SCRUTINY COMMISSION – 29 AUGUST 2013

HINCKLEY AND BOSWORTH RENEWABLE ENERGY CAPACITY STUDY

REPORT OF DEPUTY CHIEF EXECUTIVE (COMMUNITY DIRECTION)

Hinckley & Bosworth Borough Council
A Borough to be proud of

WARDS AFFECTED: ALL WARDS

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1. PURPOSE OF REPORT

1.1 To seek approval of the Hinckley and Bosworth Renewable Energy Capacity Study which will be used to inform the Site Allocations and Development Management Policies DPD and the Earl Shilton and Barwell Area Action Plan (AAP).

1.2 Due to the size of the study, copies are available in the Member's Room and electronic copies can be supplied by the author of this report upon request.

2. RECOMMENDATION

2.1 That Scrutiny Commission endorses the study to be used as part of the evidence base for the Local Plan.

3. BACKGROUND TO THE REPORT

3.1 The UK has a binding target to meet 15% of its energy requirements from renewable sources by 2020 with the delivery of this target supported by the UK Renewable Energy Strategy (2009).

3.2 Core Strategy Spatial Objective 12: Climate Change and Resource Efficiency seeks to minimise the impacts of climate change by increasing the use of renewable energy technologies and minimising pollution, including greenhouse gas emissions.

3.3 The National Planning Policy Framework (NPPF) emphasises the role of local planning authorities in assisting in the increased use and supply of renewable and low carbon energy. It explains that all communities have a responsibility to help increase the supply of green energy and states that planning authorities should:

- Have a positive strategy for renewables;
- Design policies to maximise renewables;
- Identify suitable areas for renewable sources;
- Support community-led initiatives for renewables; and,
- Identify opportunities where development can draw its energy from renewable supply systems.

3.4 In July 2013 Central Government released *'Planning Practice Guidance for Renewable and Low Carbon Energy'*. This document provides advice on the planning issues associated with the development of renewable energy and explains what local planning authorities should do to plan for it. It states that when drawing up a Local Plan local planning authorities should first consider what the local potential is for renewable and low carbon energy generation. In considering that potential, the matters local planning authorities should think about include:

- The range of technologies that could be accommodated and the policies needed to encourage their development in the right places;

- The costs of many renewable energy technologies are falling, potentially increasing their attractiveness and the number of proposals;
- Different technologies have different impacts and the impacts can vary by place;
- The UK has legal commitments to cut greenhouse gases and meet increased energy demand from renewable sources. Whilst local authorities should design their policies to maximise renewable and low carbon energy development, there is no quota which the Local Plan has to deliver.

3.5 It is important to note that although the practice guidance was issued after the completion of the Renewable Energy Capacity Study, it complies completely with the guidance and advice contained within it. The study will provide the background evidence to support the development of the aims highlighted in the NPPF and practice guidance, help the Borough Council contribute to the UK's binding renewable energy target and realise Core Strategy Spatial Objective 12.

4. METHODOLOGY

4.1 The key objectives of the study were to:

- Assess the technical and deployable potential for renewable and low carbon energy within the Borough.
- Identify and map key opportunity areas for renewable and low carbon developments including detailed heat mapping and anchor points
- Develop a Borough specific renewable energy generation target.
- Provide guidance on the incorporation of findings into a development management policy on renewable energy developments.
- Provide guidance on a framework to monitor the uptake of large and small-scale renewable and low carbon developments within the Borough.

4.2 The study builds upon the findings of the one undertaken at the regional level 'Low Carbon Energy Opportunities and Heat Mapping for Local Planning Areas across the East Midlands'. It has refined the figures used for the regional level study to ensure they are locally specific to the Borough.

4.3 The study focuses on renewable electricity and heat technologies, including commercial scale renewables, microgeneration (on-site) and building-integrated renewables. A summary of the technologies covered by the study is provided in appendix A. It should be noted that energy consumption arising from the use of transport within the Borough is outside the scope of the study.

4.4 The study was split into the following chapters:

- Technical resource potential for renewable energy – This provided an estimate of the amount of renewable energy that could be delivered in the area based on a number of assumptions regarding the amount of resource and space.
- Technical resource potential for district heating – This identified locations thought to have the most potential for district heating and define areas or clusters of buildings worthy of more detailed feasibility studies for district heating.
- Landscape sensitivity assessment – This is an assessment of the sensitivity of the Borough's landscape to large, medium and small-scale wind energy turbines.
- Assessment of deployable potential and setting a target – The evidence base was then used to inform an assessment of 'deployable potential' and set a locally derived renewable energy target over the plan period to 2026.

5. KEY FINDINGS

Existing Energy Profile

5.1 The Borough consumed 1,509 GWh of energy across the domestic, industrial/commercial, land use, land use change and forestry sectors in 2010 which equates to approximately 492,000 tonnes of CO2. The Borough produced 5.26 Mw of energy from renewables in 2010 which accounts for approximately 1% of the energy consumed in the Borough. Appendix B highlights how the boroughs performance on renewable energy provision compares with other Leicestershire authorities.

Technical Potential for Renewables

5.2 The technical potential is an estimate of the total amount of renewable energy that could be delivered in the area based on a number of assumptions regarding the amount of resource and space. It, however, doesn't take account of wider constraints.

5.3 The study identified the technologies with the greatest technical resource for electricity generation were wind, solar PV and heat pumps. For heat generation it was solar thermal, energy crops and waste.

Technical Potential for District Heating

5.4 District heating schemes supply heat from a central source directly to homes and businesses through a network of pipes carrying hot water. This means that individual homes and businesses do not need to generate their own heat on site.

5.5 The study identified three areas suitable for further, more detailed investigation, Hinckley, Barwell and Earl Shilton. All other areas in the Borough have a heat demand too low for a district heating scheme.

5.6 These three areas are only likely to be marginal in terms of suitability for district heating as most systems are found in more densely populated urban areas.

5.7 This also rules out the Sustainable Urban Extensions for the possible introduction of district heating as the proposed densities of these schemes are not likely to significantly exceed those already found in the urban area. Therefore they will not have adequate heat densities for the viable introduction of a district heating scheme.

Wind Energy Landscape Sensitivity Analysis

5.8 The landscape areas assessed through this study are based upon the landscape character areas within the Hinckley & Bosworth Landscape Character Assessment (2006).

5.9 The study assessed the sensitivity of the Borough's landscape to large (80-135m to blade tip), medium (40m-80m to blade tip) and small-scale (15m-40m to blade tip) wind energy turbines.

5.10 The assessment concluded that generally the landscape in Hinckley and Bosworth is particularly sensitive to the upper range of the larger scale turbines. There is generally lower sensitivity to small-scale turbines across the study area.

5.11 A summary of the sensitivity ratings of the Landscape Character Areas can be found in appendix C.

Assessment of Deployable Potential and Setting a Target

5.12 The deployable potential identifies what renewable energy developments could realistically be achieved and delivered within the Borough when taking into account other constraints and available fuel source.

5.13 This deployable potential has been utilised to define a realistic 'recommended target potential' for renewable energy deployment within the Borough. The recommended target for renewable energy deployment is established as 7.2% of the Borough's energy consumption (based on 2010 levels) to be produced from renewables by 2020 and 14% by 2026.

5.14 Appendix A highlights the indicative mix of the most effective and appropriate technologies which provide the most realistic deployable opportunities specific to the available natural resources in the Borough. Appendix A identifies the potential power output of the various technologies including wind power. The stated figures for wind power equate to approximately 4 large scale turbines, 12-13 medium scale turbines and 12 small scale turbines up to 2026. It must be noted that these are not prescriptions but an indicative guide to enable the authority to attain the 14% realistic renewable energy target by 2026.

6 NEXT STAGE

6.1 The study concludes that the proposed targets are achievable but will rely on the Borough Council adopting suitably conducive policies to facilitate their achievement and positive and proactive action from developers, other public sector organisations and local communities.

6.2 Subject to agreement of the findings and recommendations of the study, officers intend to use the conclusions to inform the preparation of the Local Plan (2006-2026) including the Site Allocations and Development Management Policies DPD.

7. FINANCIAL IMPLICATIONS [DMe]

7.1 The cost of carrying out this study is funded form the LDF reserve and the balance on the LDF reserve at 31st March 2013 is £479,631.

8. LEGAL IMPLICATIONS (AB)

8.1 None raised directly by this report

9. CORPORATE PLAN IMPLICATIONS

9.1 This report relates to a technical assessment of the potential for renewable energy provision to contribute towards local and national renewable energy generation targets over the development plan period to 2026. It is therefore of relevance to the delivery of the following aims of the Corporate Plan:

- Cleaner & greener neighbourhoods

10. CONSULTATION

10.1 The study will be used as an evidence base to inform the preparation of the Pre-Submission version of the Site Allocations and Development Management Policies document. Evidence bases are not subject to public consultation but the study will be published alongside the other evidence bases to the document which is due to be published for a 6-week consultation period towards the end of 2013.

10.2 Whilst the study will not be subject to consultation itself, the consultants consulted with a range of relevant bodies and agencies to inform the data sources and

assumptions and ensure the assessment reflected the local characteristics of Hinckley and Bosworth. The consultees included:

- Natural England;
- Renewable energy developers;
- Local community energy associations;
- Leicestershire County Council (minerals and waste);
- Wind turbine manufacturers;
- Environment Agency; and
- Bradgate Landfill Gas Manager.

10.3 Furthermore, the Renewable Energy Task and Finish Group comprising a number of Borough Councillors assisted and agreed the initial consultant's brief to inform the study's production. In addition they have had input into the contents, findings and recommendations of the study and composition of the draft Delivering Renewable Energy and Low Carbon Development policy.

11. RISK IMPLICATIONS

11.1 It is the Council's policy to proactively identify and manage significant risks which may prevent delivery of business objectives.

11.2 It is not possible to eliminate or manage all risks all of the time and risks will remain which have not been identified. However, it is the officer's opinion based on the information available, that the significant risks associated with this decision / project have been identified, assessed and that controls are in place to manage them effectively.

11.3 The following significant risks associated with this report / decisions were identified from this assessment:

Management of significant (Net Red) Risks		
Risk Description	Mitigating actions	Owner
Failure to publish the Study would result in the Borough Council having no evidence to support the Delivering Renewable Energy and Low Carbon Development Policy.	Publication of the Study.	Andy Killip

12. **KNOWING YOUR COMMUNITY – EQUALITY AND RURAL IMPLICATIONS**

This document forms part of the evidence base for the Site Allocations and Development Management Policies section of the Local Plan (2006-26) which addresses the needs of both urban and rural areas equally and offers options in accordance with the spatial strategy of the Core Strategy.

13. **CORPORATE IMPLICATIONS**

By submitting this report, the report author has taken the following into account:

- Community Safety implications
- Environmental implications
- ICT implications
- Asset Management implications
- Human Resources implications
- Planning Implications
- Voluntary Sector

Background papers: Renewable Energy Capacity Study

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