

Scenario — PV

GEMINI-60-house-part-of-a-settlement Nepal - Kathmandu 27.708, 85.262

Name	Slope °	Azimuth °	Wp	Wall d/h m	Face	Bifacial	Wp counted
Roof East	22	-90	19800	—	front	—	yes
Roof West	22	90	19800	—	front	—	yes
Terrace railing south	90	0	4620	5 / 4	front	—	yes
Terrace railing north	90	180	4620	5 / 4	front	—	yes
share central structure east part	8	-90	20460	—	front	—	yes
share central strucure west part	8	90	20460	—	front	—	yes
Total counted			89760				

Location: Look at the yield chart and guess when the rain time is.

Database PVGIS-ERA5 2005-2023 loss 14 % azimuth 0 = south, 90 = west, -90 = east.

Price bands and charts use UTC+6 from longitude (15° per hour), not the political time zone.

Peak hour 2005-04-12 12:30 local (06:30 UTC) 61234 W 0.682 W/Wp of 89760 Wp.

Database gaps: 0 days with 0 yield while the sun reached the horizon at noon. Yield charts skip them. The simulation uses the lowest-yield day of that month.

Sell when the export price is above 0. At 0 cent export PV yield only, not the battery. Do not sell when the earning is negative. At 15:00 winter time, battery export is only the kWh that would not fit in the next 72 h.



Scenario — house, heat pump, battery
GEMINI-60-house-part-of-a-settlement

Nepal - Kathmandu 27.708, 85.262

Chapter	Parameter	Value
Building	Design out / in / heat	-10.0 °C / 20.0 °C / 1600.0 W
	Heat on / cool on / ground	22.0 °C / 25.0 °C / 10.0 °C
	Curve / flow min / max	0.4 / 25.0 °C / 55.0 °C
	Thermal mass of the house	25.0 kWh/K
	Household only	4.0 kWh/day
DHW	Litres at 40 °C / tank	200.0 L tank 42.0 °C 8-18 h
	Water out of the pipe Q1-Q4	10 °C 16 °C 20 °C 14 °C
Heat pump	Source	air and ground
	COP -10/0/10 @ 35 °C	2.4 3.4 4.5
	COP -10/0/10 @ 50 °C	1.9 2.6 3.3
	kW -10/0/10 @ 35 °C	4 5 6
	kW -10/0/10 @ 50 °C	3.5 4.5 5
Battery	kWh / C-rate / SOC min-max-start	257.2 kWh C 0.5 5 / 95 / 50 %
	Nameplate	—
	Charge / discharge η	95 % / 90 %
Grid	Inverter / grid connection	54.0 kW / 27.0 kW
	Max export	27.0 kW
	Import cap Jan-Jun kW	Jan 2 Feb 2 Mar 2 Apr 2 May 2 Jun 2
	Import cap Jul-Dec kW	Jul 2 Aug 2 Sep 2 Oct 2 Nov 2 Dec 2
Cars	Lunch DC / night AC	0.0 kWh @ 100.0 kW night 10.0 kWh @ 11.0 kW

Records 1-10 — contribution of each PV
 Nepal - Kathmandu 27.708, 85.262

PV	2005-04-12 06:30	2005-04-01 06:30	2012-04-16 06:30	2021-04-23 06:30	2017-04-09 06:30	2011-04-05 06:30	2005-04-02 06:30	2005-04-16 06:30	2016-04-24 06:30	2016-04-25 06:30
Roof East	14048	13999	14010	13999	13957	13921	13917	13921	13928	13925
Roof West	14479	14296	14481	14526	14350	14268	14226	14395	14456	14459
Terrace railing south	1609	1914	1497	1309	1684	1787	1871	1474	1294	1263
Terrace railing north	154	150	161	150	154	152	142	149	175	160
share central structure east part	15392	15293	15365	15374	15277	15228	15211	15282	15290	15289
share central strucure west part	15552	15404	15541	15571	15424	15358	15326	15460	15487	15488
Watt at record	61234	61056	61054	60928	60847	60715	60692	60680	60629	60583
Percent of installed peak	68.2	68.0	68.0	67.9	67.8	67.6	67.6	67.6	67.5	67.5

Hours at or above a share of the record
Nepal - Kathmandu 27.708, 85.262

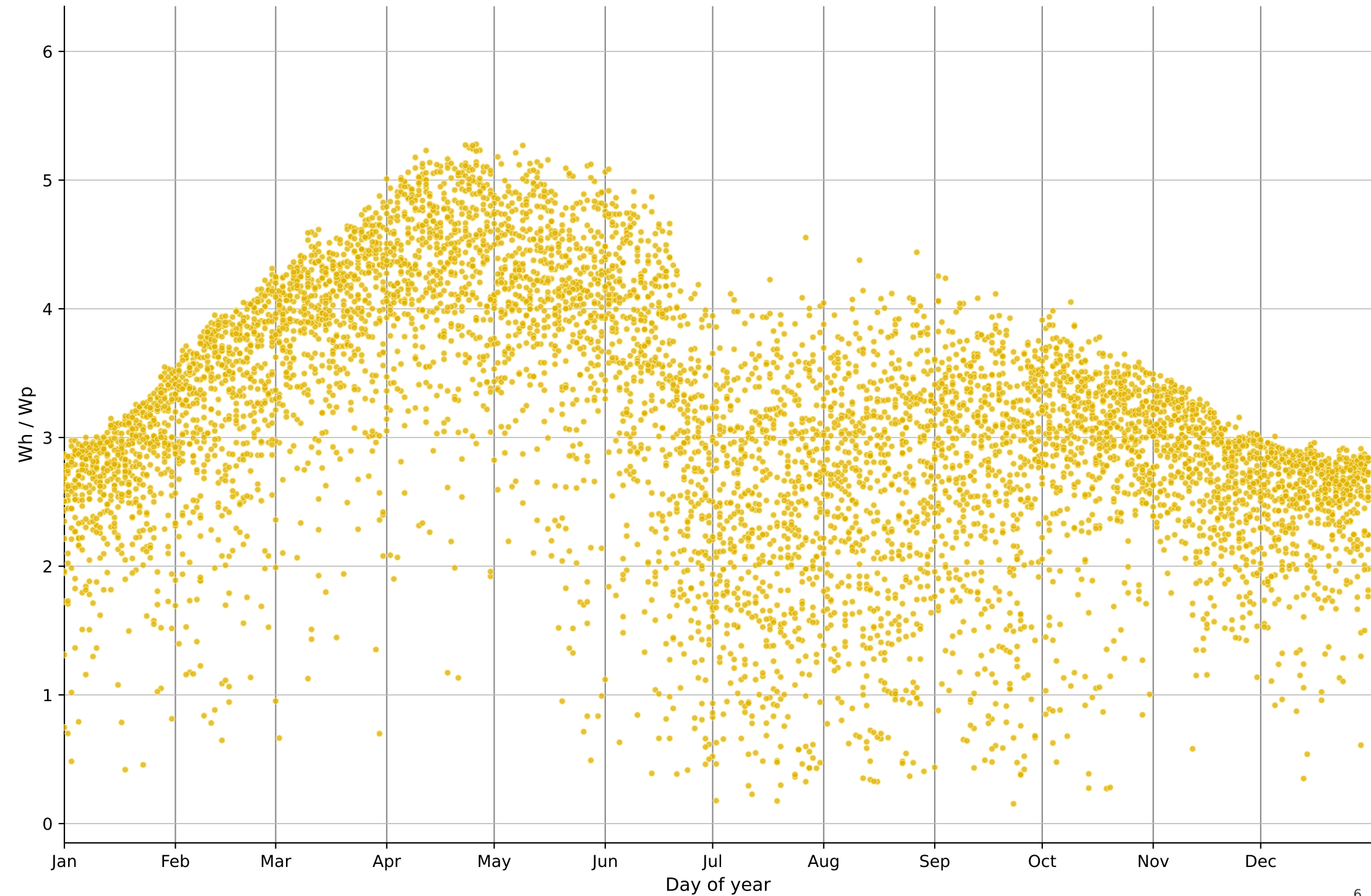
Of the record	Hours	Watts
98 %	35	60010 W
96 %	200	58785 W
94 %	521	57560 W
92 %	895	56336 W
90 %	1285	55111 W

Records of each photovoltaic field
Nepal - Kathmandu 27.708, 85.262

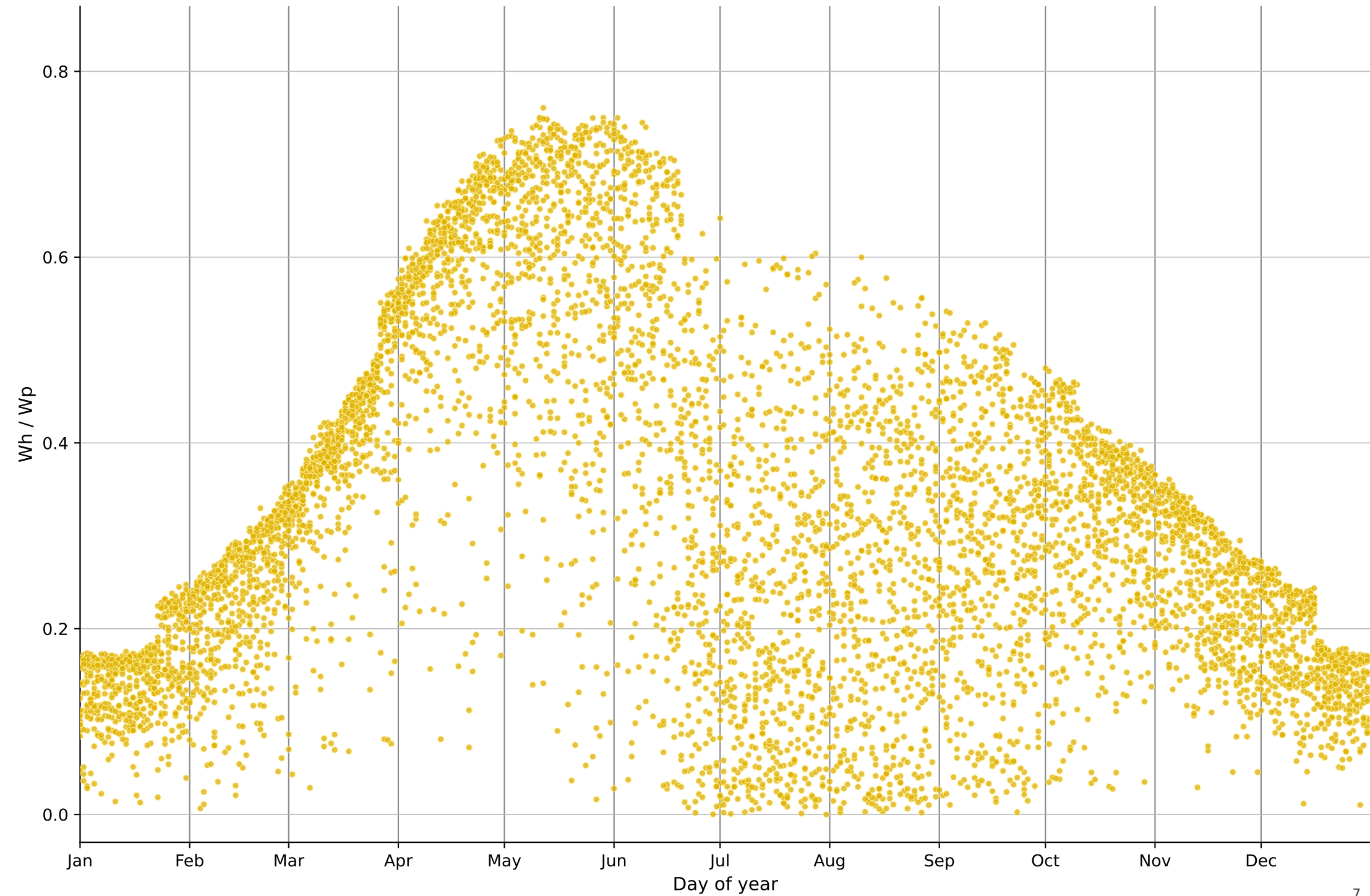
PV	Date	Watts	%	h ≥98%	h ≥96%	h ≥94%	h ≥92%	h ≥90%
Roof East	2021-04-23 04:30	15157	76.5	49	340	809	1214	1919
Roof West	2005-05-10 07:30	15258	77.1	15	65	157	353	604
Terrace railing south	2013-01-07 06:30	3328	72.0	14	89	275	512	772
Terrace railing north	2009-06-09 01:30	747	16.2	6	15	42	68	102
share central structure east part	2023-05-11 05:30	15756	77.0	17	158	424	808	1345
share central strucure west part	2021-04-23 06:30	15571	76.1	46	190	399	727	1092

Watts is the highest hour of that field. % is of its own Wp. Hours are the count of hours at or above that share of its own record. Use this to size the MPPT or the inverter for that field.

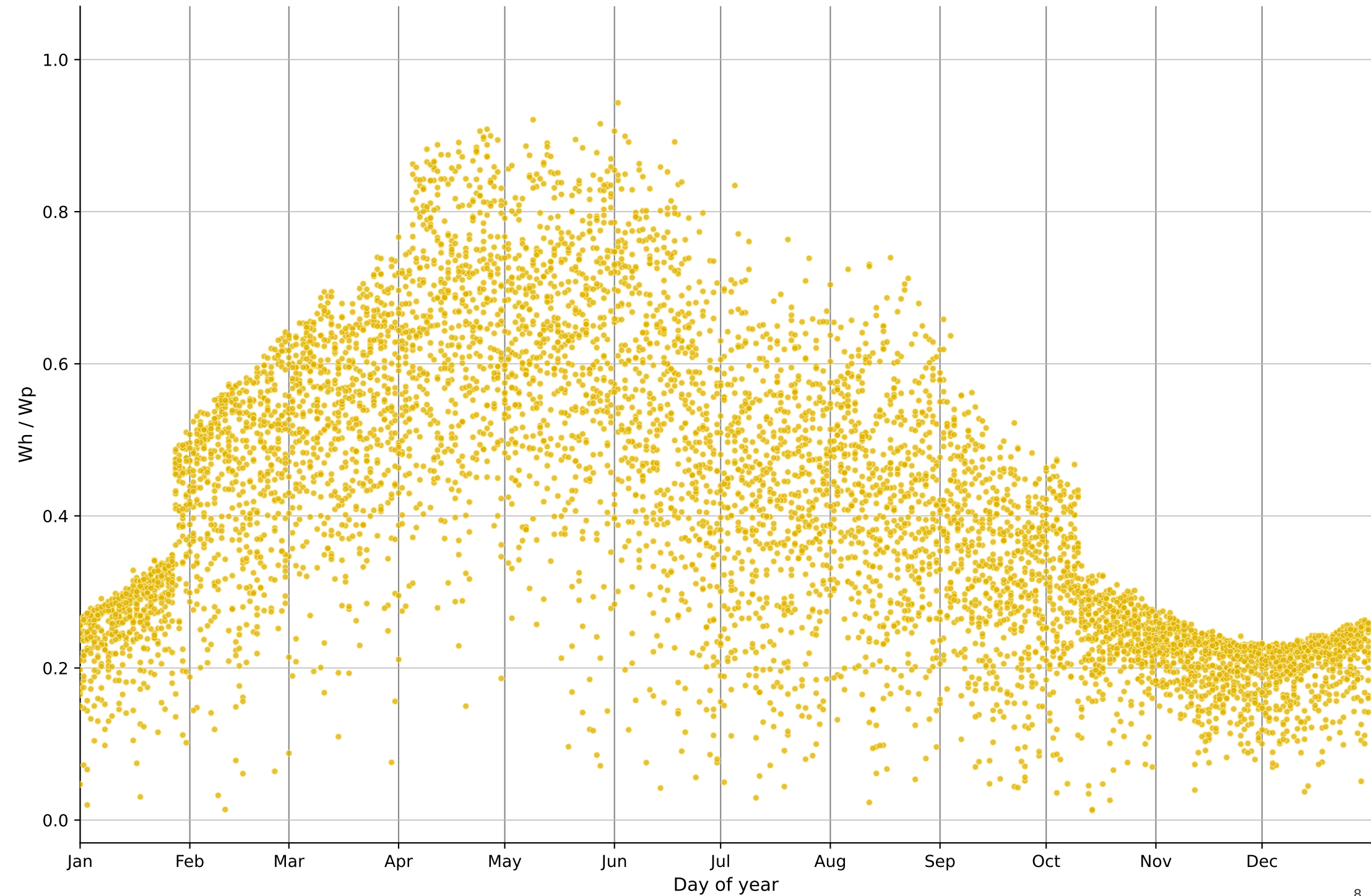
Yield distribution for each day — Wh / Wp of all PV together
Nepal - Kathmandu 27.708, 85.262



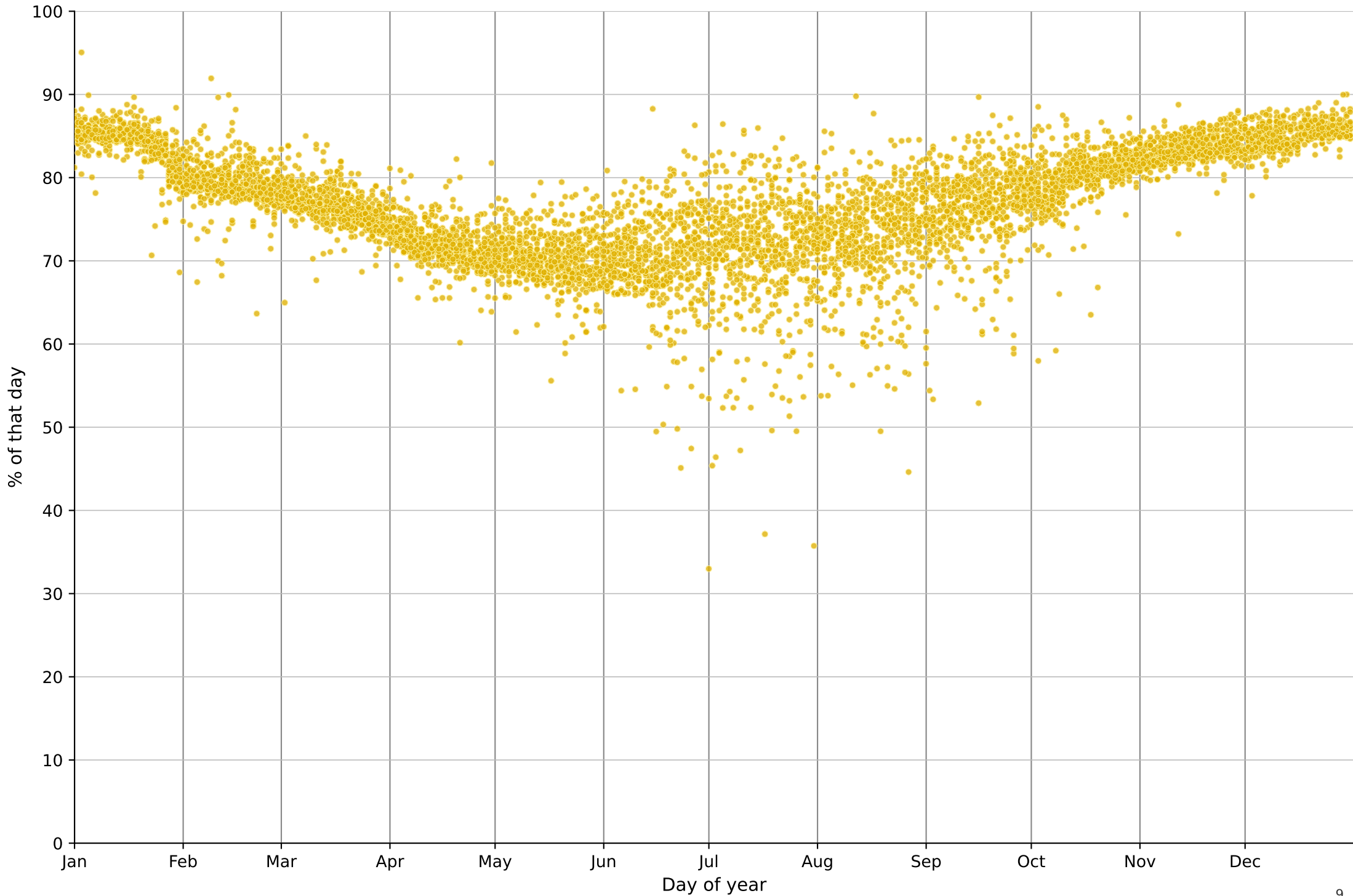
Yield distribution for each day — Wh / Wp of all PV together — 00:00-09:00
Nepal - Kathmandu 27.708, 85.262



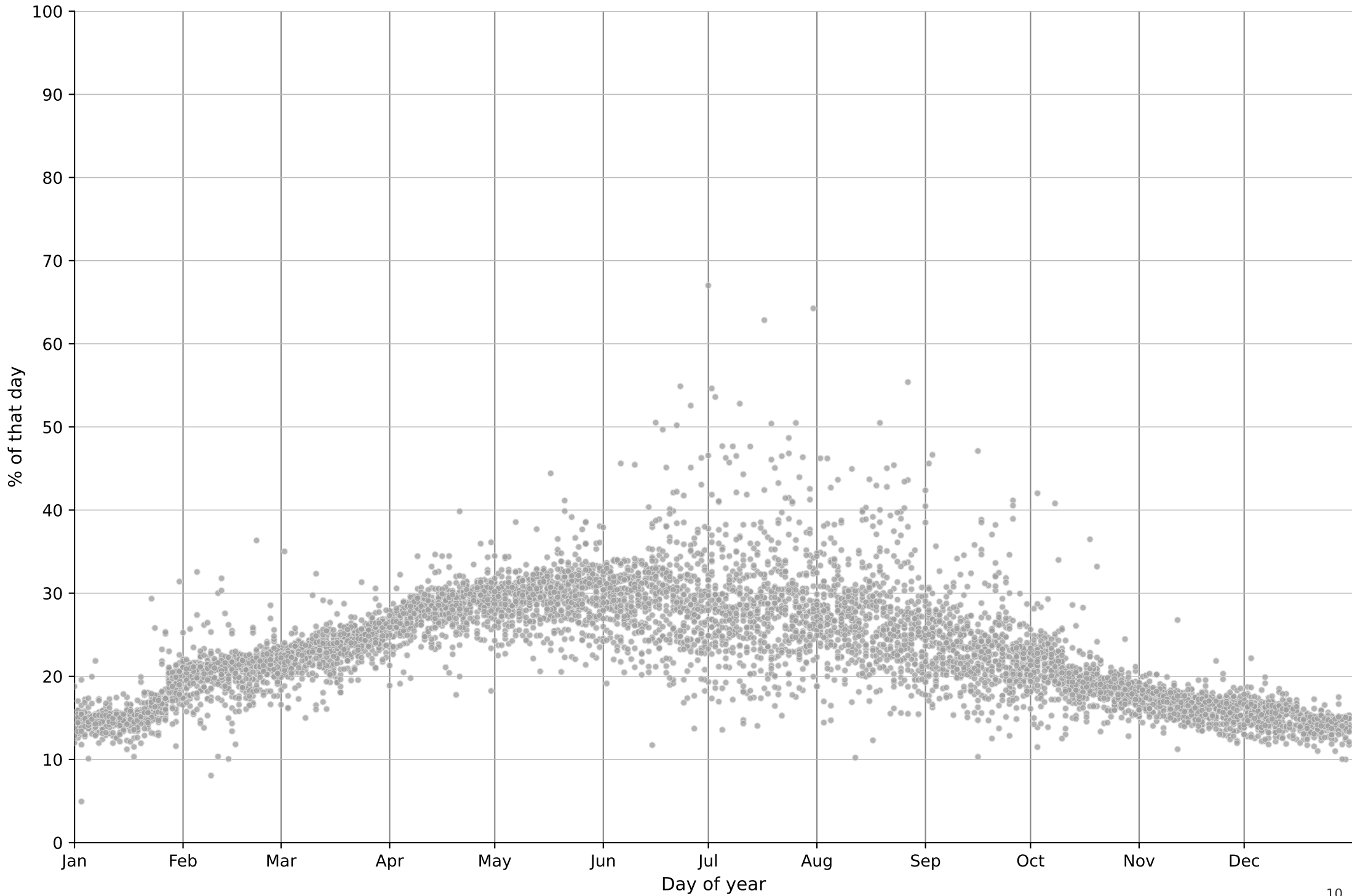
Yield distribution for each day — Wh / Wp of all PV together — 15:00-23:59
Nepal - Kathmandu 27.708, 85.262



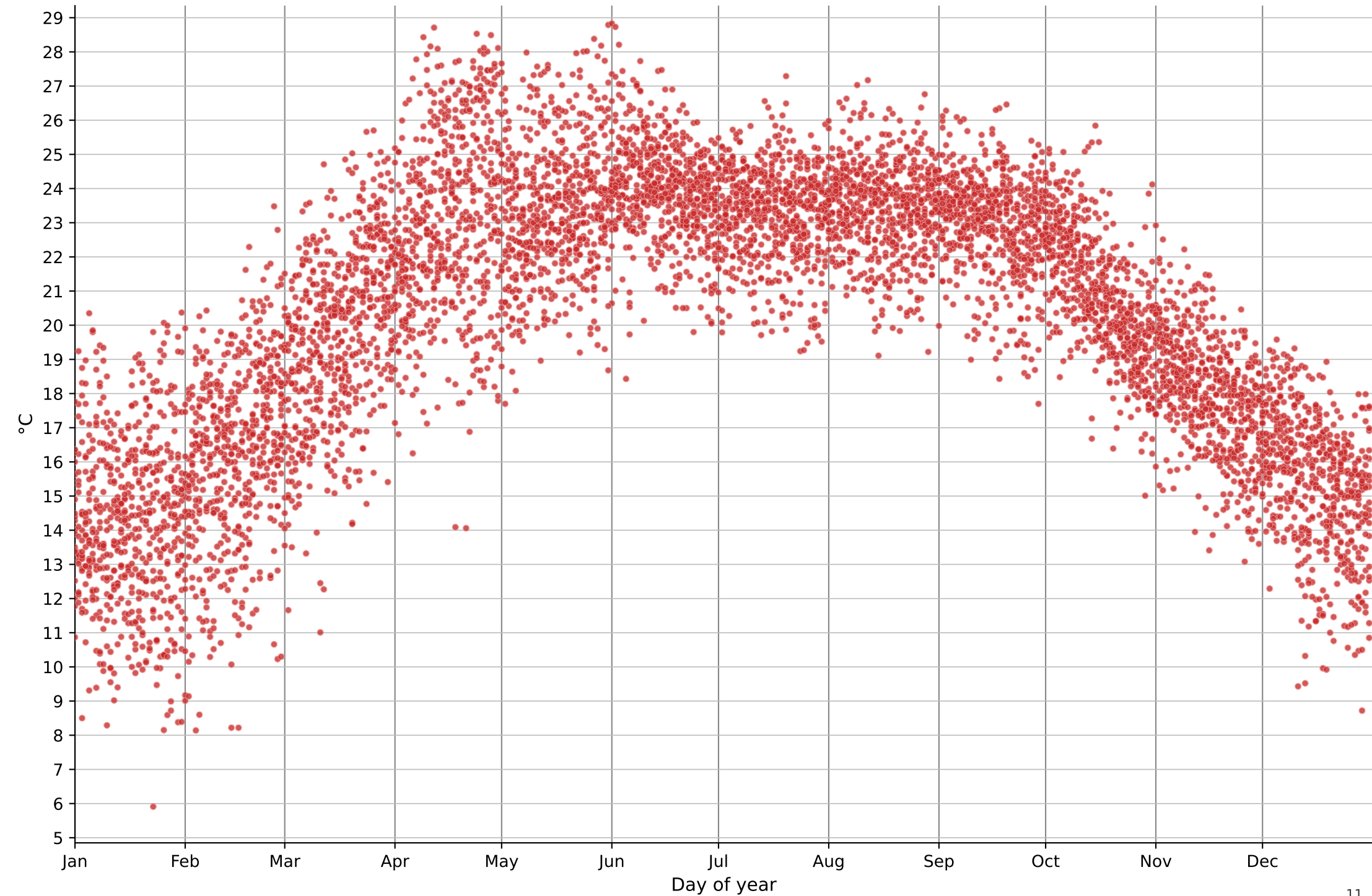
Share of the day's yield in 09:00-15:00 winter time
Nepal - Kathmandu 27.708, 85.262



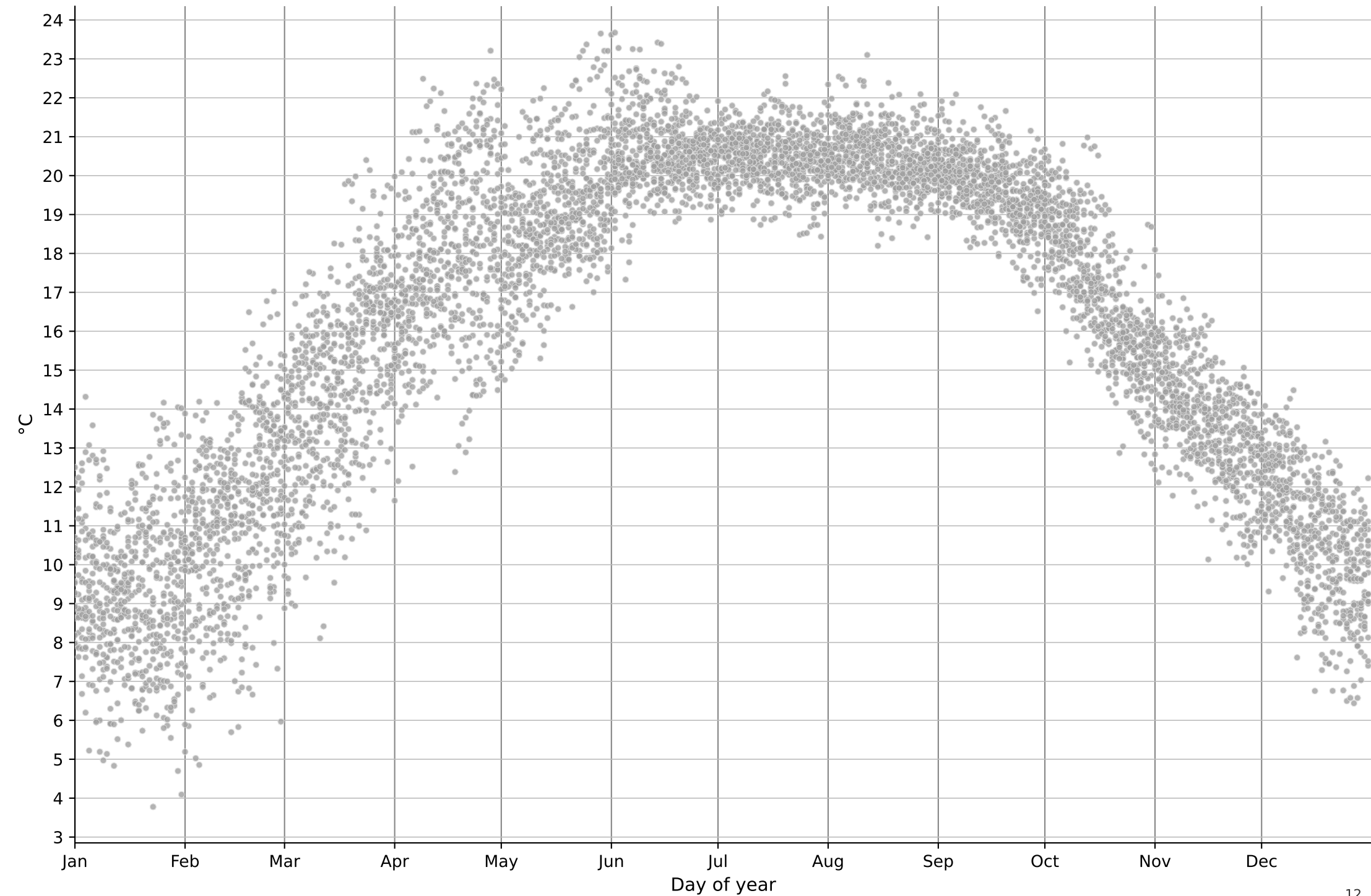
Share of the day's yield outside 09:00-15:00 winter time
Nepal - Kathmandu 27.708, 85.262



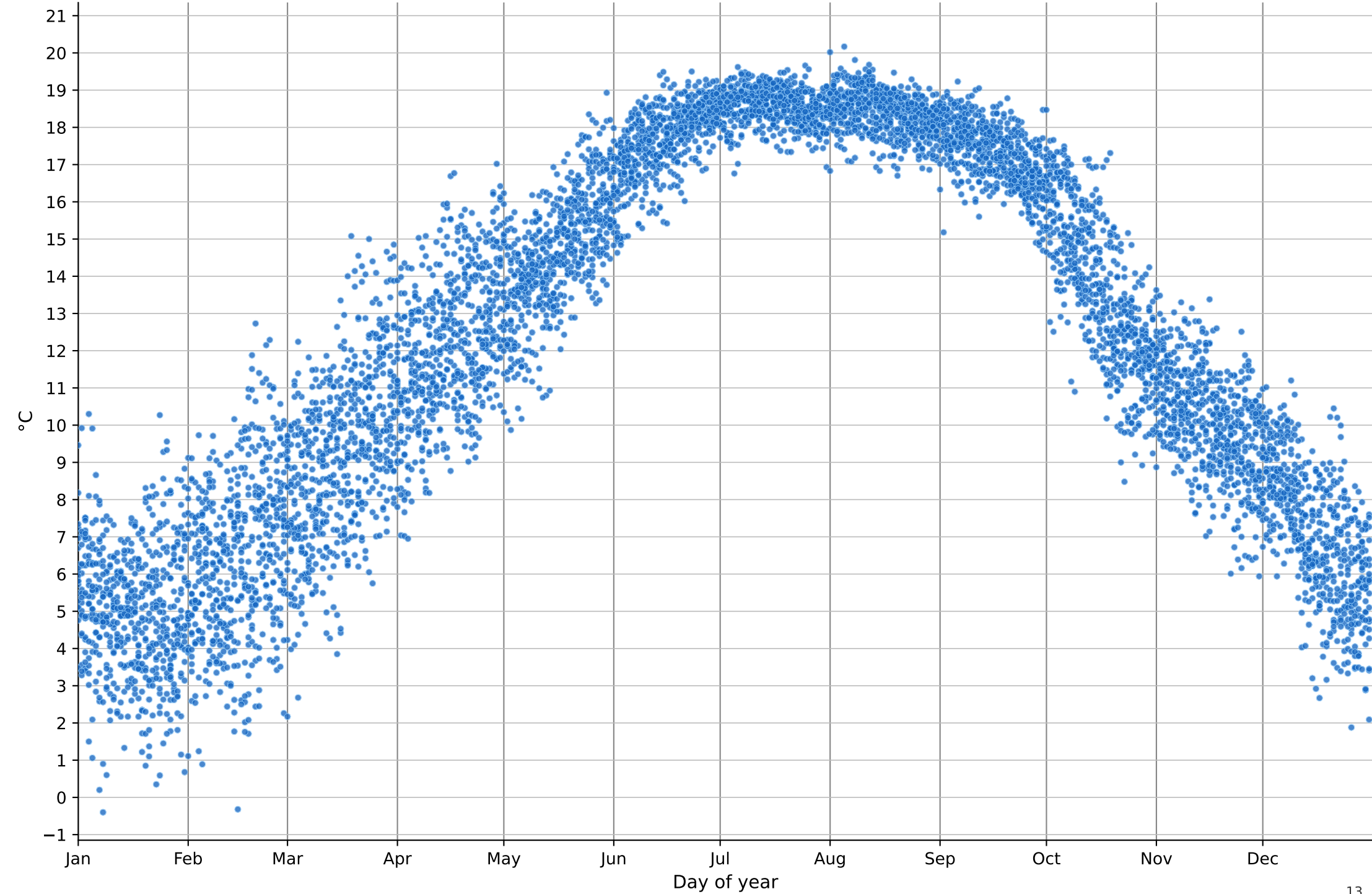
Highest temperature of each day
Nepal - Kathmandu 27.708, 85.262



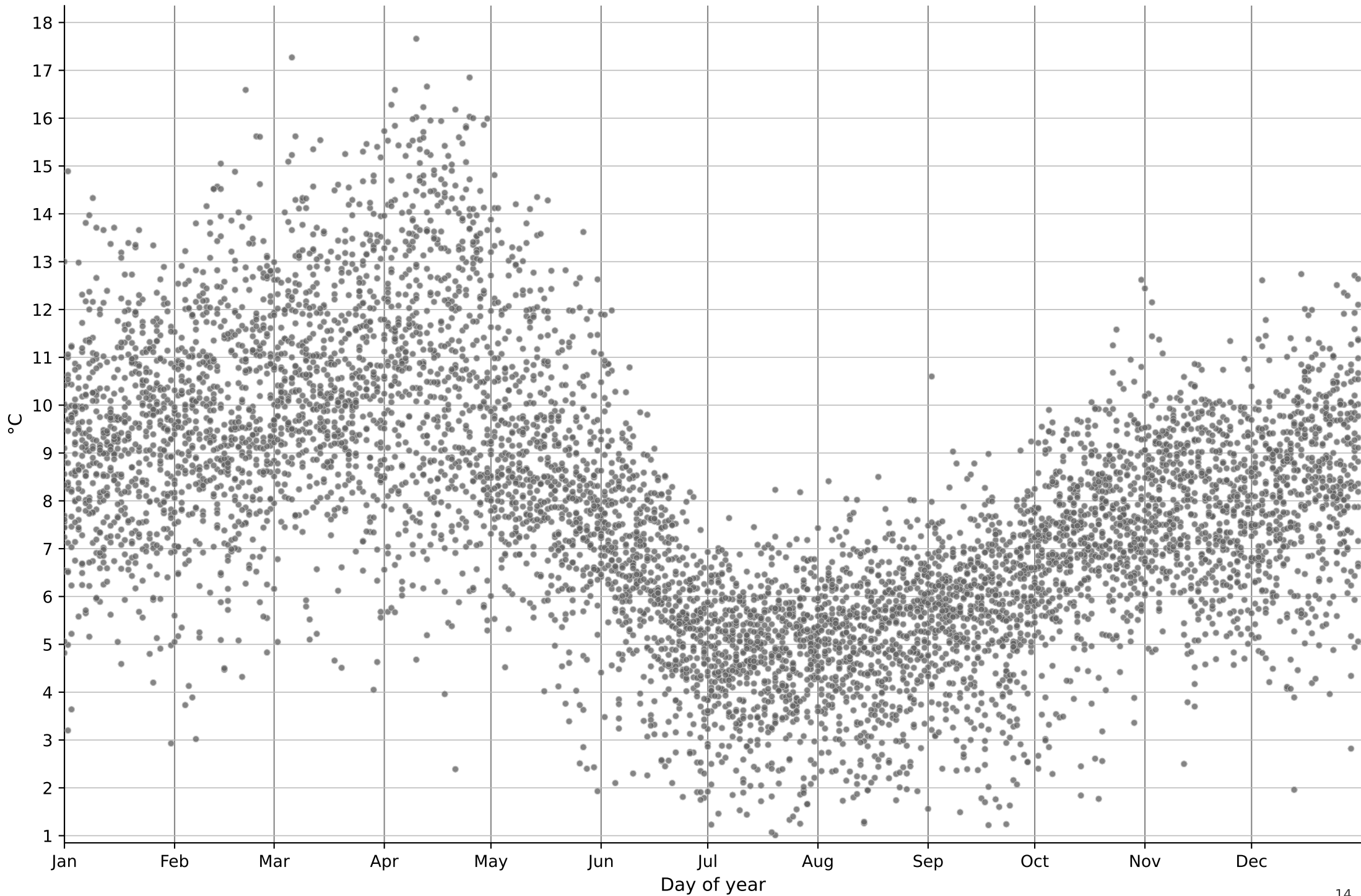
Average temperature of each day
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Lowest temperature of each day
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Difference between highest and lowest temperature of each day
Nepal - Kathmandu 27.708, 85.262



Monthly and yearly specific yield (kWh/kWp = Wh/Wp)
Nepal - Kathmandu 27.708, 85.262

Month / year		Roof East 22°/-90° 19800 Wp	Roof West 22°/-90° 19800 Wp	Terrace railing south 90°/0° 4620 Wp	Terrace railing north 90°/180° 4620 Wp	Share central structure east 8°/-90° 20460 Wp	Share central structure west 8°/90° 20460 Wp	All together
January	Maximum	102.57	94.41	48.97	9.90	105.17	101.24	93.33
	average	91.91	84.01	44.83	8.12	93.81	90.15	83.47
	minimum	82.37	70.54	37.28	5.97	82.14	76.99	72.43
February	Maximum	112.27	103.07	69.85	11.34	113.61	109.53	102.27
	average	100.96	92.18	62.49	9.43	101.86	98.16	91.90
	minimum	83.52	74.77	52.54	7.16	83.91	80.30	75.61
March	Maximum	142.85	125.22	77.94	14.65	143.95	136.17	127.58
	average	135.12	118.78	73.72	12.19	136.20	129.00	120.88
	minimum	119.62	107.66	66.77	10.31	121.22	115.83	108.37
April	Maximum	155.68	140.48	58.30	17.42	156.59	150.54	139.12
	average	144.43	130.20	54.66	16.00	145.16	139.51	129.10
	minimum	131.65	117.51	50.67	14.09	132.03	126.44	117.38
May	Maximum	158.69	141.98	35.43	24.50	160.15	153.51	140.64
	average	138.84	127.33	33.84	22.85	140.98	136.42	124.86
	minimum	109.89	102.40	30.29	21.10	111.99	109.16	99.88
June	Maximum	124.01	113.88	28.95	27.22	125.97	121.81	111.59
	average	107.18	100.82	25.78	24.60	109.70	107.17	97.91
	minimum	81.07	80.33	23.29	21.67	84.37	84.32	76.53
July	Maximum	98.73	94.01	29.79	25.12	101.19	99.34	91.05
	average	78.44	76.41	26.34	22.15	80.85	80.04	73.32
	minimum	59.11	58.10	21.63	18.63	60.99	60.56	55.64
August	Maximum	107.70	95.13	40.73	22.10	107.61	102.65	95.68
	average	85.38	81.85	35.03	19.79	87.35	85.98	79.22
	minimum	59.77	62.74	26.68	16.91	62.93	64.04	58.21
September	Maximum	102.06	96.63	55.93	16.22	103.96	101.93	94.25
	average	88.68	83.13	48.29	15.03	90.36	88.09	81.83
	minimum	67.80	64.55	37.57	13.55	69.36	68.06	63.17
October	Maximum	111.71	100.86	68.58	13.16	113.33	108.46	101.44
	average	99.41	91.67	61.49	11.18	101.44	97.99	91.35
	minimum	81.91	77.04	50.39	10.31	84.04	81.79	76.01
November	Maximum	99.60	91.03	57.40	9.52	101.63	97.53	90.76
	average	89.11	81.93	51.93	8.20	90.94	87.54	81.51
	minimum	76.69	71.69	43.06	6.98	78.57	76.16	70.67
December	Maximum	95.88	87.13	29.76	8.83	97.50	93.35	85.70
	average	84.61	78.88	27.89	7.20	86.67	83.92	76.75
	minimum	71.29	66.20	24.81	5.85	72.57	70.28	64.63
All years	Maximum	1326.7	1216.5	570.1	182.5	1347.8	1300.7	1202.8
	average	1244.1	1147.2	546.3	176.7	1265.3	1224.0	1132.1
	minimum	1170.1	1089.1	527.1	166.3	1193.6	1159.1	1070.8

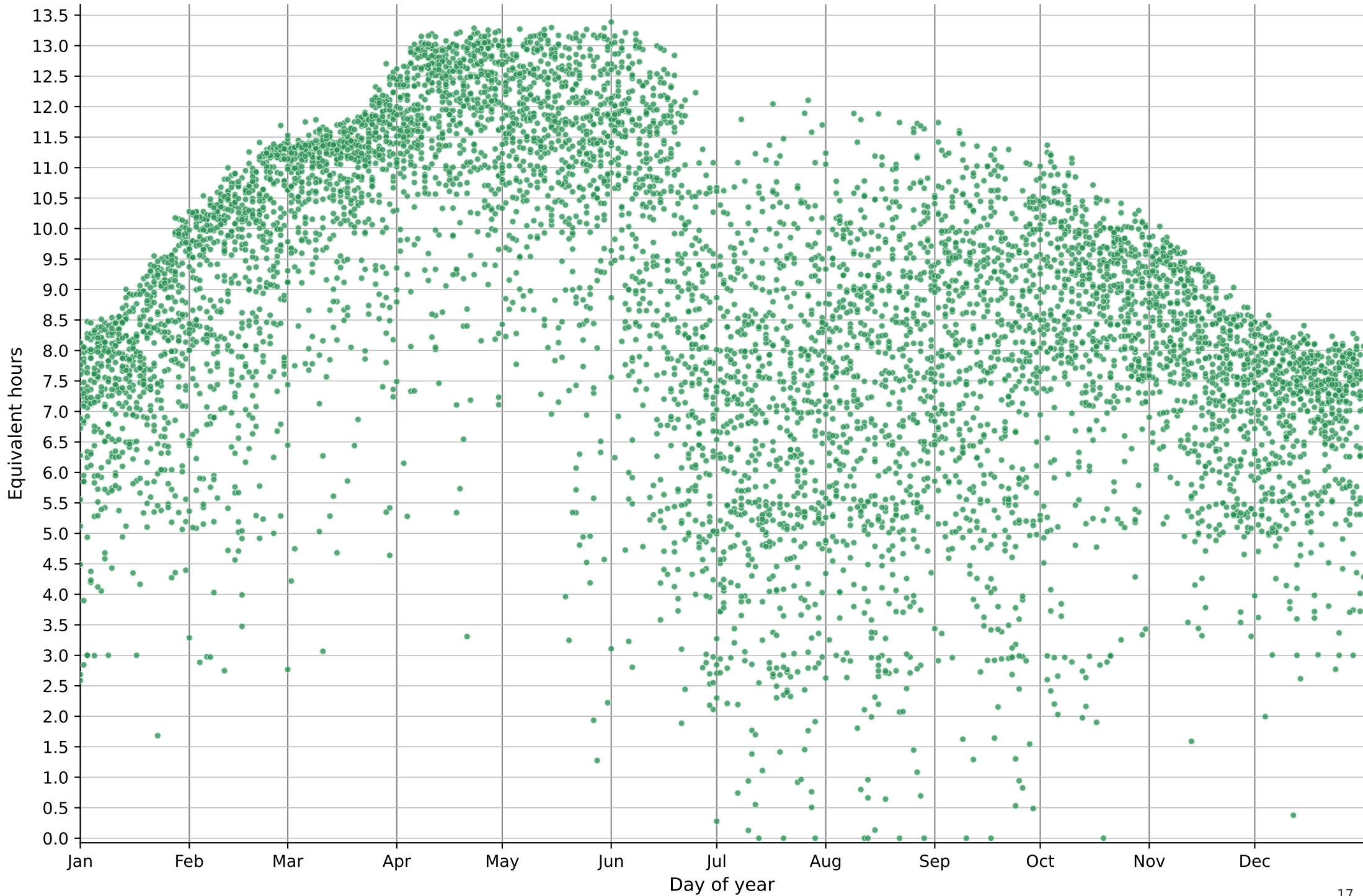
Highest combined yield hour: 2005-04-12 06:30 UTC 61234.5 W (0.682 W/Wp) of 89760 Wp installed. Use this hour to size battery charge power.

Monthly and yearly total yield (kWh) Nepal - Kathmandu 27.708, 85.262

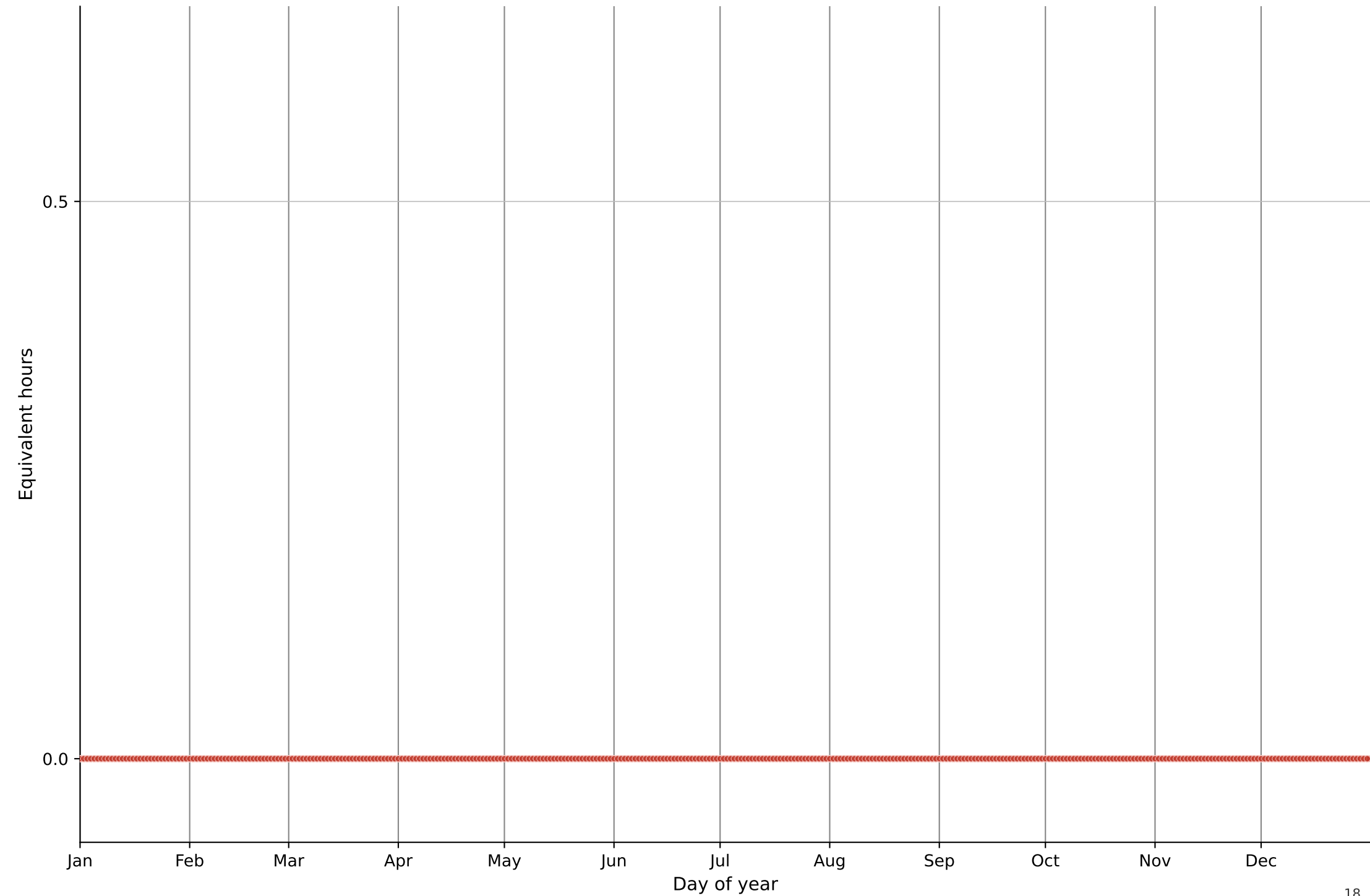
Month / year		Roof East 22°/-90° 19800 Wp	Roof West 22°/-90° 19800 Wp	Terrace railing south 90°/0° 4620 Wp	Terrace railing north 90°/180° 4620 Wp	Share central structure east 8°/-90° 20460 Wp	Share central structure west 8°/90° 20460 Wp	All together
January	Maximum	2030.9	1869.2	226.2	45.7	2151.8	2071.3	8377.1
	average	1819.9	1663.5	207.1	37.5	1919.4	1844.5	7491.9
	minimum	1630.9	1396.7	172.2	27.6	1680.5	1575.1	6500.9
February	Maximum	2223.0	2040.8	322.7	52.4	2324.5	2241.0	9180.0
	average	1999.0	1825.2	288.7	43.6	2084.0	2008.4	8248.9
	minimum	1653.7	1480.4	242.7	33.1	1716.8	1642.9	6786.3
March	Maximum	2828.4	2479.4	360.1	67.7	2945.3	2786.1	11451.7
	average	2675.4	2351.9	340.6	56.3	2786.7	2639.4	10850.2
	minimum	2368.5	2131.6	308.5	47.6	2480.1	2369.9	9727.2
April	Maximum	3082.5	2781.5	269.4	80.5	3203.9	3080.1	12487.1
	average	2859.7	2578.0	252.5	73.9	2969.9	2854.4	11588.4
	minimum	2606.7	2326.8	234.1	65.1	2701.2	2586.9	10536.0
May	Maximum	3142.0	2811.1	163.7	113.2	3276.7	3140.8	12623.7
	average	2749.0	2521.2	156.3	105.6	2884.4	2791.2	11207.7
	minimum	2175.9	2027.5	139.9	97.5	2291.2	2233.4	8965.5
June	Maximum	2455.3	2254.8	133.8	125.8	2577.3	2492.3	10016.6
	average	2122.1	1996.2	119.1	113.6	2244.5	2192.7	8788.3
	minimum	1605.2	1590.6	107.6	100.1	1726.2	1725.1	6869.1
July	Maximum	1954.8	1861.4	137.6	116.1	2070.4	2032.5	8172.8
	average	1553.1	1512.9	121.7	102.3	1654.1	1637.6	6581.6
	minimum	1170.4	1150.5	99.9	86.1	1247.8	1239.1	4993.8
August	Maximum	2132.5	1883.5	188.2	102.1	2201.6	2100.3	8588.3
	average	1690.5	1620.7	161.8	91.4	1787.1	1759.3	7110.8
	minimum	1183.5	1242.2	123.3	78.1	1287.5	1310.3	5224.9
September	Maximum	2020.9	1913.3	258.4	74.9	2127.0	2085.5	8459.7
	average	1755.8	1646.0	223.1	69.4	1848.8	1802.3	7345.4
	minimum	1342.4	1278.1	173.6	62.6	1419.0	1392.4	5670.6
October	Maximum	2211.8	1997.0	316.8	60.8	2318.7	2219.0	9105.3
	average	1968.3	1815.0	284.1	51.7	2075.5	2004.9	8199.5
	minimum	1621.8	1525.3	232.8	47.6	1719.4	1673.4	6822.9
November	Maximum	1972.0	1802.4	265.2	44.0	2079.3	1995.4	8146.6
	average	1764.4	1622.3	239.9	37.9	1860.7	1791.2	7316.3
	minimum	1518.5	1419.4	198.9	32.2	1607.6	1558.1	6343.2
December	Maximum	1898.5	1725.1	137.5	40.8	1994.9	1909.9	7692.3
	average	1675.2	1561.9	128.8	33.2	1773.2	1717.0	6889.4
	minimum	1411.6	1310.8	114.6	27.0	1484.8	1437.8	5801.3
All years	Maximum	26268	24088	2634	843	27577	26613	107967
	average	24632	22715	2524	816	25888	25043	101618
	minimum	23168	21564	2435	768	24420	23715	96116

Highest combined yield hour: 2005-04-12 06:30 UTC 61234.5 W (0.682 W/Wp) of 89760 Wp installed. Use this hour to size battery charge power.

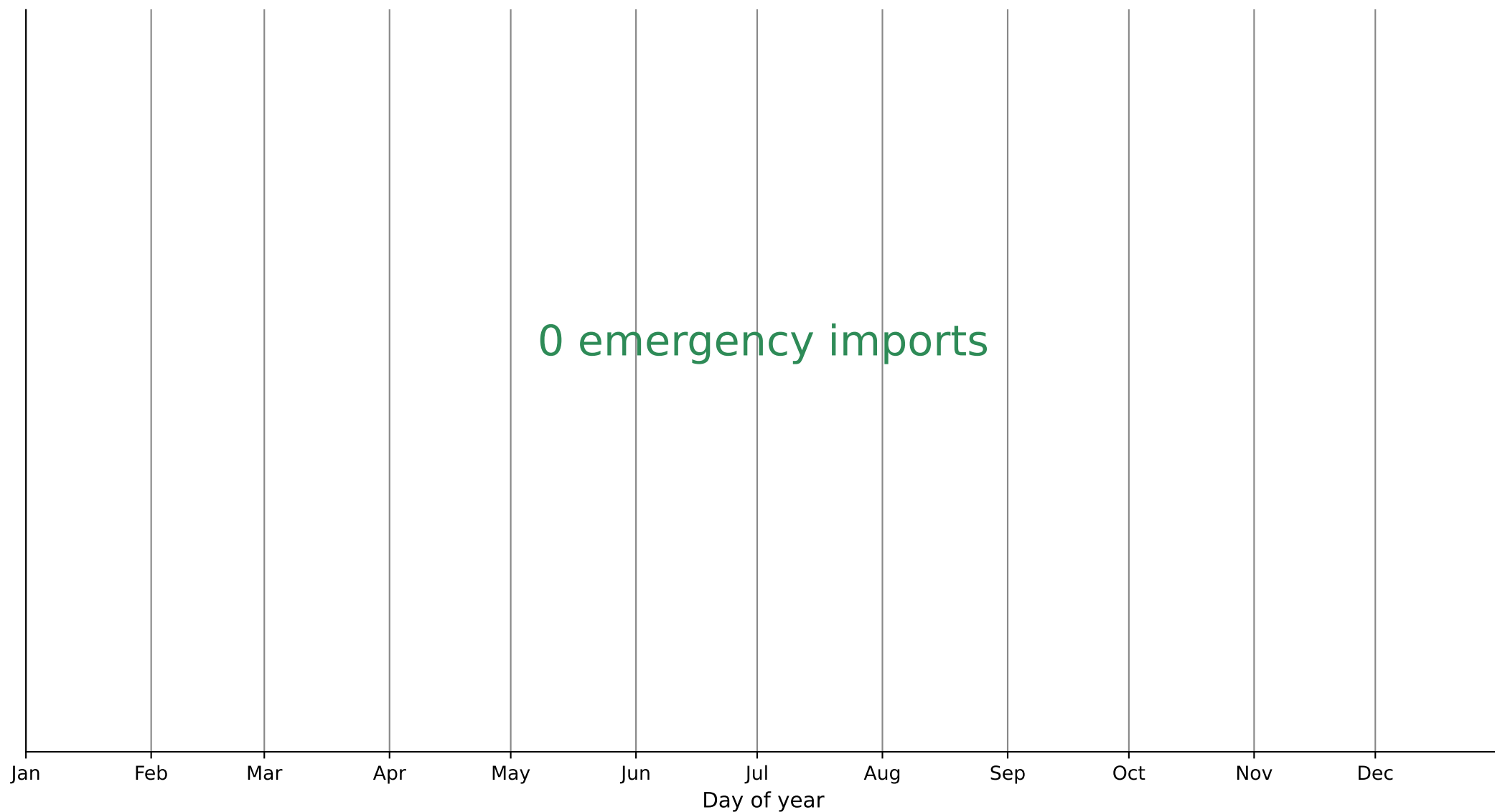
Export energy as equivalent hours (kWh / grid kW)
Nepal - Kathmandu 27.708, 85.262



Import energy as equivalent hours (kWh / grid kW)
Nepal - Kathmandu 27.708, 85.262



Emergency import hours: 0 days with an emergency: 0
Nepal - Kathmandu 27.708, 85.262



Emergency = this hour's grid import is above the month's max import kW. 2 kW means up to 48 kWh in 24 hours. More than 2 kW in an hour is the higher grid fee. Import inside that cap is not an emergency. Preferred cheap hours are 00:00-06:00 and 09:00-15:00 winter time.

Energy in kWh
Nepal - Kathmandu 27.708, 85.262

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	All
Export to grid													
month Maximum	7237	7769	9342	9943	10289	8475	7088	7416	7367	7915	6992	6517	90564
month average	6362	7003	8965	9468	9350	7450	5592	6084	6317	7065	6236	5765	85657
month minimum	5402	5709	8098	8851	7561	5777	4147	4374	4772	5791	5334	4762	80656
day Maximum	274.7	315.6	343.0	358.8	359.0	361.5	326.8	321.0	316.9	306.9	271.0	231.6	361.5
day average	205.2	248.2	289.2	315.6	301.6	248.3	180.4	196.3	210.6	227.9	207.9	186.0	234.5
day minimum	45.4	74.2	74.7	89.3	34.4	50.9	0.0	0.0	0.0	0.0	42.9	10.2	0.0
Import from grid													
month Maximum	0	0	0	0	0	0	0	0	0	0	0	0	0
month average	0	0	0	0	0	0	0	0	0	0	0	0	0
month minimum	0	0	0	0	0	0	0	0	0	0	0	0	0
day Maximum	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
day average	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
day minimum	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
Total energy used for house													
month Maximum	613	556	556	503	501	468	478	477	469	520	536	586	6188
month average	596	525	542	486	492	463	474	474	465	512	527	574	6129
month minimum	577	498	522	464	481	456	470	470	457	496	514	559	6051
day Maximum	20.9	20.6	19.7	18.1	17.1	16.3	15.8	15.9	16.3	17.9	18.8	20.0	20.9
day average	19.2	18.6	17.5	16.2	15.9	15.4	15.3	15.3	15.5	16.5	17.6	18.5	16.8
day minimum	15.6	16.7	15.8	15.1	15.1	15.1	14.9	14.9	14.9	15.4	16.2	17.3	14.9

Month rows: kWh in that month. Day rows: best / average / worst day.
Total energy used for house = household + car + heating + cooling + DHW + direct electric.
PV not exported and not marked wasted is still in the battery, or could not leave because the grid was already full. It is not house use.

Energy by price
Nepal - Kathmandu 27.708, 85.262

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	All
Export													
month Maximum	1052	1011	1129	943	956	917	908	945	930	1056	990	996	11278
month average	985	960	1094	922	930	863	802	842	848	981	934	932	11091
month minimum	890	851	1021	891	801	772	673	714	748	858	864	845	10734
day Maximum	42.3	43.8	43.6	43.7	40.8	43.7	39.5	40.0	39.2	42.8	39.2	38.3	43.8
day average	31.8	34.0	35.3	30.7	30.0	28.8	25.9	27.2	28.3	31.6	31.1	30.1	30.4
day minimum	5.5	8.9	9.0	10.7	7.6	6.1	0.0	0.0	0.0	0.0	5.1	2.2	0.0
Import													
month Maximum	0	0	0	0	0	0	0	0	0	0	0	0	0
month average	0	0	0	0	0	0	0	0	0	0	0	0	0
month minimum	0	0	0	0	0	0	0	0	0	0	0	0	0
day Maximum	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
day average	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
day minimum	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
Peak grid fee													
month Maximum	0	0	0	0	0	0	0	0	0	0	0	0	0
month average	0	0	0	0	0	0	0	0	0	0	0	0	0
month minimum	0	0	0	0	0	0	0	0	0	0	0	0	0
day Maximum	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
day average	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
day minimum	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
Import incl. peak fee													
month Maximum	0	0	0	0	0	0	0	0	0	0	0	0	0
month average	0	0	0	0	0	0	0	0	0	0	0	0	0
month minimum	0	0	0	0	0	0	0	0	0	0	0	0	0
day Maximum	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
day average	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
day minimum	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
Balance													
month Maximum	1052	1011	1129	943	956	917	908	945	930	1056	990	996	11278
month average	985	960	1094	922	930	863	802	842	848	981	934	932	11091
month minimum	890	851	1021	891	801	772	673	714	748	858	864	845	10734
day Maximum	42.3	43.8	43.6	43.7	40.8	43.7	39.5	40.0	39.2	42.8	39.2	38.3	43.8
day average	31.8	34.0	35.3	30.7	30.0	28.8	25.9	27.2	28.3	31.6	31.1	30.1	30.4
day minimum	5.5	8.9	9.0	10.7	7.6	6.1	0.0	0.0	0.0	0.0	5.1	2.2	0.0

Currency in Your units. Import and export use the cent/kWh of that hour. Peak fee 6.33 / kW / month is the highest import hour of the month (hourly stand-in for the 15-minute peak) and is added to that month's Sell only when export is above 0. At 0 cent, export PV yield only, not the battery. Do not sell when the earning is negative.

Export in kWh during price hours
Nepal - Kathmandu 27.708, 85.262

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	All
Export total													
month Maximum	7237	7769	9342	9943	10289	8475	7088	7416	7367	7915	6992	6517	90564
month average	6362	7003	8965	9468	9350	7450	5592	6084	6317	7065	6236	5765	85657
month minimum	5402	5709	8098	8851	7561	5777	4147	4374	4772	5791	5334	4762	80656
day Maximum	274.7	315.6	343.0	358.8	359.0	361.5	326.8	321.0	316.9	306.9	271.0	231.6	361.5
day average	205.2	248.2	289.2	315.6	301.6	248.3	180.4	196.3	210.6	227.9	207.9	186.0	234.5
day minimum	45.4	74.2	74.7	89.3	34.4	50.9	0.0	0.0	0.0	0.0	42.9	10.2	0.0
Export during high price hours													
month Maximum	4364	3844	3769	3268	3355	3617	3823	3852	3818	3954	3998	4314	44793
month average	4247	3669	3640	3138	3192	3308	3536	3629	3614	3818	3889	4178	43857
month minimum	3992	3520	3502	3047	3006	3118	3113	3308	3319	3430	3745	4014	43229
day Maximum	160.6	159.4	156.8	145.2	150.0	158.8	157.4	154.1	159.6	156.3	157.9	156.8	160.6
day average	137.0	130.1	117.4	104.6	103.0	110.3	114.1	117.0	120.5	123.1	129.6	134.8	120.1
day minimum	45.4	74.2	74.7	75.6	34.4	50.9	0.0	0.0	0.0	0.0	42.9	10.2	0.0
Export during medium price hours													
month Maximum	2683	3215	4104	4712	5035	4001	2988	3235	2988	3189	2687	2323	36598
month average	1988	2720	3893	4465	4486	3276	1865	2192	2307	2688	2117	1583	33580
month minimum	1141	1838	3294	4136	3456	2095	1015	1039	1234	1892	1501	731	30418
day Maximum	116.5	132.5	155.3	176.1	181.1	181.7	162.1	157.9	148.8	133.6	105.1	93.7	181.7
day average	64.1	96.4	125.6	148.8	144.7	109.2	60.2	70.7	76.9	86.7	70.6	51.1	91.9
day minimum	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
Export during low price hours													
month Maximum	295	945	1666	2225	2248	1379	475	693	774	917	475	22	10736
month average	127	614	1432	1866	1672	865	191	264	396	560	230	3	8219
month minimum	19	317	1036	1394	1016	356	3	27	81	316	43	0	6624
day Maximum	27.2	54.0	80.0	81.0	81.0	81.0	68.7	66.5	60.8	54.0	44.6	8.5	81.0
day average	4.1	21.8	46.2	62.2	53.9	28.8	6.2	8.5	13.2	18.1	7.7	0.1	22.5
day minimum	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

kWh exported while that price band was active. Not the money. Winter time. High 06:00–09:00 and 17:00–20:00, sold first. Low 09:00–15:00, sold last. Medium is the rest.

Heat pump
Nepal - Kathmandu 27.708, 85.262

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	All
Heating													
month Maximum	125	106	74	48	32	15	15	14	21	46	75	107	602
month average	110	84	61	32	23	10	11	11	16	39	66	96	560
month minimum	93	62	43	12	14	4	8	7	10	24	54	83	493
day Maximum	5.1	4.9	3.9	2.8	1.9	1.1	0.8	0.9	1.3	2.6	3.3	4.4	5.1
day average	3.5	3.0	2.0	1.1	0.7	0.3	0.4	0.4	0.5	1.3	2.2	3.1	1.5
day minimum	0.0	1.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.0	2.0	0.0
Cooling													
month Maximum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
month average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
month minimum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
day Maximum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
day average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
day minimum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DHW													
month Maximum	54	49	49	35	36	34	29	29	28	40	41	45	462
month average	52	46	47	34	35	33	29	29	28	39	40	44	456
month minimum	50	44	45	33	34	33	28	28	27	38	39	43	449
day Maximum	1.8	1.8	1.8	1.3	1.2	1.2	1.0	1.0	1.0	1.4	1.5	1.5	1.8
day average	1.7	1.6	1.5	1.1	1.1	1.1	0.9	0.9	0.9	1.3	1.3	1.4	1.2
day minimum	1.5	1.4	1.4	1.1	1.1	1.1	0.9	0.9	0.9	1.2	1.2	1.3	0.9
Direct electric													
month Maximum	0	0	0	0	0	0	0	0	0	0	0	0	0
month average	0	0	0	0	0	0	0	0	0	0	0	0	0
month minimum	0	0	0	0	0	0	0	0	0	0	0	0	0
day Maximum	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
day average	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
day minimum	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

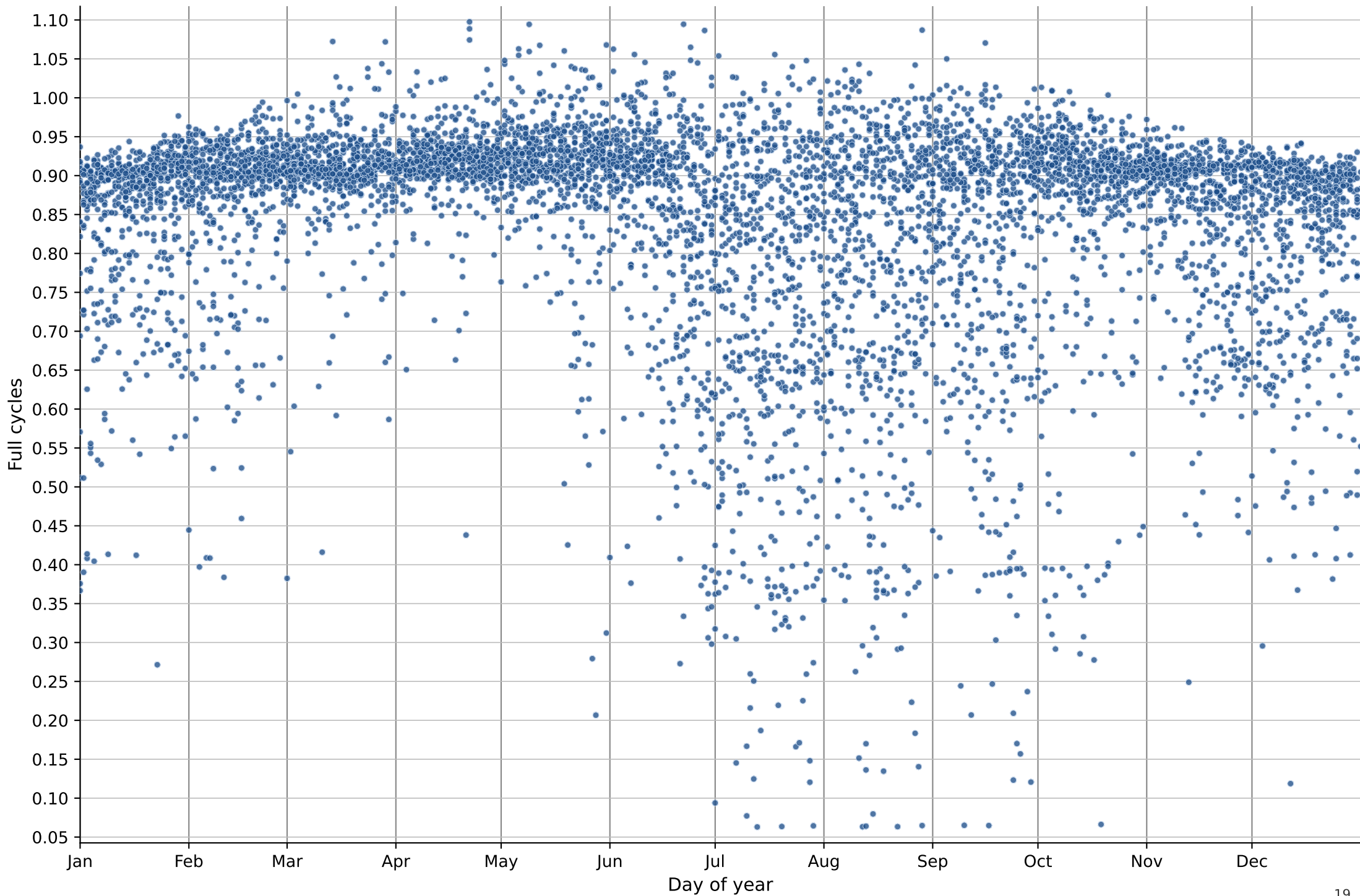
Heating, cooling and DHW are electricity. Direct electric is the part the heat pump could not cover.

Battery
Nepal - Kathmandu 27.708, 85.262

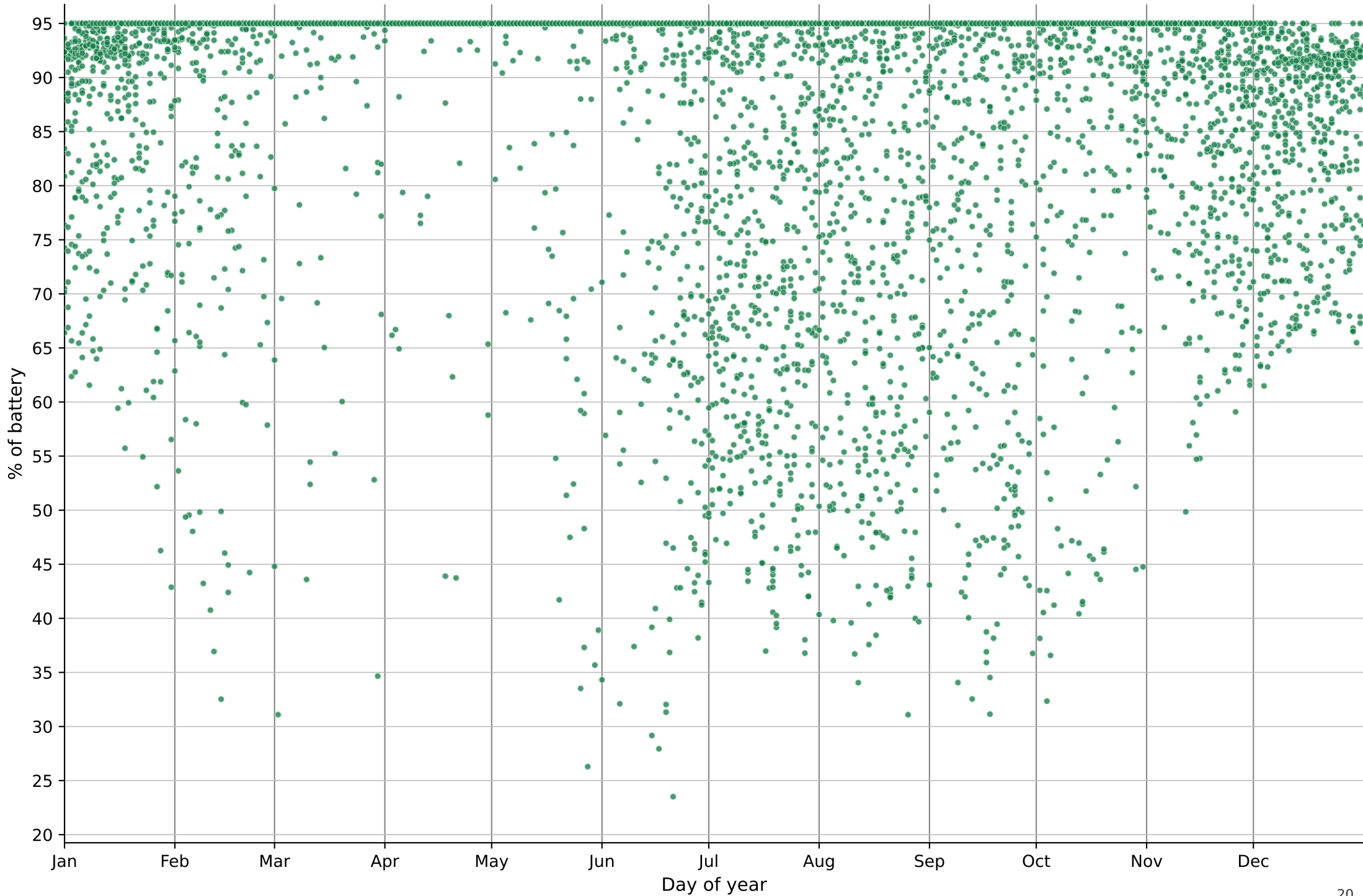
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	All
Wasted													
month Maximum	16	391	984	1472	1238	646	115	169	134	116	46	0	4741
month average	3	209	784	1060	779	320	35	50	57	64	15	0	3378
month minimum	0	53	536	570	392	70	0	0	1	9	0	0	2359
day Maximum	9.3	45.0	64.1	88.0	85.6	66.6	44.4	44.3	37.6	27.1	6.9	0.0	88.0
day average	0.1	7.4	25.3	35.3	25.1	10.7	1.1	1.6	1.9	2.1	0.5	0.0	9.2
day minimum	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
Full cycles													
month Maximum	27.89	26.10	28.52	27.87	28.81	27.53	26.77	28.46	26.81	28.57	27.08	27.72	315.50
month average	26.28	24.81	28.02	27.50	28.18	25.46	22.89	24.21	24.41	26.83	25.56	25.39	309.52
month minimum	23.95	21.99	26.07	26.89	25.19	21.11	18.30	19.18	20.60	22.89	22.90	21.76	297.83
day Maximum	0.98	0.99	1.07	1.10	1.09	1.09	1.06	1.09	1.07	1.01	0.97	0.94	1.10
day average	0.85	0.88	0.90	0.92	0.91	0.85	0.74	0.78	0.81	0.87	0.85	0.82	0.85
day minimum	0.27	0.38	0.38	0.44	0.21	0.27	0.06	0.06	0.06	0.07	0.25	0.12	0.06
Charge C													
month Maximum	0.19	0.22	0.23	0.23	0.23	0.22	0.21	0.21	0.21	0.20	0.19	0.18	2.44
month average	0.19	0.21	0.22	0.22	0.22	0.21	0.19	0.20	0.20	0.19	0.18	0.17	2.39
month minimum	0.18	0.20	0.21	0.22	0.21	0.18	0.18	0.18	0.19	0.19	0.18	0.16	2.35
day Maximum	0.19	0.22	0.23	0.23	0.23	0.22	0.21	0.21	0.21	0.20	0.19	0.18	0.23
day average	0.16	0.18	0.20	0.20	0.19	0.16	0.13	0.14	0.15	0.16	0.16	0.15	0.17
day minimum	0.03	0.04	0.04	0.05	0.03	0.02	0.01	0.02	0.01	0.02	0.04	0.03	0.01
Discharge C													
month Maximum	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	1.39
month average	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	1.39
month minimum	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	1.39
day Maximum	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
day average	0.12	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.11	0.11	0.12	0.12	0.11
day minimum	0.11	0.11	0.11	0.11	0.11	0.10	0.00	0.00	0.00	0.00	0.11	0.04	0.00

Wasted = PV left when the export price is negative and the battery is full. Full cycles = discharge kWh / 257.2 kWh. Battery export only into hours whose export price is above 0, highest price first. At 0 cent on

Battery cycles per day (discharge / 257.2 kWh)
Nepal - Kathmandu 27.708, 85.262



Battery max charge state per day (257.2 kWh = 100 %)
Nepal - Kathmandu 27.708, 85.262



Battery min charge state per day (257.2 kWh = 100 %)
Nepal - Kathmandu 27.708, 85.262

