Item 4

26th May 2026

Glasgow City Council

Net Zero and Climate Progress Monitoring City Policy Committee

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SOLAR PV PROGRAMME - PHASE 2 UPDATE

Purpose of Report:

To provide Committee with an update on the program of photovoltaic solar installations on the Glasgow City Council estate.

Recommendations:

It is recommended that Committee:

(a) Notes the contents of this report.
(b) Notes the updated information in respect of Phase 1 of the solar PV program.
(c) Notes the progress update in respect of Phase 2 of the solar PV program.

Ward No(s):	Citywide: ✓
Local member(s) advised: Yes ☐ No ✓	consulted: Yes ☐ No ✓

1 Introduction

1.1 Glasgow's Climate Plan 2026-2030 sets the ambitious target of the City achieving net zero carbon by 2030. The third iteration of the Glasgow City Council Carbon Management Plan (CMP3) supports the Council's journey towards net zero carbon by aligning our own estate and activities with the wider city target.

1.2 CMP3 sets a target to reduce direct emissions by at least 80% from the 2005/06 baseline by 2030. Emissions from the latest reporting year of 2024/25 show a reduction of 56% from baseline. How the Council heats and powers its buildings (with electricity, gas and oil) accounts for the majority of measurable emissions (78% in 2024/25). Therefore, reducing the amount of energy consumed and decarbonising the energy used by the Council estate is a key focus for the CMP3.

1.3 The installation of Solar PV has been an ongoing programme since the council established its first Carbon Management Plan with around 35 locations with long-standing installations in place. Whilst the national grid is progressing towards decarbonisation, use of zero emissions, local generation at the point of consumption contributes directly to the Council and city's emission reduction targets as well as offsetting the impact of rising energy costs.

1.4 Detailed feasibility studies have been undertaken for the installation of solar PV on 46 GCC properties comprising a variety of service areas including Education, HSCP, NRS and Glasgow Life. Delivery of all the installations subject to feasibility study is estimated to cost approximately £8.5M which, at current electricity prices, equates to over £830k in annual savings with higher savings expected in the event of rises in the cost of grid-supplied electricity.

1.5 Eight of these installations were completed in Phase 1 of the solar PV program. This report provides further information on the delivery of Phase 1 and the progress towards delivery of Phase 2.

2 Solar PV Phase 1

2.1 An update on the progress of solar PV Phase 1 was provided to Committee on 15th April 2025. This report noted the completion of seven of the eight Phase 1 installations in October and November of 2024. The final Phase 1 installation, at the Kelvin Hall, represented approximately half of the total generation capacity of this phase and was completed in July 2025.

2.2 The completion of the eight Phase 1 buildings represented a collective installation size of 992 kilowatt peak (kWp)[1] and annual generation capacity of

[1] The maximum amount of power produced under standard laboratory test conditions, which broadly equate to bright sunshine.

approximately 700,000 kilowatt hours (kWh)[2]. At current electricity prices this equates to an annual saving in grid electricity of approximately £165,000.

2.3 Energy generation, and subsequent use of the energy to help power individual buildings, began immediately upon completion and commissioning of the PV arrays. Commissioning of metering and data collection commenced upon completion of Phase 1 as a whole and the majority of sites have provided generation data since July / August 2025.

2.4 Metering has shown that a total of ~343,000 kWh of electricity has been produced by Phase 1 arrays in the period to 30th April 2026. This is enough to fully power around 127 average UK homes for one year[3]. Based upon the carbon intensity[4] of the UK grid, this generation equates to a saving of 67.1 tonnes of carbon dioxide equivalent (tCO2e) during this period and an approximate saving in electricity charges of £80,600. It should be noted that the period of available data does not cover the peak generating months of the year.

2.5 The above information demonstrates the Phase 1 arrays are performing in line with the pre-installation predictions. Solar PV generation and usage data will continue to be collected and reported in the annual Public Bodies Climate Change Duties Reporting processes. Further details of the energy generation from Phase 1 can be found in Appendix A.

3 Solar PV Phase 2 - Funding

3.1 Following completion of Phase 1, the remaining capital funding allocation, from the initial £2 million previously approved for solar PV, remains available for future phases. Further capital investment in the amount of £1 million raised through Community Municipal Investments will also be utilised.

3.2 It is also proposed to use £1.25 million of Salix funding within the dedicated Recycling Fund (RF). This provides a total funding allocation for Phase 2 of £3,065,000 as shown in Table 1 below.

Funding Source	**Amount**
Capital	£815,000
Community Municipal Investment	£1,000,000
Recycling Fund	£1,250,000
Total	**£3,065,000**

Table 1: Solar PV Phase 2 funding summary

3.3 Sixteen locations have been identified to take forward to procurement, based on the proposed funding of £3,065,000. The feasibility studies identified an approximate cost of £2.5 million for installation at these locations, retaining approximately 20% budget contingency. This is needed as costs will be

[2] A measure of electrical energy equivalent to a power generation of one thousand watts for one hour.
[3] Average UK energy use of 2700kWh per year - Ofgem
[4] Greenhouse gas reporting: conversion factors 2025 - GOV.UK

confirmed through the procurement process and to allow for potential additional costs, including management costs.

4 Solar PV Phase 2 – Procurement & Project Information

4.1 The aim of this project is to design, supply, deliver, install and commission sixteen individual solar photovoltaic (PV) arrays on the identified buildings within the Council's estate. The size of the arrays ranges from 35kWp to 300kWp.

4.2 Phase 2 location details can be found in Appendix B, however these may be subject to change following inspection and assessment at the project design stage. Should any location prove to be unsuitable, a comparable locations will be used, retaining the overall value and energy generation potential of Phase 2. A full technical survey including production of Structural Engineers Registration (SERs) certification and assessment of roof suitability for installation will be required for each location at this stage.

4.3 The PV panels installed must be of an operating efficiency in excess of 10% regardless of load; 25 years minimum manufacturers guarantee for output of the product; 10 years minimum manufacturers guarantee for the physical panel product; and an operating lifetime in excess of 25 years. These requirements will ensure consistent delivery of zero carbon, low-cost energy.

4.4 Phase 2 aims to maximise the energy generation at each location and utilise the majority of the energy on-site to also maximise financial benefits. An additional requirement of this phase is for each location to be assessed for the potential for battery storage for any excess generation. The installations will also be designed in such a way as to accommodate integration of future battery storage where suitable and for the use of this energy within the buildings outside of periods of solar generation.

4.5 All installations must be compatible with current data collection processes for consistency of reporting. Additionally, they must be fully compatible with existing or proposed Building Management Systems (BMS).

4.6 Panels and all ancillary equipment must be procured and certified with traceability in accordance with industry best practice in respect of ethical considerations such as forced labour, modern slavery and sustainability.

4.7 Initial procurement processes are currently underway with an indicative timescale of award in July 2026 with installation completion, commissioning and handover by November 2026.

5 Next Steps

5.1 Procurement of solar PV Phase 2 will proceed with the aim of project completion by November 2026.

5.2 Upon completion, management of the installations including monitoring, maintenance and data collection will be the responsibility of the Energy Management Team within Property Asset Management.

5.3 In parallel with the delivery of Phase 2, NRS Sustainability will develop an ongoing program for future solar PV delivery. This will include identifying and allocating suitable funding, expanding and updating the PV feasibility information in relation to the GCC estate and developing the delivery model for future phases.

5.4 Further updates on the progress of solar PV installation on the Council estate, will be included within the Carbon Management Plan updates to Committee.

6 Policy and Resource Implications

Resource Implications:

Financial:	There are no direct financial implications arising from the report. PV installation provides significant financial benefits in relation to reduced grid energy purchases.
Legal:	The report raises no direct legal issues.
Personnel:	GCC Sustainability, ALEOs, Property Asset Management and other service areas will all have involvement in project initiation, development and operational aspects.
Procurement:	Procurement resources will be required for the tender process.

Council Strategic Plan:	Contributes to Grand Challenge 3 - *Fight the Climate Emergency in a Just Transition to a Net Zero Glasgow* and Mission 2 - *Become a net zero carbon city by 2030*

Equality and Socio-Economic Impacts:

Does the proposal support the Council's Equality Outcomes 2025-29? Please specify.	Not directly. However, reducing the Council's utility costs and liability frees financial resources for alternative use.

What are the potential equality impacts as a result of this report?	No significant impact
Please highlight if the policy/proposal will help address socio-economic disadvantage.	Not directly. However, reducing the Council's utility costs frees financial resources that could be focused on the Council's socio-economic objectives.

Climate Impacts:

Does the proposal support any Climate Plan actions? Please specify:	This project provides a specific response to action 17 of the Climate Plan. Also contributes to many of the actions within the Climate Plan, including actions 3, 6 and 49.
What are the potential climate impacts as a result of this proposal?	A reduction in carbon emissions relating to the electricity usage in buildings through use of zero emission generation.
Will the proposal contribute to Glasgow's net zero carbon target?	By reducing emissions relating to the electricity usage of buildings, this project will have a direct positive impact on Glasgow's net zero carbon target.

Privacy and Data Protection Impacts:

Are there any potential data protection impacts as a result of this report	
N	
If Yes, please confirm that a Data Protection Impact Assessment (DPIA) has been carried out	

7 Recommendations

It is recommended that Committee:

(a) Notes the contents of this report.
(b) Notes the updated information in respect of Phase 1 of the solar PV programme.

(c) Notes the progress update in respect of Phase 2 of the solar PV programme.

Appendix A – Solar PV Phase 1 Generation Information

Table 1 below provides information on total energy generation for each of the Phase 1 locations for the period where data collection was available.

Location	Data Period	Total Generation (kWh)	CO2 Saving (kgCO2e)	Saving in grid electricity costs (£)
Camstradden Primary School	21/8/25 to 30/4/26	18,658	3,648	4,380
Castleton Primary School	21/8/25 to 30/4/26	21,276	4,160	5,000
Dalmarnock Primary School	12/9/25 to 30/4/26	28,929	5,656	6,800
Haghill Primary School	21/8/25 to 30/4/26	18,997	3,715	4,460
Kelvin Hall	26/7/25 to 30/4/26	213,948	41,833	50,280
Mallaig Rd Day Care	21/8/25 to 30/4/26	6,579	1,286	1,550
Muirhead Rd Day Care	21/8/25 to 30/4/26	13,983	2,734	3,290
St Bernard's Primary School	21/8/25 to 30/4/26	20,840	4,075	4,900

Appendix B – Solar PV Phase 2 Location Information

The sixteen buildings to be included in these works are listed below (please note that locations may be subject to change pending detailed assessment);

1. Scotstoun Primary School
21 Duncan Avenue
Glasgow G14 9HN
A mix of pitched tile & pitched Kalzip roof which feasibility studies indicate could hold a 35kWp array

2. St Philomena's Primary School
35 Robroyston Road
Glasgow G33 1EE
A flat roof which feasibility studies indicate could hold a 42kWp array

3. Cardonald Primary School
1 Angus Oval
Glasgow G52 3HD
A flat roof which feasibility studies indicate could hold a 50 kWp array

4. Shawlands Primary School
1284 Pollokshaws Road
Glasgow G41 3QP
A pitched tiled roof which feasibility studies indicate could hold a 50 kWp array

5. King's Park Primary School
44 Kingsbridge Drive
Glasgow G44 4JS
A pitched tiled roof which feasibility studies indicate could hold a 60 kWp array

6. Bankhead Primary School
66 Caldwell Avenue
Glasgow G13 3AS
A mix of flat and pitched Kalzip roof which feasibility studies indicate could hold a 60 kWp array

7. Thornwood Primary School
11 Thornwood Terrace
Glasgow G11 7QZ
A mix of flat and pitched tiled roof which feasibility studies indicate could hold a 66 kWp array

8. Corpus Christie Primary School
179 Pikeman Road
Glasgow G13 3BH
A flat roof which feasibility studies indicate could hold a 68 kWp array

9. Barmulloch Primary School
305 Forge Street

Glasgow G21 2AH
A flat roof which feasibility studies indicate could hold a 85 kWp array

10. Eastbank Primary School
80 Gartocher Road
Glasgow G32 0HA
A flat roof which feasibility studies indicate could hold a 85 kWp array

11. Sunnyside Primary School
1 Powrie Street
Glasgow G33 5LA
A flat roof which feasibility studies indicate could hold a 85 kWp array

12. Gartcraig Depot
Gartcraig Road
Glasgow G33 2SH
A pitched Kalzip roof which feasibility studies indicate could hold a 100 kWp array

13. St Josephs Primary School
39 Raglan Street, Glasgow
G4 9QX
A flat roof which feasibility studies indicate could hold a 105 kWp array

14. Avenue End Primary School
290 Mossvale Road
Glasgow G33 5NY
A mix of flat and pitched Kalzip roofs which feasibility studies indicate could hold a 130 kWp array

15. Riverside Primary School
Govan Road Campus
635 Govan Rd
Glasgow G51 2AQ
A pitched Kalzip roof which feasibility studies indicate could hold a 185 kWp array

16. Lochend Community High School
20 Cairnbrook Road
Glasgow G34 0NZ
A pitched Kalzip roof which feasibility studies indicate could hold a 300 kWp array