

**Prologis UK Limited**

**Former MOD Document  
Office, Stockley Road,  
Hayes**

**Discharge of Condition 12**

**18399/APP/2013/1019**

**Energy and Carbon Reduction Strategy**



**TURLEYASSOCIATES**



# Contents

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**Prologis UK Limited** proposes an **energy and carbon mitigation** strategy to meet the requirements of **Condition 12** and in accordance with the **London Plan** and **Prologis** own commitment to reducing their operations **global carbon impact**

# 1 Introduction

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This report is submitted on behalf of the applicant, Prologis UK Ltd to discharge Condition 12 of the planning permission for distribution warehouse units at the Former M O D Document Record Office Bourne Avenue Hayes Ref: 18399/APP/2013/1019

Condition 12 states:

*“Prior to the commencement of the development hereby approved, details of how the scheme will reduce carbon emissions by 25% above the Building Regulations 2010 Part L through either on-site solutions and/ or an allowable solution mechanism, in accordance with the approved Sustainability Strategy, must be submitted and approved by the Local Planning Authority, and installed prior to occupation.”*

The requirements and information required to discharge Condition 12 has been discussed in advance with the sustainability officer, Mr Ian Thynne at the London Borough of Hillingdon.

It has been advised that Sustainability Statement and associated energy and carbon reduction strategy provided with the reserved matters approval is sufficient in relation to proposed onsite measures, however does require clear agreement over the allowable solution and its implementation.

## The Application Site

The Phase 3 development site extends to approximately 3ha and is designated as a Locally Significant Industrial Site (LSIS) through the Local Plan and a major employment area, where industrial and warehousing activities can operate. It is located approximately 2km from Heathrow Airport and 500m from Junction 4 of the M4.

## Proposed Development

This proposed development was granted planning permission on 23 July 2013 Ref: 18399/APP/2013/1019) for:

*“Erection of distribution warehouse units (Use Class B8) with ancillary offices, associated car parking, access and associated landscape works within the existing Prologis Park development.”.*

a non-material amendment has subsequently been approved on 8 October 2013 to alter the size of unit C, and amendments to loading dock doors and service yard.

## 2 Carbon Reduction Strategy

In accordance with the energy strategy accompanying the application Prologis propose a carbon reduction and mitigation strategy that reflects the unique energy demands of distribution warehouse buildings and also supports wider carbon reduction initiatives in the Borough of Hillingdon.

### Operational Carbon Reduction

This includes a feasible and viable energy strategy developed in accordance with the energy hierarchy to reduce energy demand and integrate renewable energy.

Prologis proposes the following onsite carbon reduction strategy to meet the requirements of the London Plan and Condition 12 of the reserved matters approval:

#### 1. Be Lean:

The use of a range of energy efficiency measures to improve the fabric and services will result in a **7%** saving over the 2010 Part L regulations.

#### 2. Be Green:

The use of Solar Thermal Hot Water panels and Air Source Heat Pumps, or other suitable specification of renewable energy technologies to provide an additional **7%** reduction after energy efficiency measures

**Table 1: Operational Carbon Reduction**

Carbon Standard	kgCO <sub>2</sub> /yr	% Improvement
2010 Building Regulations TER	336,258	
Prologis Park Lean Measures	311,259	7%
Prologis Park Heathrow Green measures	288,519	7%
% Improvement on 2010 Part L 2A		<b>14%</b>

Collectively through these lean and green measures the proposed development is estimated to exceed the 2010 Part L Regulations by **14%**.

## Allowable Solutions Contribution

Prologis propose an Allowable Solutions contribution to meet the London Plan carbon reduction target shortfall as outlined in the energy strategy accompanying the approved Reserved Matters.

Based on an agreed Carbon Price of £20 per tonne as set out in the approved Sustainability Statement and the calculated emissions shortfall of **36 tonnes of CO<sub>2</sub>** per year and **1,089 tonnes of CO<sub>2</sub>** over a 30 year lifecycle, Prologis will provide an agreed Allowable Solutions contribution payment to the Council.

This payment will be made in stages in relation to the construction of each individual Unit as detailed in Table 2 and further details on payment arrangements are provided in Section 3 of this report.

The approach taken by Prologis, and summarised in the table below, will meet the requirements of the London Plan and Condition 12 of the planning permission through a combination of onsite carbon reduction measures and an agreed Allowable Solutions contribution.

**Table 2: London Plan Carbon Target Shortfall**

Unit	GIA (m2)	2010 Part L	Lean	Clean	Green	Annual Residual emissions to mitigate	Lifecycle residual emissions to mitigate	Allowable Solutions Payments per unit
Unit C	3,346	86	80	80	74	9	279	£5,575
Unit D	5,774	148	137	137	127	16	481	£9,620
Unit G	3,958	102	94	94	87	11	330	£6,594
<b>Total</b>	<b>13,078</b>	<b>359</b>	<b>332</b>	<b>332</b>	<b>308</b>	<b>36</b>	<b>1089</b>	<b>£21,789</b>

**Table 3: total Allowable Solutions payment**

CO2 Lifecycle Shortfall	Agreed Carbon Price	AS Contribution
1,089	£20	<b>£21,789</b>

The total Allowable Solutions contribution of **£23,242** following the construction and occupation of all units is made towards investment in local energy efficiency and carbon reduction measures within Hillingdon in order to meet the London Plan Policy 5.2 carbon emission reduction target.

Through the implementation of this strategy the proposed development will make a substantial positive contribution to the mitigation of operational and embodied carbon emissions onsite without impacting on the effective operation and functionality of the distribution buildings as well as helping support local carbon emission reduction initiatives within the Borough of Hillingdon.

**Table 4: Summary of proposed strategy**

Scenario	Phase 3 Prologis Park Heathrow Carbon Emissions (TonnesCO <sub>2</sub> e/yr)		
	Operational	Embodied	Total
2010 Part L TER	336	167	<b>537</b>
Lean and Mean	311	167	<b>509</b>
Green	289	167	<b>484</b>
Residual after Allowable Solutions	252	167	<b>444</b>
% reduction on 2010 Part L2A TER			<b>25%</b>



# 3 Allowable Solutions Payment

This report sets out the how the scheme will reduce carbon emissions by 25% above the Building Regulations 2010 Part L through a combination of-site solutions and allowable solution contributions to the Council in accordance with the Sustainability Statement approved by the Council and requirements of Condition12.

Staged payments will be made to the Council, corresponding to the construction of each Warehouse Unit as set out in Table 5 below.

**Table 5: Allowable Solutions payments schedule**

Unit	Lifecycle emissions to mitigate (tCO2)	Allowable Solutions Payments per unit	
Unit C	279	£	5,575
Unit D	481	£	9,620
Unit G	330	£	6,594
<b>Total</b>	<b>1,162</b>	<b>£</b>	<b>21,789</b>

Prologis propose that these Allowable Solutions contributions be contractually formalised through a bespoke Unilateral Undertaking with the Council.

It is Prologis expectation that the Council will assume full responsibility for delivering the required carbon reductions within the Borough.

An initial draft of this agreement will be provided to the Council by Prologis legal advisors and be agreed in principle prior to commencement on-site.

The agreement will formally detail the terms of payment and obligations of both the applicant and the Council, however it is anticipated that payment of the proposed Allowable Solution contributions will be made following completion of each units construction phase at the same time as building control approval and prior to occupation in accordance with the requirements of Condition 12.

The timing of the AS payment is therefore in full accordance with the recent Government Consultation on the Allowable Solution policy. This contract will provide the Council with a degree of discretion in how to spend the carbon offset payment but will require the Council to provide details the applicant of Allowable Solutions projects undertaken using the developments contribution and the related carbon savings achieved.



# 4 Conclusion

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Prologis proposes a suitable carbon reduction and mitigation strategy for Prologis Park Hayes to deliver local environmental benefits.

The carbon reduction and mitigation strategy proposed by Prologis and set out in this report meets the requirements of Condition 12 of the planning permission through a combination of onsite energy efficiency measures and installation of renewable energy technologies in combination with an Allowable Solutions payment to be agreed with the Council prior to commencement onsite and detailed in the draft Unilateral Undertaking accompanying this report.

The development will provide low carbon, energy efficient distribution warehouse buildings that have been designed in accordance with the energy hierarchy and London Plan policies. On-site renewable energy technologies will be used to further reduce carbon emissions.

An Allowable Solutions contribution totalling **£21,789** is to be paid to the Council. This is to be paid in staged payments prior to occupation of each unit through a bespoke unilateral undertaking in order that the London Borough of Hillingdon can support local carbon emission reduction initiatives in the Borough.

This carbon mitigation strategy is entirely supportive of national , regional and local climate change policy including Policy 5.2 of the London Plan and latest thinking on the Government's Zero Carbon building policy.

**Overall the proposals will have a beneficial impact on the local economy, will conserve and where possible enhance the natural environment as well as meeting the long term challenge of future climate change.**

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