

Key Decision: Yes / No

Amendment to Salix Energy Efficiency Projects – August 2013

Report by the Executive Head of Technical Services

1.0 Summary

1.1 This report requests approval for an amendment to energy efficiency projects funded through Salix.

2.0 Background

2.1 In March 2012 energy efficiency projects funded (interest-free) by Salix were agreed with JSC members as per attached report.

2.2 At this meeting it was also agreed that the respective Cabinet member for Resources would have the authority to approve, amend and revise future Salix projects.

2.3 The majority of the Salix projects approved at this meeting are now completed. This report requests revisions to replace some of them with alternative projects. These alternatives have approximately the same overall cost and are still compliant with Salix loan requirements of a 5 year payback (based on kWh energy costs alone).

Schemes temporarily postponed to a future Salix funding round:

	Project / description	Salix funding	Technology - Work Type	Annual savings	Payback in years	tCO2 pa
Seafront	Decorative Lighting - Incandescent to LED	£ 31,850	Incandescent to LED	£6614	5.00	29
Field Place	Insulating Boiler houses and internal pipework	£1,500	Pipework Insulation	£598	2.50	4
Field Place House	Building Energy Management System	£16,000	Building Energy controls	£4562	3.50	24
	Total	£ 49,350		£11,774		57

3.0 Proposal

3.1 Due to the postponed projects above there is an underspend on agreed Salix funding - the following projects are put forward to replace these postponed projects, and therefore use our allocated funding to yield greater energy and cost savings:

Capital Expenditure Schemes

	Project / description	Salix funding	Technology - Work Type	Annual savings	Payback in years	tCO2 pa
Worthing Leisure Centre	Lighting upgrade to Lotus Suite	£4,800	Incandescent to LED including new fitting	£1,029	4.66	5
Portland House	Lighting Upgrade to Portland House as part of Refit	£12,200	T5 lighting including changing the fitting	£2,444	4.99	11
Town Hall	Lighting Upgrade to Town Hall as part of Refit	£18,500	T5 lighting including changing the fitting	£3,732	4.96	16
Museum & Art Gallery	Lighting upgrade to Toilet Area	£2,100	Incandescent to LED including new fitting	£435	4.83	2
Highdown Gardens	Cavity Wall	£500	Cavity wall insulation	£216	2.31	1
Highdown Gardens	Loft Insulation	£600	Loft insulation	£216	2.78	1
Museum & Art Gallery	Loft Insulation	£2,000	Loft insulation	£436	4.59	2
	Total	£40,700		£8,508		38

**Tonnes of CO2 saving has been illustrated to indicate the environmental benefit:*

Salix funding contributes towards the above capital works undertaken in Portland house and the Town Hall, subsidising the New Ways of Working budgets by £30,700.

Revenue Schemes

	Project / description	Salix funding	Technology - Work Type	Annual savings	Payback in years	tCO2 pa
Assembly Hall	Lighting upgrade to chandelier lighting	£3,108	Incandescent to LED using same fitting	£959	3.24	4
Davisons Leisure	Sports Hall (Gymnasium / Badminton) Lighting upgrade	£4,400	T5 lighting including changing the fitting	£1,072	4.10	5
Worthing Leisure Centre	Lighting upgrade to Squash Courts	£1,000	Incandescent to LED including new fitting	£214	4.67	1
	Total	£8,508		£2,245		10

**Tonnes of CO2 saving has been illustrated to indicate the environmental benefit:*

Salix funding contributes towards the above reactive maintenance revenue budgets. There is an additional benefit (not shown), from reduced lamp replacements and electrician costs, operational downtime and officer time.

4.0 Legal

- 4.1 Powers to borrow exists within S.111 Local Government Act 1972 or alternatively under the Council's new General Power of competence under S.1 Localism Act 2011 which came into force on 18th February 2012. The legal agreement for the loan will be required to comply with the Contractual Procedure rules contained within each Constitution.

5.0 Financial implications

- 5.1 Borrowing will be less than the existing agreed Salix funded projects.
- 5.2 Salix contributions will go to subsidise capital works already completed in Portland house and ongoing in the Town Hall
- 5.3 Salix funding is interest-free; therefore the return on investment (payback) is as indicated, and not subject to additional interest costs.
- 5.4 Additional savings will result from reduced reactive maintenance

6.0 Recommendation

- 6.1 The Worthing Cabinet Member for Resources is recommended to approve the reallocation of Salix funds to all the projects proposed in section 3, based on savings indicated
- 6.2 The Worthing Cabinet Member for Resources is recommended to approve the inclusion of the proposed capital schemes in the 2013/2014 Capital Investment Programme.

Local Government Act 1972

Background Papers:

None

Contact Officer:

Matt Roberts
Sustainability & Energy Manager
Surveying & Design Services
Mob: 07867 904587
Ext: 01273 263070
E-mail: matt.roberts@adur-worthing.gov.uk

Schedule of other matters

1.0 Council Priority

- 1.1 Promoting a clean, green and sustainable environment
- 1.2 Reduce energy costs, adopt more sustainable ways of delivering services

2.0 Specific Action Plans

- 2.1 Contributes to the goals set out in the Adur and Worthing Council Sustainability Strategy.
- 2.2 Contributes to Central Government carbon targets
- 2.3 This proposal would join a number of programmes supported by the Council to enhance the efficient use of energy as well as support green business/enterprise.

3.0 Sustainability Issues

- 3.1 The proposals in this report will offset over 48t CO₂ annually.
- 3.2 Use of fossil fuel natural resources for electricity and heat generation will be reduced.

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

- 1.1 Energy efficiency improvements will add to the environmental, sustainable and progressive reputation of the Councils. We will also be seen as being responsible with Council funds.

8.0 Consultations

- 8.1 Matter considered and no issues identified

9.0 Risk Assessment

- 9.1 Matter considered and no issues identified

10.0 Health & Safety Issues

10.1 Matter considered and no issues identified

11.0 Procurement Strategy

11.1 The projects will comply with the Procurement Strategy.

11.2 There are several local suppliers in the energy efficiency sector in the Adur and Worthing area, so there is the potential to support local businesses and skills.

12.0 Partnership Working

12.1 Matter considered and no issues identified



2012 Energy Efficiency Projects (Salix 4)

Report by the Executive Head of Technical Services

1.0 Summary

- 1.1 This report sets out new energy efficiency projects to reduce energy usage within corporate buildings. The estimated cost of identified works will be £178,850, with annual energy costs reducing by an estimated £48,000 per annum giving a payback of 3.7 years.
- 1.2 These projects are “invest to save” schemes, funded by an interest free external loan from Salix, who provide financing for energy efficiency projects in Local Authority buildings.
- 1.3 This report also sets out a procedure whereby securing future Salix funding and management of the approved Salix capital can be achieved more effectively in the future.

2.0 Background

- 2.1 An update on the 2011/12 energy efficiency projects and Salix funding was provided in the Capital, Revenue and Performance report that was considered at the last Joint Strategic Committee in February.
- 2.2 To reduce revenue costs and carbon footprint, energy saving schemes with strong CO2 reductions and rapid payback on investment must be a high priority.
- 2.3 Salix funded schemes have a limited period for project delivery. Current internal procedures for accessing this funding and acquiring project approvals use up a significant part of this period, especially as the project list is liable to amendment due to time limitations, trial results and equipment availability.

3.0 Proposals

- 3.1 Listed below are further energy efficiency schemes proposed utilising further Salix funding for 2012/13.
- 3.2 Replace all existing 26w 2D lamps with 13w LED lamps and gear trays at all sites. Adur and Worthing Councils have approximately 1000 2D fluorescent light fittings. Replacements using LED technology are now available that reduce energy

consumed by 50% and have approximately 13 year lifetime at 10 hours average per day.

- 3.3 Building Energy Management Systems (BEMS) in Worthing Museum & Art Gallery, Commerce Way & Field Place. These three sites lend themselves perfectly to the use of BEMS to reduce energy loads and consumption. Existing controls on site rely on manual switching, and heat loads are frequently in conflict with cooling loads. BEMS systems are also modular and expandable to accommodate future use of these sites.
- 3.4 Insulating boiler houses and internal pipework – various sites. Pipework inspections and repairs have, over time, led to pipework being increasingly exposed in boiler houses and external areas. It is proposed to re-fit removable thermal covers to these locations.
- 3.5 T5 Lighting Upgrade – Peter Road, Pavilion Theatre, Museum & Art Gallery. It is proposed to use T5 adaptors to upgrade existing lighting to high frequency T5 fluorescent tubes. This upgrade has been successful across the administrative offices in 2011, and provides up to 50% energy reduction.
- 3.6 Replacement LED lighting – Field Place Barn and Pavilion. The Pavilion and Barn are the primary function rooms for the Field Place leisure complex. The lighting in these rooms is now very old and, as well as being inefficient and ineffective, is also failing regularly. It is proposed to deploy LED spotlight track systems that are dimmable and support flexible locations. This will provide better lighting at an estimated 84% reduction in cost and energy consumption
- 3.7 * LED Lighting - Worthing Civic Centre Car Park. The existing car park lighting is orange SON lighting. Although efficient at emitting high lux levels, these lamps produce a virtually monochromatic light making it hard to distinguish colours of illuminated objects. Investing in alternative LED lighting would allow better light rendition at lower wattages and lux output (see [Mesopic light rendition](#)), thereby reducing light pollution, saving money and electricity and improving the lighting effect.
- 3.8 * Decorative Lighting (Incandescent to LED), Worthing Parade. On the same principle as 3.7 above, the existing lighting used in the Mackenzie pillars on the promenade and parade is monochromatic orange SON lighting. Arguably this lighting does not present the seafront to its best effect, and the lighting colour is not consistent with the preferred white light colour scheme for the foreshore. It is therefore proposed that the cool white LED lighting be used to reduce energy consumption by 75% and provide a white light consistent with the preferred colour scheme. Prior to implementation of the project a discrete trial will be conducted to acquire approval for the new lit effect and appearance from the appropriate Cabinet Members.

(* Please note that 3.7 & 3.8 above were previously approved for the 2011 Salix projects, but due to extended trials being conducted they were replaced by other projects, as per February 2012 Capital, Revenue and Performance report)

- 3.9 Amendment to Salix funding procedures. Securing Salix funds and delivering subsequent projects is highly time dependent. In order to reduce time spent on

internal administration and waiting periods it is recommended that Adur District Council and Worthing Borough Council delegate authority for the Executive Head of Technical Services, in consultation with the respective Cabinet Member for Resources, to approve future Salix funding and project list amendments. This will allow the effective management of the energy project list and ensure we can maximise the Salix funding available.

The justification for this proposal is as follows:

- Previous requests for external and interest free Salix funding have demonstrated that the funding and the projects developed under it are ideally suited to the Councils' approval/funding criteria.
- Energy projects funded by Salix must satisfy environmental and financial criteria to be compliant for funding. They must have a payback of less than 5 years and a minimum value for CO2 emissions reductions and investment value per tonne of CO2.
- Quickly approving changes and funding amendments will allow more time to develop and deliver additional projects
- Details of approved or amended projects will be circulated to all Councillors in the Members Bulletin regularly.

4 Legal Implications

- 4.1 Powers to borrow exists within S.111 Local Government Act 1972 or alternatively under the Council's new General Power of competence under S.1 Localism Act 2011 which came into force on 18th February 2012. The legal agreement for the loan will be required to comply with the Contractual Procedure rules contained within each Constitution.

5 Financial implications

- 5.1 The total amount of funding required for the projects listed is £178,850, which will be 99% provided by an interest free loan from Salix. Please see the financial summary on the next page). Repayments against the capital sum will be made over 8 x half-yearly payments, fully subsidised by savings.
- 5.2 Based on anticipated energy tariffs, and purely on kWh energy savings alone, energy costs will reduce by approximately £48,000 annually, making payback 3.7 years.
- 5.3 Additional savings will come from associated cost reductions such as decreased reactive and planned maintenance costs, reduced capital replacement costs (potential), reduced climate change levy costs and additional savings from future energy price increases. There will also be less downtime and reduced staff time spent organising and administering repair works.

- 5.4 The projects for Field Place will replace the need for £18,000 capital costs, as the lighting is old and will need replacing soon anyway. Also the flexibility of the lighting may provide new revenue streams, e.g. through increased business events or revenue from colour coordinated wedding lighting.
- 5.5 Salix have allocated these funds to us in principle. It is desirable to use as much of this funding as possible to demonstrate that we are a suitable recipient for future interest free loans.
- 5.6 Allowing a smoother project management mechanism will free up time to develop and fund more cost saving projects.

Financial summary

Site name	Project / description	Salix funding requested	% Reduction	Annual savings (* = both Gas and Electricity)	Payback (years)	Tonnes CO2 Per annum	Completion date
Field Place Barn and Pavilion	Replacement LED Lighting	£18,000	50%	£3,744	4.8	16	Dec-2012
Commerce Way Depot	Peter Road T5 Lighting Upgrade	£1,400	48%	£487	2.9	2	Dec-2012
Pavilion Theatre	Pavilion T5 Lighting Upgrade	£2,200	51%	£634	3.5	3	Dec-2012
Museum	Museum T5 Lighting Upgrade	£1,850	49%	£831	2.2	4	Dec-2012
Worthing Town Hall Car Park	Car Park LED Lighting	£6,650	70%	£1,337	5.0	6	Dec-2012
Seafront	Decorative Lighting Incandescent to LED	£33,000	52%	£6,614	5.0	29	Dec-2012
Museum & Art Gallery	Insulating Boiler houses and internal pipework	£1,500	5%	£949	1.6	6	Dec-2012
Portland House	Insulating Boiler houses and internal pipework	£5,000	5%	£2,254	2.2	14	Dec-2012
Worthing Leisure Centre	Insulating Boiler houses and internal pipework	£2,750	5%	£2,857	1.0	17	Dec-2012
Field Place	Insulating Boiler houses and internal pipework	£1,500	5%	£598	2.5	4	Dec-2012
Commerce Way Depot	Insulating Boiler houses and internal pipework	£2,000	5%	£1,316	1.5	8	Dec-2012
Multiple - Various	2D to LED Replacement	£45,000	62%	£9,204	4.9	40	Dec-2012
Field Place House	Building Energy Management System	£16,000	20%	*£4,562	3.5	24	Dec-2012

Museum	Building Energy Management System	£22,000	20%	*£6,676	3.3	35	Dec-2012
Commerce Way	Building Energy Management System	£20,000	20%	*£5,958	3.4	30	Dec-2012
	Total Cost	£178,850		£48,021	3.7	237	

6.0 Recommendation

The Joint Strategic Committee is asked to recommend that Adur and Worthing Councils include the schemes, outlined in Section 3, into their respective 2012/13 capital investment programmes, and authorise the Executive Head of Technical Services to proceed with the projects.

Local Government Act 1972 Background Papers:

JSC Capital Revenue and Performance Monitoring report February 2012

Contact Officer:

Matt Roberts
Sustainability and Energy Manager

Surveying & Design Services,
Technical Services,
Adur District Council and Worthing Borough Council,
Portland House,
Richmond Road,
Worthing,
BN11 1HS

Internal: 1488
External: 01903 221488
Mob: 07814659394
E-mail: matt.roberts@adur-worthing.gov.uk

Schedule of Other Matters

1.0 Council Priority

- 1.1 ***Promoting a clean, green and sustainable environment*** - Reduce energy and water costs, and adopt more sustainable ways of delivering services. The work will promote a clean and green environment by reducing waste and CO₂ emissions from energy consumption, maintenance related travel emissions, waste disposal and embodied carbon from long term equipment replacements.
- 1.2 ***Ensuring value for money and low Council Tax*** – 1) Develop and adopt more cost effective and imaginative ways to make better use of assets, 2) Generate financial capital, increase income and secure external funding.. These externally funded solutions are based on high-quality, efficient, cost effective new technologies that reduce maintenance and long term energy costs.

2.0 Specific Action Plans

- 2.1 Energy efficiency projects contribute to the delivery of the council's sustainability strategy, approved October 2010
- 2.2 CO₂ reductions will contribute to governmental CO₂ reduction commitments under the Climate Change Act 2008 (interim target of a 34% reduction by 2020)

3.0 Sustainability Issues

- 3.1 Energy efficiency project contribute to the overall sustainability of the council's operations and services in that they reduce waste, save energy and reduce the Councils' carbon footprint.

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 Councils' achievements in energy savings, carbon reduction and sustainability performance will enhance their reputation. These measures are a contributory part of a wider energy efficiency programme running throughout all buildings. Once the savings and consumption is evidenced following implementation, the overall programme will provide a significant reputational enhancement and demonstrate the council is actively reducing costs and its environmental impact.

8.0 Consultations

8.1 Matter considered and no issues identified

9.0 Risk Assessment

9.1 If the project is not carried out the Councils' will fail to benefit from interest free Salix funding and the resulting savings and CO₂ reduction

10.0 Health & Safety Issues

10.1 Matter considered and no issues identified

11.0 Procurement Strategy

11.1 This report complies with the Councils' procurement strategies.

12.0 Partnership Working

12.1 Worthing Borough Council and Adur District Council have adopted a joint approach to sustainability and energy saving schemes.