Two parts to a solar system

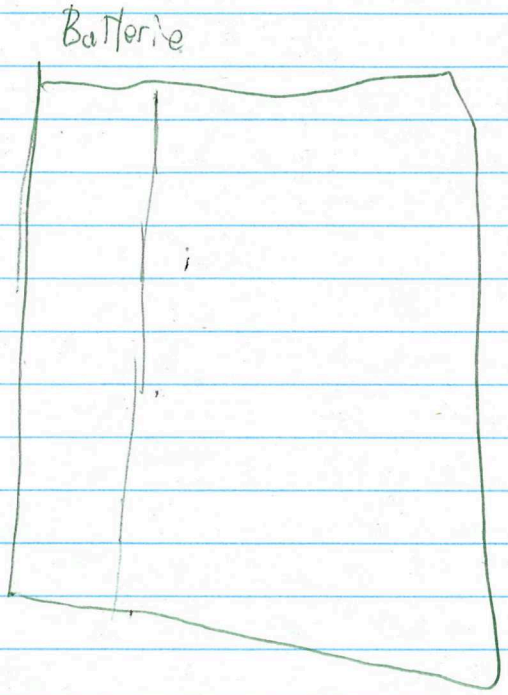
- panel
- batteries

Anker solix
↑ c1000(x)
- lithium batterie
- lead → old

↓

Next gen
LFP batteries
↑
Lithium iron phosphate

- holds 1000 watts.
- Amperage = power
- AC = alternate current
- DC = direct current


Batterie

Experiment 0.5

Angled to sun
high: 60 watts

Angled to ground
high: 10 watts

possible Conclusion

Solar panels: 2310

1056 W H

number

lux is ↓ lumens on a square

foot or meter.

	Battery % start	Cloud cover	time start / end	Temp	Sunlight	Battery % end	Photos
Day 1	58.1% Down 28 Jan	Heavy	7:40 / 4:00	-1 / 5	NA	57.1%	
Day 2	55.0% Down 29 Jan	Heavy	7:40 / 4:00	0 / 0	Min 1813 Avg 2906 Max 3258	55.0%	
Day 3	55.0% Down 30 Jan	Light	NA	NA	Min 3523 Avg 7028 Max 12285	57.1%	
Day 4	57.1% Down 31 Jan	Light	7:40 / 4:00	-1 / 2	Min Avg NA Max	63.1%	
Day 5	63 Down 6 Feb	None	7:40 / 4:00	0 / 8	Min 5135 Avg 6488 Max 8011	84.1%	
Day 6	82.1% Down 7 Feb	Very heavy	7:55 / 5:11	-5 / -6	Min 4034 Avg 6523 Max 6726	82.1%	

Data Retrieved

Instructions

Manual

- 7:40: set up solar panel, start time lapse
- 4:00 stop time lapse take down solar panel, write down results.

Day 1

Facing: down

Angle: 28°

Went out at 1:30 to set up the panel. Later I might change the angle. To make the panel straight, tried to use string. Ended up using snow to stabilize.

Good job!

light coloured surfaces reflect light into th atmesphe (high albedo), dark surfaces absorb the rays from the sun.

29:12:49 solar noon;
30:12:49 solar noon;
31:12:49 solar noon;
1:12:49 solar noon;
~~2:12:49~~

	Battery % start	Cloud cover	temp	Sunlight	time: start/end	battery % end
Feb 11 Day 7 down	49%	light	6 / 0	Min: 6004 Av: 39960 Max: 59986	8:30 / 7:40	60%
Feb 12 Day 8 down	60%	Med - light	6 / -4	Min: 220 Av 20728 Max 24609	7:60 / 5:30	72%
Feb 13 Day 9 down	42%	Med - light	-5 / ~~-4~~ 2	Min 11847 Av 11475 Max 18420	7:40 / 4:30	52%
Feb 14 Day 10	52%	heave - med	-10 / -2	Min 14669 Av 16073 Max 17969	7:40 / 4:30	56%
Feb 15 Day 11 up	56%	heavy - light	-10 / -10	Min 9864 Av 12653 Max 12194	7:50 / 4:00	96%
Feb Day K	35%	heavy - med	-1 / 5	Min 93528 Avg 119187 max 124686	7:40 / 4:40	59%

rise: 7:53
set: 17:48

	Battery % start	Cloud cover	Temp	Sunlight	Time	Battery % end
Day 13 17	59%	Medium- None	-1 2	Min 108366 Avg 118506 Max 131458	7:40 4:00	85%
Day 14 18	55%	light- mostly none	-4 -1	Min 122324 Avg 125020 Max 127680	7:40 5:00	100%
Day 5 20	75%	light	-3 1 1	Min 111070 Avg 112237 Max 127075	7:50 4:00	100%
Day 16 ~~23~~	6 9%	light	1 -1	Min 99770 Avg 103533 Max 105592	7:40 4:10	100%
Day 17 24	250%	snow- heavy	-1 -3	N/A	7:40 4:00	31%
Day 18 25	46%	heavy	3 -2	N/A	7:30 4:40	33%

Procedure

The battery to about 50%. After taking it in, drain about 10 times each angle. Repeat

Materials

- Anker Solix C1000 battery + panel
- ~~[illegible]~~
- Time lapse to measure cloud cover
- thermometer
- app to measure lux