# PSH.

**Technical Note** 

## **Kensington Forum**

## **Carbon Offset Cash in Lieu Contribution Calculations**

Date:

10 August 2020

Reference:

2915/24









MEP Building Services Energy & Sustainability

BIM

Vertical Transport



## DOCUMENT CONTROL

ISSUE	DATE	STATUS	PSH PREPARED	PSH CHECKED	PSH AUTHORISED
1	07/08/20	Issue 1	MB	MB	АН

### **Technical Note: Carbon Offset Cash in Lieu Contributions**

#### 1. Introduction

This technical note is submitted in support of the redevelopment proposals detailed within the full Planning Application (Reference GLA/4266 & PP/18/03461), approved by the Mayor of London on 21<sup>st</sup> June 2019 following a direction (under the powers conferred by Section 2A of the 1990 Act) that he would act as the local planning authority for the purposes of determining the planning application.

The purpose of this Technical Note is to provide a calculation method behind the carbon reductions and cash in lieu contributions for the development.

#### 2. Carbon Emissions Summary

The previously consented scheme was designed in accordance the 2016 version of the GLA guidance "Energy Planning Guidance". An Energy Statement addendum was provided to the GLA during the Stage 1 review, which detailed the carbon emissions as detailed below.

#### 2.1. Residential Development

	Total residual regulated CO <sub>2</sub> emissions	Total residual regulated CO <sub>2</sub> emissions	
	(tonnes per annum)	(tonnes per annum)	(percent)
Baseline i.e. 2013 Building Regulations	62		
Energy Efficiency	55	7	11%
СНР	51	14	22%
Renewable Energy	33	9	14%
Total		29	47%

Table 1 – Residential development carbon emissions at stages of the energy hierarchy

#### 2.2. Non-Residential Development

	Total residual regulated CO <sub>2</sub> emissions	Total residual regulated CO <sub>2</sub> emissions	
	(tonnes per annum)	(tonnes per annum)	(percent)
Baseline i.e. 2013 Building Regulations	4348		
Energy Efficiency	3963	385	8.9%
СНР	2857	1106	25.4%
Renewable Energy	2834	23	0.5%
Total		1514	35%

Table 2 - Non Residential development carbon emissions at stages of the energy hierarchy

#### 2.3. Overall Development

	Total residual regulated CO₂ emissions	Total residual regulated CO <sub>2</sub> emissions	
	(tonnes per annum)	(tonnes per annum)	(percent)
Baseline i.e. 2013 Building Regulations	4410		
Energy Efficiency	4018	392	8.9%
СНР	2898	1119	25.4%
Renewable Energy	2867	32	0.7%
Total		1543	35.0%

Table 3 – Overall site wide development carbon emissions at stages of the energy hierarchy

#### 3. Carbon Reduction and Cash in Lieu Contributions

4 separate calculations are provided for the cash in lieu contributions for the development based on different requirements and carbon costs:

#### Scenario 1

A 35% on site reduction in carbon emissions for the non-residential development and a 35% on site reduction in carbon emissions with cash in lieu contributions to net zero carbon for the residential development. A carbon cost of £60 has been applied (as was current at the time of application).

#### Scenario 2

A 35% on site reduction in carbon emissions and cash in lieu contributions to net zero carbon for the entire development. A carbon cost of £60 has been applied (as was current at the time of application).

#### Scenario 3

A 35% on site reduction in carbon emissions for the non-residential development and a 35% on site reduction in carbon emissions with cash in lieu contributions to net zero carbon for the residential development. A carbon cost of £95 has been applied (as stated in GLA's Energy Assessment Guidance April 2020).

#### Scenario 4

A 35% on site reduction in carbon emissions and cash in lieu contributions to net zero carbon for the entire development. A carbon cost of £95 has been applied (as stated in GLA's Energy Assessment Guidance April 2020).

#### 3.1. Scenario 1

From table 1 – Residential shortfall to net zero carbon -	33 tons
From table 2 – Non-residential shortfall to 35% on site -	0 tons
Total	33 tons

33 tons @ £60 for 30 years = £59,400 cash in lieu contribution.

#### 3.2. Scenario 2

From table 3 – Site wide shortfall to net zero carbon - 2867 tons

2867 tons @ £60 for 30 years = £5,160,600 cash in lieu contribution.

#### 3.3. Scenario 3

From table 1 – Residential shortfall to net zero carbon -	33 tons
From table 2 – Non-residential shortfall to 35% on site -	0 tons
Total	33 tons
33 tons @ £95 for 30 years = £94,050 cash in lieu contribution.	

#### 3.4. Scenario 4

From table 3 – Site wide shortfall to net zero carbon -	2867 tons
2867 tons @ $\pm$ 95 for 30 years = $\pm$ 8,170,950 cash in lieu contribution.	



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