# Appendix E

### Baseline

Compliance with Part L1a of the Building Regulations Alone

	Sample 1 - Unit 3		Sample 2 - Unit 5		Sample 3 - Unit 9			Ave	erage
	Energy	CO <sub>2</sub> Emissions	F	CO <sub>2</sub> Emissions	Energy	CO <sub>2</sub> Emissions		Energy	CO <sub>2</sub> Emissions
	Demand	(tonnes CO <sub>2</sub> per	Energy Demand (kWh/yr)	(tonnes CO <sub>2</sub> per	Demand	(tonnes CO <sub>2</sub> per		Demand	(tonnes CO <sub>2</sub> per
	(kWh/yr)	annum)	(KVVII/ yI )	annum)	(kWh/yr)	annum)		(kWh/yr)	annum)
Baseline	6316.830	1.220	6936.790	1.355	5107.110	0.984		6120.243	1.186

#### Be Lean

Improvements from Fabric Performance

	Sample 1 - Unit 3		e 1 - Unit 3 Sample 2 - Unit 5		Sample 3 - Unit 9			Av	erage
	Energy	CO <sub>2</sub> Emissions	Energy Demand	CO <sub>2</sub> Emissions	Energy	CO <sub>2</sub> Emissions		Energy	CO <sub>2</sub> Emissions
	Demand	(tonnes CO <sub>2</sub> per	(kWh/yr)	(tonnes CO <sub>2</sub> per	Demand	(tonnes CO <sub>2</sub> per		Demand	(tonnes CO <sub>2</sub> per
	(kWh/yr)	annum)	(KVVII/ yI )	annum)	(kWh/yr)	annum)		(kWh/yr)	annum)
Baseline	6316.830	1.220	6936.790	1.355	5107.110	0.984		6120.243	1.186
Lean	6173.640	1.192	6448.870	1.265	4908.570	0.942		5843.693	1.133
% Improvement	2.27	2.27	7.03	6.63	3.89	4.28		4.52	4.49

### Be Lean & Clean

Additional Improvements from Efficient Services

	Sample 1 - Unit 3		Sample 2 - Unit 5		Sample 3 - Unit 9				Average	
	Energy	CO <sub>2</sub> Emissions	Energy Demand	CO <sub>2</sub> Emissions	Energy	CO <sub>2</sub> Emissions			Energy	CO <sub>2</sub> Emissions
	Demand	(tonnes CO₂ per	(kWh/yr)	(tonnes CO₂ per	Demand	(tonnes CO <sub>2</sub> per			Demand	(tonnes CO <sub>2</sub> per
	(kWh/yr)	annum)	(KVVII/ yI )	annum)	(kWh/yr)	annum)			(kWh/yr)	annum)
Baseline	6316.830	1.220	6936.790	1.355	5107.110	0.984			6120.243	1.186
Lean + Clean	6173.640	1.192	6448.870	1.265	4908.570	0.942			5843.693	1.133
% Improvement	2.27	2.27	7.03	6.63	3.89	4.28			4.52	4.49

#### Be Lean, Clean & Green

Additional Improvements from Renewable Technology

	Sample 1 - Unit 3		Sample 2 - Unit 5		Sample 3 - Unit 9			Av	erage
	Energy	CO <sub>2</sub> Emissions	Energy Demand	CO <sub>2</sub> Emissions	Energy	CO <sub>2</sub> Emissions		Energy	CO <sub>2</sub> Emissions
1	Demand	(tonnes CO₂ per	(kWh/yr)	(tonnes CO <sub>2</sub> per	Demand	(tonnes CO <sub>2</sub> per		Demand	(tonnes CO₂ per
	(kWh/yr)	annum)	(KVVII/ yI )	annum)	(kWh/yr)	annum)		(kWh/yr)	annum)
Baseline	6316.830	1.220	6936.790	1.355	5107.110	0.984		6120.243	1.186
Lean + Clean + Green	4475.340	0.861	4589.730	0.874	3030.710	0.576		4031.927	0.771
% Improvement	29.15	29.37	33.83	35.47	40.66	41.48		34.12	35.04

### **Unregulated Emissions**

Emissions from Sources not Regulated under L1A of the Building Regulations

	Sample 1 - Unit 3	Sample 2 - Unit 5	Sample 3 - Unit 9	Average
Unregulated Emissions (Tonnes CO2 / annum)		1.10	0.79	1.01

## **Cumulative Emission & Savings**

	Tonnes CO2 / annum				
Carbon Dioxide Emissions	Regulated	Unregulated			
Baseline: Part L 2013	1.19	1.01			
After energy demand reduction	1.13	1.01			
After CHP / Community Heating	1.13	1.01			
After renewable energy	0.77	1.01			

Regulated Carbon dioxide savings	Tonnes CO2 /	0/
negalatea carbon aloxide savings	annum	%
Savings from energy demand reduction	0.05	4.49
Savings from CHP / Community Heating	0.00	0.00
Savings from renewable energy	0.36	30.56
Total Cumulative Savings	0.42	35.04
Total Target Savings	0.42	35.00
Annual Surplus	0.00	