



Solar Project

System

- 35 PV modules (solar panels)
- 2 x Inverters
- 35 Optimizers
- 14.6 kWh Total Battery Storage

35 solar panels on the east and south-west facing parts of the roof, with a 14.6kWh battery. This system would generate approximately 16,000kWh/ year, the building would use 36% of this and as much as possible of the remainder would be exported to the grid, for which it is assumed that payment of 5p/kWh could be received. 66% of the building's energy use would be supplied by the PV and battery system.

During the winter it should be possible to charge the batteries overnight on the lower tariff with electricity to be used during the day, which could result in additional savings of up to £240/ year. Installing a system which has this capability is an important design consideration.

Issue Identification

- South Wonston Parish Council identified potential savings through electric and heating costs that were running at some **£3200** plus each year.
- The Pavilion uses **8900 kWh units** of electricity a year, divided fairly evenly between a higher weekday tariff and lower overnight and evening/ weekend tariffs
- Annual energy costs would be reduced in the first year by an estimated **£2720/ year** (84% excluding standing charges), assuming no change in import costs and that an export rate of **5p/kWh** (*probably more with Octopus*) would be secured for all generation not used in the building.
- There is also an environmental ideal the councillors are keen to endorse, and which is widely supported by our community.
- Funding sources for 'green energy' need to be identified .

First Steps

- ✓ • Approach several community buildings in the Hampshire area (see excel sheet attached), to gather information and feedback and tips on installers which were used.
- ✓ • Approach Richard Solomons from the Gratton Pavilion in Sutton Scotney and Debbie Harding, the clerk for the Colden Common Parish Council regarding the Mike King

Pavilion at Colden Common. *Football matches were taking place close by, and no damage was recorded from stray balls.*

- ✓ • Identify specific funding sources that would apply:
 - **Scottish & Southern Electricity Networks Fund – Low carbon fund Powering Communities to Net Zero fund** - SSEN <https://www.ssen.co.uk/about-ssen/our-communities/powering-communities-to-net-zero-fund/> -speak to Robert Veck, Colden Common Community Building
 - **Acorn Community Fund Offer** <https://www.acornbioenergy.com/acorn-community-fund-offer>
- ✓ • Identify 5 installers which have been recommended by other community buildings in our area. (see list attached)

Commitment

- ✓ • Production of tender document.
- Tender document to be sent to 5 x solar installation companies.
- ✓ • Identify new supplier which will support export to the grid and allow lower tariff at night to charge battery: **Octopus came highly recommended by 5 community buildings in our area.**
- Start processing grant application. Limited to £25,000 to prevent formal tender procedure.

Instigation

- Evaluation of tenders received (five in total) against criteria in tender document.
- Submission of grant application.
- Awarding of contract.
- Awarding of grant
- Insurance : advise insurer of potential installation and value of system (£24 000?) to check how it affects the insurance.
- Fire safety : check with installer location of battery and if smoke alarm / extra insulation or ventilation is necessary

Issues

- DNO application needs to be made early for connection approval. (G99)
- Apply for MCS certification once system installed.
- Grant application : **what action taken if grant is not awarded?**
- **Smart Export Guarantee (SEG)** : To be applied for and granted once supplier has been identified

Installation - Date TBC