

REPORT TITLE: HRA SOLAR PANEL INSTALLATION ENERGY COST  
REDUCTION SHARING POLICY

18 JUNE 2025

REPORT OF CABINET MEMBER: Councillor Reach: Cabinet Member for Good  
Homes

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WARD(S): ALL

PURPOSE

The declaration of a Climate Emergency in 2019, committed Winchester City Council to the Carbon Neutrality Action Plan (CNAP). A key element of the council's CNAP includes additional investment in the council's housing stock to improve energy efficiency and help tenants reduce their carbon emissions while also reducing their energy costs during the cost-of-living crisis. The 10-year HRA capital programme approved in February 2025 included an indicative budget allocation of £38.4m for climate emergency works (retrofit) from 2025/26 to 2030-31 with £ 5.936m programmed for 2025/26, £ 7.744m programmed for 2026/27, £ 5.900m programmed for 2027/28. This report addresses an element of the 2025/6/7/8 retrofit capital programme.

As part of the 2025-2028 Retrofit Work, it is intended 672 properties will receive solar panels and solar energy battery storage, part funded by £3.58m Warm Homes Grant: Wave 3. The purpose of this report is to seek approval to set a use and maintenance payment to all homes receiving solar panels. The charge will not be a net cost to the household as it will be funded from the savings that each household will realise from the installations. The charge being no more than 50% of the energy saved over a year. Evidence of this saving will be captured on smart monitors and through pre-installation energy calculations. The income from the charge will help pay for the running costs of the solar panels and batteries so that it does not become a net cost to the Housing revenue account and therefore all tenants.

**RECOMMENDATIONS:**

Cabinet is asked to agree that,

1. Installation of solar panels and batteries to a Council tenants' home will be conditional upon the tenant agreeing to a 'use and maintenance' payment for the solar panel and battery
2. That the use and maintenance payment will be a 50% share of the savings the household can expect from using energy from the solar panel and battery.
3. The use and maintenance charge will commence after twelve months of usage and be based on monitored savings.
4. To authorise the Strategic Director with responsibility for Housing to instruct the procuring and purchasing of energy monitors to install in properties receiving solar, funded from the existing retrofit budget.

IMPLICATIONS:1 COUNCIL PLAN OUTCOME

## 1.1 Greener Faster

- a) Winchester district to be carbon neutral by 2030.
- b) Greener Faster through delivery of Energy Saving Homes

This proposal aims to reduce household fuel bills by an average of (approx.) £500 per annum. The table below demonstrates the potential average estimated savings based on property size:

Property Size	Solar PV install size (kWp)	Battery Capacity (kWp)	Annual Solar generation (kWp)	Annual Grid Electricity Saving (£)	Weekly Electricity Saving (£)	Indicative weekly use and maintenance charge at 50% of saving	Annual Carbon Savings (kgCO <sub>2</sub> e)
1-2 Bedroom House	2	8	1600	£346	£6.63	£ 3.31	265
3 Bedroom House	4	8	3400	£547	£10.49	£ 5.24	434
4-5 Bedroom House	4.5	8	3600	£743	£14.26	£ 7.13	569

The above table is derived from several sources: 'Ofgem's' average energy consumption or usage, 'Ofgem's' electricity price cap, 'Global Solar Atlas' a Solar Mapping Tool and 'Solar Spirit' Energy Calculator which calculates consumption.

The above table is an estimation of the savings that could be enjoyed by each of the typologies. It is important to note that the savings in every property will be different due to the following:

- How much energy a particular property uses and when they use it, both during time of day and seasonally.
- Energy prices may differ by property both now and going forwards
- Solar generation will differ based on slope and roof orientation

- Solar generation will change annually and is heavily influenced by annual weather variations

More than half the properties within the 672 installations are three bedroom semi-detached or terraces, the figures below represents the majority of homes within the scheme.

Property Size	Solar PV Install Size (kWp)	Battery Capacity (kWh)	Annual Solar Generation (kWh)	Annual Grid Electricity Saving (£)	Weekly Grid Electricity Saving (£)	Weekly use and maintenance charge @ 50% of saving	Annual Carbon Saving (kgCO <sub>2</sub> e)
3 Bedroom House	4	8	3400	£547	£10.49	£ 5.24	434

The installation of Solar Panels and Solar Battery Storage will raise .672 properties from EPC D, E and F to an EPC C. The funding of the Solar and Battery programme is part funded by Social Housing Funding: Wave 3 and part funded by the Housing revenue Account (HRA), which results in an affordable programme that can be delivered at scale

Winchester City Council have an approx. 29% of EPC D and below properties, this programme raises an approx. 13% of the EPC D and below properties to a C. The successful delivery of this programme enables Winchester City Council to accelerate the decarbonisation of the council's housing stock whilst reducing fuel poverty across the district. The proposed use and maintenance charge to be paid by households receiving Solar Panels and Battery Storage will ensure resources are in place for ongoing maintenance and replacement costs, without subsidies from tenants who do not benefit from solar PV in the wider housing revenue account. The installation of solar panels and batteries is the most economical way for the Council to meet its regulatory requirement to achieve EPC C by 2030 compared to a fabric first approach.

## 1.2 Thriving Places

Extending the future solar and battery installation programme will generate additional business in the local economy.

### 1.3 Healthy Communities

Health Inequalities: Retrofit of domestic homes has a direct impact on tenant's health by reducing illness, reducing pressure on the NHS and increases tenants' wellbeing. Warmer, better ventilated, and cheaper to run properties that last longer enable tenants to focus on their lives as opposed to surviving the winter or facing decisions such as heating vs eating.

### 1.4 Good Homes for All

Retrofit has a direct influence on the quality of the Council's existing housing stock. Solar Panels and Solar Battery installations are installed following the PAS 2035 quality standard. This standard requires quality driven retrofit on all homes and ensures that all homes are assessed for fabric and repair prior to renewable installations.

### 1.5 Listening and Learning

The retrofit programme has demonstrated continual engagement with customers in the delivery of their programmes through a variety of mechanisms. This approach will continue if the recommendations in this report are supported.

## 2 FINANCIAL IMPLICATIONS

- 2.1 The retrofit capital budget agreed in February 2025 includes sufficient budget to install 672 solar PV panels and batteries. At the time of the budget report the award of the Warm Homes SHF Wave 3 programme had not yet been announced, however the grant will partially fund the capital works.
- 2.2 The HRA business plan does not at present include any additional budget to deliver PV panels beyond those which are necessary to achieve EPC-C ratings by 2030. To roll out the programme further would increase the capital budget requirement at a time when there is already significant pressure on the capital programme for fire safety and maintaining decent homes and would require additional savings to be found to increase the borrowing capacity in the business plan to finance any further rollout.
- 2.3 Appendix B shows the comparative costs to the HRA of delivering the 672 solar installations to achieve EPC-C ratings, as well as the cost of extending the scheme to a further 800 homes, financed by the HRA.
- 2.4 In addition to the capital financing costs, PV panels also attract an annual maintenance and monitoring cost (as required by the Council's insurers) and the panels and associated batteries will have a finite life. Without a use and maintenance charge these costs would be financed from rental income in the HRA. The introduction of a 'maintenance and use' payment, attributed to maintenance and replacement of hardware, will minimise the impact on rent payers who do not benefit from PV panels. Moreover, it will mitigate the

ongoing financial impact if the installation of solar panels and batteries is extended to more homes.

#### Savings share policy

- 2.5 Prior to an installation, tenants will be given an indicative estimate of possible savings they might achieve by using solar panel(s) and a battery at their property, based on energy usage calculations at the point of signing up. All national Government funded projects are required to follow PAS2035 which includes an SAP (Standard Assessment Procedure) Improvement Options Evaluation for each home within a project. These same calculations will be used to forecast the potential energy savings; potential electricity costs per month; and the potential carbon offset resulting from the proposed energy measures.
- 2.6 Rather than base actual savings-shares on these pre-installation estimated savings, it is proposed that the use and maintenance charge is instead calculated using the actual savings achieved in each property over the first 12 months of use after installation.
- 2.7 Once the charging regime is established, it is proposed that the savings being achieved are reviewed after a period of 2-3 years, to ensure the savings-share is still reasonable against costs incurred, and that tenants are still benefitting from reduced utility costs. The council will look to recover no more than a 50% share of savings. The annual budget setting process will ensure that tenants are not charged more than 50% of the savings they enjoy and charges would be reset as part of the budget setting process to pick up any changes that have taken place.
- 2.8 Electricity prices do not typically move in line with CPI and in recent years energy prices both globally and in the UK have been extremely volatile. UK electricity prices are influenced by global geopolitical events; regional and global supply chain disruptions; and national regulatory changes. By reviewing the tenant's electricity prices every 2-3 years alongside their solar generation, we can ensure the tenant continues to achieve a saving which is proportional to the total energy cost saving achieved from the solar panels. Based on industry forecasts, it is unlikely the maintenance and use payment received by the HRA will fully recover the ongoing costs. However, any contribution to costs from the maintenance and use payment reduces the overall cost to the HRA.
- 2.9 Where a property with solar PV is subject to a Right To Buy sale, it is not proposed that the PV panel & inverter would be removed from sale, due to the cost and timescales involved in erecting scaffolding, removing the panel and subsequent rewiring. However, the PV will form part of the valuation and sale price for the house and would result in a slightly higher capital receipt. There is a possibility that batteries could be recovered prior to sale if it is practical and economic to do so.

- 2.10 The financial model appended at appendix B demonstrates the likely budget impact from years 1 to 25. It is likely that the first five years of the model will run at a greater cost due to the high initial monitoring costs. Appendix B also demonstrates how the model might be scaled up with further installations beyond those needed for the regulatory requirements.
- 2.11 The expected income and potential charges are not yet known and will depend on the level of saving that tenants with PV will make. This will need to be agreed as part of the budget proposals in due course and once the information is available.

### 3 LEGAL AND PROCUREMENT IMPLICATIONS

- 3.1 The procurement exercise will be conducted in accordance with relevant legislation and the council's Contract Procedure Rules.
- 3.2 The installation of solar panels on tenant homes will not require a change in tenancy conditions as tenants' consent is sought prior to installation and in agreeing to the use and maintenance service payment. Tenants will benefit primarily through reduced electricity bills and by the benefit of living a more sustainable and environmentally friendly lifestyle.

### 4 WORKFORCE IMPLICATIONS

- 4.1 A recent restructure of the housing service established a dedicated Retrofit team to deliver on the high priority retrofit programme. Delivery of the solar panel programme will be through the existing Retrofit team resource with no additional workforce implications to the team.
- 4.2 The introduction of the regime to calculate the use and maintenance payment and requiring the payment will be contained within existing resources.
- 4.3 The proposal will increase the activity relating to calculation of service charges and cost monitoring within Housing Finance – collation of data during summer, setting of charges, input to Orchard system etc.

### 5 PROPERTY AND ASSET IMPLICATIONS

- 5.1 The proposal will positively affect Winchester City Council's housing stock. Retrofit not only enables better living conditions for tenants it also provides an opportunity to landlords to improve their housing stock. Retrofit with PAS 2035 as a quality benchmark ensures that all energy improvements are assessed against unintended consequences, the proposed upgrades of insulation, ventilation, door under cuts, trickle vents in windows, new DPC, installation of Solar Panels, Solar Battery Storage and Air Source Heat

Pumps in eligible properties contribute to better functioning homes resulting in long lasting housing stock therefore reducing the cost, time and carbon required to constantly repair homes.

- 5.2 PAS 2035 is a Central Government Quality standard that is governed by Trustmark and is mandatory on all Central Government Retrofit Funding Schemes. The standard demands that a specific process is followed using appropriately qualified specialists at key stages within the inception, design, delivery, and completion stages of a retrofit project. This is to ensure the Client (Funder) and Occupants are safeguarded against substandard retrofit work. PAS 2035 provides guidance to Landlord's and the Delivery team to ensure the end user and Client (Funder) obtains their intended retrofit outcome. This outcome may be a higher EPC, better quality homes for tenants, lower energy bills, better air quality within a home or warmer homes.

An improved EPC, warmer homes and lower energy bills are some of the intended outcomes of retrofit projects, these are prioritised according to the Occupant's and Client's (Funder) requirements/brief.

## 6 CONSULTATION AND COMMUNICATION

- 6.1 Consultation has taken place via a focus group on 23<sup>rd</sup> and 24<sup>th</sup> of April. the meetings were attended by 18 tenants. It is intended to maintain consultation with customers as the programme develops to ensure the objectives for reducing the costs of electricity for customers, extending the number of homes that can benefit from solar and battery installation as well as addressing the climate emergency are met. Appendix A contains a summary of the Tenant's Solar Focus Groups. There was general support for a scheme that would lead to savings for households.

## 7 ENVIRONMENTAL CONSIDERATIONS

- 7.1 Winchester declared a Nature Emergency in September 2023.
- 7.2 Retrofit tackles climate change in its effort to reduce the requirement for Fossil fuels to warm homes. Many of UK's vulnerable species rely on domestic gardens for survival. Investment and retention of these homes protects existing gardens contributing to species protection.

## 8 PUBLIC SECTOR EQUALITY DUTY

The application of a use and maintenance charge will be bespoke to the use and savings of a household, therefore there should be no adverse impact on households who have protected characteristics. An Equality Impact Assessment has been completed, highlighting the anticipated variations in tenant circumstances and the ways in which this proposal would adapt to mitigate against any adverse effects on tenants, see Appendix C.



## 9 DATA PROTECTION IMPACT ASSESSMENT

Customers who agree to a future use and maintenance charge will also need to allow the council access to their pre and post electricity usage. This will be addressed as part of the use and maintenance agreement.

## 10 RISK MANAGEMENT

<b>Risk</b>	<b>Mitigation</b>	<b>Opportunities</b>
Financial Exposure Customers may not pay the use and maintenance charge  Council tenants exercise their Right to Buy	It is proposed to set the charge at an affordable level on a home-by-home basis reflecting each customer's use of the solar and battery.  Installation of solar panels is likely to increase the market value of the property and therefore the initial investment will be at least partially recovered.	The charge will mitigate financial impact on the HRA and may enable more homes to receive this benefit
Exposure to challenge Customers may challenge the amount of charge	The charge will only be levied twelve months after the solar and battery have been operating and will be compared against previous years electricity usage by the customer so that it is evidence based	
Innovation The proposal is innovative in that it will cover the maintenance use of the solar and battery and ultimate PV panel replacement. Other Councils allow those charges to fall across all tenants regardless of those who benefit.	Research has shown most landlords are considering this approach albeit not implemented yet.	
Reputation	Landlords are investigating how charges could be made for solar	

	and battery installation. The council's reputation could be damaged if the proposals are not carefully considered and based on consultation as mitigation.	
Achievement of outcome	The technology exists to demonstrate the savings that customers will experience from the solar and battery installations.	
Property	The funding exists for the first wave of solar and battery installation and agreement exists for the procurement approach.	

## 11 SUPPORTING INFORMATION:

- 11.1 The Council has been successful in receiving £ 3.58m of warm homes grant to part fund the installation of solar panels and battery storage to council tenants' homes. The balance of funding and ongoing maintenance costs will be funded from the Council's housing revenue account which is financed by the rents of all tenants. Whereas those tenants who agree to solar and battery installation will benefit from lower electricity bills that will be at the expense of the Housing revenue account funded by all tenants. Therefore, it is fair to implement a use and maintenance charge for those tenants who benefit from solar and battery installations to cover maintenance and replacement costs. The lifecycle of solar panels can be up to 25 years, inverters 10-15 years and batteries 5 -15 years. A use and maintenance charge will help mitigate those costs falling directly on the housing revenue account which would be at the expense of other investment or services. Appendix B contains a high-level plan showing income and costs over the life of the elements.
- 11.2 The use and maintenance charge will not be a cost to tenants who agree to solar panel and battery installation as it will be funded from the savings they will enjoy from reduced electricity costs. As each home's use of electricity is different and the electricity generated will vary it is proposed that charges will be specific to the home. If a tenant agrees to installation of solar panels and batteries, they will agree that they will make a use and maintenance weekly payment twelve months after installation of no more than 50% of the demonstrated electricity saving, they have enjoyed. For the simplicity of administration that charge will be inflated in future years by the same rate as

applied to rent increases, although that decision can be taken at budget setting. The payment will not kick in until the first April after the 12 month calculation period. In effect the use and maintenance payment is the council sharing the savings to help cover on going costs of providing the equipment.

- 11.3 When properties are relet which have solar panels and battery storage fitted, they will be relet with the same agreement.
- 11.4 There are over 100 Council homes which have solar panels already fitted and it is not proposed that the use and maintenance charge is levied on those homes until they are relet
- 11.5 Where it is possible to install solar panels and batteries on blocks of flats there will need to be different arrangements. In the first instance current service charges for communal lighting would be used to finance solar and battery installation based on the saving in electricity costs funding capital cost on installation. As such customers would not see a change in the communal service charge they pay. Separately, technology exists that can identify electricity use by individual homes in a flatted development and thus it may be possible to levy a use and maintenance charge to customers individually. The recommendations in this report do not cover that scenario.

## 12 OTHER OPTIONS CONSIDERED AND REJECTED

To not making a use and maintenance charge.

- 12.1 Not charging for use and maintenance of solar panels and battery storage would mean the costs of the installations and maintenance would fall on all tenants in the Housing revenue account and yet the electricity savings would fall to those living in the homes with the installations. That would mean the HRA (funded by all tenants) would subsidise the installations at the expense of future investment and services. Therefore, that approach is not recommended.
- 12.2 Charging for use and maintenance of solar and battery storage following installation.
- 12.3 The electricity generated and used in a home from solar and battery installation will vary and charging from date of installation and operation will not reflect the individual circumstances. Therefore, that approach is not recommended and charging after a twelve-month monitoring is proposed. However, indicative savings will be provided to tenants when they sign up which the twelve-month monitoring will refine so that the charge is no more than 50% of the saving they enjoy.

Power purchase agreement

- 12.4 This would involve the Council setting up an energy company to in effect trade/ sell electricity to tenants. This would be complex and costly to set up

and likely to be off putting to tenants and so it not recommended. Moreover, delay in setting up such a model would prejudice the SHF funding delivery.

Export agreement with an electricity supplier

- 12.5 This would require dictating a supplier to tenants who agreed to solar panel and battery installation which would be difficult to achieve. Moreover, tendering such an opportunity and timescale involved would prejudice the SHF funding.

BACKGROUND DOCUMENTS: -

Previous Committee Reports: -

None

Other Background Documents: -

APPENDICES:

Appendix A - Record of focus group meetings

Appendix B– financial model

Appendix C – EqIA