Appendix

1. List of key sites in an energy performance partnership with Vital Energi

1.Guildhall Complex	8. City of London School	14. London Metropolitan Archives
2. Barbican Arts Centre	9. City of London School for Girls	15. Tower Hill Car Park
3. London Central Market	10. Walbrook Wharf	
(Smithfield)	Cleansing Depot	
4. Central Criminal Court	11. Tower Bridge	
5. New Spitalfields Market	12. Mansion House	
6.City of London Freemen's	13. GSMD (inc. Milton	
School	Court and Sundial Court)	
7. Billingsgate Market		

2. Centre of Excellence roles.

Centre of Excellence roles									
Sustainable Investment Property Specialist	Heat Decarbonisation Engineering Support								
– Arcadis (in place)	– Arcadis (in place)								
Resilience and Sustainable Design –	Energy Project Services (Housing) – Etude								
Arcadis (in place)	(in place)								
Building Management Systems Operations	Monitoring and Targeting – Team Energy								
– Schneider (in place)	Auditing (in place)								

3. Whole Life Carbon Assessments – Pilot projects.

	Project Name	Areas (m²)	RIBA Stage	Project Type
1	15-17 Eldon Street & 1st-5th/6 Broad Street Place	10,000	RIBA 3	Office
2	Brewery Road - Refurbishment & Extension	3,931	RIBA 5	Office
3	Finsbury Garden Pavilion and Landscaping	600	RIBA 4	New Build
4	CoL Junior School Expansion	2,400	RIBA 4	School
5	COLPAI - CoL Primary Academy & Islington	8,500	RIBA 5	School

4.Key Risks

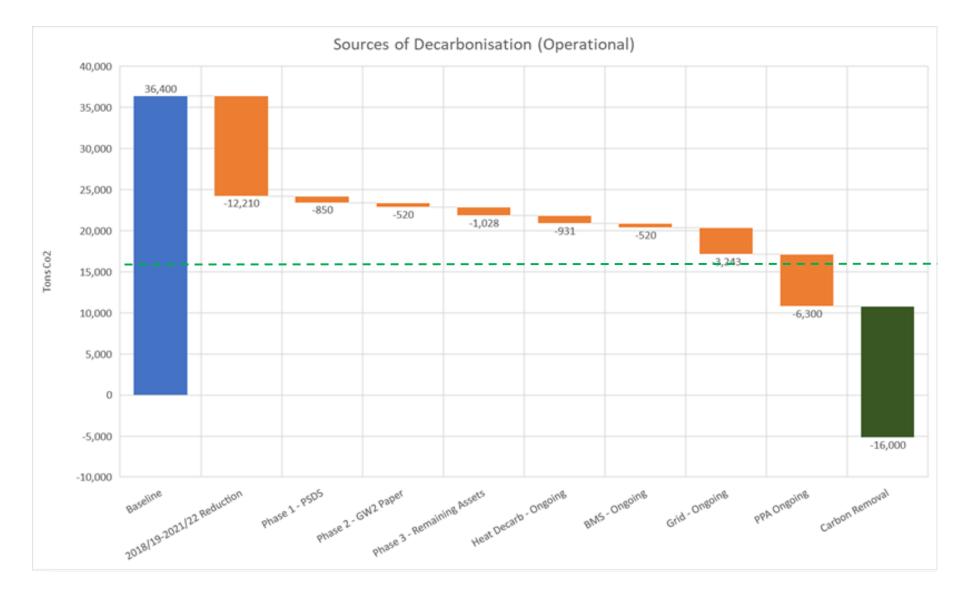
Risk	Mitigation
Delays in securing resource Impacts project delivery.	Review of Centre of Excellence completed to address this issue. Use of flexible frameworks for Project Management resource. Utilising Lead Consultancy with backup resource available.
Funding gap emerges following investment grade proposals.	Existing funding allocation to be complemented with grant funding applications. Investigate energy performance contracts option to minimise capital investment.
Carbon grid factors adversely affected.	Keep in review BEIS grid factors and their impact on reach the 2026/27 Targets. Use PPA benefit and report Market based emissions as well as location based.
Major projects/programmes: The proposed further review of operational properties as part of the MTFP and Net Zero Budgeting.	Major programmes and projects may impact the decisions on CAS interventions or reduce the payback period if a decision is made to dispose or refurbish a building. In all cases full consideration should be made within the decision-making process. Additional carbon emitted from new developments limited by NZC design standards introduced and any subsequent asset disposals.

5. Indicative Project delivery timescales

	Mont						onths											
Site	Project Activity	Start		Completion	1 2	34	56						5 16	17 18	3 19 2	0 21	22 2	3 24
Site	Project Activity	date	(Months)	(%)	Dec-22	an-23 -eb-23 Mar-23	Apr-23 May-23	Jun-23 Jul-23	Aug-23	Oct-23	Vov-23 Jec-23	an-24	-eu-24 Mar-24	Apr-24 Mav-24	un-24	ul-24 Aug-24	èep-24	Vov-24
DS Hampstead Heath: Lido	Lido Hampstead Health Solar PV - Phase 2	Oct-23	8	0%		,												
OS Hampstead Heath - Kenwood	Kenwood Nursery Solar PV	Jun-23		0%	1													
louse DS: Marlewood Estate	· · · · · · · · · · · · · · · · · · ·		8	0%														
JS: Manewood Estate	Marlewood Estate Solar PV Insulation of internal heating pipework and	Jun-23	8		-													
ondon Metropolitan Archives	fittings	Apr-23	12	0%														
ondon Metropolitan Archives	Installation of solar pv array on roof of main	Aug-23	10	0%														
OS Epping Forest - The Warren	building 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%	1 1													
OS Epping Forest - The Warren	LED Lighting - the Office	Jan-24	4	0%	1 í													
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	Jun-23		0%														
wallorook what cleansing bepot	office) building	5011 25	7	0/0														
Guildhall Complex	Replacement of North Wing pumps	Jun-23	10	0%	1 1													
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%														8
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%														
ondon Metropolitan Archives	BEMS Optimisation	Jul-23	3	0%														
Walbrook Wharf Cleansing Depot	BEMS Optimisation incl. Building Advisor roll	Sep-23		0%	1 1													
Walbrook What Cleansing Depot	out (Phase 2)	Jep-23	4	078														
Mansion House	BEMS Optimisation incl. Building Advisor roll out (Phase 2)	Sep-23	4	0%														
New Street (21)	BEMS Optimisation	Sep-23	4	0%	1 1													
Bishopsgate Police Station	BEMS Optimisation	Sep-23	4	0%]]													
Tower Bridge	BEMS Optimisation incl. Building Advisor roll	Dec-23	_	0%														
	out (Phase 2)		5	0%														
Heathrow Animal Reception Centre City of London Cemetery &		Dec-23	5															
Crematorium	BEMS Optimisation	Dec-23	5	0%														
Open Spaces - Epping Forest	BEMS Optimisation	Dec-23	5	0%														
Barbican Arts Centre	Heating Improvments	Feb-24	8	0%														
Barbican Arts Centre	BAC - Theatre Fly Tower, sub-stage, Control	Feb-24	0	0%														
Barbican Arts Centre	Room 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%														
SSMD	LED Lighting	Apr-24	8	0%														
SSMD	BEMS Optimisation	Apr-24	8	0%														
SSMD	EC Fan Replacements	Apr-24	8	0%	1 1													
GSMD	Steam Humidification	Apr-24	8	0%	1 1													
Mansion House	Heat Pump	Mar-24	9	0%														
Mansion House	Draft Improvements	May-23	4	0%														
Mansion House	Heating Improvments	Jun-23	7	0%														
Aansion House	LED Lighting Replacements	Sep-23	6	0%														
Mansion House	Fan Replacements	Jan-24	5	0%														
Mansion House	Ventilation Improvments	Feb-24	5	0%														
Mansion House	Insulation (Pipework)	Jun-23	7	0%														
Valbrook 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%														
7 Harrow Place	LED lights	Feb-23	1	0%									28					

6. Anticipated Energy and Cost savings from Energy Conservation Measures Implemented/planned.

Project	Total Energy savings	Annual cost savings (23/24 energy prices)					
	kWh/yr	£					
PSDS Programme	· · ·						
PSDS RA-W Barbican Arts Centre	2,838,978	£443,518					
PSDS RA-W Silk Street (GSMD)	644,064	£105,848					
PSDS RA-W Milton Court (GSMD)	540,326	£95,884					
PSDS RA-W Sundial Court (GSMD)	257,836	£53,196					
PSDS RA-W John Hossier Anexe	20,057	£4,814					
		,					
PSDS RA-W Guildhall Complex	584,700	£122,929					
PSDS Guildhall Ventilation	2 445 271	£341,040					
	2,445,371	1341,040					
PSDS Guildhall Chilled Water Mods	160,551	£38,532					
PSDS LMA Ventilation	62,410	£14,978					
TOTAL	7,554,292	£1,220,738					
CAS Phase 1 Capital Programme							
CAS Phase 1 Programme: BAC Mech.	157,427	£79,832					
CAS Phase 1 Programme: BAC Lighting	246,212	£56,629					
CAS Phase 1 Programme: BAC Specialist Lighting	198,353	£48,457					
CAS Phase 1 Programme: GSMD	166,411	£40,654					
CAS Phase 1 Programme: Guildhall	309,869	£71,270					
CAS Phase 1 Programme: LMA	57,831	£17,646					
CAS Phase 1 Programme: Mansion House	916,660	£76,992					
CAS Phase 1 Programme: Open Spaces - Solar PV	112,134	£25,791					
CAS Phase 1 Programme: Open Spaces - The Warren	33,555	£10,669					
CAS Phase 1 Programme: Walbrook Wharf	310,257	£29,853					
CAS Phase 1 Programme: BEMS	807,648	£110,603					
TOTAL	3,316,357	£568,396					



7. Waterfall chart showing the impact of interventions (including grid decarbonisation) on achieving the 2027 Scope 1 & 2 target.

Carbon reduction target (16ktCO2)