

Name of meeting: CABINET

Date: 23 September 2014

Title of report: Solar PV Programme 2014-7

|   |                                |
|---|--------------------------------|
| Is it likely to result in spending or saving £250k or more, or to have a significant effect on two or more electoral wards? | Yes                            |
| Is it in the <u>Council's Forward Plan</u> ?  | Yes: September 2014            |
| Is it eligible for "call in" by <u>Scrutiny</u> ?   | Yes                            |
| Date signed off by <u>Director</u> & name   | Jacqui Gedman - 15.09.14       |
| Is it signed off by the Director of Resources?  | Gill Eastwood - 12.09.14       |
| Is it signed off by the Assistant Director - Legal & Governance?  | Karl Larrad - 12.09.14         |
| Cabinet member <u>portfolio</u>   | Place (Investment and Housing) |

**Electoral wards affected: Kirklees Wide**

Ward councillors consulted: Ward councillors will be consulted as the programme rolls out across the district.

**Public or private:**

*Appendix 2 is recommended to be taken in Private because the information contained in it is considered to be exempt information under Part 1 of Schedule 12A of the Local Government Act 1972, as amended by the Local Government (Access to Information) (Variation) Order 2006, as it contains information relating to the financial or business affairs of any particular person (including the authority holding that information). It is considered that it would not be in the public interest to disclose the information contained in the report as disclosure could potentially adversely affect overall value for money and could compromise the commercial confidentiality of the bidding organisations and may disclose the contractual terms, which is considered to outweigh the public interest in disclosing information including, greater accountability, transparency in spending public money and openness in council decision making.*

**1. Purpose of report**

- To approve plans and a capital budget of £9.2m from the Housing Revenue Account for the installation of up to 2,000 solar photo voltaic (PV) systems on Council houses across Kirklees.
- To approve the proposal to fund required revenue expenditure from the from the Feed In Tariff (FIT) income and consider options regarding the use of any surplus FIT income.
- To agree the criteria for selecting properties to benefit from the installations.
- To consider and approve delivery and procurement proposals.

## 2. Key points

- 2.1 In February 2014 members agreed an in principle commitment to a large scale PV installation programme for Council houses. Overall the intention is to carry out the work to 2000 homes, and the Council's Corporate Plan 2014-15 includes a Cabinet Community Commitment to 'increase the number of council houses that have a solar panelled system installed by 1,000 properties'. The need for formal approval for the proposals, and an EU compliant procurement exercise mean that this target will not be achieved in 2014/15. It is estimated that only 50 installations being completed in this financial year, with a further 1000 in 2015/6 and 950 in 2016/7. A revised three year spend profile is shown in section 3.4.

The programme would initially be fully funded from the HRA Capital Plan, but the underlying assumption is that feed-in-tariff (FIT) payments to the Council, based on the amount of electricity generated by the systems, would both make the project self-financing in the medium to long term and provide surplus income.

### 2.2 The project will:

- Target up to 2000 households at risk of fuel poverty.
- Have an estimated capital cost of £9.2m.
- Produce FIT income of £14.0m over 20 years.
- Provide annual savings to households of £100 rising to £200 after 20 years.
- Produce a return on investment of 6.7% over the lifetime of the investment.
- Deliver a total annual carbon savings of 2,000 tonnes
- Primarily be delivered by Kirklees Building Services, but will also offer work/training opportunities potentially for SMEs.
- Run over 3 financial years allowing for procurement and potentially bad weather conditions.

- 2.3 Kirklees Building Services are Green Deal accredited installers of solar PV, and a pilot project targeting 34 bungalows in Mirfield was carried out successfully in 2013/4. The costs assumed in this report derive from those charged by Kirklees Building Services for this pilot project, but it is expected that there will be efficiencies identified by the bulk purchase of materials. The forecasts on FIT income generation are based on an industry standard model, but the actual returns from the pilot project are 7% higher than predicted to date.

- 2.4 The approval of the electricity grid operators is required before work can proceed. They can either refuse or modify schemes if they feel it will have an adverse impact on the network.

## 3. Cost Breakdown

### 3.1 Assumptions

Although the principles underlying FIT are relatively simple, there are a wide range of variables which could potentially have an impact on future income. The assumptions made for the purpose of this report are:

- Costs based on Kirklees Building Services pilot
- RPI of 3.0% per year
- 50% of electricity generated used by tenant
- SE/SW orientation preferably but not exclusive to

- Roof pitch 30%
- Minimal shading
- £500 per installation for scaffolding
- £40 per year for claims management for each property
- £30 per year for repairs and maintenance over the lifetime of the installation.

### 3.2 Income Projections

The table below provides an estimated return on FIT income for a 2kWh installation over 20 years based on current FIT rates:

| Capital Cost | Size of installation | FIT return (£) | Return on Investment (%) | % Annual Return on Investment | Years to recover Capital investment |
|--------------|----------------------|----------------|--------------------------|-------------------------------|-------------------------------------|
| £4,162       | 2.00 kWh             | £6,973.35      | 168%                     | 6.7%                          | 12 years                            |

FIT is paid at a higher rate for electricity utilised within the home than for electricity exported back to the grid. The above return does not include the savings to tenants, which are estimated at £3,006.42 over the same period. A copy of the financial model for a typical property (including savings to tenants) is shown in Appendix 1.

FIT payments are made retrospectively on a quarterly basis. It is expected that the first payment will be received in June 2015.

### 3.3 Budget provision

There is £4m allocated to renewable energy and fuel poverty in the 5 year HRA Capital Plan, and a further £7m in the 30 year HRA Business plan to be spent by 2020. The proposed programme would effectively accelerate this investment over a much shorter timescale. The HRA business plan includes the set aside/accumulation of cash resources within HRA reserves to fund current and future year HRA capital investment needs, and there is sufficient provision within these overall set aside 'cash' resources, to fund this specific scheme, over the next 3 years.

The HRA business plan has been re-modelled to take account of the accelerated investment and there are sufficient HRA resources to accommodate the accelerated investment over the next 3 years without the requirement for any new HRA borrowing.

However the percentage of the overall budget allocated to PV would be significantly greater than originally envisaged. As a result the amount of resource available in the medium term to fund other potential thermal efficiency works to those properties (around 10% of the council housing stock) which are more difficult to improve or where there are currently no acceptable ways of improving them will be reduced. This could be resolved by utilising some of the FIT income return to fund future projects and by where possible attracting external funding. Utilising the FIT income in this way would require further consideration and a separate report to Cabinet.

The annual revenue costs for claims management, assuming 2,000 systems, will be in the region of £80k per annum. This cost will cover collection of data and submission of FIT claims once per quarter. (Approximately 60% of this cost will be for the cost of a SIM card which allows the meters to be read remotely). A one off cost of £50 for registering each installation with OFGEM is included in this estimate, but the profile will show a higher spend in the first 2 years.

Maintenance costs have been estimated at £30k per year over the lifetime of the installations, but these should be minimal in the first 10 years. It is assumed that the PV installations will continue to provide benefits to tenants long after the 20 year period covered by the FIT income, but in the event of subsequent unit failures decisions would need to be made on whether renewal of the systems represented value for money. Recent advances in green technology would suggest that PV may be only one option available, and that other measures may have a greater impact and represent better value for money.

It is assumed that revenue costs for the project will be funded from the income generated from the FIT.

If there any significant reductions in the FIT income levels officers will seek member approval to continue the programme of PV installations.

### 3.4 Summary of Expenditure and Income

| Summary Table             | Amount             |
|---------------------------|--------------------|
| Capital Expenditure       | £ 9,200,000        |
| Revenue Expenditure       | £ 2,200,000        |
| <b>Total Expenditure</b>  | <b>£11,400,000</b> |
| <b>Total Income (FIT)</b> | <b>£14,000,000</b> |
| <b>Surplus</b>            | <b>£ 2,600,000</b> |

The spend profile is based on 2,000 systems and a start date (after procurement) of 1 January 2015.

|  | 2014/15         | 2015/16           | 2016/17           | Total             |
|--|-----------------|-------------------|-------------------|-------------------|
| <b>EXPENDITURE</b>                         |                 |                   |                   |                   |
| <b>Capital</b>                             |                 |                   |                   |                   |
| Building Services contract                 | £100,000        | £1,800,000        | £1,500,000        | £3,400,000        |
| Electrical Framework (potentially SMEs)    | £0              | £500,000          | £700,000          | £1,200,000        |
| Supply of Solar PVs & associated equipment | £100,000        | £2,300,000        | £2,200,000        | £4,600,000        |
| <b>Total Capital Expenditure</b>           | <b>£200,000</b> | <b>£4,600,000</b> | <b>£4,400,000</b> | <b>£9,200,000</b> |

|   | Estimated Annual Revenue Costs | Total Estimated Expenditure Over 20 year period |
|---|--------------------------------|---|
| <b>EXPENDITURE</b>  |                                |   |
| <b>Revenue</b>  |                                |   |
| Monitoring System/Data Collection/Claims Management   | £80,000                        | £1,600,000                                      |
| Repairs & Maintenance (dependent on outcome of recent trials as highlighted in Section 2 above) | £30,000                        | £600,000  |
| <b>Total Annual Revenue Expenditure</b>   | <b>£110,000</b>                | <b>£2,200,000</b>                               |

|                | <b>Estimated FIT income</b> | <b>Total Income Over 20 year period from date of registration</b> |
|----------------|-----------------------------|---|
| <b>INCOME</b>  |                             |   |
| Feed In Tariff | £700,000                    | £14,000,000   |

**Lifespan of completed asset:**

The lifespan of PV is a minimum of 20 years (the period covered by the FIT).

**External Funding:**

FIT is paid quarterly – income from 2,000 installations estimated at £700k per year. (£14.0m over the lifespan of the asset)

**Revenue Costs**

£80k per year for registering the systems with OFGEM, monitoring the PV systems, claims submission and management which will be completed by an external contractor following a competitive procurement exercise.

£30k per year for maintenance (this will not be a linear spend profile – there should be minimal maintenance cost in the first few years after installation). Total revenue costs over the lifespan of the installations are estimated at £2.2m as highlighted in the table above

**Utilisation of the FIT income**

As the proposed PV programme will generate income in excess of the capital outlay and revenue funding requirements, there should be a net benefit. This surplus income could be used to deliver other priority projects within the HRA or could be redirected to the Council's General Fund to support Council priorities.

**4. Property Criteria**

- 4.1 A reduction in fuel poverty is the key driver for the project (rather than maximising income) and the intention would be to target properties with poor thermal efficiency, which for the purposes of the programme is deemed to be properties with a Reduced Data Standard Assessment Procedure Rating (RDSAP) of below 65. This figure was chosen because the original Government guidelines on fuel poverty suggested that households living in properties with an RDSAP rating of below 65 were more likely to be at risk of fuel poverty. This is the standard national assessment process used in the industry.
- 4.2 A provisional list of suitable estates is shown in Appendix 2. 2,652 potential properties have been identified; the assumption being that a proportion of these will be judged to be unsuitable by operators of the grid or due to local factors, such as roof condition and or pitch, orientation and shading from trees.

The address list has been shared with Northern Powergrid, and they are to advise which properties are suitable for PV and the maximum size of installation. This can be a lengthy process, as each property is assessed individually, but informal feedback has been positive. Some estates may require work to the network before any programme takes place, and although Northern Powergrid have indicated they may be prepared to undertake such work, it might impact on the delivery of the programme.

If there are insufficient suitable properties identified the scope would be extended by increasing the RDSAP cut off point.

4.3 The household selection criteria for the programme will be communicated clearly as part of the community consultation that will be undertaken through Kirklees Neighbourhood Housing where a range of meetings will be held with Ward Councillors and individual residents that will be affected which is standard practice for this type of activity.

## 5. Delivery and Procurement Options

5.1 Delivery and procurement options were considered by officers at the Green Investment Board (Appendix 3) and by colleagues in the Physical Resources and Procurement Service. On balance it was decided that delivering the programme through Kirklees Building Services would be the best option. In making this decision the following factors were taken into consideration:

- Building Services are accredited PV installers and have staff specifically trained to deliver this type of work.
- It would support the 'Kirklees pound' and offer opportunities for local SME.
- It would provide a valuable source of income to Building Services at a time when other work streams were coming to an end so, providing financial stability and it is the best fit to the Corporate Procurement Strategy in terms of using in-house services and works where this delivers value for money.
- The rates agreed for the work are competitive and compare favourably with those on the open market.

The intention therefore would be to give Kirklees Building Services overall responsibility for delivering the contract, but on the understanding that a significant proportion of the programme would be delivered by other sub-contractors, potentially local SME. In this way it is hoped that the project will help to broaden the skills base in the community, and open up new business and training opportunities.

5.2 The proposals for procuring the remaining contracts are as follows:

- **Contract 1 - Competitive tender for supply of Solar Panels and Associated Equipment**

This will be for the supply of materials, due to the value (£4.6m) it will have to be advertised through an OJEU compliant process. This will ensure a competitive price for the works.

Procuring the materials separately will ensure standardisation of equipment, making future maintenance easier, and allow, so far as practicable, for consistency of delivery for the installations carried out by sub-contractors.

- **Contract 2 – Electrical Framework – potential SME involvement**

Kirklees Building Services are currently procuring a new electrical sub-contractor list, and PV installation will be incorporated into the tender. The framework will allow potentially for working with SMEs to obtain the necessary accreditation, as it is recognised that there are relatively few accredited PV installers in the locality. Management of the programme and quality control would be led by Building Services.

This approach would ensure consistency from a technical point of view, which will help with future maintenance. It would also reduce the risk to smaller companies, as the capital outlay required by the contractors prior to start on site would be minimal. If this option is chosen consideration would be given to the best way to promote the project including a Meet the Buyer event.

This is the most challenging way of delivering the programme, but offers the most potential benefits to the Kirklees economy.

- **Contract 3 – Monitoring System/Data Collection/Claims Management**

This will be for a web based platform to monitor live information from the systems ie meter readings which will then be submitted on a quarterly basis to the FIT provider to obtain income back. This contract will run behind the above contract. This will run over 4 years initially and be retendered every 4-5 years up to the 20 year maximum that income can be received through the PV systems. Kirklees Neighbourhood Housing will oversee the contract.

## **6. Implications for the Council**

### **6.1 Legal Implications**

Fully compliant tendering processes will have to be undertaken and contracts set up with successful organisations. This will involve Legal Services being involved in the tendering process.

A pragmatic solution has been found by Legal Services for allowing a Right to Buy application for one property incorporating PV panels subject to a FIT agreement to proceed, but there is a need to develop an agreed and consistent approach in event of similar applications in the future.

### **6.2 Resources**

The programme would initially be funded from the HRA Capital Plan. The underlying assumption however is that FIT payments to the Council from the energy generated by the systems would make the project self-financing in the medium to long term. It is intended in the first instance that FIT income would cover annual revenue costs and any balance would revert to the HRA reserves to replace over the longer term, capital used in the short term to support the accelerated PV investment programme. This resource could then be used to fund other thermal efficiency or fuel poverty reduction schemes on council houses.

It should be noted that FIT income received by the Council could be directed into the Council's HRA or alternatively to the General Fund. Bearing in mind the current economic climate members may wish to consider redirecting some or all of the surplus FIT income to the General Fund. The project will be funded as detailed in Section 3 above.

In terms of managing delivery, installation will partly be undertaken by the Council's Building Services. They will also be responsible for overseeing the electrical contract ensuring timescales and quality standards are met.

Kirklees Neighbourhood Housing will oversee the monitoring system contract. There is a project management team set up which includes the Head of Housing Services who meet regularly to ensure the project delivers on budget and time and to monitor the FIT.

## **7. Consultees and their opinions**

In the Corporate Plan 2014/15 Cabinet has made a number of community commitments. This includes a commitment to tackle the cost of living crisis together by working with people to increase their income and reduce their cost of living. This will in part be achieved by increasing the number of council houses that have a solar panel installed.

## **8. Next steps**

- 8.1 To progress the scheme in accordance with Cabinet approvals. An update on the progress of the project will be presented to the Green Investment Board on a regular basis.

## **9. Officer recommendations and reasons**

- 9.1 That approval is given to the £9.2m capital programme of investment in the Solar PV programme on up to 2,000 Council homes funded by the Housing Revenue Account.
- 9.2 That approval is given to utilising future FIT income to cover the revenue cost of claims management and future maintenance of the equipment installed and to replace the accelerated capital outlay within the HRA. Income from the FIT will be reviewed on a regular basis and if the assumed surplus is realised members will be asked to decide whether to direct this resource to the HRA or the Council's General Fund to support Council priorities.
- 9.3 That the suggested criteria for selecting properties for inclusion in the scheme outlined in Section 4 is approved.
- 9.4 That the procurement strategy outlined in Section 5.1 and 5.2 above is approved.

## **10. Cabinet portfolio holder recommendation**

- 10.1 Councillor Peter McBride asks, that Cabinet agrees the report, in line with officer recommendations outlined in section 9 above

## **11. Contact officer and relevant papers**

Dave Woodhead, Contracts Manager, Kirklees Neighbourhood Housing  
Tel: 01484 416471  
Email [dave.woodhead@knh.org.uk](mailto:dave.woodhead@knh.org.uk)

Helen Geldart, Head of Housing Services, Kirklees Council  
Tel: 07976 497659  
Email: [helen.geldart@kirklees.gov.uk](mailto:helen.geldart@kirklees.gov.uk)

## **12. Assistant Director responsible**

Kim Brear, AD Streetscene and Housing



## Appendix 1 - Return on Investment for a 2.0 kWh Installation

|                | ESTIMATED INCOME TO COUNCIL |               |              |                   |
|----------------|-----------------------------|---------------|--------------|-------------------|
|                | FIT Income                  | Export income | Total Income | Cumulative Income |
| <b>Year 1</b>  | £245.40                     | £42.46        | £287.86      | £287.86           |
| <b>Year 2</b>  | £250.24                     | £43.29        | £293.53      | £581.39           |
| <b>Year 3</b>  | £255.17                     | £44.15        | £299.32      | £880.71           |
| <b>Year 4</b>  | £260.19                     | £45.01        | £305.20      | £1,185.91         |
| <b>Year 5</b>  | £265.32                     | £45.90        | £311.22      | £1,497.13         |
| <b>Year 6</b>  | £270.55                     | £46.81        | £317.36      | £1,814.49         |
| <b>Year 7</b>  | £275.88                     | £47.73        | £323.61      | £2,138.10         |
| <b>Year 8</b>  | £281.31                     | £48.67        | £329.98      | £2,468.08         |
| <b>Year 9</b>  | £286.85                     | £49.63        | £336.48      | £2,804.56         |
| <b>Year 10</b> | £292.50                     | £50.60        | £343.10      | £3,147.66         |
| <b>Year 11</b> | £298.27                     | £51.60        | £349.87      | £3,497.53         |
| <b>Year 12</b> | £304.14                     | £52.62        | £356.76      | £3,854.29         |
| <b>Year 13</b> | £310.13                     | £53.65        | £363.78      | £4,218.07         |
| <b>Year 14</b> | £316.24                     | £54.71        | £370.95      | £4,589.02         |
| <b>Year 15</b> | £322.47                     | £55.79        | £378.26      | £4,967.28         |
| <b>Year 16</b> | £328.83                     | £56.89        | £385.72      | £5,353.00         |
| <b>Year 17</b> | £335.30                     | £58.01        | £393.31      | £5,746.31         |
| <b>Year 18</b> | £341.91                     | £59.15        | £401.06      | £6,147.37         |
| <b>Year 19</b> | £348.64                     | £60.32        | £408.96      | £6,556.33         |
| <b>Year 20</b> | £355.51                     | £61.51        | £417.02      | £6,973.35         |

| ESTIMATED SAVINGS TO TENANT |                          |
|-----------------------------|--------------------------|
| Tenant Annual Saving        | Cumulative Tenant Saving |
| £91.50                      | £91.50                   |
| £96.02                      | £187.52                  |
| £100.76                     | £288.28                  |
| £105.74                     | £394.02                  |
| £110.96                     | £504.98                  |
| £116.45                     | £621.43                  |
| £122.20                     | £743.63                  |
| £128.24                     | £871.87                  |
| £134.57                     | £1,006.44                |
| £141.22                     | £1,147.66                |
| £148.19                     | £1,295.85                |
| £155.52                     | £1,451.37                |
| £163.20                     | £1,614.57                |
| £171.26                     | £1,785.83                |
| £179.72                     | £1,965.55                |
| £188.60                     | £2,154.15                |
| £197.91                     | £2,352.06                |
| £207.69                     | £2,559.75                |
| £217.95                     | £2,777.70                |
| £228.72                     | £3,006.42                |

1. Estimated that the full cost of the capital outlay of £4162 will be recovered in 12/13 years.
2. FIT income is for 20 years only but the tenant should continue to benefit from electricity savings after this date

## **Appendix 3 – Delivery and Procurement Options**

### **Extracted from Business Case – Green Investment Board May 2014**

The installation of PV systems is a relatively straightforward established process.

There are constraints however that will limit the pace of any programme:

- Condition surveys of roofs (need a minimum expected life of 20 years).
- Permission from Northern Powergrid for the proposed programme.
- Capacity to supervise the programme.
- Procurement delays.
- Supply chain.

Kirklees Building Services are accredited PV installers and have suitably trained operatives for delivering this work. At a time when other work streams are coming to an end (E.g. external doors and thermal render) and with a reduced decent homes commitment in the short term, a PV programme could provide a valuable income source and provide financial stability to Building Services.

It is likely that they would have the capacity to deliver 500 PV installations per year.

It is therefore proposed that Kirklees Building Services would deliver around 500 systems per year, but consideration would need to be given as to the best way to procure and deliver the remaining systems.

#### **Option 1 - Competitive tender for supply and fit of units**

This would require an OJEU compliant competitive tender to cover the two year programme. This would ensure a competitive price for the works but would delay any start on site. The evaluation criteria would allow for some weighting in respect of the 'Kirklees pound', but it is likely that any contract would be awarded to a larger nationally based company, with only marginal direct benefits to the local economy.

#### **Option 2 – Procure the work through an existing procurement Consortia**

There is a number of existing procurement consortia that offer PV installation services (E.g. Procurement for Housing, North East Procurement). Using an existing OJEU compliant framework would allow for a contractor to be appointed more quickly. Most consortia do make reference to local labour/training initiatives, but the frameworks are dominated by larger companies. Costs likely to be slightly higher than those in option 1.

#### **Option 3 – Small work packages aimed at SME**

Kirklees Building Services to procure all materials for the programme. Work packages, for installation only, would be competitively tendered, with the value of each package set at a value to attract SME. Management of the programme and quality control would be led by Building Services.

This approach would ensure consistency from a technical point of view, which will help with future maintenance. It would also reduce the risk to smaller companies, as the capital outlay required by the contractors prior to start on site would be minimal. If this option is chosen consideration would be given to the best way to promote the project to SMEs.

This is the most challenging way of delivering the programme, but offers the most potential benefits to the Kirklees economy.