

Taunton Deane Borough Council

Tenant Services Management Board -19 September 2011

Installation of Solar PV Panels on the Housing Stock

Report of the Strategic Director

(This matter is the responsibility of Executive Councillors Mrs Jean Adkins and Ken Hayward)

1. Executive Summary

This report is in draft, and is being prepared for the Community Scrutiny Committee on 11th October 2011. It considers in detail options for the installation of solar PV on suitable council owned homes. The Tenants Services Management Board are requested to consider the report and present any views on the report and its recommendation. These views will then be incorporated into the report before it is considered by the Community Scrutiny Committee.

2. Background

2.1 Solar PV and the Feed in Tariff (FIT)

Feed in Tariffs became available in Great Britain from the 1st of April 2010. The overall aim of the scheme is to encourage the deployment of additional small scale low carbon electricity generation. The scheme offers a minimum payment for all electricity exported to the Grid. These payments are in addition to the fuel bill savings made by using the electricity generated on site.

The primary financial benefits are:

1. The Generation Tariff – the set rate paid by the energy supplier for each unit (KWh) of electricity generated – The Energy Savings Trust (EST) estimates this benefit to be valued at approx £700 per annum for a typical 2KWp installation.
2. The Export Tariff - a payment of 3p/KWh received from the energy supplier for each unit exported back to the grid. The EST estimates an income of around £25 per annum for a typical 2KW installation.
3. Energy Bill Savings – The typical benefit to tenants/residents, dependant on their consumption profile, is expected to be between £90 and £120 per year.

2.2 Advantage Southwest (ASW)

TDBC had recognised early on the potential benefits of installing Solar PV to its properties and has already identified 720 suitable properties that meet the criteria for maximising the benefit of solar PV installation namely a south/southwest facing and a recently refurbished roof.

Through its membership of Advantage Southwest we were actively participating in a consortia based approach being led by ASW. This approach aimed to establish a framework for the provision of a “rent-a- roof scheme” available to all of its members.

Unfortunately this project was abandoned primarily due to differing expectations of risk transfer between PV providers and landlords and, in particular, issues around the consequences of right to buy and property demolition.

2.3 The reduction in the feed in tariff (FIT)

The generation tariff for PV retrofit is currently 41.3 pence per kWh produced.

The current FIT only applies to properties with Solar PV fully installed prior to the 31/3/12. For the period of the 1/4/12 – 31/3/13 the tariff applicable to new installations will fall to 39.6 pence per kWh. Once an installation has joined the scheme the FIT is fixed for 25 years.

TDBC’s own estimation of the effect of this known reduction in the FIT will have on the income to the PV Provider is given in the table below.

	electricity generated per kW installation	Av. size of array	number of houses	generation tariff. p/kWh	tariff fixed for x years	TOTAL	Loss in %
Installations completed before 31/03/12	950	2	720	0.413	25	£14.125K	
Installations completed after 31/03/12	950	2	720	0.396	25	£12.928K	
Loss if installations start from April 2012						£581K	4%

The reduction in the income received by the Solar PV provider is expected to be around 4%. However given the falling costs of PV equipment and increased competition among installers similar returns may be still be possible against the reduced FIT.

What is not known is the effect on the FIT from April 2012 of the Governments current review of the scheme.

At the time the scheme was designed it was made clear that early reviews would need to take place. Early in 2011 a fastrack review of the FIT scheme was carried

out as a response to evidence that larger projects were being deployed much more quickly than first envisaged. As the spending envelope for the scheme is limited it was felt that the amount available for small schemes would be threatened and consequently the FIT for larger schemes was reduced to reflect the increasing return on investment being experienced.

The Governments Comprehensive Spending Review has stipulated the need to make a 10% savings to the scheme in 2014. This review of the FIT scheme will provide an opportunity to make adjustments in the light of market developments, such as the rapid fall in the global module costs witnessed since the start of the scheme and increasing rates of return being achieved.

2.4 The Offer Received by TDBC

Since the cessation of the ASW project TDBC had been approached by a national PV provider with a specific lease based “rent a roof” proposal.

The offer was based on a single upfront payment per property in return for the rights to the FIT tariff. The payment increased with the size of the installation/property but based on a typical 2.07KWp installation the offer presented a payment of £330 per property. This represents a one off up front payment to TDBC of approximately £238k for the 720 identified properties. This would increase to £288k for 2.11KWp installations and £324k for 2.3KWp installations

The contract period for this, as is the case with similar schemes is 25 years. The income receivable under the FIT by the Solar PV is expected to be in the region of £14m over this period. Therefore the upfront payment represents approximately 1.75% - 2.25% of the projected FIT income received by the provider.

It was not possible to assess the transfer of risk under this particular proposal due to the requirement to sign a confidentiality agreement.

3. Strategic Procurement Service Review

At this point the Strategic Procurement Service was approached to advise on the relative value for money of the offer received and the procurement implications for accepting the offer or any similar proposal.

3.1. Market Summary

Since the launch of the Feed in Tariff in April 2010, there has been substantial mobilisation in the solar photovoltaic (PV) market. There continues to be a high level of interest from registered providers and local authorities seeking to procure PV installations on their housing stock. The primary drivers are to secure the benefits of reducing fuel poverty (allowing tenants to take advantage of free electricity generated by the panels), carbon reduction and the potential for an attractive financial return through the “feed in tariff” (FIT)

In terms of the supply and installation of Solar PV equipment large scale DIY consortium deals are already securing available market capacity. The costs of the PV units are reducing and competition between installers in driving down installation costs. Estimates on return on investment vary but are typically quoted as having fallen to between 7 and 11 years for a large scale project.

3.2 Differing Models

The rapid growth of the PV market has led to a range of different solutions and models. The most appropriate route will depend on the approach to risk, availability of funding and resourcing levels. There are two basic types of model – rent a roof, and DIY.

3.2.1 "Rent a Roof" models

There are a number of variations to the "rent-a roof" deals in the marketplace.

Under "rent-a-roof" arrangements, the PV provider installs the panel at nil cost for the landlord, and allows any free electricity generated by the panels to be used by the resident. Recently more sophisticated schemes have developed whereby the landlord gets an up-front premium/installation fee (either alone or in combination with an annual 'roof rental' fee). As an alternative, PV providers may propose sharing FITs, or assigning the benefit of the FIT after they have repaid debt and made a sufficient return. Other models are set up as community enterprises utilised to distribute the income from the FIT into community projects.

These schemes are applicable where an organisation is not able to invest or have sufficient staffing resources to deliver such a project.

These solutions are often regarded as being lower risk to the landlord in that the full risks of the project are handed to the PV Provider. However, the financing arrangements that sit behind such schemes often rely on a significant risk transfer to landlords.

Primarily there are two differing approaches

“Lease based” Under this model, the LA grants a formal lease of roof space to the PV provider usually for a period of 25 years.

- The grant of a lease by an LA is a disposal of land. This causes potential issues:
 - S32/43/123 consents will be required. Whilst these consents should be easy to obtain they will still take time and administrative effort.
 - Stamp Duty Land Tax (SDLT) will be payable by the PV Provider - which will probably mean a reduction in rental payable
 - The lease will need to be registered with the Land Registry; Land Registry requirements on the registration of these sorts of leases remain uncertain (for example individual plans for each roof may need to be prepared) and there are of course Land Registry fees to pay. From a commercial perspective, these costs could make the PV Providers offering in a competitive market less attractive.

“Licence based”. Under this model, the LA simply grants a licence of roof space to the PV Provider to enable the PV Provider to install maintain and operate the PV system - an arrangement not dissimilar to a licence to maintain and operate advertising hoardings or cashpoints in supermarkets.

- All of the aspects that an LA and PV Provider would need to operate the PV system are capable of being drafted in a licence (for example the right of installation, the right to run wires over the social housing dwelling, the right of access (on notice) to repair and the right to install the inverter etc.).
- The grant of a licence is not a disposal - so statutory consents are not required.
- SDLT is not payable, nor is the licence registrable at the Land Registry- so there are project cost savings that can be passed on to a LA.

Most schemes are managed through a Special Purpose Vehicle (SPV) funded by a bank or pension fund comprising the lender, an installer and often a utility company.

To date there is little evidence of large scale adoption of these models although projects such as those being implemented in Stoke on Trent and North Tyneside illustrate acceleration in the number of projects progressing to the installation phase.

One of the primary reasons why a number of early projects have not been concluded is the different expectations of risk ownership/transfer between the PV providers and landlords. However, some models are now being developed that present a more balanced approach to the sharing of risk and benefits. Standard forms of licence and lease agreements are now available for purchase from legal firms supporting activity in this area.

To fully understand the risks and benefits to TDBC that the different types of “rent-a-roof” models present would require a detailed analysis. This analysis would need to understand the implications from property, landlord, resourcing and procurement angles.

Given the differing models available in the market, a procurement exercise allows landlords to compare proposals on a like for like basis driving best value through the procurement process.

3.2.2 "DIY" models

Registered providers who have access to funding and local authorities, who can access prudential borrowing, can procure and install PV systems themselves. Most examples of Solar PV installations to date fall into this category. The rewards are much greater as the FIT can pay around £700 - £800 per property per year for 25 years.

In such cases the procurement of the PV equipment and/or the installation contractors is subject to OJEU as such contracts are defined under the European Procurement Regulations as either works or supplies contracts.

Assuming an average cost of £10k per property, TDBC would need to borrow over £7m to fund a DIY installation on 720 homes. This is not considered feasible.

3.2.3 Consortia approaches

Consortia approaches have been or are being set up for both "rent-a-roof" and DIY structures. Such joined up working offers volume to the market and efficiencies to members. In respect of early projects similar problems around risk transfer between the PV Provider and the Landlord have led to projects being either abandoned or delayed.

3.3 Compliance with Procurement Regulations

Many potential PV Providers put forward the argument that the procurement of "rent-a-roof" type schemes" are not subject to The Public Contracts Regulations 2006 (amended 2009). This argument is usually presented on one of two grounds:

Argument 1 - Such transactions are "Service Concessions" and therefore are exempt from the Public Contract regulations.

Argument 2 - That lease based schemes are land transaction based schemes comprising the grant of leases and ancillary property rights and therefore do not anticipate the use of a "Service Concession"

It is our view that any form of "rent-a roof" type scheme" including lease based schemes meets the definition of a "Service Concession". This has been verified by a legal firm who specialise in providing support in this emerging market and is view adopted by other local authority procurement units that have been consulted.

Directive [2004/18/EC](#) defines Service Concessions as contracts of the same type as a public service contract except for the fact that the consideration for the provision of services consists either solely in the right to exploit the service or in this right together with payment.

Service Concessions are not subject to any detailed rules in the Directive. However although full compliance with the OJEU procurement process may not be required the Treaty prohibits any discrimination on grounds of nationality and establishes rules on the free movement of goods, the freedom of establishment, and the freedom to provide services. Ordinarily, to avoid the risk of a legal challenge in the award of a Service Concession, such a requirement would be advertised as a voluntary OJUE Notice thereby meeting the requirements for non discrimination.

However there is some evidence that some authorities may be taking the view that the risk of a challenge for not placing such a voluntary notice is fairly small particularly when considering the status as a Service Concession and the pressure of the FIT deadline is taken into account.

Service Concessions are however still subject in particular to Articles 28 to 30 and 43 to 55. These articles govern the manner in which any procurement would be carried out and are based on the principles of equality of treatment, transparency, proportionality and mutual recognition. These principles are enshrined into public sector procurement best practice and govern how all procurement should be carried out and consequently the application of the OJEU regulations should not just be seen as applicable only in respect of facilitating trade with other EU member states. These principles should be embedded into any procurement exercise.

Similarly TDBC standing orders and the “best value” rational would require a solution procured through open market competition. The aim being not just to secure the largest potential income but to consider the varying degree of risk associated with each offer and the added value of any other benefits each proposal might bring.

The two projects given as examples given in 3.2.1 above – Stoke on Trent and North Tyneside - were both awarded following full OJEU procedures. Although recognized as Service Concessions by the respective authorities both chose to carry out full OJEU procurement processes.

3.4 Available Frameworks

Initially it was hoped that a specific framework for the provision of a “rent-a-roof type” scheme existed. Such a framework would offer an OJEU compliant solution under which a single supplier is presented or a further mini competition is required.

This is the model that was being developed by Advantage Southwest. Where such projects have been undertaken the regional approach is typical. A similar procurement is being run by “Efficiency North” but would not cover properties in the SW region.

A number of frameworks exist, such as those put in place by North Somerset and Procurement for Homes for the provision of the actual Solar PV equipment, but these are designed to support the “DIY” delivery model.

The Yorkshire Purchasing Organisation (YPO) has recently put in place a framework for sustainable technologies. This framework contains a Lot for Solar PV provision. Although this framework was not set up specifically for “rent-roof-schemes” it is understood that similar schemes are being procured through the framework although generally these relate to installations on commercial property rather than large scale domestic installations.

The YPO Framework includes 15 Solar PV providers for the southwest area. These include some of the known national contractors who are actively delivering domestic solar PV installations to local authorities. Since its launch in August a large number of enquiries and projects have been channelled through the framework primarily due to the need to meet the March FIT deadline.

This framework is OJUE compliant and potentially offers a reduction in the timescale within which TDBC could approach the market. However, contractors have confirmed that installation capacity is being rapidly exhausted. Further enquiries would need to be made to establish if enough of the framework contractors would be interested in the TDBC requirement to ensure a procurement under the framework would deliver a satisfactory result.

3.5 General Research

During our research it became clear that the market for “rent-a-roof” schemes is still developing.

The number of UK based potential providers is around 30.

Early indications based on the income received by other organisations suggested a target income level of around 3-4 times that which had been offered to TDBC. Similar figures had been achieved by other organisations in more northerly locations.

Publications within “inside housing” had also emphasised the need for Landlords to consider alternative proposals in order to maximise the income stream and other potential benefits.

During the research a number of indicative proposals were presented to TDBC. It should be noted that in all cases, including the original proposal received by TDBC, that no detailed analysis of the respective terms and conditions has been carried out.

Indicative Offer 1

Leased Based approach

- Annual air concession fee expected to be approx £120 per property per year over 25 years equating to an approx total income of £2.16m.
- Free electricity to tenants.
- Return = approximately 15% of the FIT
- This offer was based on a similar proposal which is currently being presented to a neighbouring authority.

Indicative Offer 2

Leased Based approach

- Annual lease payment per property approx £84 per property over 25 years – equating to approx £1.5m over 25 years
- Free electricity to tenants
- Return approx 11% of FIT

Indicative Offer 3

- Licence based approach
- Free electricity to tenants
- Licence payment of £19.23 per KWp (£41.34 based on 2.11KWp) per property per year. Approx total = £744,120 (approx 5% of the FIT)
- Licence payment linked to RPI
- A 50% share of the net pre-tax profit (variable with cost and income) estimated by the landlord to be £72.26 pa (2.11KWp system) equating to £1,300,680
- Total potential income £2.04m
- Return approx 14.5%

In all cases more detail is required to verify the potential income streams and to determine the full commercial terms.

Several offers have cited other benefits of their proposals. At this stage it is not clear if any of these additional benefits would have a negative affect on the potential income streams.

- Local employment (They will recruit local workforce first to do the installations. There might be potential for an element of up-skilling / training provision)
- Tenant management (If we want, they do all the liaison work with the tenants for us, i.e. writing letters, making contact, dealing with queries / complaints etc)
- Tenant workshops (They teach tenants how to make best use of free electricity)
- Failure reporting (each installation is monitored remotely. Failures will be detected immediately)
- Replacements (Company covers all replacement costs for failing units)
- Monitoring (TDBC will have access to a portal where we can see exactly how the installer is getting on with the job)
- Free loft insulation to 400mm to any properties that are part of the project.
- Most of these companies will regard the 720 south & south/west facing properties that have been identified is regarded as a starting point. More properties could have solar PV installed later or the cooperation could be extended to provide solar thermal and air source heat pumps.

3.6 Practical issues and consents

Aside from the procurement issues, there are a number of other issues that will need consideration, including:

- It is clear that the implementation of a “rent-a-roof” project for 720 properties would be extremely complex requiring legal support in terms of property, social housing and procurement. The resource input and legal costs would need to be considered against the potential income stream. These costs have not been established but would inevitably reduce the benefits of any offer.
- Lenders consents will be required to undertake the work.
- Tenancy Agreements will need to be changed for those tenants on whose dwellings the panels are installed to ensure that adequate rights are in place.
- Experience elsewhere is suggesting that around 3% of tenants are unlikely to take up the offer of solar PV installation. This could reduce the number of properties to 698, with a corresponding drop in income received.
- Right to buy – one of the stumbling blocks with many of the schemes so far has been in dealing with right to buy situations. Proposals within the latest available “rent a roof” schemes are indicating that the PV provider would take on the risk of RTB’s reducing their return. Undoubtedly this would be factored in to the offer made to TDBC. On the other side of the RTB coin, the value of homes will be increased as a result of the installation of solar PV.

- Members will recognise that not all tenants will benefit from the installation of solar PV and the availability of free electricity. It is expected that the income generated from solar PV could be used for other types of renewable energy installation over coming years – such as air source heat pumps – in properties which would be more suited to these alternatives.
- Any installation will require liaison with individual tenants and a contract management resources during the implementation. Some of the PV providers are able to offer significant aspects of this as part of their service, reducing the demand on TDBC resources.
- The extent to which property rights are granted to a PV provider under a 'rent-a-roof' model.
- Lender consents and possibly Section 172/Section 133 consents.
- For lease based models, clawback or overage agreements will also need to be considered.
- Maintenance issues for asset management of stock with PV installations – particularly if the PV installer becomes unable to repair or maintain the installations.
- The capacity of any chosen partner to carry out the installations within the time frame.
- The financial status and the long term commitment of many of the new SPV's entering the market.
- Clarity of Insurance responsibilities between the various parties.
- Clarity on the risks of any changes to the FiT level being borne by the installer.
- There are many models in the market place with potentially onerous indemnities and compensation mechanisms if certain events cause the PV provider to lose the FiTs. These events may or may not be within the landlord's control. The risks need to be carefully considered to determine whether or not they present an acceptable risk profile when considered alongside the financial return that is being offered. Such risks relate to claims for loss of the FiTs in the event of, for example tenants, cancelling their supply agreements on vacation of a property, loss of income while a property is empty, the loss following and "right to buy". Property shading and distribution capacity have been cited as other reasons for reductions in the actual number of suitable properties.
- VAT and Tax treatment of the roof rents

It is anticipated that many of this issues would be resolved during a procurement process.

4 Benefits to Tenants

PV systems can have positive financial benefits to tenants, as they get to use the electricity generated. It should be remembered that electricity not used cannot be stored, but is exported to the grid. The amount that a tenant benefits, therefore, will be dependant on the amount of the free electricity they can use, which is likely to be related to how much they are at home during the daytime.

It is also important to appreciate that tenants will not get 100% of their electricity requirements free of charge.

The possibility of the value of the free electricity being generated being spread across all tenants has been explored and there is no way currently in which this could be done. The beneficiaries of the free electricity therefore will be the tenants of the particular property.

If the income from the project is reinvested in other renewable energy schemes, more and more tenants will benefit.

4 Consideration of the Options

It is clear that the potential income from the implementation of a rent-a-roof type scheme is much greater than the initial proposal received by TDBC. Under the current FIT levels the target share of the FIT should be in the region of 10-12 % rather than the 1.75 - 2% initially offered.

It is recognised that given the planned reduction in the level of the FIT (31 March 2012), and the unknown consequences of the comprehensive spend review that TDBC will need to act quickly to give a realistic opportunity of maximising PV installations in the available timescale.

A licence based approach is more suitable for the reasons given in 3.2.1

The complexities of implementing such a project, the related legal support, and the general resource requirements that will be regarded to deliver could easily erode the benefits of any scheme that delivered low % return.

Notwithstanding the increasing market activity and timescale pressure, it is crucial that TDBC does not expose itself unnecessary risk or sign up to deals which do not offer best value.

To take advantage of the current FIT rates, it is important to move very quickly. Many PV providers are saying that they need to be mobilised by October.

There is insufficient time to run a full OJEU compliant procurement and achieve any significant numbers of installations before the end of March 2012. There are, however, two approaches to the procurement that could be adopted by TDBC. In either case the timescales are very challenging, and there are no guarantees that all 720 properties could be installed by the end of March 2012.

- A TDBC run competitive procurement exercise in isolation. If the authority carries out its own procurement the risk of a challenge from not complying with the full requirements of the EU procurement regulations would remain. This would be partially mitigated by ensuring an openly advertised tender through a media such as "Inside Housing" and ensuring that the

procurement is, in all other respects, managed as if it were OJEU procurement.

- A mini competition through the YPO framework. The use of the YPO framework would remove the risk of challenge but may limit the size of response due to the available capacity of the Contractors.

Either way the authority should aim, as far as possible, to specify what it wishes to achieve rather than invite offers and to try to evaluate the variations in proposal that might otherwise be received

Whichever route is chosen there are two potential ways in which it could be approached. In both cases legal assistance would be required to support the development of the Tender and Contract documents and in evaluation the proposals received.

- a. The first is to treat this as an accelerated competitive dialogue process under which TDBC would send out a base PV licence (or a lease if TDBC considers it more appropriate) and to then require providers to provide a mark up which will be assessed alongside other scoring criteria (e.g. licence fee, quality of written submissions etc.).
- b. The second is to simply list "non-negotiable" elements of our proposals and ask bidders to bid based on those assumptions (e.g. licence rather than lease etc.)

5. Conclusion

On the basis of the above analysis it is considered that if the Council wishes to install solar PV on appropriate homes which it owns the following route is most appropriate - subject to a satisfactory assessment that there will be enough interest from contractors, to carry out a mini procurement process using the YPO framework based on a "rent a roof" style scheme operated through licence rather than lease.

4. Finance Comments

5. Legal Comments

6. Links to Corporate Aims

This proposal is directly linked to the Council's Climate Change Corporate Aim, particularly in the Council's capacity as civic leader, and also in having a major impact on the community-wide response to climate change.

7. Environmental Implications

The installation of solar PV on up to 720 council owned homes will have a significant impact on reducing the carbon footprint of the borough. It will also assist in making the Borough more energy resilient.

8. Community Safety Implications

The installation of solar PV on domestic property is normally considered to be permitted development and does not require planning consent. There is a risk that installations could become targets for vandalism

9. Equalities Impact

The criteria for installations depends entirely upon the roof orientation of the building and takes no account of any equality factors relating to individuals or groups. This is because of the technological limitations of the equipment. It is anticipated that therefore installations will be of benefit to a wide part of the community, with no discrimination on equality grounds. It is likely that some homes currently in fuel poverty will be positively affected. It is also hoped that the income derived from the project can be utilised to widen the application of renewable energy technology across the Council's housing stock, benefitting more of our tenants.

10. Risk Management

Risks are identified in the report.

11. Partnership Implications – the project will be implemented with the full involvement of the Tenant Services Management Board.

12. Recommendations

The Tenant Services Management Board is asked for its views on the proposal that subject to a satisfactory assessment that there will be enough interest from contractors, to carry out a mini procurement process using the YPO framework based on a “rent a roof” style scheme operated through licence rather than lease. These views will be presented to the Community Scrutiny Committee on 11th October 2011.

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