

SUBJECT	Solar power feasibility study
COMMITTEE	Policy & Resources Committee
DATE OF COMMITTEE MEETING	8 th January 2018
REPORT AUTHOR	Sheridan Jacklin-Edward, Parish Clerk

1. Purpose of report

- 1.1 To review the feasibility study for solar power at Burnham Park Hall and the Pavilion at the George Pitcher Memorial Ground.
- 1.2 To make recommendations as to how to progress and finance the project.

2. Background

- 2.1 Carbon Smart were commissioned to carry out a feasibility study into possible solar photovoltaic arrays at both sites, to reduce energy costs, and improve the environmental profile of the Council.
- 2.2 The feasibility study was wholly funded by the central government Rural Community Energy Fund.
- 2.3 The study concluded that two roof mounted solar arrays would provide the best value for money and return on investment.
- 2.4 Attached are a) the stage 3 feasibility study report, and b) revised financial performance figures based on the tenders and latest energy cost, and quote for contract administration services.

3. Officer's summary

- 3.1 The conclusions of the feasibility study present a strong case for the installation of solar panels, both for financial and environmental reasons. By doing so the Council would show it is committed to both reducing its costs to deliver best value to the taxpayer, and also lead by example with regard to reducing our carbon footprint.

- 3.2 The payback calculations are based on our current kWh unit rates (which have recently increased), and include predicted maintenance costs and feed in tariff rates. It also takes into account potential falls in both system efficiency (0.7% per year). On these calculations, the payback for the scheme is c.6 years.
- 3.3 However, councillors may be aware that another energy saving initiative, the ground source heating system in Burnham Park Hall, has not performed as expected, and therefore has not delivered the financial payback that was predicted.
- 3.4 To protect against this, I've requested that Carbon Smart provide a quote for contract administration services to ensure that: the scheme is delivered as per the specifications; planning and building regulations are adhered to; all registration and certification is completed; there is a full handover from the installer; there is a post installation review to check the performance of the arrays.
- 3.5 In addition, there would be 10, 7, and 2 year warranties on the panels, inverters, and workmanship respectively, and performance guarantees on the panels (no less than 80% by year 25). All contractors have also been used by Carbon Smart on previous projects, and come with their recommendation.

4. Project costs and financing

- 4.1 **Capital costs.** The costs below are based on the cheapest supplier from Carbon Smart's tendering process.

Pavilion installation and DNO connection	£18,650
Burnham Park Hall installation and EPC	£28,250
Contract administration	£4,200
Contingency	£1,900
Total costs	£53,000

- 4.2 **Financing.** Below are the calculations for financing the project through a loan from the Public Works Loan Board

Financing costs

Loan amount	£53,000
Length of term	7 years
Current fixed interest rate (7 year term)	1.6%
Total repayment	£56,200

Net costs

Annual loan repayments	£8,000
Anticipated net annual energy cost saving	£8,600
Total annual net income for first 7 years	£600

4.3 The benefits of financing through the loan are:

- a) It allows the Council to continue to build its general reserves. They are forecasted to be at £135k by April 2018, and the aim is to increase them to £200k by 2020. Recommended levels are 50-100% of precept (£250k to 500k).
- b) The current fixed rate of interest (1.6%) is very low, and the amount of interest (£500 pa) would have only a small impact on the payback time for the scheme.
- c) Should interest rates increase, and it is likely they will, the Council may well be able to achieve a better return by investing its reserves elsewhere.
- d) As the loan payments will be entirely offset by the savings and income from the scheme, there will be no effect on either the 2017/18 or 2018/19 budgets.

5 Officer's recommendation

- 5.1 The study has presented a strong case for investing in solar energy, and I recommend that the Committee **RESOLVE** to recommend to the Full Council that the proposed schemes be approved.
- 5.2 I recommend that the Committee **RESOLVE** to recommend to the Full Council that the project be funded by a Public Works Loan Board loan.