98th AGM Friday 26th April 2024 7:30 pm at the clubhouse

8 Motions submitted by Members

Motion proposed by Julie-Anne White and seconded by Eric Strudwick:

Motion: The membership give authority to the GC to secure the best deal on the most appropriate PV Solar & Battery System for the club. Final figures with a revised payback period will be made available as soon as practicable.

Proposal for the installation of Solar Panels

Background

The suggestion to install solar panels was first discussed back in November 2010. At that time a 4KW system was expected to cost £20,000 when the club had £42,000 in the bank. The expected annual return to the club was £1,500. At that time our electricity consumption was running at about 40,000kwh per annum, with 25,000kwh being used to heat the premises. Since then the club have invested in heaters with Wi-fi controls which has enabled us to manage the heating more effectively and economically, and in more efficient LED lighting, which has seen our annual consumption of electricity fall to around 23,000kwh.

What hasn't fallen, as we all know, is the cost of electricity. In 2009, the club's annual electricity cost was £3,700. Our 2023 accounts show that figure is now over 2.5 times higher at £9,600, despite having implemented over 55% of efficiency savings since 2010.

The Financial Situation Today

The club's financial reserves have been steadily growing over the years. And there is a strong argument that we should continue to maintain a comfortable reserve of cash for unseen eventualities – the fact the club had strong cash reserves at the outbreak of Covid meant finances were one less thing to worry about. But when I say "steadily growing" the club did receive a significant boost to its cash reserves as a result of Covid Grants. After paying for additional costs and tax we were left with over £36,000 in additional cash. After taking account of working capital requirements the club has around £110,000 of cash reserves. We therefore are looking to use our strong capital position, to reduce our revenue spend on electricity by generating our own.

The Solar Marketplace today

The solar panel systems marketplace is much more mature than when the club first considered this ten years ago. There is good experience of how long the systems will last - panels are widely quoted with a 25 year lifespan, and batteries come with a 10 year warranty, and inverters with 10 year performance warranty. Quotations come with very good estimates of how much electricity the system will produce. I had a system installed last May, and in the last month I reviewed the actual output of my own system compared with the estimate – and it was 4kwh different from the estimate after 311 days – that's remarkable on a total output of 3,787kwh.

The other thing which has changed significantly of course is the loss of feed-in tariffs. But this has been offset by the maturation of the solar battery and inverter market. We would propose choosing a system with a battery to store surplus electricity during the day to be used at night to maximise the utilisation of the generated electricity.

The proposal

We have had site surveys and quotations from two local companies. We have recently registered with Solar Together, a group purchase scheme organised by Essex County Council. We have a 3-phase electricity supply which makes the solar installation more expensive than the usual domestic setup. Also, because we are a business, the club sadly does not qualify for the VAT relief that domestic installations get.

We can fit a 6kW system on the boatshed roof, which has a good orientation and angle, (including a 12kW battery. Such a system will produce 5,550kWh of electricity in a typical year. As a business, our electricity attracts VAT @ 20% and we currently pay 42.5p per kWh. If we can use all (or nearly all) of that electricity on site, it is currently worth up to £2,358 p.a. We could also sell surplus electricity back to the grid, but we'd only receive about 8p - 10p per kWh, so that is much less attractive.

The two quotations we currently have in writing for around £24k inclusive of VAT are now a few months old. We have just received a preliminary quotation from Solar Together which is significantly cheaper, but until we have the survey in the next two to three weeks, we will not have final figures. We have asked for an updated quotation from one of the companies we approached last year, and have been given verbal assurances that they will be able to "significantly improve" on last year's quotation as component prices have fallen. There are various models of how to judge the economic value of solar systems, but one of the simplest is to work out how many years it will take before the system pays for itself and the electricity is effectively free.

We can't know exactly how much the generated electricity will be worth. It will depend on the rate of inflation and the price charged for electricity. That said, it is likely that the price of electricity will rise by at least the 2% p.a. target of the Bank of England. With these assumptions, based on the old written quotations the system will pay for itself in 9 – 10 years. Our annual electricity consumption at the clubhouse is around 23,000kWh and we could expect 20% reduction in costs for 25 years or more. Before the AGM we should have final up to date written quotations which are likely to improve this payback period.

Conclusion

The club has the cash to make this investment to significantly reduce the electricity consumption cost for the lifetime of the system, which is expected to be around 25 years. This is a huge opportunity to improve the annual running costs of the club for the medium to longer term. All of us who are sailors know the joys of harnessing the wind, isn't it time we harnessed the sunshine?