



Chichester City Council
REPORT to PROPERTY & FINANCE COMMITTEE
FROM
PROPERTY & MAINTENANCE MANAGER
ANDREW WATSON
Date: 17/09/2024

SOLAR SYSTEMS REPORT

There are two solar PV systems installed at the Council House.

System 1:

The original system installed in 2011 is located to the front of the building above chambers, comprising of:

- 25 x 185w solar panels, declared capacity 4.63kW, estimated annual generation 3,855kW (2011)

This system has been installed for 13.5 years and has generated a total of 43,468kW.

This is registered to a “Feed In Tariff (FiT)” with OVO Energy where we receive income for generating power to the grid. Below is a table, detailing our income and expenditure over the last 3 years, with an average per annum, going forwards which includes an annual safety check and performance test, which had not been carried out till this year.

System 1			Meter Readings				
Statement Date	Period Start	Period End	Start	End	Rate Per kW	Generated	Net £
17/08/2021	20/05/2021	17/08/2021	32028	33250	£ 0.42	1222	£ 517.77
10/11/2021	18/08/2021	10/11/2021	33250	33989	£ 0.42	739	£ 313.11
17/02/2022	11/11/2021	17/02/2022	33989	34860	£ 0.42	871	£ 369.04
19/05/2022	18/02/2022	19/05/2022	34860	35729	£ 0.44	869	£ 383.08
10/08/2022	20/05/2022	10/08/2022	35729	36598	£ 0.46	869	£ 395.86
17/11/2022	11/08/2022	14/11/2022	36598	37436	£ 0.46	838	£ 381.73
16/05/2023	15/11/2022	16/02/2023	37436	37884	£ 0.46	448	£ 204.07
16/06/2023	17/02/2023	31/05/2023	37884	38289	£ 0.49	405	£ 198.95
04/08/2023	01/06/2023	02/08/2023	38289	39842	£ 0.52	1553	£ 802.12
19/03/2024	03/08/2023	19/03/2024	39842	41220	£ 0.52	1378	£ 711.73
24/07/2024	20/03/2024	20/06/2024	41220	42416	£ 0.54	1196	£ 646.00
					Total	10388	£4,923.46
					Average Per Annum	3463	£1,641.15
					<i>Annual Inspection</i>		£ 600.00
					Average Profit Per Annum		£1,041.15

System 2:

This system was installed in 2021 is located to the rear of the building above the assembly room, comprising of:

- 17 x 375w solar panels, declared capacity 6.3kW, estimated annual generation 5,978kWh

Unfortunately, this system was not registered by the previous Property Manager and no documentation or certification issued. Therefore, the council has been supplying electric back to the grid for zero revenue.

Documentation was finally received in May 2024.

Note: System no longer in place see below.

System 2 (NEW):

We had an ongoing application setup by the previous project manager for a 3rd system comprising of 28 x 425w solar panels along with battery storage.

Unfortunately, upon investigation we did not have sufficient space for that number of panels. So, we re-submitted for an additional 21 x 425w solar panels. This was approved by CDC.

After a discussion with the solar provider, it was decided that it would be more beneficial to reconfigure the new system by integrating system 2. This we managed to achieve within the same budget. Therefore System 2 became redundant and was configured into the new system comprising of:

- 17 x 375w solar panels, declared capacity 6.3kW, estimated annual generation 5,978kWh
- 21 x 425w solar panels, declared capacity 8.925kW, estimated annual generation 9,112kWh
- Totals: declared capacity 15.22kW, estimated annual generation 15,090kWh

This system cannot be registered using the FiT Scheme as Fit are no longer available and therefore, we need to sign up to a “Smart Export Guarantee” scheme.

We are currently awaiting DNO certification to authorise us to put back into the grid.

Estimate returns are as follows:

A 15kWp system costs £6,500 and is expected to produce 15,090 kWh per annum. The user has an energy management device to maximise energy usage. 50% of the electricity is used, and 50% is exported.

Forecast Returns

Best:

<u>System 2 (NEW)</u>			
Statement Date	Rate Per kW	Generated	Net £
Free electricity (50% gets used)	£ 0.22	7545	£ 1,687.06
Export tariff (50% gets exported)	£ 0.15	7545	£ 1,131.75
	Total Per Annum	15090	£ 2,818.81
	<i>Annual Inspection</i>		£ 600.00
	Total Annual Income/Savings		£ 2,218.81

Worst:

<u>System 2 (NEW)</u>			
Statement Date	Rate Per kW	Generated	Net £
Free electricity (50% gets used)	£ 0.22	7545	£ 1,687.06
Export tariff (50% gets exported)	£ 0.04	7545	£ 301.80
	Total Per Annum	15090	£ 1,988.86
	<i>Annual Inspection</i>		£ 600.00
	Total Annual Income/Savings		£ 1,388.86