

NP4B – Addendum 10 – Sustainable Energy

Neighbourhood Plan 4 Belper offers a great opportunity to establish a locally-led, positive strategy for renewable energy and sustainable building design— one which benefits our community. There are many different ways in which our community can benefit from decentralised energy. This note provides advice on the issues and opportunities to be considered and supports a range of renewable energy and energy efficiency technologies which are appropriate for the Parish of Belper and to promote community ownership and encourage associated jobs. In doing so, we can help tackle some of the key issues facing us today and in the future. The Plan focuses on community ownership because to date in our area sustainable energy schemes are regrettably absent from commercial development proposals. NP4B therefore proposes that community led initiatives can provide long term sources of income and reduce fuel bills and lead to improved living conditions for residents.

Wider issues

The UK has committed to cutting greenhouse gas emissions by 80% from 1990 levels by 2050 with an initial objective to generate 15% of our total energy demand by 2020. These targets are not devolved to local authority areas, but the Neighbourhood Plans must have policies which are designed to contribute to climate change mitigation and adaptation. This is a legal obligation. The National Planning Policy Framework¹ (NPPF) recognises all communities have a responsibility “to contribute to energy generation from renewable or low carbon sources” and supports community-led initiatives.

Strategy

NP4B contains a positive strategy to promote renewable and low carbon development, whilst mitigating adverse impacts. The key points are as follows:

1. Support the transition to a low carbon future by encouraging the use of renewable energy – this is a responsibility of all communities;
2. Have a positive strategy to promote renewable energy;
3. Design policies to maximise renewable and low carbon energy development while ensuring that adverse impacts are addressed (including cumulative landscape and visual impacts);
4. Consider identifying suitable areas for renewable energy where this would help secure the development;
5. Support community-led projects; Identify opportunities to link new development (housing and businesses) with renewable energy generation (in particular by co-locating heat generation with potential consumers).

National Planning Practice Guide² (NPPG) provides further guidance on how the statements on the NPPF can be complied with.

In more detail

To increase use and production of renewable and low carbon energy generation development proposals will be supported that:

- Encourage best use of the resource through development which has the greatest energy output (without harmful impacts);
- Encourage co-location of energy supply with consumers, including using heat and innovative technologies, such as ‘smart’ energy infrastructure;

- Enable community ownership;
- Create heat networks for existing and future commercial and housing developments;
- Supports the idea of safeguarding important existing schemes and key resources (for example, good locations for deep geothermal, River Derwent Hydro and highlights the impacts which must be avoided or mitigated).
- Policies must be compliant with the Amber Valley Borough Council Local Plan relevant to renewable energy development.
- Recognise the importance of the landscape, the historic environment and agricultural land in the pursuance of sustainable energy.
- Such guidance will help to ensure policies conform to Local Plan policy.
- Community ownership can apply to all types of energy generation project, including heating projects.

Community Ownership

Community ownership has not thus far been successful in the NP4B area, for instance the Transition Belper Hydro initiative but community led ideas should be constantly reviewed as central government policies and support emerge over the coming years. Therefore:

- Projects should be wholly or partly owned by a community energy enterprise.
- Where the project is being delivered in partnership (perhaps with a traditional developer), there should be an agreement in place to ensure the community energy enterprise can achieve its objectives.
- The purpose of the community energy enterprise should be to benefit the local community.
- Membership should be available to all within the community.
- A mechanism should be in place to ensure the project continues to deliver for the community over its lifetime (e.g. an asset lock or dissolution clause).

Possible Sustainable Energy schemes

What energy generation opportunities might there be in our area?

- Exposed windy areas, suitable for wind generation
- Rivers and lakes which might be suitable for hydroelectricity
- Large bodies of water such as Belper Pool, suitable for water-source heat pumps
- Flat or south facing low quality or previously used land which might be suitable for solar panels
- Large car parks, rooftops or other structures which might be suitable for solar generation
- Areas on the periphery of the parish which might be suitable for geothermal heat and electricity generation
- Other geothermal heat project opportunities in existing developed areas.
- Canvas large heat users or producers (manufacturers and say, leisure facilities), suitable for low-carbon heating or even district heating.
- New housing developments such as the Derwent Street site, could be a good place to start a heat network.

Energy efficient buildings

Whilst energy efficiency targets are set nationally in Building Regulations, there are opportunities for neighbourhood plans to influence new development. Sustainable construction standards can be introduced in the form of 'BREEAM' standards for new non-domestic buildings and, up until late 2016, the Code for Sustainable Homes can be applied to new homes up to Level 4. Thereafter, subject to the Government going ahead with the necessary legislative changes, standards for energy performance in new homes can only be set through Building Regulations. However, NP4B can contain policies which encourage higher levels of energy efficiency and give 'great weight' to outstanding or innovative designs. We also include policies which require developers to demonstrate how they've followed the 'energy hierarchy' in reducing energy demand before implementing renewable energy, or make the most of solar gain and passive cooling through the orientation, layout and design of the development.

Smart energy tools and storage devices are beginning to emerge which help to manage energy within the home and within the local network to make better use of the energy we produce and use. These tools have potential to reduce the amount of energy used in homes or businesses and reduce fuel bills. There is also potential for some of these concepts to have a dual use, including enabling better provision of health care within the community. NP4B can encourage their integration into new buildings and deployment within the local energy networks.

Other opportunities

- In the near future, 'smart' measures, such as matching energy supply with demand and energy storage will become available.
- Smart technologies can also be used to support community health care as well as many other community activities thus minimising the use of energy.
- Sustainable transport is supported through NP4B, for example, encouraging electric vehicle charging points.
- Creation of an integrated public transport plan for Belper such as a "hub" concept which promotes bus/train travel opportunities.
- Promote alternative and sustainable energy powered public transport within and through the parish.
- Promote cycling as an alternative to car use.
- Encourage walking by ensuring safe walking routes.

Climate Change Mitigation

NP4B is constrained by the national building regulations from insisting that all new buildings must be compliant with standards such as "passive housing" or have a carbon footprint that is less than is required by the NPPF. That said, it is hoped that developers voluntarily adopt climate change mitigation standards of build and this is looked for at the planning application stage. To re-iterate, this is not enforceable but is to be encouraged.

Sources of information (the evidence base)

1. The **ONS Neighbourhood Statistics** provide information on the following:
 - a. How much of your neighbourhood is covered by water, for water source heating (under 'Physical Environment > Land use statistics')
 - b. How homes in your neighbourhood are heated. Whilst gas central heating is cheap and comparatively low-carbon, other forms of central heating are typically much more expensive and polluting (under Housing > Central Heating)
 - c. Transport methods, which can be useful for identifying sustainable transport needs (under Housing > Travel to Work).
2. **The Centre for Sustainable Energy** provide information that includes statistics on the energy performance of homes, fuel poverty, location of homes that are not on the gas network, the energy details of public buildings.
3. **The UK Renewable Energy Map** draws data from various Government sources to identify the operational and planned renewable energy schemes in our area.
4. **The Department of Energy and Climate Change (DECC)** provide various energy statistics¹³ on energy consumption and climate change, as well as resources such as the **National Heat Map** which can help us to understand where the high levels of heat consumption are in our area and contains a water source heat layer to help identify potential locations for extracting heat from rivers and pools.