



Adur & Worthing Solar Installations

Report by the Director for Digital and Resources

1.0 Summary

- 1.1 This report provides the Joint Overview and Scrutiny Committee (JOSC) with information on the progress of the provision of solar installations on Council buildings at Portland House, Worthing and the Shoreham Centre, Shoreham-by-Sea.

2.0 Background

- 2.1 As part of its Work Programme for 2017/18, JOSC has requested that a report be considered at this meeting which provides an update on the current status of the provision of solar installations on Council buildings and also any plans for the future installation of solar panels elsewhere in the communities.
- 2.1 JOSC considered that a review of these issues would provide the opportunity for it to find out more about solar installations and will help promote solar panel installation more generally across the Adur and Worthing communities which in the long term will help environmental resilience.
- 2.3 There is now a commitment to installing solar panels through the Stewarding of our Natural Resources Platform as part of the Platforms for our Places. Commitment - 3.1.3 is to deliver solar panels on our corporate buildings, starting with Portland House and the Shoreham Centre. By installing the panels Council will be reducing both its energy bills and CO2 footprint over the long term. This is the first step in a long term programme to look at the energy efficiency and financial opportunities that could present themselves with each of the Corporate buildings.
- 2.4 Portland House had 154 solar panels installed in April 2017. They have been installed on the South and West facing roofs. As at Monday 19th June they had generated 13,984 kwh of electricity. Energy generated when the Council building is shut is sent back to the grid and the Council will receive payment from SSE in due course. We do not have this data yet as this information is released by SSE on a quarterly basis so it is too early for analysis.

- 2.5 Solar Panel installation for the Shoreham Centre is still at the design stage due to the complexity of the building and its situation within a conservation area. There are three proposals for this installation.

Proposal 1 was 108 panels, 28kwh split between the front and rear south facing roofs, but was rejected as the front roof is situated in a conservation area so was refused planning permission.

Proposal 2 looked to install panels (also 28kwh) on the mid section of the roof. This has an added element to consider as the condition of the roof needs to be addressed in order for the panels to be installed. If the roof was to be addressed, insulation could also be installed at the same time, utilising the scaffolding efficiently. Scaffolding is one of the key costs, so maximising the use of scaffolding is financially beneficial. The scheduling of the roof maintenance is not due for some time.

Proposal 3 is considering 60 solar panels for the south facing, north roof which will generate 16.8kwh of energy. This is the working proposal currently.

3.0 Proposals

- 3.1 Once the Shoreham Centre has its solar panels successfully installed a longer term programme can be considered with the other corporate buildings. This programme will look at all energy efficiency measures and renewables to make sure each building has a bespoke, sensible, financially viable business case for each measure installed or improved.
- 3.2 One option we are beginning to investigate, is to work with Re:Fit, who are sponsored by LGA (Local Government Association) in conjunction with HM Treasury to design and implement a long term programme that would cover all our buildings.
- 3.3 Re:Fit has been set up with the specific task of helping public sector organisations improve their energy efficiency across their portfolio's. Re:Fit has worked with other Councils and public sector organisations around the country and we are in the process of gathering evidence to understand how successful these partnerships have been and if we would consider working with them.
- 3.4 For immediate future progress our intention is to focus efforts on our largest corporate buildings first, as they would potentially offer the greatest financial and CO2 benefits. However, this is a work in progress and as we understand our energy footprint over the coming months a clearer picture will emerge as to which buildings and which energy solutions are pragmatically the most sensible to proceed with.
- 3.5 In regard to advising on what and where more solar installations could happen across the wider locality, is some distance off as we need to get much more self learning first. However, where possible and sensible, we will be suggesting energy efficiency options for our social housing as part of their long term programme.

However, installing solar panels before basic energy efficiency measures have been implemented would not be the recommended order.

- 3.6 From a wider community perspective as we install each installation we are sharing the information through social media to ensure our actions are being shared and we can become a leader by example and a point of reference for the locality. We are sharing generation data on a regular basis and will continue to do so.

4.0 Legal

- 4.1 Section 1 of the Localism Act 2011 empowers the Council to do anything an individual can do apart from that which is specifically prohibited by pre-existing legislation.
- 4.2 Section 3(1) of the Local Government Act 1999 (LGA 1999) contains a general duty on a best value authority to make arrangements to secure continuous improvement in the way in which its functions are exercised, having regard to a combination of economy, efficiency and effectiveness.
- 4.3 Section 1 Local Government (Contracts) Act 1997 allows the Council to enter into a contract in relation to any of its functions.
- 4.4 In addition to the power under Section 1 above, the Council must comply with its Contract Standing Orders and the Public Contract Regulations 2015 when entering into any solar panel contract.
- 4.5 All solar panels must be fitted in accordance with all statutory requirements including the Energy Act 2008 and the Feed-In Tariffs Order 2012 which sets out the key provisions for feed in tariff schemes, and in compliance with building regulations and planning permissions where applicable.

5.0 Financial implications

5.1 Portland House

The installation was completed in April 2017 enabling the Council to secure a feed in tariff payment of 3.92p per KWh. Overall, the project will cost the Council a small amount each year in the initial years based on generating 42,040 KWh of electricity per year, but this cost will reduce as the energy prices will increase over time. By the end of the life of the panels, the Councils expect to save £1,850 per year. This is lower than originally forecast but reflects the fall in the Feed in Tariff.

The solar panels are expected to cost £100,700 (including professional fees) to install and the financial cost in the first five years is expected to be:

	2017/18	2018/19	2019/20	2020/21	2021/22
	£	£	£	£	£
Running costs	400	410	420	420	430
Expected financial benefits					
Feed in Tariff Income	-1,640	-1,670	-1,700	-1,730	-1,760
Export income	-730	-750	-760	-780	-790
Annual saving in electricity	-2,500	-2,550	-2,600	-2,650	-2,700
Net financial benefit	-4,470	-4,560	-4,640	-4,740	-4,820
Annual debt charges	5,160	5,160	5,160	5,160	5,160
Net annual cost	690	600	520	420	340

The internal rate of return on the project is 2.36% and the project has an NPV of -£12,977

The Portland House energy to grid income is not available yet as this will be released to us via SSE our energy supplier although for the purposes of forecasting we have assume 4.85p per KWh. We will share these figures when we receive them which is based on experience elsewhere.

Initial indications are that the electricity generated may exceed the 42,040 KWh allowed in the financial forecasts. If the panels generate more than 48,350 KWh of electricity then they will break even in the first year.

Shoreham Centre

The final financial benefit will depend on the option chosen for the Shoreham Centre.

The initial financial appraisal was undertaken on Option 1 which had a scheme cost of £78,600 (including professional fees). Again there is a small initial cost which will reduce over time. By the end of the life of the panels it is expected that the scheme will save the Councils £1,550 per year.

	2017/18	2018/19	2019/20	2020/21	2021/22
	£	£	£	£	£
Running costs	400	410	420	420	430
Expected financial benefits					
Feed in Tariff Income	-1,220	-1,240	-1,260	-1,290	-1,310
Export income	-150	-150	-160	-160	-160
Annual saving in electricity	-2,600	-2,650	-2,700	-2,750	-2,800
Net financial benefit	-3,570	-3,630	-3,700	-3,780	-3,840
Annual debt charges	4,030	4,030	4,030	4,030	4,030
Net annual cost	460	400	330	250	190

The expected internal rate of return for the project was 2.472% with and NPV of -£9,170.

The final financial benefit will depend on the option chosen for the Shoreham Centre.

- 5.2 As we move through the different weather seasons we will continually track the energy generated by the Portland House panels, and Shoreham once installed, against our future energy bills so we can monitor how much generated energy we are utilising ourselves and what impact this is having on our ongoing energy bills.

6.0 Recommendation

- 6.1 That Committee notes the proposed progress on the provision of solar installations on Council buildings and future long term programme.

Local Government Act 1972

Background Papers:

Adur & Worthing Council Solar Photovoltaic panels, Portland House, by Carillion
 Adur & Worthing Council Solar Photovoltaic panels, Shoreham Centre, by Carillion

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Schedule of Other Matters

1.0 Council Priority

1.1 Stewarding our Natural Resources Commitment 3.1.3

2.0 Specific Action Plans

2.1 (A) Solar installs will enable Council to use their own generated energy, therefore reducing the overall energy needs, allowing for Portland House to be part off grid. CO2 will also be reduced as the energy generated by the solar panels are carbon free.

These specific actions therefore reduce Council's energy costs, enable a lead by example role and over the long term contribute to a carbon reduction plan.

(B) Matter considered and no issues identified

3.0 Sustainability Issues

3.1 This report is wholly sustainable

4.0 Equality Issues

4.1 Matter considered and no issues identified

5.0 Community Safety Issues (Section 17)

5.1 Matter considered and no issues identified

6.0 Human Rights Issues

6.1 Matter considered and no issues identified

7.0 Reputation

7.1 The installation of solar panels and subsequent energy efficiency measures over the long term will increase the credibility and reputation of the Council as it is able to be a leader by example, demonstrate the financial benefits of being more energy efficient and work with renewable energy, while choosing to be a responsible Council and minimise it's impact on nature.

8.0 Consultations

- 8.1 (A) Technical Services, Finance, Legal and Sustainability
(B) By working collaboratively across the organisation we have covered the environmental, financial and social implications of these installations.

9.0 Risk Assessment

- 9.1 The risks of not continuing to review, install and improve the energy efficiency of our buildings and CO2 impact would be detrimental to our external reputation as Council, and, with ever rising energy costs expected, would be financially damaging over the long term.

10.0 Health & Safety Issues

- 10.1 Matter considered and no issues identified

11.0 Procurement Strategy

- 11.1 Matter considered and no issues identified

12.0 Partnership Working

- 12.1 This work was completed by working in partnership with WSCC, through the YES partnership, that in turn employed Carillion and ECOSphere to complete the on site works. We would expect to use Carillion and the YES partnership for the next solar installations.