

Manchester City Council Report for Resolution

Report To: Executive – 26 October 2011

Subject: Proposed installation of Solar Photovoltaic Panels on Council housing

Report of: Director of Housing and Head of Climate Change: Buildings and Energy

Summary

The Council has been working with AGMA colleagues and a range of housing providers (ALMOs and Councils in Wigan, Bolton and Oldham.) to determine how best to take advantage of the Government's Feed-in-Tariff (FiT) available to landlords and home owners who install solar photovoltaic panels to generate electricity.

The Government has announced a review of the Feed-in-Tariff from March 2012 and this will almost certainly result in a reduced amount of income for each installation, in particular those on more than one site/building.

This report recommends that the Council seeks to maximise the Feed-in-Tariff before it is reduced by identifying 3000 roofs across Council housing in north Manchester for the installation of solar photovoltaic panels. 2000 roofs will be allocated to an AGMA-wide "Rent-a-Roof" model and, up to 1000 to a self-funded model (subject to completing the necessary procurement, installation and connection to the grid).

Recommendations

Executive is asked to agree

To endorse the decision to delegate to the Director of Housing, in consultation with the Executive member for Neighbourhood Services, and the Head of Corporate Property, the authority to agree the details of a "Rent-a-Roof" scheme with the two preferred suppliers (the providers) British Gas and Carillion as identified in the report at Part B of this agenda.

That the Director of Housing in conjunction with Northwards Housing (the Council's Arms Length Management Organisation) identifies up to 2000 suitable properties across North Manchester for the installation of solar photovoltaic (solar PV) panels for the AGMA Rent-a-Roof scheme.

That the City Solicitor be authorised to enter into the necessary legal agreements with the providers to effect the decisions.

That the Council (in the same way that other AGMA authorities have agreed) allocates an equal amount of roofs to the providers

That the Director of Housing in conjunction with Northwards Housing identifies up to 1000 suitable properties across North Manchester for the installation of solar PV panels for a self-funded scheme.

That up to £5 million is allocated from Housing Revenue Account reserves or borrowing (as determined by the City Treasurer, in consultation with the Executive Member for Finance and Human Resources) to fund the installation of solar panels in the self-funded scheme.

To an increase in the capital programme to cover the cost of the self-funded scheme and delegate to the City Treasurer, in consultation with the Executive Member for Finance and Human Resources, to approve the detailed business case

That Northwards Housing manage the consultation with tenants, the procurement of suppliers and installers, and the ongoing maintenance and lifecycle works for the self-funded proposal.

That any income received from the Feed-in-Tariff from the Rent-a-Roof scheme is ring-fenced to support carbon reduction activities across the Council's housing stock.

That any income received from the Feed-in-Tariff from the self-funded scheme is repaid into HRA reserves (if used) or to repay borrowing. It is recommended that once the cost of borrowing has been met any surplus is repaid into HRA reserves.

Wards Affected:

North Manchester (various depending upon property locations)

Community Strategy Spine	Summary of the contribution to the strategy
Performance of the economy of the region and sub region	The installers and suppliers of PV panels in the self-funded model will be chosen from the Procure Plus regional procurement partnership and primarily supports providers and suppliers operating within the region.
Reaching full potential in education and employment	Procure Plus (through its predecessor body GM Procure) has a strong track record of maximising local training and apprenticeships directly through its contractors and the supply chains. For every £1 million spent, Procure Plus delivers 2 apprenticeships. This compares well with other framework partnerships.
Individual and collective self esteem – mutual respect	Providing at least £100 per annum savings in electricity costs will reduce fuel poverty for some of the most disadvantaged residents and is a key element of this work.

Neighbourhoods of Choice	Procure Plus delivers a Skills Fee equivalent to 1% of any contracts placed through it to support social enterprise development, Small and Medium Enterprise support, Trainee support and Sense of Place. The Sense of Place element is reinvested directly into community projects in the particular areas.
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Full details are in the body of the report, along with any implications for:

- Equal Opportunities Policy
- Risk Management
- Legal Considerations

Financial Consequences – Revenue

- Details of the commercial offer made by British Gas and Carillion are included in the report at Part B of this agenda
- Self-funded Proposal – The annual income return for 1,000 properties is estimated at £550k. There will, however, be an estimated maintenance cost of around £70-£120 per unit per annum, approximately £100k. The first call on any income received from this proposal would be to fund the capital investment necessary to install the panels. It is proposed that income in excess of this is paid in to HRA reserves.

The final amounts will be determined by the number of units that are installed for each of the proposals.

Financial Consequences – Capital

There are no capital consequences for the rent-a-roof proposal.

The self-funded proposal would require an estimated investment of £5m to be met either from HRA reserves or borrowing.

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Background documents (available for public inspection):

Report to Executive 18 November 2009

Stakeholder Climate Change Action Plan 2010-2020 - Manchester – A Certain Future

1.0 Introduction

1.1 Currently the Government is encouraging the installation of PVs to domestic dwellings as part of a national strategy, introduced by the former government, to move away from the country's dependency on fossil fuels to low carbon alternatives. Each new PV installation to a dwelling house attracts a Feed in Tariff (FiT) of 43.3 pence per kWhr for the electricity generated and sold back to the grid. The payment is guaranteed for 25 years and is index linked to the Retail Price Index (RPI).

1.2 Tenants will be able to take advantage of free electricity during daylight hours which should result in savings of at least £100 per annum.

1.3 Depending on the size of roof, a typical domestic PV array will save more than 1 tonne of carbon per year. Over 30 years, PV installations on 3000 homes could, therefore, save 90,000 tonnes of carbon, contributing towards Manchester's Climate Change Strategy, *Manchester: a Certain Future*.

1.4 For some months the Council has been working with AGMA colleagues and with external financial advisers to develop a Joint Venture (JV) model which could enable providers to own the roofs and recoup the majority of the FiT (some of it would have to repay the loan finance provided by the funder in the JV company).

1.5 The development of the JV has taken longer than anticipated. The Coalition Government has decided to review the level of FiT and the expectation is that the amount will reduce, possibly significantly, from April 2012. Therefore, a decision was made to proceed with an alternative to the JV model and to adopt a "Rent-a-Roof" model which will involve seeking solar PV providers to finance the installation and ongoing maintenance of the system, allowing them to retain the FiT and Housing Providers/Local Authorities receiving a rental income for allowing the installation on their roofs. Responsibility for the repair and maintenance transfers to the Council at the end of the 25 years.

1.6 The "Rent-a-Roof" proposal is a low risk, low return model. Significantly greater returns could be made if the Council is prepared to pay for the installation and ongoing maintenance of the system. This "self-funded" model requires upfront capital investment and carries ongoing maintenance obligations but should deliver substantially greater returns.

1.7 The recommendation is to allocate the first 2000 roofs to the AGMA "Rent-a-Roof" proposal and, to allocate up to 1000 to the self-funded proposal, only if sufficient suitable properties can be identified and solar PV panels installed and connected to the electricity operator before 31 March 2012. The electricity operator will be able to confirm the number of properties which can be connected to the local network within the next 8 weeks during which time feasibility and other necessary works will be undertaken to ensure that no unnecessary delays occur.

2.0 Background

2.1 Northwards Housing have been representing Manchester City Council during the development of the JV model and have identified up to 5000 roofs where solar PV panels could be installed. The proposal for the Rent-a-Roof model is to work with two providers (British Gas and Carillion Energy Services) across AGMA in the development and delivery of the programme. Manchester has been asked to identify 2000 roofs to enable a project of sufficient scale to be developed. Both providers have offered rent and additional commercial benefits as part of their proposal.

2.2 Details of the Commercial offer from British Gas and Carillion are provided in the report at Part B of this agenda.

2.3 Stock owning local authorities, ALMOs and Registered Providers across Greater Manchester were contacted about the JV proposals and offered the opportunity to participate. The Manchester properties selected for the Rent-a-Roof and self-funded models are all managed by the ALMO in north Manchester.

3.0 The commercial offer

3.1 Rent-a-Roof proposal

3.1.1 Ernst and Young, acting as consultants to AGMA, have undertaken an evaluation of both offers and tested their Value for Money and have concluded that both offers demonstrate Value for Money for a number of key reasons:

- Straightforward and uncomplicated offers
- Pricing clarity and a defined income stream
- Full package of works including installation, and maintenance programme, insurance and replacement parts
- End-to-end package including full tenant engagement at installation phase and an operational programme spanning the life of the project
- Full risk transfer to the contracted supplier
- Transparency of bidder returns
- Capacity and commitment to deliver a large scale programme before 31 March 2012
- Defined programme delivery
- Credibility of suppliers in terms of quality of product, quality of service and certainty of funding

3.1.2 As stated earlier, individual tenants where PV panels are installed will receive free electricity generating savings of at least £100 per annum.

3.1.3 In order to share the benefits of the “rental” income from the Rent-a-Roof model it is recommended that any income is ring-fenced to support carbon reduction initiatives across north Manchester.

3.2 Self-funded proposal

3.2.1 The Rent-a-Roof model is a low risk, low return proposal where the Energy Company takes supply and installation risk and finances the project. In return local authorities provide roofs for rent for a relatively small fee.

3.2.2 Across AGMA local authorities are taking different approaches to the installation of solar PV. Wigan Council is providing roofs for the AGMA Rent-a-Roof model but is also installing some solar PV panels using their own resources. Stockport Council is procuring a self-funded scheme only. In both cases the council’s ALMO is managing the delivery of the works.

3.2.3 The cost of the supplying and installing solar PV panels to each property is estimated at, on average, £5,000 based on estimates provided by the supplier and installer framework contractor Procure Plus. Prudent modelling reveals the net annual return for some 1000 PVs will be in excess of £550,000, equalling over £14million (approximately £10m Net Present Value [NPV]) over the next 25 years.

3.2.4 Under the self-funded proposal the Council will be responsible for the ongoing repair and maintenance of the system. The Ernst and Young Value for Money study included a detailed analysis of the assumptions made by British Gas and Carillion with regard to repairs and maintenance and lifecycle replacement and compared them to market comparators. Typically an amount of between £50 and £100 per unit per annum should be set aside for maintenance with a further £20 per unit per annum set aside for planned inverter replacements.

3.2.5 Northwards Housing have been working closely with colleagues across AGMA as the Council’s representative on the original SPV model and, more recently, on the Rent-a-Roof model. They have identified over 4500 roofs which could be suitable for solar PV and it is recommended that Northwards Housing acts on behalf of the Council to procure the supplier and installer of solar PV under the self-funded model. Northwards Housing will also undertake all tenant liaison, negotiation with Electricity North West, applications for any support funding (such as CESP) and the ongoing maintenance and lifecycle works to the self-funded systems.

3.2.6 Self-funding risks and issues

	Council Self Funding Model
Outline	<ul style="list-style-type: none"> • Council funds installation • ALMO procures installer and/or operator
Number of units installed by	<ul style="list-style-type: none"> • Between 500 and 1000

April 2012	
HRA Expenditure - capital	Capital 500 units = £2.5m 1000 units = £5.0m
HRA expenditure – revenue (maintenance and lifecycle replacement of inverters)	Revenue £70-120 per unit per annum
Potential returns over 25 years per 1,000 units	£14m (NPV £10m at 2.5%)
Deliverability	<ul style="list-style-type: none"> • Confident of delivery on installations
Risk/risk transfer	<ul style="list-style-type: none"> • All risks with Council • Continued concerns with FiT registration and link to the grid
Weaknesses	<ul style="list-style-type: none"> • All risks including ongoing repairs and maintenance with Council
Strengths	<ul style="list-style-type: none"> • Deliverable • Potentially high returns

3.2.7 The resources to deliver the self-funded PV panels will be provided from either HRA reserves or borrowing. It is recommended that any Feed-in-Tariff received from the self-funded scheme is repaid to the HRA reserves, if reserves are used, or to repay borrowing. It is recommended that once the cost of borrowing has been met any surplus is repaid into HRA reserves.

4.0 Contributing to the Community Strategy

(a) Performance of the economy of the region and sub region

The installers and suppliers of PV panels in the self-funded model will be chosen from the Procure Plus regional procurement partnership and primarily supports providers and suppliers operating within the region.

(b) Reaching full potential in education and employment

Procure Plus (through its predecessor body GM Procure) has a strong track record of maximising local training and apprenticeships directly through its contractors and the supply chains. For every £1 million spent, Procure Plus delivers 2 apprenticeships. This compares well with other framework partnerships.

(c) Individual and collective self esteem – mutual respect

Providing at least £100 per annum savings in electricity costs will reduce fuel

poverty for some of the most disadvantaged residents and is a key element of this work.

(d) Neighbourhoods of Choice

Procure Plus delivers a Skills Fee equivalent to 1% of any contracts placed through it to support social enterprise development, Small and Medium Enterprise support, Trainee support and Sense of Place. The Sense of Place element is reinvested directly into community projects in the particular areas.

5.0 Key Polices and Considerations

(a) Equal Opportunities

Some tenants will benefit from reduced electricity bills where solar PV panels are installed. The decision on whether to install panels is made on the basis of the roof orientation and the ability to connect the panels to the grid and no group will be disadvantaged as a result of these decisions.

In order to try to reduce the energy consumption of all tenants it is recommended that income received from the roof rental is ring-fenced to support carbon reduction activities across the Council's stock.

(b) Risk Management

There are risks in integrating micro-generation schemes such as these into the local grid. The first is simply around the robustness of the local network and its ability to accommodate the scale of generation without the need for large scale capital investment in reinforcement. Also many properties will not be suitable simply because of the method by which they are wired (i.e. loop systems).

The second risk is around the ability of the District Network Operator (DNO) to process so many applications within the timescale. On this programme we have attempted to mitigate these risks by engaging with the DNO (Electricity North West) at a very early stage of the process, seeking their guidance into which properties are put forward for installation. Through AGMA, Electricity North West have been engaged at Chief Executive level which should assist in speeding up this process.

There is a risk that the PV panels may not generate the amount of electricity anticipated. To mitigate this risk we have used British Gas's figures as a guide, a 23 square metre roof will accommodate a 2.07 kw array. This arrangement will provide an estimated annual saving of just over £100 to the resident in reduced electricity costs. The actual "as installed" efficiency depends on the type of panel but varies between 91 to 96%. This will drop as the unit ages with a 10% reduction in output after ten years. The units have a manufacturing guarantee for fifteen years and a design life of typically twenty five. Given the relative recent development in the technology it is difficult to provide actual evidence as to whether the quoted performance of the panels will be

maintained over the anticipated lifetime, but we have nothing to suggest the contrary.

The Government has announced proposals to increase the amount of Right to Buy discount which may encourage greater uptake of the Right to Buy. If a tenant decides to purchase their property and it has solar PV panels on the roof under the "Rent-a-Roof" proposal the solar PV provider will remove the panels at their cost and install them on another Council roof. Under the self-funded model the Council will arrange for the removal of the panels and installation on another roof.

(c) Legal Considerations

Legal and contractual arrangements for the 'Rent-a-Roof' model are being negotiated by the City Solicitor as part of the AGMA project team, plus she has reviewed the documentation from British Gas and Carillion on behalf of the Council (Northwards) AGMA 'Rent-a-Roof' model. The documents are still in draft form and will be finalised for signature as soon as possible in time for the lead-in times for the FIT deadline.