

Sustainable Energy Potential Derbyshire County Council

**A Review by Derbyshire County Council -
Improvement and Scrutiny Committee – Resources**



Final Report of the Review Working Group

29 May 2014

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Acknowledgements –

The review working group would like to thank the following people for their kind involvement in this review:-

Cllr John Owen – Deputy Cabinet Member for Council Services
Hugh Ellis – Town and Country Planning Association
Rob Murfin – Derbyshire County Council, Head of Planning
Peter Storey – Head of Markham Vale
Trudy Saxton – Environment Centre Manager, Markham Vale
Gemma Gregory – Countryside Ranger
Kathryn Warrington – Carbon and Energy Manager
Wayne Bexton – Principal Policy Officer

Background to the Review

The review was proposed and agreed by the Improvement and Scrutiny Committee – Resources at its meeting on 14 November 2013 (Minute 21/13 refers). Its scope was to investigate the work the Council is currently engaged upon in respect of sustainable energy projects and ascertain the viability of future projects on County Council owned land and property.

The Members appointed to a review working group were Cllrs Paul Dunn (Chair), Bisknell, Lomax, Kemp and Moesby.

The review follows the one previously undertaken by the I & S Resources Committee on the County Council's Non-Operational Property (completed in November 2013). The working group was mindful of the outcomes of that review in respect of commencing this new investigation of the potential of sustainable energy generation on Council owned property.

The Scrutiny Review of Non-Operational Property had considered the County Council's portfolio of land and premises holdings in respect of those assets which were no longer used for service delivery. The Director of Property was streamlining the portfolio of these assets and the scrutiny review contributed to this process.

The review of Non-Operational Property supported the Director's proposals to dispose of land and premises that no longer had an operational use – this was considered particularly important during a time of budget reductions when departments were exhorted to cut revenue costs and maximise income.

Members were aware that there are opportunities to reduce energy costs and generate income from sustainable energy projects and it was agreed that a review would consider the potential for such schemes available to the County Council.

Initial Research

The Sustainable Energy Working Group held an initial meeting with officers responsible for sustainability and carbon and energy management and Cllr Owen in December 2013.

It was noted that the Council had allocated £500,000 for the installation of solar PV on some of the Council's corporate buildings and schools.

Solar PV systems had already been installed at Dove Holes Business Unit, Chesterfield Library and installation was imminent at Shipley Country Park. These projects had amounted to £45,000, leaving a further £455,000 available in the allocated budget.

Installation is carried out by the Council's Corporate Property Operations, who are Microgeneration Certification Scheme (MCS) accredited to install solar PV.

There are other solar PV installations on schools that have been installed as part of new builds / refurbishment projects and officers were also currently doing design work on the schools that have expressed an interest.

Following the meeting, Members were invited to make site visits in January 2014 at Markham Vale and Tapton Lock Visitor Centre. The findings of these site visits are set out below;

Markham Vale

Markham Vale Environment Centre had had a Biomass boiler system installed in the early stages of the operation of the site. However, this had not proved successful for a number of reasons and the managers were currently looking at a purpose built biomass system and alternative sustainable options for providing power at the site.

The main problem with the original system was that it was too big for the task and required a lot of maintenance and day to day management. The boiler was now, in fact, obsolete and needed replacing. It was currently housed in an underground boiler room which also posed access difficulties.

The on-site willow coppicing project, which had been intended to fuel the biomass boiler, has not yet been fully utilised although the crop is now ready for harvesting. One option was to sell the willow product to outside buyers for them to harvest at their cost.

A smaller, stand-alone unit, house above ground, is an option being considered but other sustainable options were also being considered. These included a fuel source being offered by a company on the site next to the Environment Centre. This was drawn from the water in the subterranean mine workings below the company's site as a source of cheap heating. There would be no maintenance or running costs for the Environment Centre if this option was taken up – with the only charge being for the heat provided.

Members were also informed that the wind turbine situated on-site was not operational and had not proved effective.

The working group Members sought assurances that the Council's Director of Finance and Procurement and Legal teams were consulted on any options for renewable energy installations at the Environment Centre.

Tapton Lock Visitor Centre

The second visit took place at Tapton Lock visitor centre where there was potential for a water power project from a fall of water through the canal system.

Officers were to investigate the viability of this option over the forthcoming months with a view to powering some or all of the centre's heat and lighting requirements.

Following the 2 site visits, the working group met with John Cooper of the Finance Division to clarify the process which should be adopted to ensure any investments made by the Council on sustainable energy projects were thoroughly protected, given the long term nature of these projects and the often lengthy "pay-back" periods.

It was noted that the Director of Finance would require that any project be referred to him in the early stages so that a rigorous financial assessment could be made prior to any commitment by the Authority.

Members agreed that a similar assessment should be undertaken at the same time by the Council's Legal Services team, in respect of any contractual obligations the projects would demand.

Potential for Large Scale Projects

The working group had a further meeting, on 27 February, with Rob Murfin, the Council's Head of Planning Service. He was currently looking at land/property owned by the County Council which could be used for sustainable energy development.

Although the Council had, for some time, invested in small projects such as wind turbines at Shipley Park and some schools, Rob was currently exploring the possibility of commercial scale energy production. He raised the following key points;

- Municipal Authorities in Germany have been producing "green" energy on a large scale – mostly through solar power installations on closed landfill sites -

and there was potential to undertake similar programmes in the UK. Whilst the environmental credentials of such schemes were evident, the German authorities based their projects purely on sound commercial reason.

- There were a number of large scale private sector schemes in the south of England (which had slightly more sunlight hours than the more northern parts of the UK) but there had been issues with the grid infrastructure being unable to cope with the amount of energy being produced. There had also been local resistance to solar farms being sited on predominantly agricultural or greenbelt land.
- Derbyshire was considered viable for this type of solar energy “farming” and the County Council had numerous sites which had potential, with a local infrastructure which could process the energy produced.
- County Council owned sites were currently being assessed with a view to developing large scale energy production. To facilitate this Rob was liaising with national organisations and private sector companies to help inform his work in this area.

It was agreed by the working group that information on the potential for large scale commercial projects be provided to the full I & S – Resources Committee.

Hugh Ellis, of the Town and Country Planning Association, who had been working with Rob on assessing the viability of large scale sustainable energy generation on County Council land, attended the meeting of the I & S Resources Committee in March to give all the Members information on the potential for such projects.

It was noted that large scale solar farms were particularly suitable for sites that were unfit for other development, such as housing or agriculture, due to, say, contamination. In Derbyshire there were quite a number of areas with land which fell into this category. The decline of traditional heavy industries such as coalmining in the north-east and south areas of the county had left a landscape which held considerable areas of brownfield and contaminated sites, many of which were in the ownership of the County Council.

It was these sites, and similar ones around the county, which could have potential for developing larger scale sustainable energy on a commercial basis.

Review Conclusions

Following research, meetings and site visits, the review working group reached the following conclusions:

- The review has identified that there are a number of potential opportunities for the County Council to promote sustainable energy projects. These opportunities could have an impact on a number of the Council's Departments and cross-cut the portfolio responsibilities of most, if not all, of the Council's Cabinet Members.
- The Council has an Environmental Sustainability Group which comprises of officers who have a strategic responsibility to oversee reducing the Council's energy usage and associated costs and achieving carbon reduction targets.
- To ensure that an efficient and effective corporate approach is applied to assessing the viability of energy generation projects, the Scrutiny Review Working Group will recommend the establishment of a corporate team of officers to undertake sustainable energy project appraisals. The work of this group should contribute to and compliment the work of the Environmental Sustainability Group by undertaking rigorous assessments of the viability of proposed projects at an early stage. It would be appropriate for the lead officers on this group to be the Council's Carbon and Energy Manager and the Principal Policy Officer leading on sustainability. The group should ensure that financial, legal and asset management implications are considered at an early stage in any project assessment.
- An important aspect of measuring the viability of potential projects should be the risk of changes in funding streams for long term projects (such as reduction or withdrawal of government subsidies) and these should be factored in to project assessments.

Considerations

Property, environmental, financial and legal considerations are set out in this report.

The relevance of the following factors has also been considered in preparing this report; Human Relations, Human Rights, Prevention of Crime and Disorder, Equality and Diversity, Health and Transport.

Recommendations

The review working group Members make the following recommendations:

1. That the endeavours of County Council officers and Members in promoting and developing sustainable energy use by the Authority be commended and supported,
2. The potential for large scale sustainable energy production on Council owned sites and premises be investigated thoroughly, with viable projects being put forward for development following a rigorous assessment process.
3. The assessment of potential projects be undertaken by a cross-departmental officer team, to include finance, legal and asset-management professionals, to ensure a comprehensive approach from an early stage,
4. That Cabinet be informed of the review outcomes and be requested to agree the review recommendations.

