

Alton Estate Regeneration
Hybrid Application

Sustainability Strategy
Addendum

Energist UK Ltd
March 2020



ALTON GREEN

ROEHAMPTON SW15



1. INTRODUCTION

This addendum has been prepared to update and align the Sustainability Statement prepared by Energist and dated May 2019 with the contents of the Addendum to the Flood Risk Assessment and Drainage Strategy prepared by Stantec dated February 2020, and the Energy Strategy prepared by Hodkinson dated March 2020.

The updates have been prepared in response to the following comments by the LPA and the GLA:

- Water Memo Stage 1 received on the 31st of July 2019 by the GLA
- Feedback received by the London Borough of Wandsworth on 20 December 2019

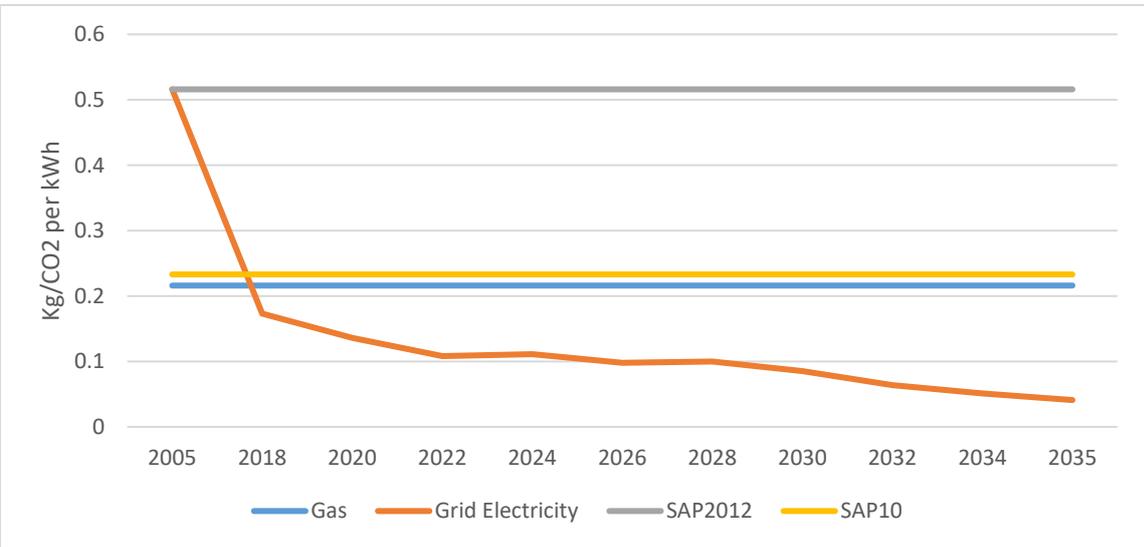
This report seeks to supplement the submitted sustainability strategy, with regard solely to the surface water drainage proposals and Energy Strategy and does not replace it as a whole. It should be read in conjunction with the existing Sustainability Statement submitted in support of the planning application.

2. ENERGY STRATEGY

The latest guidance from the GLA identifies preference towards electrically led heating infrastructure, and a move away from CHP as an allowable solution. This is due to the recognition that the SAP2012 carbon intensity factors are no longer relevant, and the significant decarbonisation of the electricity grid since the original publication of SAP2012.

As a response to this, the GLA have requested that all developments are assessed using the SAP10 carbon factors issued by the government in 2018. Whilst the grid has further decarbonised since then, and newer figures published, the GLA have requested that the SAP10 figures be used for comparison to be possible between developments

This is demonstrated in the below graph of current and predicted energy factors, provided by BEIS.



This has had a material impact to the Energy Strategy, which has now been revised by Hodkinson. The key revision is the removal of CHP from the proposals, in favour of a communal ASHP solution. This shall allow a significant reduction in site carbon emissions when assessed against the revised SAP 10 carbon factors and provide a degree of future proofing with the continued decarbonisation of the national grid.

Full details of the proposed alterations, and associated carbon emissions predictions, can be found within the revised Energy Strategy.

In response to the feedback received from the Council in December 2019, it is confirmed that the revised Energy Strategy has not necessitated an update to the Sustainability Statement.

3. FLOOD RISK AND DRAINAGE STRATEGY

The Intend to Publish version of the New London Plan states the following drainage hierarchy within Policy SI13 Sustainable drainage:

- 1) Rainwater use as a resource (for example rainwater harvesting, blue roofs for irrigation);
- 2) Rainwater infiltration to ground at or close to source;
- 3) Rainwater attenuation in green infrastructure features for gradual release (for example green roofs, rain gardens);
- 4) Rainwater discharge direct to a watercourse (unless not appropriate);
- 5) Controlled rainwater discharge to a surface water sewer or drain;
- 6) Controlled rainwater discharge to a combined sewer.

The SUDs proposals for the development have been investigated in line with the above hierarchy, with the following conclusions:

Measure	Feasibility
Rainwater use as a resource (for example rainwater harvesting, blue roofs for irrigation);	Not feasible
Rainwater infiltration to ground at or close to source;	Not feasible
Rainwater attenuation in green infrastructure features for gradual release (for example green roofs, rain gardens);	Proposed

Rainwater discharge direct to a watercourse (unless not appropriate);	Not feasible
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The M&E consultants have undertaken a Rainwater harvesting/Recycling Feasibility Study that has reviewed in depth the inclusion of Rainwater Harvesting. The report includes supporting calculations in line with BS 8515:2009 (Rainwater Harvesting Systems Code of Practice) and costs associated with these facilities against the likely savings which could be made. The updated FRA and Drainage Addendum makes reference to this study, and it is included as an appendix within.

The key conclusions drawn from the investigations were that the yield from such a system would not exceed 8%. This, in conjunction with the major implications to the design that incorporation would involve, and significant increase in embodied energy, indicate that it would not be economically, technically, or environmentally feasible to incorporate rainwater harvesting into the development.

Drainage via infiltration was explored as part of the preliminary drainage strategy, undertaken in May 2019. Technical appraisal was carried out, concluding that the ground conditions at the site were unsuitable for the use of soakaways. Infiltration methods were discounted on this basis.

The applicant is proposing biodiverse roofs for all blocks across the development. Blocks K, M & Q will also incorporate Blue Roofs at podium level, as the space beneath is occupied by a car park, so there is no potential risk of water damage to residential properties below. The inclusion of rain gardens across the site has been maximised as far as possible, given the constraints of the site topography. An additional garden has been included near the proposed bus turnaround in order to address the comments from the GLA and LPA, and to ensure that provision is maximised across the development.

Investigation has been given into integration of the attenuation within the landscaping proposals. However, the site constraints, and desire to retain as much of the existing green infrastructure as possible (with regard to existing trees), prove this to be technically infeasible without incorporating a pumped solution. Surface water pumping is not considered an appropriate measure, and therefore this method of attenuation is not considered a practical solution. Further detail on this aspect, and full reasoning for discounting, can be found within the associated FRA and drainage strategy addendum.

Plentiful attenuation is also proposed across the site to provide the required storage to restrict surface water run-off from the development to greenfield rates or similar.

This section supplements Section 4 – Water Efficiency and Water Management of the Sustainability Statement produced by Energist in December 2019.

The Drainage Strategy Drawing is Illustrated overleaf:

4. CONCLUSIONS

A Sustainability Statement Addendum has been prepared by Energist UK Ltd to update and align the Sustainability Statement prepared by Energist and dated May 2019 with the contents of the Addendum to the Flood Risk Assessment and Drainage Strategy prepared by Stantec dated February 2020, and the Energy Strategy prepared by Hodkinson dated March 2020.

The updates have been prepared in response to the following comments by the LPA and the GLA:

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- Feedback received by the London Borough of Wandsworth in December 2019

This Addendum is only relating to the revised Energy Strategy and the Flood Risk and Drainage Strategy Assessment. The content and conclusions of the Sustainability Statement dated May 2019 remain valid for the purposes of this planning application.

The revised Energy Strategy proposes ASHPs and SAP10 emission factors which aligns the proposed development at Alton Estate, Roehampton with the requirements of the Intend to Publish version of the London Plan and the GLA guidance. More details can be found in the Revised Energy strategy produced by Hodkinson in February 2020.

The updated Flood Risk and Drainage Strategy report has investigated the feasibility of water harvesting and concluded that the benefits of incorporating such systems would be minimal.

As a result, biodiverse and blue roofs are being proposed to all blocks across the development and rain gardens are being maximised.

Plentiful attenuation is also proposed across the site to provide the required storage to restrict surface water run-off from the development to greenfield rates or similar.

Further details can be found in the Addendum to Flood Risk Assessment and Drainage Strategy produced by Stantec in February 2020.