

Kingston Parish Council 28 September 2022

Item 14.2 Appendix 6

Report from Kingston Parish Hall re application for funding for solar panels.

We obtained quotes from three different companies for solar panels for the hall. Due to the pandemic we had some difficulty in obtaining the quotes which were not directly comparable. We commissioned BHESCo to review the quotes and recommend the system and provider most suited to our needs. The summary of their report is attached. We accepted their recommendation of Energy Creation Experts Ltd.

However closer inspection of the hall by Energy Creation Experts Ltd revealed that the hall has a more complex electrical system than initially thought and that a three-phase inverter is necessary. As a consequence the quote has been updated to a higher spec technology for sixteen panels (the original quote was for fourteen). Also a different battery system is required. There are two options:

- A large battery which is attached to only one of the phases which would only provide energy for that system; or
- three smaller batteries attached to each phase which would enable larger storage and could provide energy for the whole system. Although more expensive to install this would be a more efficient and more cost-effective system.

The Parish Hall is mainly used in the winter months and in the evenings. Given this pattern of electricity usage the hall committee is of the view that expenditure on the larger battery can be justified.

The relative costs excluding VAT (which, at the moment, is not payable on solar installations) are:

smaller battery £12,769.21 (£7,919.21+ £4,850.00)
larger battery £15,569.21 (£7,919.21 + £7,650.00)

NB the quote is valid until 31 October 2022

The report by BHESCo cost £570

Kingston Parish Hall Committee therefore request funds of £16,139.21 for the installation of solar panels and battery storage at the Parish Hall.

Christine Moulder
Acting Chair KPH
23 September 2022

Supplier		ECO HI	Energy Creation	RESPlus
Number panels		13	14	12
Panel output	W	370	370	360
Total	kWp	4.81	5.18	4.32
Estimated	kWh	4973	5012	
Approx. Solar only cost	GBP		6173	
Panel make/model		JA Solar 370W monocrystalline	JA Solar 370W monocrystalline	360W
		12 Year repair, 30 year performance >82.5%	12 Year repair, 30 year performance >82.5%	N/A
Inverter make/model		Goodwe GW3648-EM Hybrid	Givenergy 5 kW Hybrid	Solis 3.68 kW
Warranty		5 Years	5 Years (10 Year option)	5 Years
Battery capacity	kWh	9.6	5.2	4.8
Battery make/model		Pylontech	GivEnergy	Pylontech
Warranty		7 years 70% capacity 1 cycle per day (2555 cycles) - can extend to 10 years 60% capacity	10 years 70% capacity 5000 cycles	7 years 70% capacity 1 cycle per day (2555 cycles) - can extend to 10 years 60% capacity
Total cost (solar + battery) exc VAT		£12307	£8668	£8550
MCS Accredited		YES	YES	YES
DNO notification		Included	Included	Included but inverter is <16 Amp so will not need to notify
Scaffolding		Excluded but they will work directly on roof	Included	Included
Cost correction for battery size		-£1911		
Corrected system cost		£10396	£8668	£8550