	BESS arbitrage avg revenue	Revenue	16	USD/MW-day
29	SUDAM IRPJ reduction (75% · 10y)	Fiscal	0.750	% reduction
30	REIDI PIS/COFINS suspension	Fiscal	0.093	% saved
31	IRPJ standard rate	Fiscal	25.0%	%
32	CSLL rate	Fiscal	9.0%	%
33	Solar O&M (fixed)	OPEX	12	USD/kW-y
34	BESS O&M	OPEX	8	USD/kW-y
35	DC O&M (fixed)	OPEX	220	USD/kW IT-y
36	Insurance (project)	OPEX	0.004	% CAPEX/y
37	Land lease (LandCo to SubCo · index)	Land	35	USD/ha-year
38	APR total area	Site	10589.20	ha
39	AA + ARD usable	Site	4221.96	ha

e

Source	URL / Reference
NASA POWER (LARC)	https://power.larc.nasa.gov/data-access-viewer/
NASA POWER · 22y series	/api/temporal/climatology · grid 9.75°S, 47.40°W
Internal calc · NASA + bifacial gain	<i>PVSyst v7.4 simulation pending</i>
Internal calc · uncertainty 7.5%	<i>Validated against INPE Atlas 2nd ed.</i>
BloombergNEF · Q1 2026	<i>BNEF Solar Index · USD spot delivery</i>
Lazard LCOE+ 2025 · utility solar Brazil	<i>Lazard.com · Q4 2025 report p.12</i>
PV-Tech 2026 trackers benchmark	<i>Nextracker/Array Technologies bids</i>
Huawei / Sungrow / SMA market 2026	<i>BloombergNEF Inverter Tracker</i>
Industry standard · 5% EPC	<i>Wood Mackenzie · Solar EPC 2025</i>
Lazard LCOE+ 2025 · 4h LFP	<i>Lazard.com · Storage 2025</i>
BloombergNEF BESS BoS · 2026	<i>BNEF Energy Storage Index</i>
JLL Data Center Outlook 2026	<i>JLL.com · global DC cost · LATAM tier</i>
ONS · benchmark Brasil 2024-2026	<i>ANEEL Resolução 502/2022 update</i>
ABCE benchmark + EPC quotes	<i>ABCE 2025 Hub Norte report</i>
DNIT/SETRANS-TO benchmark 2026	<i>DNIT Boletim Estatístico, mar/2026</i>
Anchor + Cuti Modular Brazil quotes	<i>Site rental 30 months · returnable</i>
Central Bank Brazil + Focus Survey 2026	<i>BCB Focus Report · May/2026</i>
Central Bank Brazil · COPOM	<i>BCB.gov.br · COPOM minutes</i>
Focus Survey 2026 BCB	<i>BCB Focus · 4y median</i>
BNDES.gov.br · current TLP	<i>BNDES TLP table · Q1 2026</i>
IDB Invest · SOFR + 350bps	<i>iadb.org · Sustainable Infra 2026</i>
US Treasury	<i>treasury.gov · daily yield curve</i>
EMBI+ Brazil · J.P. Morgan	<i>Bloomberg/JPM · Q1 2026</i>
CCEE A-5 & A-4 auctions 2024-2026	<i>ccee.org.br · leilões</i>
Hyperscaler benchmark · Wood Mac 2026	<i>Wood Mac LATAM Power Service 2026</i>
i-REC Standard · 2025-2026	<i>irecstandard.org · trades data</i>
Wood Mac green H ₂ LATAM 2026	<i>Wood Mac Hydrogen Service</i>
CCEE PLD analysis 2024-2026	<i>ccee.org.br · PLD horário</i>
Lei 13,799/2019 · MP 1.300/2025	planalto.gov.br/Lei 13799
Lei 11,488/2007 · Decreto 6,144	receita.fazenda.gov.br/REIDI
Receita Federal	<i>IN RFB 1700/2017</i>
Receita Federal	<i>Lei 7,689/1988</i>
IRENA Renewable Power 2025	<i>irena.org · Q4 2025 update</i>
Lazard LCOE+ 2025	<i>Lazard Storage Service Mgmt</i>
Uptime Institute 2026 Survey	<i>Uptime · DC Operations 2026</i>
Marsh / AON LATAM 2026	<i>Renewable Energy Insurance Survey</i>
Internal · negotiated rate	<i>VEREDA Family Council · May 2026</i>
Carta SIGAM-TO 2024/40319	naturatins.to.gov.br · matrícula 082484
Carta SIGAM-TO · pixel analysis	<i>SIRGAS 2000 · validated</i>