

# Energy Reduction Programme – Phase 1

## Appendix 3. Additional project detail

### A3.1. Brief description of project

The City Surveyor's Corporate Energy Team identified a pipeline of energy reduction projects which is proposed to roll out in phases. It is the first phase of this programme that this report requests investment for and consists of the following eight sub-projects:

- Lighting upgrades, replacing existing mostly fluorescent lighting with more energy efficient LED equivalents and incorporating new controls:
  - Central Criminal Court
  - Guildhall School of Music & Drama (Silk Street)
  - Guildhall School of Music & Drama (Milton Court)
  - Tower Hill Coach & Car Park
  - Smithfield Rotunda Car Park
- Ventilation fan/motor upgrades at the Guildhall Complex. Existing belt-driven fans shall be replaced within the East Wing Air Handling Units and West Wing Manuscripts Store with more efficient EC (Electronically Commutated) plug fans.
- Ventilation system upgrades for London Metropolitan Archives. Works shall include upgrading the Air Handling Unit serving the Archives block with EC plug fans, zoning each floor with motorised dampers and upgrading the control strategy to allow for zoned demand driven control.
- Energy sub-metering for the Guildhall Complex. Works include installing electricity sub-meters within the East Wing switch board and heat meters within the main heating and cooling circuits for the site.

Table 1 presents a breakdown of key project figures.

Table 1. Breakdown of key project figures

Title	Energy Savings (MWh/yr)	Cost savings (£/yr)	Cost (excl. Risk&PM) (£k)	Project Manager Budget (£k)	Total Project Cost (excl. Risk)	Risk budget (£k)	Total Project Cost (£k)	Simple Payback (yrs)	Carbon Offset Fund Contribution (£k)	CoL Funds Required (£k)
<b>CITY FUND</b>										
Tower Hill Car Park Lighting	125	£19	£109	13	121	1	£123	6.4	£0	£123
CCC Lighting	207	£43	£163	19	182	17	£199	4.6	£199	£0
GHC Ventilation Fans	637	£83	£209	24	234	11	£245	3.0	£0	£245
LMA HVAC Control	274	£14	£36	4	41	6	£47	3.3	£47	£0
<b>CF Sub-Total</b>	<b>1,243</b>	<b>£160</b>	<b>£517</b>	<b>60</b>	<b>578</b>	<b>35</b>	<b>£613</b>	<b>3.8</b>	<b>£245</b>	<b>£367</b>
<b>CITY CASH</b>										
GSMD Milton Ct Lighting	34	£8	£50	6	56	1	£57	7.2	£0	£57
GSMD Silk St Lighting	295	£47	£174	20	194	12	£206	4.4	£0	£206
GHC Sub-Metering	349	£33	£210	24	234	13	£247	7.5	£0	£247
Smithfield Car Park Lighting	108	£16	£81	9	91	0	£91	5.8	£0	£91
<b>CC Sub-Total</b>	<b>787</b>	<b>£104</b>	<b>£515</b>	<b>60</b>	<b>575</b>	<b>26</b>	<b>£600</b>	<b>5.8</b>	<b>£0</b>	<b>£600</b>
<b>Combined Total</b>	<b>2,030</b>	<b>£263</b>	<b>£1,033</b>	<b>£120</b>	<b>£1,152</b>	<b>£61</b>	<b>£1,213</b>	<b>4.6</b>	<b>£245</b>	<b>£968</b>

Note: PM stands for Project Manager

### A3.2. Smithfield Car Park Lighting Upgrade

CWP funding has already been approved towards funding an electrical rewire to support lighting works for the Smithfield car park. The funds sought through the GW2 Project Proposal are additional to enhance the specification and allow for high performance LED with smart controls. The Project Proposal therefore only includes part of the project costs and does not incorporate any project risk costs. We shall consult further with Chris Hartwell and Rohit Paul on the best approach for approval through the Project Procedure.

### A3.3. Procurement strategy/route to market

It is proposed the projects be separately procured based on their technology solution specialties. The supply and installation elements (whose estimated value is shown in brackets below) will be tendered together, see Appendix 3 for additional detail.

- Lighting projects (£553k): Either a Mini Competition via the Intermediate Works Framework or an open tender if the expertise is not available in the Framework.
- Guildhall Sub-metering (£188k): One-off purchase: minimum of 3 firms invited minimum of 3 firms invited if the expertise is not available within the Measured Terms Contract.
- Guildhall Ventilation Project (£200k): direct award to Sykes & Sons via Minor Works Framework Measured Term Contract.
- London Metropolitan Archives (£27k): direct award to Sykes & Sons via Minor Works Framework Measured Term Contract.

### A3.4. Delivery period and key dates

The below table presents two timelines: fast and slow. The fast timeline reflects the potential where risks do not cause undue project delays.

Fast	Slow	Gateway 2
26/02/2020	26/02/2020	Corporate Project Board
01/04/2020*	01/04/2020*	Corporate Assets Sub-Committee
16/03/2020	16/03/2020	Project Sub-Committee
19/03/2020	19/03/2020	Resource Allocation Sub-Committee
		<b>Gateway 3/4</b>
03/06/2020	22/07/2020	Corporate Assets Sub-Committee
25/06/2020	15/09/2020	Project Sub-Committee
09/07/2020	22/10/2020	Resource Allocation Sub-Committee
Jul-20	Jan-21	<b>Project Manager in post</b>
Sep-20	Mar-21	<b>Design</b>
Dec-20	Jun-21	<b>Procurement</b>

Dec-20	Jun-21	<b>Gateway 5</b>
Dec-21	Jul-22	<b>Completion of all projects</b> (installation, hand-over)
May-22	Jan-23	<b>Gateway 6</b>

\*Circulated on 04/03/2020 under urgency.

### **A3.5. Property specific stakeholders**

<b>Project</b>	<b>Key stakeholders</b>
Tower Hill Car Park Lighting	Andrew Coke Ian Hughes Warren Back
GSMD Milton Ct Lighting	Cornell Farrell Jonathon Poyner
GSMD Silk St LED Upgrade	Charlotte Lythgoe
CCC LED Lighting Upgrade	Liam Boyle Wayne Garrigan
Smithfield Car Park Lighting	Don Perry Mark Sherlock Neil Hawkins
GHC AHU EC Plug	Dorian Price
GHC Sub-Metering	Peter Ochser
LMA Zone & Demand Ctrl HVAC	Andrew Coke Stephen Maberly Tim Harris