

# New Zealand

Cape Kidnappers, Hawke's Bay

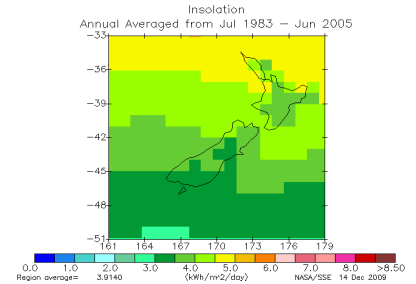
**Average score 64%**

**Highest 143%**  
**Lowest 21%**

## Practical effect to be expected of SolarDrive S2E (200 W)

Trail type - golf course	18 holes	kWh	Flat	Hilly	Mount.
Consumption			0.80	1.10	1.60
Power production	High (best month)	kWh	1.14	1.14	1.14
PRP* supplied by SolarDrive S2E	High (best month)	kWh	143%	104%	71%
Power production	Low (weakest month)	kWh	0.33	0.33	0.33
PRP* supplied by SolarDrive S2E	Low (weakest month)	kWh	41%	30%	21%
Power production	Yearly Average	kWh	0.70	0.70	0.70
PRP* supplied by SolarDrive S2E	Yearly Average	kWh	88%	64%	44%

\*Percentage of Required Power



## Basic data

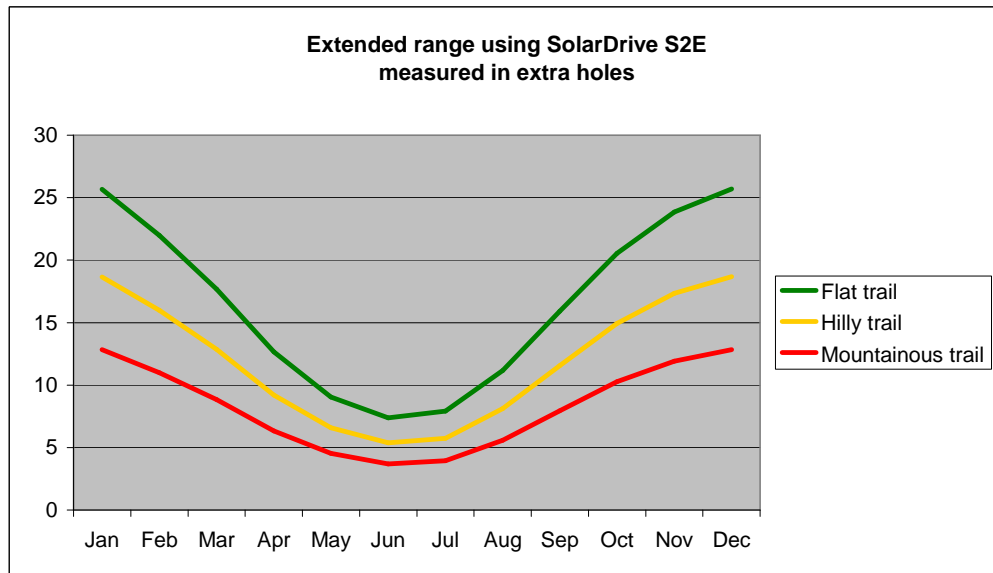
Nominal effect	kW	0.200											Lat.	-39.5	Lon.	177.5
<b>Solar insolation</b>		<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Average</b>		
kWh/m2/day**		6.39	5.47	4.38	3.11	2.21	1.79	1.91	2.7	3.87	5.03	5.87	6.37	4.09		
Avg. day temperature (C)		21.9	21.7	20.1	17.8	15.5	13.4	12.2	12.6	14.5	16.6	18.2	20.5	17.1		
Avg. day temperature (F)		71.4	71.1	68.2	64.0	59.9	56.1	54.0	54.7	58.1	61.9	64.8	68.9	62.8		
Temperature loss factor		0.95	0.95	0.95	0.96	0.97	0.97	0.98	0.98	0.97	0.97	0.96	0.95	0.91		
System loss factor		0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94		
Expected output kWh		1.14	0.98	0.79	0.56	0.40	0.33	0.35	0.50	0.71	0.91	1.06	1.14	0.70		

## Percentage of consumption driving 18 golf holes on

	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Average</b>
<b>Flat trail</b>	143%	122%	98%	70%	50%	41%	44%	62%	88%	114%	132%	143%	88%
<b>Hilly trail</b>	104%	89%	71%	51%	37%	30%	32%	45%	64%	83%	96%	104%	64%
<b>Mountainous trail</b>	71%	61%	49%	35%	25%	21%	22%	31%	44%	57%	66%	71%	44%

## Additional golf holes using SolarDrive on Top

	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Average</b>
<b>Flat trail</b>	26	22	18	13	9	7	8	11	16	21	24	26	16
<b>Hilly trail</b>	19	16	13	9	7	5	6	8	12	15	17	19	11
<b>Mountainous trail</b>	13	11	9	6	5	4	4	6	8	10	12	13	8



**Potential CO2 savings/car/year\*\*\* 127 to 218 kilos or 279 to 480 lbs.**

\*\*Source: NASA Langley Research Center Atmospheric Science Data Center (22 year average)

\*\*\*CO2 savings are calculated compared to grid electricity supplied from modern power plants burning fossil fuels (0.49-0.85 kg CO2/kWh)

\*\*\*\*If battery charge level is low from the start the S2E must be allowed the necessary time to charge as the energy is accumulated over the day

Disclaimer:

SolarDrive takes no responsibility for the correctness of the basic data obtained from the National Aeronautics and Space Administration (NASA), nor for the actual experienced results. The figures above are presented as a guideline only. Actual results may be influenced by many other varying factors such as length of course, altitude, seasonal and present weather conditions, time of year and day, shading (e.g., from buildings, houses, trees, mountains) and regular or irregular maintenance routines of the batteries and golf car.