North Tyneside Council
Report to Cabinet
Date: 8 October 2012

ITEM 6(g)

Title: Council Housing Green Fund

Portfolio(s):	**Housing Transport and the Environment**	**Cabinet Member(s):**	**Councillor Paul Mason Councillor Ed Hodson**

Report from Directorate: **Community Services**

Report Author: **David Foster, Property Services Manager, North Tyneside Homes** **Tel: 0191 6437801**

Wards affected: **All**

PART 1

1.1 Purpose:

The purpose of the report is to seek approval from Cabinet on the application of the "Green Fund" arising from the installation of solar PV panels in a proportion of the Council's housing stock.

1.2 Recommendation(s):

It is recommended that Cabinet:-

(a) Agree to the installation of Voltage Optimisers in Council homes that have not directly benefited from the provision of solar panels, as described in this report, within the resources available from the Council Housing "Green Fund";

(b) Grant delegated authority to the Head of North Tyneside Homes, in consultation with the Cabinet Member for Housing, the Cabinet Member for Transport and the Environment, the Elected Mayor, the Strategic Director of Community Services, the Strategic Director of Finance and Resources and the Head of Legal, Governance and Commercial Services, to consider and agree appropriate programmes of work utilising renewable technologies or to improve the energy efficiency of the Council housing stock, within the resources available from the "Green Fund".

1.3 Forward Plan:

This report appears on the Forward Plan for the period 1 July – 31 October 2012.

1.4 Council Plan and Policy Framework

This report supports the Council's objectives of reducing fuel poverty and the level of carbon emissions (CO2).

1.5 Information:

Background

1.5.1 Following the successful completion of the Solar PV project which saw the installation of solar PV arrays on 1,503 Council homes, we now have the opportunity to install further energy efficiency measures to our housing stock using the newly established Housing "Green Fund". The fund was created from the contractual payments to the Council under the Solar PV project.

1.5.2 The Solar PV installations are providing an average energy saving of £130 per household per annum. This equates to a gross energy saving of £0.195m per annum, with a minimum saving of £4.875m over the term of the 25 year agreement. There will also be a reduction of approximately 1,500 tons of carbon emissions per annum and 37,500 tons of carbon over the term of the agreement.

1.5.3 In addition, as part of the contractual arrangements the provider E.ON Energy agreed to provide the Council with an initial up-front payment of £0.150m and an annual sum of £0.067m per annum in arrears as a payment for the use of the council house roof space. Over the term of the agreement we will receive £1.825m (including the annual payment of £1.675m and up-front payment of £0.150m). The annual income is index linked and guaranteed for the full period of 25 years on all installations.

1.5.4 Cabinet has previously agreed that the "Green Fund" be targeted towards delivering further energy efficiency measures in the first instance, to those homes not directly benefiting from solar PV installations.

Previous Investment

1.5.5 Over recent years the Council has invested significant monies in bringing homes up to the Decent Homes Standard and in increasing the energy efficiency of the Council's homes. A range of initiatives and projects have been delivered including the installation of cavity wall insulation, loft insulation, high efficiency condensing boilers and PVCu double glazed windows and doors. Targeted improvements such as external insulation to some of our blocks of flats and external insulation to our non-traditional 'Orlit' properties at North Shields and Shiremoor have also been delivered.

1.5.6 These measures have improved the energy efficiency of the Council's homes. The energy efficiency of our homes is measured using the Government's Standard Assessment Process (SAP) which has increased the SAP rating for North Tyneside's Council homes from 67 to 71.4, placing North Tyneside in the top quartile of all local authorities for the energy efficiency of its homes.

Future Proposals

1.5.7 The "Green Fund" will enable the Council to continue to invest in further energy efficiency and renewable technologies within our homes that will result in energy savings for tenants, reduce fuel poverty and promote financial inclusion.

1.5.8 The market in the area of renewable technologies is developing at significant pace and changes in Government policy are opening up new opportunities to expand their use. Despite this the cost of installing many new technologies is still uneconomical across large numbers of homes e.g. air source heat pumps, ground source heat pumps.

1.5.9 In conjunction with our partners E.ON Energy and North Tyneside Warmzone we have reviewed products that are suitable for installation within our homes which are both cost effective and provide energy savings for tenants.

1.5.10 With this in mind we have identified two potential options for consideration:

a) Voltage Optimisers

Voltage Optimisers have been used for a number of years in commercial buildings and until more recently it has not been cost effective to consider their installation in a residential setting.

Voltage Optimisers operate by reducing and maintaining the electricity supply at its optimum level of 220v. Typically the electricity from the National Grid enters a home at up to 253 volts, which is greater than the 220v required to operate household electrical appliances. By reducing the voltage down to 220v, the Voltage Optimisers provide an estimated saving of between 10 – 12% on energy usage. In addition, they can increase the lifetime of appliances, particularly those with motors, as they are no longer running faster than they need to. Typical energy savings are in the order of £80-£100 per annum on electricity costs.

Depending upon the specific Voltage Optimiser chosen, the cost of supply and installation is estimated to be under £500 and the expected life of the product is around 25 years.

If this option were chosen it is envisaged that during 2012/13 we could install Voltage Optimisers in 334 homes, with around 134 further homes benefiting in future years using current “Green Fund” finance.

It may not be possible to install Voltage Optimisers in all homes due to available space and the positioning of existing electric meters and consumers units.

b) Gas Savers

A “Gas Saver” is an innovative product that sits neatly between the heating boiler and flue. The Gas Saver captures and stores heat from the flue gases which would normally be lost through the boiler flue. The heat is recycled to preheat water coming into the boiler from the cold mains supply. Because it does not have to raise the temperature so much, the boiler uses significantly less gas to heat the water to the required temperature. This means lower energy bills and greater carbon savings. It is estimated that this can save up to 35% of the gas used to produce hot water annually and equates to an estimated saving of £63 on gas bills per annum. Gas Savers have a life expectancy of 15 years.

Depending upon the manufacturer chosen, the cost of supply and installation is estimated to be around £700 per property.

If this were the chosen option we could therefore install Gas Saver units in around 238 homes this year, with 95 being installed in future years using the available finance within the “Green Fund”.

It may not be possible to install them in all homes due to the positioning of the existing boilers, the types of boilers and the location of existing flues.

Summary

1.5.11 The renewable technology and energy saving market is developing rapidly with the cost of technologies becoming more cost effective as research and development continues. It is therefore likely that additional options and solutions will become available in the future. Officers will continue to review suitable products in the market place and identify and progress other alternative solutions as appropriate.

1.5.12 The Voltage Optimisers can be provided to more homes and produce a higher level of potential saving than Gas Savers, and it is for this reason that it is recommended that this option be pursued at this time.

1.5.13 Those homes with the highest concentrations of fuel poverty will be targeted first, subject to any technical considerations relating to the installations as identified in 1.5.10a.

1.6 Decision options:

The following decision options are available for consideration by Cabinet:

Option 1

To agree the proposals of this report and recommendations as set out in section 1.2 of this report.

Option 2

Not agree the proposals as set out in section 1.2 of this report.

Option 3

To refer the matter back to officers for further consideration of any specific issues(s).

1.7 Reasons for recommended option:

1.7 The installation of Voltage Optimisers provides the most cost effective solution at this time. Voltage Optimisers can be provided at a lower cost than a "Gas Saver" and produce greater projected savings for the householder.

1.8 Contact officers:

Ian Conway, Head of North Tyneside Homes, tel. (0191) 6437501
David Foster, Senior Manager Property Services, tel. (0191) 6437801
Alison Campbell, Finance Business Manager, tel. (0191) 643 7038

1.9 Appendices:

N/A

1.10 Background information:

1.10 The following background papers/information have been used in the compilation of this report and are available at the office of the author:

(1) Report to Cabinet – Installation of Solar Photovoltaic Panels, 11 July 2011

(2) The Carbon Management Strategy.
http://www.northtyneside.gov.uk/pls/portal/NTC_PSCM.PSCM_Web.download?p_ID=517317

(3) The Climate Change Strategy.
http://www.northtyneside.gov.uk/pls/portal/NTC_PSCM.PSCM_Web.download?p_ID=523509

(4) Housing Asset Management Strategy - Quality Sustainable Homes 2010-2015.

PART 2 – COMPLIANCE WITH PRINCIPLES OF DECISION MAKING

2.1 Finance and other resources

2.1.1 The initial up-front payment of £0.150m was received from the provider as part of the contract negotiations, with the HRA receiving an annual income of £0.067m per annum in arrears as part of the agreement for use of the roof space thereafter. The proportion of income for the first year will be £16,800 based on the date the Solar PV arrays were registered. As they have not been installed for a full 12 month period, this will result in a budget of £0.167m in 2012-13 and an annual income of £0.067m thereafter. Over the

term of the agreement we will receive £1.825m including the annual payment and initial up-front payment. The annual payment is index linked and guaranteed for the full period of 25 years on all installations.

2.1.2 The annual income could be affected through “Right to Buy” sales as some properties may be sold with Solar PV arrays installed and the Council may no longer be eligible to receive this income. This could affect the level of income moving forward and reduce the number of improvements we can complete should there be a increase in sales.

2.1.3 An additional ‘risk pot’ of £0.225m (paid in lieu of the parent company guarantee) is held to meet the cost of any compensation the Council may be required to pay E.ON for the removal of Solar PV arrays prior to the end of the contract.

2.1.4 All monies generated through the Solar PV contract will be used to deliver further energy efficiency measures to our housing stock.

2.1.5 The estimated savings from the installation of Voltage Optimisers will be in the order of £80-£100 per annum per property, which gives an overall energy saving in the order of £2,000 - £2,500 per tenant over the 25 year life of the product.

2.2 Legal

2.2.1. The installation of Voltage Optimisers or other energy saving equipment will be funded through the income received from the Solar PV contract and will be deemed as a landlord improvement with all repair, servicing and maintenance requirements being the responsibility of the Council.

2.3 Consultation/community engagement

The following consultation has been undertaken.

2.3.1 Internal Consultation

Consultation has been undertaken with the Cabinet Member for Housing, the Cabinet Member for Transport and the Environment through the Environmental Theme Board.

2.3.2 External Consultation/Engagement

Discussions have been held with E.ON Energy, Kier North Tyneside and North Tyneside Warmzone.

Consultation has taken place through tenants’ Service Development Groups advising of the potential opportunity to install future energy saving technologies and that further work was progressing in this area.

Tenants considered that it was desirable that any monies received by the Council in connection with Council homes be directed towards undertaking further energy efficiency measures for those tenants who do not directly benefit from the installation of a solar panel. Those areas suffering from the highest levels of fuel poverty should be given priority for any energy savings measures.

Detailed discussions with potential partners would progress during the procurement process to ensure that the Council secures the most economically advantageous provision which addresses the relevant legal, technical, social, environmental and financial considerations

2.3.3 Further consultation

Further presentations and information will be delivered to our tenants through Service Development Groups on the chosen technology and associated benefits.

A future edition of Housing Matters will include an article of our chosen technology and associated benefits.

Detailed consultation will be undertaken with tenants before any work will progress in our tenants' homes.

2.4 Human rights

There are no human rights implications directly arising from this report.

2.5 Equalities and diversity

There are no equalities and diversity implications directly arising from this report. Not all homes would be able to have a Voltage Optimiser but this is as a result of technical constraints only.

2.6 Risk management

All properties would be surveyed in advance of installing any energy saving technologies to ensure there suitability.

2.7 Crime and disorder

There are no crime and disorder implications directly arising from this report.

2.8 Environment and sustainability

This project has the potential to significantly reduce North Tyneside's carbon footprint and reduce energy costs for tenants over the short, medium and longer term.

The commitment to install further energy efficiency technologies by the Council could potentially encourage other householders to follow the Council's lead in this area.

PART 3 - SIGN OFF

• Strategic Director(s)	X
• Mayor/Cabinet Member(s)	X
• Chief Finance Officer	X
• Monitoring Officer	X
• Strategic Manager, Policy & Partnerships	X
• Chief Executive	X