



BUCKINGHAM TOWN COUNCIL

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07 November 2018

Councillor,

You are summoned to an Interim meeting of Buckingham Town Council to be held on **Monday 29th October 2018 at 7pm** in the Council Chamber, Cornwalls Meadow, Buckingham.

Mr P. Hodson
Town Clerk

Please note that the Full Council will be preceded by a Public Session in accordance with Standing Order 3.f, which will last for a maximum of 15 minutes.

AGENDA

1. **Apologies for Absence**
Members are asked to receive apologies from members.
2. **Declarations of Interest**
To receive declarations of any personal or prejudicial interest under consideration on this agenda in accordance with the Localism Act 2011 Sections 26-34 & Schedule 4.
3. **Photovoltaic Panels**
To receive a written report from the Town Clerk **BTC/48/18**
Report to follow
4. **Chairman's Announcements**
5. **Date of next Meetings:**
Full Council **Monday 19th November 2018**
Interim Council **Monday 17th December 2018**

To: All Councillors



Twinned with Mouvaux, France



Members are reminded to declare any prejudicial interest as soon as it becomes apparent.
All Committee documents can be found on the Buckingham Town Council's website. Alternatively, the Clerk send you a copy of any minutes, reports or other information. To do this, send a request using the contact details set out above.

**BUCKINGHAM TOWN COUNCIL
INTERIM FULL COUNCIL
Monday 29th October 2018**

Agenda Item No. 3

Contact Officer: Mr P Hodson

**Proposal to install Solar Panels at the Buckingham Community Centre and
Lace Hill Community Centre**

BACKGROUND

The Town Council had agreed previously to purchase and install PV panels for the two centres. The intention was to obtain an interest free loan from SALIX for 50% of the cost with the other 50% being funded from precept. This borrowing approval was achieved.

The Council then carried out a tendering process, the results of which are detailed in Appendix B. The Council agree to appoint Company F on the basis that whilst the on-going maintenance costs were slightly higher than other bidders at £595 per year, the overall capital cost of the project (£47,413) was the most competitive. The estimated savings per year were in the region of £6,000, with an estimated £159,000 saving over 20 years.

After the Council obtained borrowing approval SALIX passed the case on to their technical team who asked for extra information and provided additional information on what their loan could cover and other conditions. Notably, that any percentage of electricity which would be exported to the national grid would not be eligible for grant funding (ie it was assumed 50% of electricity would be exported). Therefore the loan would only be for 50% of the overall project. Another factor was that the Feed in Tariff (FIT) would not be able to be claimed. These two items seriously impact the economics of undertaking the work. The FIT was expected to bring in £2,500 per year (£62,500 over the life time of the panels).

As a result of this additional information, the Town Clerk presented an updated report to the Environment Committee meeting held on 16th July 2018 (minute 216/18 refers), advising it of the situation and recommending that an application be submitted to the PWLB instead of SALIX. With the budget set aside for the project a loan could be taken out over 5 and ½ years. Whilst the loan was not interest free and the repayment term was slightly shorter, the FIT could be claimed and the whole project could be funded. The Clerk's report highlighted that £47,413 can be borrowed at 1.84% interest but with a shorter repayment term with half yearly repayments of £4,551.83. This would give a total repayment of £50,070.13

The Committee considered this new information and it was resolved that the Town Clerk present a revised Business Case to Full Council on 1st October 2018.

Full Council then did indeed receive a revised Business Case from the Interim Town Clerk at its meeting on 1st October. The revised Business Case outlined that the change in lender from SALIX to the Public Loans Board would have resulted in an additional loan interest cost of approximately £2,700 and an increased anticipated annual cost of £9,103 (previously estimated at £6,000) per annum for 5.5 years assuming the full amount is borrowed. £20,000 was included in the precept for 2018/19 in anticipation of a SALIX loan and, assuming the Council still wished to apply these funds for that purpose, the amount of borrowing required would have reduced to £27,413 and the repayment and interest payable would be reduced accordingly (repayment c£4,984 per annum).

However the revised business case did not explain the changes made with sufficient clarity to enable Councillors to make an informed decision, and so it was resolved that the new Town Clerk present a second revised Business Case to Interim Full Council on 29 October 2018.

Points of Clarification

Councillors raised a number of queries regarding the preferred product, from Company F. These were:

What is the difference between a product warranty and a linear performance warranty?

The specification states that the product comes with Solar Modules - 12-year product warranty and a 25-year linear performance warranty. These are common terms within the solar panel industry, and as the comparison table demonstrates, the warranty offered is similar to most of the tenders received.

A product warranty is similar to normal warranties for other products. It refers to the structural completeness and integrity of the module. It essentially says that the panel will remain structurally intact and free from physical defects for the Product Warranty Period.

A linear performance warranty is common to solar panel providers. The linear performance warranty guarantees power output from the cells over 25 years. In line with other providers, the warranty is for the panels to provide at least 80% of the initial output after 25 years.

The savings figures don't appear to add up

The electricity saving added to income for Lace Hill in Year 1 would be £1,898. The saving for the Community Centre added to income in Year 1 would be £2,316. The total estimated figure over 25 years takes account of reducing production from the panels. In reality, the cost of electricity would rise over 25 years, so the savings would be more than stated in real terms.

The tender quotes a maintenance cost of £595 for five years. What would happen for the remainder of the contract period?

There would there be a similar charge for the lifetime of the panels, with the cost rising by RPI each each year.

New Information

Since the last iteration of the business case, two changes have occurred which alter the figures:

Withdrawal of Feed-in Tariff

Government has proposed that the Feed-In Tariffs (FITs) will close, along with the export tariff on 31 March 2019, which will mean full closure of the FITs scheme to new applications after 31 March 2019. The consultation recently closed. Whilst the final decision has not been announced, the current guidance is that if the proposal is agreed by government, for the Town Council to access FIT from the two proposed schemes, the proposed installations would both have to be installed by 31 March 2019. The guidance is here:

https://www.ofgem.gov.uk/system/files/docs/2018/07/faq_announcement_on_prospective_scheme_closure_v1_0.pdf

Change to rules relating to SALIX

SALIX is now eligible for a loan for a product which will benefit from FIT. This would still only be for the part of the loan which would be for the proportion of the installation that tackles the site energy consumption. (This has been assumed at 50% in the Town Council's costings). So it would now be most cost effective to borrow half the total cost from SALIX, with a loan of 0% interest, and the remaining amount from the Public Works Loan Board.

Financial Summary

Cost of Installation

Community Centre cost	£18,991
Lace Hill Cost	£28,422
Total	£47,413

Proposed Funding

Earmarked Reserve	£9,500
SALIX Loan	£23,707
PWLB Loan	£14,207
TOTAL	£47,413

Proposed Annual Repayments over 5 years:

SALIX Loan	£4,741
PWLB Loan	£3,103
TOTAL	£7,844

(The figures shown include 0% interest for the SALIX loan and 7.84% interest for the PWLB Loan.)

Ongoing Costs

Annual Maintenance	£595
Preparation of reserve for likely replacement of Inverter after 10-12 years at £1,200 X 2 = £2,400	£200
Total	£795

Community Centre Installation

It has been highlighted that the Community Centre is well booked for 2019 already. An initial agreement had been reached with the Community Centre Association for installation work to take place during summer 2019, to minimise disruption.

The new information regarding the loss of FIT if installation does not take place by the end of March 2019 presents a challenge. Given the timing of the information received, it has not been able to enter discussions with the Community Centre Association as to whether the Association would be able to bring forward installation to realise the additional saving. The contractor has stated that minimal internal disruption would be caused by the installation. However, it would be unreasonable for the Town Council to make a decision which assumed that the Community Hall Association would take a particular view on this matter, neither would it be reasonable to ask the Community Hall Association to take a view prior to the Council's decision, given the time constraint. It is therefore recommended at the end of this report that the Town Council agree to go ahead with the installation of the proposed solar panels **conditional on the Community Hall Association agreeing to the proposal.**

Proposed Total Annual Cost for first 5 Years

Loan repayments	£7,844
Maintenance	£795
TOTAL	£8,639

Summary of projected Income including FIT

Community Centre	Annual generation kwh	18076
	FIT yr 1	£687
	Export Tariff yr 1	£455
	Savings from electric bill yr 1	£2,350

	Sub Total	£3,491
Lace Hill	Annual generation kwh	29447
	FiT yr 1	£1,119
	Export Tariff yr 1	£741
	Savings from electric bill yr 1	£1,898
	Sub Total	£3,757

Total	Total Income and saving Yr 1	£7,249
	Savings over 20 yr period	£159,231

The annual saving estimate changes each year, meaning that the 20 year saving is not simply a multiple of the annual saving. This change is based on assumptions including RPI averaging 3.5%, 5% increase in electricity charge, and a reduction of productivity by 20% to 80% after 25 years.

Appendix A provides details of the assumptions made when the figures were calculated.

Appendix B provides the full breakdown of the tenders received.

Amended Income Projection with FiT Removed

If work is not commissioned by 31 March 2019, neither Fit or Export Tariff income will be available. In that case, the savings would be:

Community Centre	Annual generation kwh	18076
	Savings from electric bill yr 1	£2,350
	Sub Total	£2,350
Lace Hill	Annual generation kwh	29447
	Savings from electric bill yr 1	£1,898
	Sub Total	£1,898

Total	Total income and savings Yr 1	£4,248
	Savings over 20 yr period	£98,220

Recommendation

It is recommended that the Town Council arrange the installation of solar panels on the Buckingham Community Centre and Lace Hill Community Centre, by provider F for a total installation cost of £47,413, with the funding being via £9,500 from the earmarked reserve, £23,707 from a SALIX loan and £14,207 from a Public Works Loan Board loan, either:

1. By 31 March 2019, conditional on the Community Hall Association agreeing to the necessary change in proposed schedule of works

Or

2. At a later date during 2019

APPENDIX A

Assumptions Made

The Council issued a tender for the installation of photo voltaic cells at both the community centre in the town centre and also the Lace Hill Sports & Community Centre. Information provided by the companies submitting the tenders was very detailed but also confusing as they had all used various calculations to estimate what the cost savings would be.

There are a number of cost "savings". For all systems below a 35kw system the government assumes that you only consume 50% of the electricity and as a result there is an export traffic which is given on 50% of all the electricity that is produced. This then changes on the systems above 35kw, whereby a metre is needed and it is then measured how much electricity is exported back to the grid. (This is assumed at just over 5p per kwh)

There is also a Feed in Tariff (FiT) which is given on all the electricity produced. This is fixed on build for a 20 year period. The amount per year has been decreasing over time. It is currently estimated to be just under 4p per kwh.

In addition there is the saving from not using your own electricity, this is currently charged at around 13p per kwh.

In an ideal situation for cost recovery you could generate 10 units, use all 10 units at the time it is generated, get FiT on the 10 units and have an export tariff on 5 of the units.

For the cost savings it is estimated that 50% of the energy is exported to the grid and that 50% is used onsite. However, it is difficult to predict and would only be accurate and better estimates gleamed after a year of being in place.

APPENDIX B

Comparison of all the original quotes

Company	Company A	Company B	Company C	Company D	Company E	Company F	Company G
Community Centre system size kWp	16.83	24.75	18.24	22.68	19.44	18.9	18.9
Community Centre cost	£23,697	£26,183	£24,385	£26,082	£18,112	£18,991	£18,750
Lace Hill System Size kWp	27.29	24.75 + 7.70	29.98	49.95	43.2	29.97	47.25
Lace Hill Cost	£31,689	£44,773	£34,215	£37,462	£35,141	£28,422	£46,620
Additional Costs	£0 (includes DNO application, EPC's and structural report on Community Centre) However, Solar Edge is £POA	£877.50 for structural report	£950 for structural report, At least £500 for EPC	appears it is all included	Possible cost of EPC unclear from documents	Structural report included	No mention
Total Cost	£55,386	£71,834	£60,050	£63,544	£53,253	£47,413	£65,370
Maintenance Schedule	Clean and electrical check every 2 years	Indicate low maintenance that could be done in house	4 different levels	Preventative maintenance and monitoring	Indicate low maintenance that could be done in house	Carry out all repairs	No mention
Maintenance cost plans	£495 Per property	£0	£POA	£504	£0	£585 per year for 5 year agreement	£0

Panels used Make	Risen	Jinko Solar	Q Cells all Black	JA Solar Holdings	Sapphire	BYD (HK:1211)	BYD
Production w	250	275	285	270	270	270	270
Inverter used	SMA or Huawei	Sunny	SMA 25000	Tranergy Power	Growatt/Solar Edges for Lace Hill	Solis	Solax
Asbestos dealt with	Draft Risk Assessment provided	Supplied asbestos details from HSE	No mention	Asbestos aware UKATA CAT B Trained	Method Statement prepared along with a policy	2 workers trained with handling asbestos, asbestos procedure supplied	No mention
MCS certified	Yes	Not found	Yes	Yes	Yes	Yes	Not found
Warranties - panels	PV modules 10 years + 25 year liner warranty	PV modules 10 years + 25 year liner warranty	PV modules 10 years + 25 year liner warranty	PV modules 10 years + 25 year liner warranty	25 year product and performance warranty	Solar Modules - 12-year product warranty and a 25-year linear performance warranty;	PV modules 10 years + 25 year liner warranty
Inverters	Inverters 5-10 years		5 year - Inverter	1 year - extended warranty available	10 years - inverters	Inverters -10 years	
Metre			12 year solar edge	Meter is 1 year		Solar PV Generation Meter and Monitoring System -2 years product	

									warranty;	
Frames	Frames, Mounting Kit & Fixings -10 years product warranty;	Frames, Mounting Kit & Fixings -10 years product warranty;							Frames, Mounting Kit & Fixings -10 years product warranty;	
Connectors									Electrical connectors, PV cables and clips - minimum 2 year product warranty;	
Isolators									Isolators - minimum 1 year product warranty;	
Workmanship	8 year workmanship			2 year comprehensive warranty	2 year workmanship warranty				5-year workmanship warranty as standard.	
Estimated Figures										
Annual generation kwh	14,642	22752	16380	21212	18020	18076	18333			
FIT yr 1	£556	£865	£622	£806	£685	£687	£697			
Export Tariff yr 1	£368	£572	£412	£533	£453	£455	£461			
Savings from electricity yr1	£952	£1,479	£1,065	£1,379	£1,171	£1,175	£1,192			

	Sub Total	£1,876	£2,916	£2,099	£2,718	£2,309	£2,316	£2,349
Lace Hill	Annual generation kwh	23738	31394	26255	50681	39484	29447	45833
	Fit yr 1	£902	£1,193	£998	£1,926	£1,500	£1,119	£1,742
	Export Tariff yr 1	£597	£790	£660	£1,275	£993	£741	£1,153
	Savings from electricity yr1	£1,530	£2,023	£1,692	£3,266	£2,545	£1,898	£2,954
	Sub Total	£3,029	£4,006	£3,350	£6,467	£5,038	£3,757	£5,848
	Total Yr 1	£4,905	£6,922	£5,449	£9,185	£7,347	£6,074	£8,198
	Savings over 20 yr period	£128,597	£181,422	£142,853	£218,886- £240,886	£180674- £192674	£159,231	£214,995
	How many years to recover costs	10	10	10	7 to 8 years	7 or 8 years	8	8

This bid does not look at the Community Centre but rather provides two separate prices for different sized systems on Lace Hill

Assumed Fit is 0.038
Assumed Export rate is 0.0503
Assumed 50% of Electricity is used in the building and 50% is exported
Community Centre Electricity Charge 0.13
Lace Hill Electricity Charge 0.1289
Lace Hill Usage Jul16-Jul17 12 months 23325

For those schemes beyond 35 kwh the export amount does not apply it has to be metred -
assumed it would be approximately 50%



