

THIS ITEM IS FOR INFORMATION ONLY

(Please note that "Information Only" reports do not require Integrated Impact Assessments, Legal or Finance Comments as no decision is being taken)

Title of meeting:	Cabinet Member for Climate Change and the Green Growth Recovery
Subject:	The Public Sector Decarbonisation Scheme
Date of meeting:	24 th November 2021
Report by:	James Hill, Director of Housing, Neighbourhood and Building Services
Author:	Andrew Waggott, Energy Services Team Manager
Wards affected:	All

1 Requested by the Leader of the Council, the Cabinet Member for Community Safety & Environment and the Cabinet Member for Climate Change and the Green Recovery

2 Purpose

- 2.1 To update Cabinet on the delivery of the Public Sector Decarbonisation Scheme (PSDS), funded by Salix using money from the Department of Business Energy and Industrial Strategy (BEIS), which enables funded carbon and energy reduction measures to be installed in the Council-operated, corporate buildings portfolio.
- 2.2 To detail the latest progress made and grant monies spent; the numbers and types of interventions made, including solar panels, batteries, heating controls, building management systems (BMS), LED lighting and insulation measures.
- 2.3 To show in detail, at the time of writing the report, the monetary, carbon and energy savings that have been made by the project.

3 Information Requested

The Leader of the Council, the Cabinet Member for Climate Change and the Green Recovery and the Cabinet Member for Community Safety and Environment have requested an update to the progress of the Public Sector Decarbonisation Scheme (PSDS).

4 Background:

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- 4.1 PSDS funding was launched in September 2020 funded by BEIS and delivered by Salix, with a deadline for application in January 2021.
- 4.2 The energy services team, working with colleagues across the wider building services teams and contractors, identified and costed a large number of potential projects eligible for the scheme, including:
 - Cavity wall insulation
 - Loft insulation
 - LED lighting
 - Solar panels
 - Batteries
 - BMS
 - Heating controls
- 4.3 A carbon and financial appraisal tool, supplied by Salix, and populated with energy data and estimated capital costs was used to identify qualifying projects that would give appropriate levels of carbon reductions. Based on this analysis, the Council bid for £1.86 million.
- 4.4 The Council were informed that the bid was successful in March 2021, with an initial deadline of September 2021 to spend the allocated funding of £1,862,383. This deadline was later extended to 31st March 2022, after it became apparent to Salix that there were significant nationwide delays with the expenditure of the funding brought about by supply chain issues.
- 4.5 The sites to receive measures include schools, sheltered housing blocks, offices and libraries. A full list of sites, and the measures undertaken at each, can be found in Appendix A.
- 4.6 The PSDS is primarily concerned with reducing lifetime carbon emissions from the sites treated, and therefore focusses heavily on buildings' use of heat, and the natural gas used to create it. The PSDS funding stipulates that a heat decarbonisation strategy must be put in place for each building treated under the funding; with a deadline for submission to Salix in line with the deadline for the funding spend.
- 4.7 The work was managed by officers from the energy services, building projects and building engineering services teams. Works were procured from existing frameworks and services providers.
- 4.8 PSDS is entirely concerned with decarbonisation of buildings in the operational buildings' portfolio. As a result, the vast majority of domestic properties owned and maintained by the Council are excluded from the scheme. For further information relating to carbon reduction efforts in domestic properties, please refer to the

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Switched On Impact and Warmer Homes Project Report Cabinet reports in section 100D.

5 Key Impacts

- 5.1 PSDS, having had its deadline extended from September 2021 to March 2022, is still a live project. As such, some sites and measures could be subject to change before the end of the project once works begin at the sites. Any changes to sites and measures are required to be agreed with the funders.
- 5.2 The table below shows the numbers of sites treated and the types of energy conservation measures (ECM) installed. These figures reflect the total numbers to the end of the project in March 2022:

Measures Installed	Number of Sites	Total Spend
Cavity Wall Insulation	20	£393,000
Loft Insulation	10	£111,000
Solar PV Systems	6	£227,000
Batteries	15	£225,000
BMS	7	£455,000
Heating Controls	18	£230,000
LED Lighting	5	£185,000
Totals	81 ECM on 50 different sites	£1.86 m

- 5.3 The table below shows the energy and carbon savings, calculated by the Salix-supplied model. Note that electricity carbon reductions are subject to carbon factor digression as grid-supplied electricity decarbonises over time, whereas natural gas carbon factors remain relatively static:

Measures Installed	Energy saved	Annual Energy Saving (kWh)	Annual Financial savings	Annual Carbon Saving (tn/CO_{2e})
Cavity Wall Insulation	Gas	521,000	£15,000	95.80
	Electricity	25,000	£5,000	1.61
Loft Insulation	Gas	166,000	£5,000	30.58
Solar PV Systems	Electricity	138,000	£27,000	10.19
Batteries	Electricity	<i>Integrated in PV savings</i>		
BMS	Gas	201,000	£6,000	36.95
Heating Controls	Gas	432,000	£13,000	79.49
LED Lighting	Electricity	76,000	£15,000	5.36
Totals		1,559,000	£86,000	260 tonnes

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- 5.4 The figures above show the total estimated annual carbon saving to be 260 tonnes, which represents around 15% in the buildings treated.
- 5.5 Overall, the levelized cost per measure per tonne of carbon saved is £314.85. By using this as the key metric when awarding the funding, it heavily biases projects which make a saving in gas usage; those that improve insulation values or heating systems. These projects give the best value per tonne of carbon saved.
- 5.6 Of the measures included in the project, batteries make no direct carbon saving. However, they are allowable under the project because they enable low carbon (air source heat pump) heating systems to be installed, without having a big impact on the running costs of the building.
- 5.7 Running costs across all sites related to energy are estimated to be £86,000 in year one using estimated power and gas prices for 2022.

6 Secondary Impacts

- 6.1 As well as reducing carbon emissions and running costs, the PSDS project has also enabled local employment. Using the Salix-supplied guidance, it was estimated that 50 jobs in the low-carbon sector would be supported through the delivery of the funding. This includes all internal and external project managers, designers, contractors and labour.
- 6.2 The properties treated, particularly those with insulation measures, will improve thermal comfort for users of the buildings.
- 6.3 For each site a decarbonisation of heat strategy will be produced. These strategies will be used to plan and programme future work, and bid for future grant funding schemes, either under PSDS or other opportunities.

7 Next Steps

- 7.1 The Council will continue to deliver measures funded by PSDS up to the end of March 2022. A number of projects are still yet to be completed, including lighting, BMS and heating controls.
- 7.2 The Council will continue to work up heat decarbonisation plans for all 50 buildings treated under the PSDS scheme.
- 7.3 Buildings treated with measures under PSDS will be subject to ongoing monitoring of energy use to ensure that projected savings are realised.

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7.4 PSDS has highlighted the need for further projects to be easily identifiable for short-term funding opportunities. The Council is aligning its energy auditing processes to the key metrics in the PSDS funding application. This will allow for fast and accurate funding bids to be submitted in future.

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Signed by James Hill - Director of Housing, Neighbourhood and Building Services

Appendices:

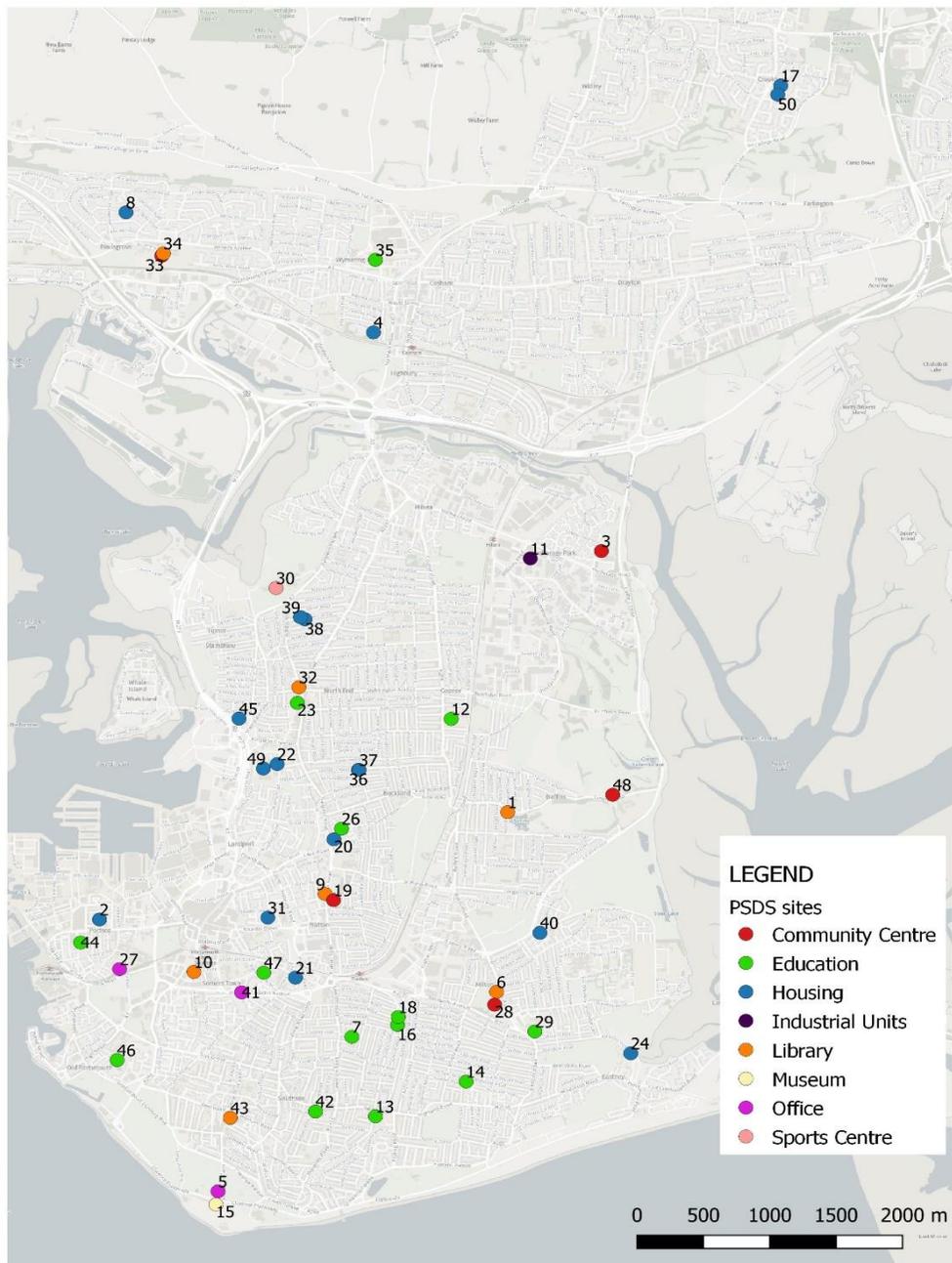
- Appendix A: Complete List of Sites and Measures

Background list of documents: Section 100D of the Local Government Act 1972

The following documents disclose facts or matters, which have been relied upon to a material extent by the author in preparing this report:

Title of document	Location
Portsmouth City Council Climate Strategy	https://democracy.portsmouth.gov.uk/documents/s25687/Response%20to%20Climate%20Emergency%20Strategy%20appendix%20A.pdf
Switched On Impact Report - Cabinet Paper (October 2021)	https://democracy.portsmouth.gov.uk/documents/s32456/Switched On Portsmouth Impact Report - Cabinet - Noting Report.pdf
Warmer Homes Project - Cabinet Paper (November 2021)	https://democracy.portsmouth.gov.uk/documents/s34950/Warmer%20Homes%20Project.pdf

Appendix A - Complete List of Sites and Measures



PSDS projects funded on Portsmouth City Council buildings.

updated 28/10/2021
(still a live project)

Num	Site Name	Category	Cavity Wal	Loft Insul	Solar PV	Batteries	BEMS	Lighting
1	Alderman Lacey Library	Library	X					
2	Alexander McKee House	Supported Housing				X		
3	Anchorage Park Community Centre/Lodge	Community Centre		X				
4	Arthur Dann Court	Sheltered Housing		X	X	X	X	
5	Avenue De Caen (Resort Service)	Office	X					
6	Beddow Library	Library	X					
7	Bramble Infant School & Nursery	School	X				X	
8	Bresler House	Sheltered Housing			X	X	X	
9	Carnegie Library	Library					X	X
10	Central Library	Library					X	
11	Challenge Enterprise Centre	Industrial Units	X					
12	Copnor Primary School	School	X	X			X	
13	Craneswater Junior School	School					X	
14	Cumberland Infant School	School					X	
15	D-Day Museum	Museum	X					
16	Devonshire Infant School	School		X			X	
17	Elsie Fudge House	Sheltered Housing		X	X	X	X	
18	Fernhurst Junior School	School	X	X				
19	Fratton Community Centre	Community Centre						X
20	Hale Court	Sheltered Housing	X					
21	Ian Gibson Court	Sheltered Housing			X	X	X	
22	John Marshall Court	Sheltered Housing			X	X	X	
23	Learning Place	Education	X					
24	Lightfoot Lawn	Supported Housing				X		
25	Lyndhurst House	Sheltered Housing		X	X	X		
26	Manor Infant School	School	X				X	
27	Milldam House (Registrar)	Office					X	X
28	Milton Park / Milton Village Hall	Community Centre	X	X				
29	Milton Park Junior & Primary School	School					X	
30	Mountbatten Centre	Sports Centre	X					
31	Nicholson Gardens	Sheltered Housing				X	X	
32	North End Library	Library						X
33	Paulsgrove Community Centre (PCC Owned / HNB Remit)	Community Centre	X					
34	Paulsgrove Library	Library	X					
35	Portsmouth Primary School	School	X					
36	Queens Road (96)	Supported Housing	X			X		
37	Queens Road (98)	Supported Housing				X		
38	Shadwell Road (93)	Supported Housing				X		
39	Shadwell Road (96)	Supported Housing				X		
40	Shearwater	Care Home						X
41	Somerstown Central (Hub)	Office					X	
42	Southsea Infant School	School					X	
43	Southsea Library	Library						X
44	St Georges Beneficial CE Primary School	School	X				X	
45	St Johns Court	Sheltered Housing					X	
46	St Judes CE Primary School (Voluntary Controlled)	School	X				X	
47	Sure Start Somerstown Childrens Centre	Education	X				X	
48	Tangier Road Childrens Home	Community Centre		X			X	
49	Templefield Court	Supported Housing				X		
50	Wakefield Court	Sheltered Housing		X		X	X	