

**Report of:** Head of Environmental Development

**To:** Executive Board

**Date:** 4<sup>th</sup> February 2008

**Item No:**

**Title of Report :** Renewable Energy project: Community-scale commercial wind turbines on Oxford City Council land

### **Summary and Recommendations**

**Purpose of report:** Oxford City Council has been working alongside a Carbon Trust enterprise company (Partnerships for Renewables Ltd) to scope the potential for development of community-scale wind turbines on its land. Following screening of all OCC-land assets and preliminary surveys of the most promising sites, a shortlist of two sites has been identified as potentially viable for the development of community-scale wind installations. PfR request a lease option on the two sites identified to carry out detailed wind site assessments. This report request the Board to authorise officers to continue negotiations with PfR Ltd in respect of potential disposal of the shortlisted sites for siting of wind turbines on council owned land.

**Key decision:** Yes

**Portfolio Holder:** Cllr van Zyl

**Scrutiny Responsibility:** Environment

**Ward(s) affected:** All

**Report Approved by**

Portfolio Holder: Cllr van Zyl

Legal: Jeremy Thomas

Finance: Andy Collett

**Policy Framework:** To reduce carbon dioxide emissions associated with our own buildings and operations by 25% by 2010 (2005 baseline)– and 3% year on year after 2010/To reduce CO<sub>2</sub> emissions In Oxford City by at least 15% by 2010 (2005 baseline).

**Recommendations:** 1. Welcome the report in principle and authorise officers to continue negotiations with PfR Ltd in respect of disposal of the shortlisted sites for siting of community-scale wind turbines on Council-owned land.  
2. A follow-up report to be presented at the next Board meeting (Monday 17th March) on a decision whether to support lease options to PfR Ltd for both sites in question.

## **Background**

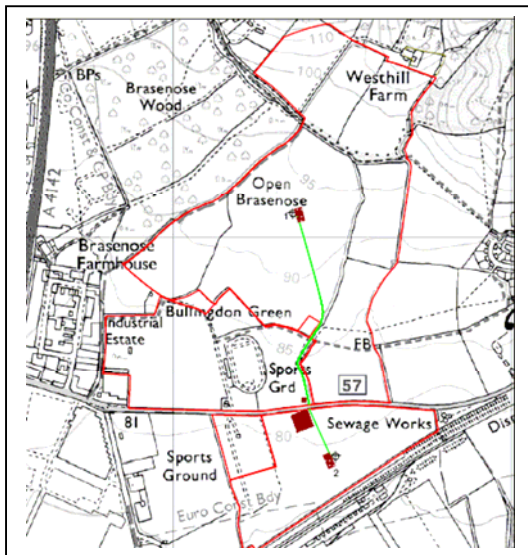
1. In December 2006, the sustainable energy team within Environmental Development (then EH) approached Partnerships for Renewables Ltd (a Carbon Trust enterprise) to carry out a more detailed assessment of city-owned land (within and outside our political boundaries) for the potential for installation of community-scale wind turbines.
2. PfR is a Carbon Trust enterprise created specifically to work alongside the public sector to develop community-scale renewable energy technologies on its own land. PfR carry all financial risk for these build, own, operate wind turbine schemes, and are aiming to install around 500MW of renewable energy installations across the UK by 2011.
3. Working in partnership with PfR presents us with a unique opportunity that would not be possible under our own resources. The PfR model presents a no-risk approach to investigation in to the viability for site development of a community-scale wind turbine installation(s) on OCC land that will help us to meet our climate change/carbon management objectives (i.e. reducing carbon dioxide emissions associated with our own buildings and operations by 25% by 2010 [on a 2005 baseline] – and 3% on top of this year on year after 2010 - and reducing carbon dioxide emissions in Oxford by 15% by 2010).
4. Whilst contributing to national renewable energy installation targets, if community turbines were to be built, OCC would not only be able to make a considerable contribution to its own climate change related targets but make good use of our assets. It will be possible to generate an income from the schemes that could be recycled in to more sustainable energy related or other projects across the city. From a PfR worked example based on a single 2.3MW onsite wind turbine (1MW maximum electrical demand) indicative figures are as follows: With no onsite load the expected rental income from the turbine amounts to ca £25K pa, rising to £33Kpa after year 10. With a private wire constructed to supply onsite load, the expected combined lease income and supply savings (less the cost of constructing private wire) is ca £80K pa rising to £100K pa from year 5 and almost £114K pa after year 10.

## **The PfR Process**

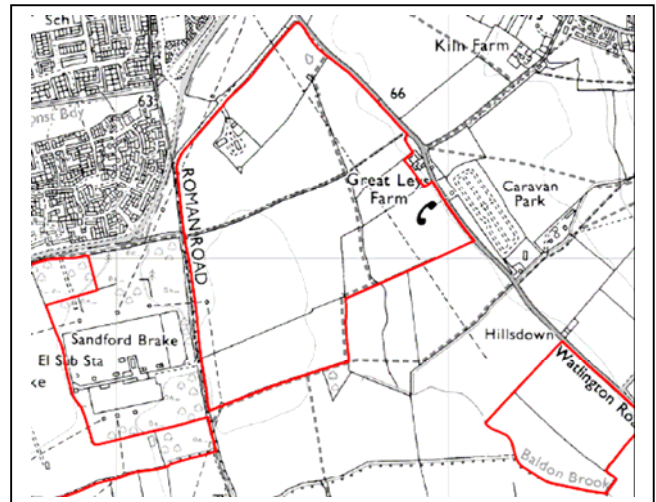
5. PfR is conducting a four-stage development process at its own cost and risk to assess our land for the potential for siting of community-scale (2 to 3MW) wind turbines.
6. Initial site identification (Stage 1) and site screening (Stage 2 – ca£10K worth of work from PfR at no cost to OCC) was carried out in early 2007 in which a confidentiality agreement was signed giving PfR access to the necessary site information (GIS land-use data from our GIS database) to deliver site technical summary and constraints maps. This was a desk-based screening of potential sites covering wind speed (from national datasets), ecological constraints, land

classification, telecommunications etc. Screening completed on the whole landbank revealed 24 sites worthy of individual scrutiny.

7. Of these 24 sites, 19 were screened or merged (some contiguous areas) and the top 4 sites from this list taken forward to full feasibility study (Stage 3 - ca £40-60K worth of work from PfR at no cost to OCC). In Autumn 2007, exclusivity agreements for this development period were signed for each site and PfR consultants carried out onsite surveys of site access, ground conditions, electrical connections etc. Full feasibility reports detailing commercial and operating terms were produced for each site.
8. The 2 top sites identified from this process were:
  - Brasenose/Horspath (close to Horspath sports ground and edge of BMW works)
  - Sandford Brake (South of Blackbird Leys)



**Brasenose/Horspath**



**Sandford Brake**

9. We are now at Stage 4 of the development process with PfR keen to progress full environmental impact assessments on the two sites: Brasenose/Horspath and Sandford Brake. The development costs at this stage will total around £200 to 300K – all of which will be covered by PfR at no financial risk to the Council. At the end of the process we will have carried out thorough investigations as to the potential of these sites for the installation of up to 4 turbines in total each generating 5.5GWhs (each turbine providing enough power for ca 1100 homes.)

### **Planning issues**

10. The sites in question are in the South and South East of the city situated predominantly in South Oxford District Council's administrative boundaries and any proposal would be the subject of full planning applications.

11. It should be noted that, the presence of wind turbines would not necessarily preclude other development on these sites – in fact given the imminent future need for more decentralised, locally sourced energy – it will make developments on these sites more attractive and assist in making them carbon neutral.

### **Next steps**

12. A partnership arrangement with PfR needs to be agreed including an option to lease the sites to allow PfR to develop the sites to completion if planning consent is granted. It is at this point that OCC is committing to the project subject to planning consent being granted though all financial risk remains with PfR.
  
13. It is proposed that further negotiations be carried out with PfR to assess in more detail land use and lease disposal issues associated with the two sites and a subsequent report brought to the next EB meeting (Monday 17th March) on a decision whether to support lease options for both sites in question.

### **Recommendations**

14. The Board is asked to welcome the report in principle and authorise officers to continue negotiations with PfR Ltd in respect of disposal of the shortlisted sites for siting of community-scale wind turbines on Council-owned land. A follow-up report will be presented at the next EB meeting (Monday 17th March) on a decision whether to support lease options to PfR Ltd for both sites in question.

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**Background papers:** None