

CALCULATIONS

1

DC-power calculated if more panels added (30 days / month)

If using 6 panels we'd get:	2.80	kWh/d (DC)
If using 8 panels we'd get:	3.73	kWh/d (DC)
If using 10 panels we'd get:	4.66	kWh/d (DC)
If using 12 panels we'd get:	5.60	kWh/d (DC)
If using 14 panels we'd get:	6.53	kWh/d (DC)
If using 16 panels we'd get:	7.46	kWh/d (DC)

Converting to AC energy:

If using 6 panels we'd get:	2.66	kWh/d (AC)
If using 8 panels we'd get:	3.54	kWh/d (AC)
If using 10 panels we'd get:	4.43	kWh/d (AC)
If using 12 panels we'd get:	5.32	kWh/d (AC)
If using 14 panels we'd get:	6.20	kWh/d (AC)
If using 16 panels we'd get:	7.09	kWh/d (AC)

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Car efficiency calculations

Ampera car charging efficiency			
Date	Used kWh	Charged kWh	Eff
08/08/2020	10.5	12.68	0.828
09/08/2020	11	13.76	0.799
12/08/2020	7.7	9.25	0.832
16/08/2020	10.6	13.01	0.815
01/09/2021	8.6	9.3	0.925
10/09/2021	10	12.1	0.826
average			0.84

Ampera Efficiency	(taken from Appdx 3.) 6.225 (km/kWh)
----->>>	0.16064257 (kWh/km)

Ampera with charging efficiency Efficiency	0.191 (kWh/km)
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Based to car logs (efficiency considered)	
The car consumes	0.191 kWh/km
Daily drive is	48 km
Therefore the consumption/wd is	9.180 kWh

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If all energy would be harnessed only on workdays

If using 4 panels we'd get:	2.66	kWh/d (DC)
If using 6 panels we'd get:	4.00	kWh/d (DC)
If using 8 panels we'd get:	5.33	kWh/d (DC)
If using 10 panels we'd get:	6.66	kWh/d (DC)
If using 12 panels we'd get:	7.99	kWh/d (DC)
If using 14 panels we'd get:	9.33	kWh/d (DC)
If using 16 panels we'd get:	10.66	kWh/d (DC)

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Takin inverter efficiency in account

Inverter efficiency		0.95
If using 4 panels we'd get:	2.53	kWh/d (AC)
If using 6 panels we'd get:	3.80	kWh/d (AC)
If using 8 panels we'd get:	5.06	kWh/d (AC)
If using 10 panels we'd get:	6.33	kWh/d (AC)
If using 12 panels we'd get:	7.59	kWh/d (AC)
If using 14 panels we'd get:	8.86	kWh/d (AC)
If using 16 panels we'd get:	10.12	kWh/d (AC)

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