

# Climate Action Capital Delivery – Phase 1

## Appendix 1. Detailed Project Information

### A1.1. Key Figures

Portfolio Highlights							
Total Project Cost (ex. risk)	Total Costed Risk (Inflation adjusted)	Total Project cost (Risk + inflation adjusted)	Total Annual CO <sub>2</sub> Saving	Total Annual Energy Saving	Projected Energy Cost Savings	Portfolio Avg. Payback (years)	Portfolio Avg. £/tCO <sub>2</sub>
£	£	£	tCO <sub>2</sub>	kWh	£		
£5,311,867	£1,274,847	£6,586,711	520	3,235,302	£551,329	9.6	£ 10,233

### A.1.2. Project List

Site Details	Intervention details	Project Manager / Lead Officer	Total project cost - Excluding risk (£)	Total costed Risk (£)	Total Project cost (inc. risk)	Projected Costs Savings	Projected Payback Period	Annual Energy Savings	Annual Carbon Savings (100's tCO <sub>2</sub> )	Fund
OS Hampstead Heath: Lido	Lido Hampstead Health Solar PV - Phase 2	Mark Donaldson	£106,740	£25,618	£132,358	£8,958	11.1	38,946.0	0.0053	City's Cash
OS Hampstead Heath - Kenwood House	Kenwood Nursery Solar PV	Mark Donaldson	£56,479	£13,555	£70,034	£5,596	9.4	24,332.4	0.0033	City's Cash
OS: Marlewood Estate	Marlewood Estate Solar PV	Mark Donaldson	£91,018	£21,844	£112,863	£11,237	7.6	48,855.3	0.0067	City's Cash
London Metropolitan Archives	Insulation of internal heating pipework and fittings	Mark Donaldson	£2,789	£669	£3,458	£797	3.3	7,970.0	0.0014	City Fund

Site Details	Intervention details	Project Manager / Lead Officer	Total project cost - Excluding risk (£)	Total costed Risk (£)	Total Project cost (inc. risk)	Projected Costs Savings	Projected Payback Period	Annual Energy Savings	Annual Carbon Savings (100's tCO2)	Fund
London Metropolitan Archives	Installation of solar pv array on roof of main building	Mark Donaldson	£109,337	£26,241	£135,578	£16,849	6.1	49,861.0	0.0068	City Fund
OS Epping Forest - The Warren	Cavity Wall Insulation - the Office	Mark Donaldson	£24,443	£5,866	£30,309	£97	236.2	967.0	0.0002	City's Cash
OS Epping Forest - The Warren	Cavity Wall Insulation - the Ancillary Barn	Mark Donaldson	£15,375	£3,690	£19,065	£61	236.3	608.0	0.0001	City's Cash
OS Epping Forest - The Warren	Cavity Wall Insulation - the workshop	Mark Donaldson	£16,016	£3,844	£19,859	£171	87.7	1,707.0	0.0003	City's Cash
OS Epping Forest - The Warren	Loft insulation - the Office	Mark Donaldson	£12,575	£3,018	£15,593	£128	92.0	1,278.0	0.0002	City's Cash
OS Epping Forest - The Warren	LED Lighting - the Office	Mark Donaldson	£22,730	£5,455	£28,185	£1,113	19.1	4,838.4	0.0007	City's Cash
OS Epping Forest - The Warren	LED Lighting - the Ancillary Barn	Mark Donaldson	£5,682	£1,364	£7,046	£1,217	4.4	5,292.0	0.0007	City's Cash
OS Epping Forest - The Warren	BEMS upgrade	Mark Donaldson	£48,862	£11,727	£60,589	£686	66.6	6,023.0	0.0010	City's Cash
OS Epping Forest - The Warren	Biomass boiler installation	Mark Donaldson	£93,191	£22,366	£115,557	£6,419	13.6	6,010.0	0.0166	City's Cash
Walbrook Wharf Cleansing Depot	Ventilation EC Fan Replacements	Mark Donaldson	£29,371	£7,049	£36,420	£17,364	1.6	75,494.7	0.0103	City Fund
Walbrook Wharf Cleansing Depot	Replace gas boilers and LTHW pumps with ASHPs and new pumps for Phase 2 (Main office) building	Mark Donaldson	£538,149	£129,156	£667,305	£11,205	40.7	226,871.9	0.0436	City Fund

Site Details	Intervention details	Project Manager / Lead Officer	Total project cost - Excluding risk (£)	Total costed Risk (£)	Total Project cost (inc. risk)	Projected Costs Savings	Projected Payback Period	Annual Energy Savings	Annual Carbon Savings (100's tCO2)	Fund
Guildhall Complex	Replacement of North Wing pumps	Mark Donaldson	£106,431	£25,544	£131,975	£25,316	3.9	110,070.7	0.0150	City Cash 50% / City Fund 50%
Guildhall Complex	LED lighting for external Guildhall	Mark Donaldson	£15,527	£3,726	£19,253	£2,488	5.8	10,815.9	0.0015	City Cash 50% / City Fund 50%
Guildhall Complex	LED lighting for Dance Porch	Mark Donaldson	£15,427	£3,702	£19,129	£1,309	11.0	5,690.4	0.0008	City Cash 50% / City Fund 50%
Guildhall Complex	LED lighting for City Centre Exhibition	Mark Donaldson	£50,229	£12,055	£62,284	£3,848	12.2	16,729.9	0.0023	City Cash 50% / City Fund 50%
Guildhall Complex	LED lighting for Amphitheatre	Mark Donaldson	£53,669	£12,881	£66,550	£7,152	7.0	31,095.9	0.0042	City Cash 50% / City Fund 50%
Guildhall Complex	LED lighting for East Wing	Mark Donaldson	£110,264	£26,463	£136,727	£8,459	12.2	36,779.0	0.0050	City Cash 50% / City Fund 50%
Guildhall Complex	LED lighting for North Wing	Mark Donaldson	£41,415	£9,939	£51,354	£5,335	7.3	23,193.6	0.0032	City Cash 50% / City Fund 50%
Guildhall Complex	North Wing AHUs	Mark Donaldson	£65,488	£15,717	£81,206	£3,429	17.8	14,909.0	0.0020	City Cash 50% / City Fund 50%
Guildhall Complex	East Wing AHUs	Mark Donaldson	£80,946	£19,427	£100,373	£13,934	5.4	60,584.6	0.0083	City Cash 50% / City Fund 50%

Site Details	Intervention details	Project Manager / Lead Officer	Total project cost - Excluding risk (£)	Total costed Risk (£)	Total Project cost (inc. risk)	Projected Costs Savings	Projected Payback Period	Annual Energy Savings	Annual Carbon Savings (100's tCO2)	Fund
Barbican Arts Centre	BEMS Optimisation	Mark Donaldson	£32,100	£7,704	£39,804	£41,064	0.7	264,344.0	0.0255	City Fund
Central Criminal Court	BEMS Optimisation incl. Building Advisor roll out (Phase 2)	Brendan Crowley	£146,713	£35,211	£181,924	£14,109	9.7	108,570.0	0.0182	City Fund
London Metropolitan Archives	BEMS Optimisation	Brendan Crowley	£10,875	£2,610	£13,486	£5,131	2.0	31,485.0	0.0050	City Fund
Walbrook Wharf Cleansing Depot	BEMS Optimisation incl. Building Advisor roll out (Phase 2)	Brendan Crowley	£45,232	£10,856	£56,088	£9,210	4.6	65,219.0	0.0107	City Fund
Mansion House	BEMS Optimisation incl. Building Advisor roll out (Phase 2)	Brendan Crowley	£89,099	£21,384	£110,483	£10,584	7.9	82,751.0	0.0139	City's Cash
New Street (21)	BEMS Optimisation	Brendan Crowley	£10,864	£2,607	£13,471	£4,786	2.1	29,180.0	0.0046	City Fund
Bishopsgate Police Station	BEMS Optimisation	Brendan Crowley	£10,158	£2,438	£12,595	£13,106	0.7	115,817.0	0.0200	City Fund
Tower Bridge	BEMS Optimisation incl. Building Advisor roll out (Phase 2)	Brendan Crowley	£46,645	£11,195	£57,839	£7,048	6.2	64,462.0	0.0112	Bridge House Estates
Heathrow Animal Reception Centre	BEMS Optimisation	Brendan Crowley	£8,521	£2,045	£10,567	£3,457	2.3	27,930.0	0.0047	City Fund
City of London Cemetery & Crematorium	BEMS Optimisation	Brendan Crowley	£7,804	£1,873	£9,676	£2,108	3.5	17,890.3	0.0031	City Fund
Open Spaces - Epping Forest	BEMS Optimisation	Brendan Crowley	£12,041	£2,890	£14,930	£1,463	7.7	12,855.0	0.0022	City's Cash

Site Details	Intervention details	Project Manager / Lead Officer	Total project cost - Excluding risk (£)	Total costed Risk (£)	Total Project cost (inc. risk)	Projected Costs Savings	Projected Payback Period	Annual Energy Savings	Annual Carbon Savings (100's tCO2)	Fund
Barbican Arts Centre	Heating Improvments	Brendan Crowley	£154,824	£37,158	£191,981	£41,373	4.0	-	-	City Fund
Barbican Arts Centre	BAC - Theatre Fly Tower, sub-stage, Control Room	Edmund Tran	£38,384	£9,212	£47,596	£19,076	2.0	78,084.0	0.0107	City Fund
Barbican Arts Centre	EC Fan Replacements	Edmund Tran	£274,736	£65,937	£340,673	£38,459	7.0	157,427.0	0.0215	City Fund
Barbican Arts Centre	Lighting Phase 2	Edmund Tran	£732,954	£175,909	£908,863	£19,800	36.0	81,050.0	0.0111	City Fund
Barbican Arts Centre	Concert Hall Lighting (Combined with CWP)	Edmund Tran	£241,543	£57,970	£299,513	£27,158	10.0	111,168.0	0.0152	City Fund
Barbican Arts Centre	Theatre Lighting (Combined with CWP)	Edmund Tran	£340,056	£81,613	£421,669	£21,299	18.0	87,185.0	0.0119	City Fund
GSMD	LED Lighting	Edmund Tran	£380,339	£91,281	£471,620	£28,055	13.0	114,840.0	0.0157	City's Cash
GSMD	BEMS Optimisation	Edmund Tran	£7,195	£1,727	£8,921	£5,594	1.0	22,897.0	0.0031	City's Cash
GSMD	EC Fan Replacements	Edmund Tran	£189,394	£45,455	£234,849	£5,584	33.0	22,858.0	0.0031	City's Cash
GSMD	Steam Humidification	Edmund Tran	£26,979	£6,475	£33,454	£1,421	18.0	5,816.0	0.0008	City's Cash
Mansion House	Heat Pump	Edmund Tran	£481,631	£115,591	£597,223	£26,568	16.0	681,429.0	0.1319	City's Cash
Mansion House	Draft Improvements	Rodrigo Matabuena	£26,028	£6,247	£32,274	£3,088	8.0	30,884.0	0.0055	City's Cash
Mansion House	Heating Improvments	Rodrigo Matabuena	£6,459	£1,550	£8,009	£5,797	1.0	33,632.0	0.0053	City's Cash
Mansion House	LED Lighting Replacements	Rodrigo Matabuena	£146,239	£35,097	£181,336	£18,371	8.0	75,200.0	0.0103	City's Cash
Mansion House	Fan Replacements	Rodrigo Matabuena	£31,443	£7,546	£38,989	£11,770	3.0	48,180.0	0.0066	City's Cash

Site Details	Intervention details	Project Manager / Lead Officer	Total project cost - Excluding risk (£)	Total costed Risk (£)	Total Project cost (inc. risk)	Projected Costs Savings	Projected Payback Period	Annual Energy Savings	Annual Carbon Savings (100's tCO2)	Fund
Mansion House	Ventilation Improvments	Rodrigo Matabuena	£55,634	£13,352	£68,986	£11,284	5.0	46,191.0	0.0063	City's Cash
Mansion House	Insulation (Pipework)	Rodrigo Matabuena	£2,307	£554	£2,861	£114	19.0	1,144.0	0.0002	City's Cash
Walbrook Wharf Cleansing Depot	Heating (Pumps & Valves)	Rodrigo Matabuena	£24,792	£5,950	£30,742	£1,284	18.0	7,890.0	0.0013	City Fund
Guildhall Complex	PowerTag Sub metering (BEMS) Pilot project	Mark Donaldson	£8,025	£1,926	£9,951	£0	-	-	-	City Cash 50% / City Fund 50%
Housing - General	Housing Estates BEMS (Trend) integration with Main CoL BEMS	Brendan Crowley	£10,700	£2,568	£13,268	£0	-	-	-	City Fund

### A.1.3. Delivery Programme

Site	Project Activity	Start date	Duration (Months)	Completion (%)	Months																									
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
					Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25
OS Hampstead Heath: Lido	Lido Hampstead Heath Solar PV - Phase 2	Oct-23	8	0%																										
OS Hampstead Heath - Kenwood House	Kenwood Nursery Solar PV	Jun-23	8	0%																										
OS: Marlewood Estate	Marlewood Estate Solar PV	Jun-23	8	0%																										
London Metropolitan Archives	Insulation of internal heating pipework and fittings	Apr-23	12	0%																										
London Metropolitan Archives	Installation of solar pv array on roof of main building	Aug-23	10	0%																										
OS Epping Forest - The Warren	Cavity Wall Insulation - the Office	Oct-23	15	0%																										
OS Epping Forest - The Warren	Cavity Wall Insulation - the Ancillary Barn	Oct-23	3	0%																										
OS Epping Forest - The Warren	Cavity Wall Insulation - the workshop	Oct-23	3	0%																										
OS Epping Forest - The Warren	Loft insulation - the Office	Jan-24	2	0%																										
OS Epping Forest - The Warren	LED Lighting - the Office	Jan-24	4	0%																										
OS Epping Forest - The Warren	LED Lighting - the Ancillary Barn	Jan-24	4	0%																										
OS Epping Forest - The Warren	BEMS upgrade	Oct-23	9	0%																										
OS Epping Forest - The Warren	Biomass boiler installation	Oct-23	9	0%																										
Walbrook Wharf Cleansing Depot	Ventilation EC Fan Replacements	Jun-23	7	0%																										
Walbrook Wharf Cleansing Depot	Replace gas boilers and LTHW pumps with ASHPs and new pumps for Phase 2 (Main office) building	Jun-23	7	0%																										
Guildhall Complex	Replacement of North Wing pumps	Jun-23	10	0%																										
Guildhall Complex	LED lighting for external Guildhall	Jun-23	4	0%																										
Guildhall Complex	LED lighting for Dance Porch	Jul-23	4	0%																										
Guildhall Complex	LED lighting for City Centre Exhibition	Aug-23	4	0%																										
Guildhall Complex	LED lighting for Amphitheatre	Sep-23	5	0%																										
Guildhall Complex	LED lighting for East Wing	Oct-23	6	0%																										
Guildhall Complex	LED lighting for North Wing	Nov-23	7	0%																										
Guildhall Complex	North Wing AHUs	Jan-24	9	0%																										
Guildhall Complex	East Wing AHUs	Feb-24	9	0%																										
Barbican Arts Centre	BEMS Optimisation	Jul-23	3	0%																										
Central Criminal Court	BEMS Optimisation incl. Building Advisor roll out (Phase 2)	Jul-23	3	0%																										
London Metropolitan Archives	BEMS Optimisation	Jul-23	3	0%																										
Walbrook Wharf Cleansing Depot	BEMS Optimisation incl. Building Advisor roll out (Phase 2)	Sep-23	4	0%																										
Mansion House	BEMS Optimisation incl. Building Advisor roll out (Phase 2)	Sep-23	4	0%																										
New Street (21)	BEMS Optimisation	Sep-23	4	0%																										
Bishopsgate Police Station	BEMS Optimisation	Sep-23	4	0%																										
Tower Bridge	BEMS Optimisation incl. Building Advisor roll out (Phase 2)	Dec-23	5	0%																										
Heathrow Animal Reception Centre	BEMS Optimisation	Dec-23	5	0%																										
City of London Cemetery & Crematorium	BEMS Optimisation	Dec-23	5	0%																										
Open Spaces - Epping Forest	BEMS Optimisation	Dec-23	5	0%																										
Barbican Arts Centre	Heating Improvements	Feb-24	8	0%																										
Barbican Arts Centre	BAC - Theatre Fly Tower, sub-stage, Control Room	Feb-24	8	0%																										
Barbican Arts Centre	EC Fan Replacements	Feb-24	8	0%																										
Barbican Arts Centre	Lighting Phase 2	Feb-24	8	0%																										
Barbican Arts Centre	Concert Hall Lighting (Combined with CWP)	Feb-24	8	0%																										
Barbican Arts Centre	Theatre Lighting (Combined with CWP)	Feb-24	8	0%																										
GSMD	LED Lighting	Apr-24	8	0%																										
GSMD	BEMS Optimisation	Apr-24	8	0%																										
GSMD	EC Fan Replacements	Apr-24	8	0%																										
GSMD	Steam Humidification	Apr-24	8	0%																										
Mansion House	Heat Pump	Mar-24	9	0%																										
Mansion House	Draft Improvements	May-23	4	0%																										
Mansion House	Heating Improvements	Jun-23	7	0%																										
Mansion House	LED Lighting Replacements	Sep-23	6	0%																										
Mansion House	Fan Replacements	Jan-24	5	0%																										
Mansion House	Ventilation Improvements	Feb-24	5	0%																										
Mansion House	Insulation (Pipework)	Jun-23	7	0%																										
Walbrook Wharf Cleansing Depot	Heating (Pumps & Valves)	Sep-23	4	0%																										
Guildhall Complex	PowerTag Sub metering (BEMS) Pilot project	Feb-23	1	0%																										
Housing - General	Housing Estates BEMS (Trend) integration with Main CoL BEMS	Oct-23	5	0%																										

## A 1.4 Budget expenditure progression

Financial Year		
2022/23	2023/24	2024/25
£8,000	£1,675,000	£3,629,000

## A 1.5 Sites in scope of the CAS Capital programme

Central Criminal Court  
 Guildhall Complex  
 City of London Freeman's School  
 City of London School  
 Billingsgate Market  
 Mansion House  
 Tower Bridge  
 Walbrook Wharf Cleansing Depot  
 London Metropolitan Archives  
 London Central Market (Smithfield)  
 Barbican Arts Centre  
 City of London School For Girls  
 New Spitalfields Market (Landlords)  
 GSMD - Sundial Court  
 GSMD

## A1.6 Property specific stakeholders

Project	Key stakeholders	
Barbican Arts Centre	Jonathon Poyner	Julie Fittock
Central Criminal Court	Adam Rout	Nicholas Welland
Billingsgate Market	Dan Ritchie - Markets	Steven Chandler
Walbrook Wharf Cleansing Depot	Dorian Price	Julie Fittock
City of London School For Girls	John Hall - Bursar	Julie Fittock
City of London Cemetery & Crematorium		
GSMD	Jonathon Poyner	Julie Fittock
City of London Freeman's School	Oonagh O'Mahoney	Nicholas Welland
Guildhall Complex		
City of London School	Arnold Flanagan - Bursar	Julie Fittock
Heathrow Animal Reception Centre	Susie Pritchard	Julie Fittock
London Central Market (Smithfield)		Steven Chandler
London Metropolitan Archives	Tim Harris	Steven Chandler
LMA & Walbrook Wharf	Dorian Price	Julie Fittock
Mansion House	Nina Tsindides	Nicholas Welland
Open Spaces - Epping Forest	Paul Thompson	Nicholas Welland
OS Epping Forest - The Warren	Paul Thompson	Nicholas Welland
New Spitalfields Market	Emma Beard - Markets	Steven Chandler



New Street (21)	Martin O'Regan - CoLP	Julie Fittock
OS Hampstead Heath - Kenwood House	Stefania Horne	Julie Fittock
OS Hampstead Heath: Lido	Julie Fittock	
OS Epping Forest: Harrow Road	Nicholas Welland	
Tower Bridge	Jamie Bottono	Natasha Curson
Tower Hill Coach & Car Park	Ken Stone - DBE	Julie Fittock