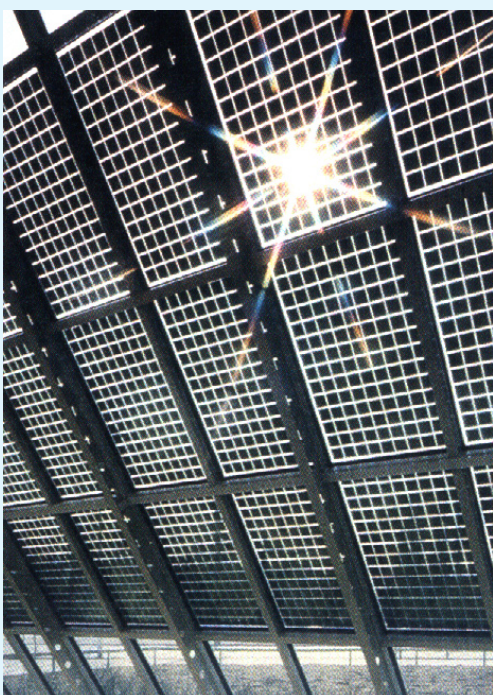


| Technology                              | Technically feasible <sup>1</sup> | Use at Maylands/Site suitability   | Issues   |
|---|-----------------------------------|--|--|
| Wind                                    | Yes                               | <p>Available information suggests that the wind speed<sup>2</sup> is at the lower end of the scale in terms of financial return but an economically viable project could be built. This will need to be confirmed through site specific surveys</p> <p>This would likely require a tall tower (~80m) to maximise output and provide an attractive proposition to investors</p> <p>A project on this scale would make the turbine(s) similarly sized to that installed near the M4 at Green Park, Reading</p> | <p>Potential impacts on surrounding area include (visual, noise, aviation)</p> <p>Potentially unpopular with local population, issues include noise and flicker. Needs to be located away from residential areas</p> <p>Planning permission required</p> <p>Need to ensure that location does not impact on any future development opportunities/needs on the eastern side of Hemel Hempstead</p>  |
| Combined Cooling, Heat and Power (CCHP) | Yes                               | <p>Potential for both district heating and cooling (CCHP) depending on development mix</p> <p>Using a district heating/cooling loop is probably the most cost and carbon effective approach</p> <p>Could be gas, biomass or waste fired with gas being the cheapest in terms of technology and also the easiest to implement</p> <p>A waste fired plant could help meet wider waste management needs in the County</p>   | <p>Requires thermal and electrical load profiling to correctly size the CCHP</p> <p>Need to contract biomass suppliers early in development process to ensure consistent supply</p> <p>Need to ensure that the host community is engaged in the selection of the preferred technology</p> <p>There are a wide variety of thermal treatment systems incorporating 'advanced' or 'emerging' technologies for the treatment of municipal wastes. The most prevalent being Pyrolysis and Gasification processes</p> <p>If a waste fired plant is provided, need to ensure that it and any associated storage facilities are appropriately scaled</p> |
| Ground source energy                    | Yes                               | <p>Where new buildings are being constructed at Maylands</p> <p>Potentially use for buildings not connected to the district heating/cooling loop</p>   | <p>Will supply the same baseload heating/cooling demand as CCHP</p> <p>Need to confirm that underlying geology is suitable</p>   |
| Solar thermal                           | Yes                               | <p>On a small scale</p> <p>Potentially use for buildings not connected to the district heating/cooling loop</p>  | <p>Hot water produced would satisfy the same load as the district heating</p>  |
| Solar PV                                | Yes                               | <p>On a small scale</p> <p>Perhaps used a cladding/facades of prestige office buildings</p>  | <p>Very expensive when considered in £/kWh/CO<sup>2</sup> saved terms.</p>   |

<sup>1</sup> Based on information gathered to date

<sup>2</sup> The DTI UK Wind Speed database estimate for the site is 6.4 m/s at 45m agl



## Annex C: List of Related Documents

This document is one part of a suite of reports relating to the Maylands Master Plan. The related documents are:

- Maylands Master Plan - Technical Report
- Maylands Gateway Development Brief
- The Statement of Community Involvement
- Sustainability appraisal
- Issue Report
  - Volume 1: Summary
  - Volume 2: Socio-economic & Property Market Report
  - Volume 3: Transport, Accessibility and Service Infrastructure
  - Volume 4: Planning Policy
  - Volume 5: Stage 1 Consultation Report

These are available on [www.maylands.org](http://www.maylands.org)