
Luppitt Neighbourhood Plan



CLIMATE CHANGE SECTION

with an audio introduction by Michele Turner, a Parish Councillor and member of the LNP Steering Group

2021 - 2031

Luppitt Parish Council

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8. Climate Change

8.1 Introduction

This Plan would not be complete without reference to the most fundamental environmental challenge facing all communities, namely global climate change. Thirteen of the fourteen warmest years on record have occurred in the 21st century, and in the last 30 years each decade has been warmer than the previous one. The acknowledged reasons for this are rising levels of carbon dioxide and other gasses such as methane, creating a 'greenhouse' effect which traps the Sun's energy causing the land and oceans to warm.

8.2 Aims and Objectives

Aims	Objectives
1. To raise awareness of climate change and global warming within the parish and the urgent need to reduce our carbon footprint.	1.1. The Parish Council will provide relevant information on the Neighbourhood Plan website 1.2 The Parish Council will encourage parishioners to adopt and implement a 'Green Code' for Luppitt.
2. To better understand the potential for increased use of renewable energy sources.	2.1 The Parish Council will monitor opportunities for renewable energy in the parish.
3. To support small-scale, unobtrusive, renewable and low carbon energy installations providing they are sensitively sited and well screened.	3.1 Prepare clear and unequivocal policies that explain what is and what is not acceptable to the community.
4. To discourage medium and larger scale schemes and projects that would have an adverse impact upon the landscape and character of the parish.	4.1 Prepare clear and unequivocal policies that explain what is and what is not acceptable to the community.
5. To ensure that any new developments are built to the highest 'green' technical standards.	5.1 Prepare a clear and unequivocal policy.

8.3 Global Warming

Most people accept that the increase in greenhouse gasses is largely due to human activity, which the evidence suggests is mainly caused by:

- burning fossil fuels for energy
- agriculture and deforestation
- the manufacture of cement, chemicals, and metals

If global emissions are not reduced, average summer temperatures will continue to rise, which in turn will cause extreme weather events including:

- heavier rainfall with an increased risk of flooding

- higher sea levels and storm waves that put greater strain on sea defences
- more and longer lasting heatwaves causing drought, and damage to food production.

In addition to addressing the greenhouse gas effect, the benefits of replacing the burning of fossil fuels with renewable sources of energy that are essentially free at source - sun, wind, and water - are plain to see.

The East Devon Local Plan neatly summaries the position today:¹²⁶

'17.1 The best available evidence shows that we are seeing and can expect to see future changes in the global climate as a consequence of past and ongoing greenhouse gas emissions. These changes are predicted to escalate in the future and it is therefore essential that in East Devon we prepare for greater frequency of extreme weather events, and plan for greater energy efficiency and generation of energy from renewable sources...'

East Devon is responsible for 15% of the carbon dioxide emissions in Devon (no figures are available for Luppitt). It has one of the lowest emissions per capita in the county due to a relatively small non-domestic sector.

8.4 The Need to Reduce Carbon (CO2) Emissions

The UK Government and Local Authorities are now well-versed in the responses necessary to help reduce global warming, and the planning system is an important tool with which to ensure that new development is constructed as 'low' or 'zero' carbon. Reducing reliance upon the burning of fossil fuels for our energy (heat, light and power) is vital and turning towards renewable energy and away from the centralised production of electricity, gas, and oil will reduce environmental impact in the future.

The Intergovernmental Panel on Climate Change (IPCC) has advised that carbon emissions must reduce globally by at least 45% by 2030 from 2010 levels. There is a chance that the worst effects of climate change can be avoided by keeping warming below 1.5 degrees. To achieve this we must be carbon neutral (net-zero) by 2050 or earlier. The UK Government and Parliament have adopted the IPCC recommendation.

8.5 Devon Climate Change Emergency Declaration

Devon County Council and East Devon District Council have both made climate change emergency declarations. A range of public, private and voluntary organisations from across Devon came together on 22nd May 2019 to form the Devon Climate Emergency Response Group to declare a climate and ecological emergency and to endorse the principles of the Devon Climate Declaration: *'a net-zero carbon Devon, with its environment and communities resilient to the effects of inevitable climate change'*. Net-zero means that the balance of carbon sinks and emissions in any one year will be zero. Their aim is to produce a Devon-wide climate change action plan to reduce the County's carbon footprint and to reflect climate change as a priority.

8.6 Renewable Energy

East Devon, including the parish of Luppitt, has a climate suitable for the utilisation of wind and solar energy, and wooded areas that could supply biomass systems, in addition to organic and agricultural waste that could feed anaerobic digestion plants. Whilst new

¹²⁶ Section 17 Climate Change and Renewable Energy Available at www.eastdevon.gov/uk

development must be constructed to accord with the low carbon and energy policies in the Building Regulations, the financial and environmental pressures to improve the energy efficiency of existing buildings will increase over time.

Efficiency measures will include switching to alternative forms of energy production, whether in part or as an entire system replacement, for heating, light and power in addition to improving a building's insulation. It is recognised that the value of the feed-in tariff subsidy has reduced but the cost of equipment is also reducing, making domestic scale installations more attractive. Powers to enforce such retro-fit improvements are limited but as awareness increases and energy prices rise, more householders, farmers, and others will seek alternative forms of energy and this may present challenges for the planning system in the future.

The NPPF and Local Plan contain both encouragement and protections in the context of renewable energy and reducing carbon emissions. The parish of Luppitt also needs to be prepared for the future with its own policies to encourage the community to embrace appropriate forms of renewable energy and reduce the parish carbon footprint, whilst at the same time protecting the landscape, distant views and the character of the parish.

8.7 'Green Code' for Luppitt

In addition to setting out policies that will ensure protection of the landscape and the character of the settlements in the event of an application for a new renewable energy installation, the Parish Council will encourage parishioners to engage in a new 'Green Code' for Luppitt parish to help reduce the parish carbon footprint, reduce household and farm waste, increase recycling and reduce soil erosion within the parish. The 'Green Code' could cover a range of topics including, but not limited to:

1. Tree Planting
2. Reduce the use of non-recyclable plastics
3. Rainwater and grey water harvesting
4. Burning vs. shredding vs. composting vegetable waste
5. Storm water runoff (to prevent soil erosion and flooding of property)
6. Improving efforts to recycle
7. Turning off lights, water, and electrical appliances when not in use
8. Initiatives to reduce household and farm waste
9. Encourage car sharing to reduce carbon emissions.

8.8 Opportunities for Renewable Energy

The Parish Council will also monitor opportunities for the use of renewable energy in the parish. The NPPF supports this stance, especially where there are tangible benefits to the community including reduced energy costs, addressing fuel poverty (20 households in Luppitt are estimated to be in fuel poverty¹²⁷), and establishing a broader and more resilient energy base. A brief description of the main sources of renewable energy is provided here with pointers to show relevance to the landscape and environment in Luppitt parish:

- **Solar Photovoltaics (PV)** Solar PV panels convert the sun's energy directly to electrical energy via silicon solar cells. They are commonly installed on south facing domestic roofs and agricultural barn roofs but also as field-scale plant of

¹²⁷ 2011 Census, see Appendix 3 - Population and Parish Statistics

connected units (solar farms). To protect the landscape, Luppitt parish is not considered to be a suitable location for anything other than domestic scale, non-commercial, photovoltaics which ideally should be roof-mounted. Any field-based installation should be of domestic scale, located in close proximity to existing buildings, well-screened and made of non-reflective materials.

- **Solar Thermal** Solar panels containing copper pipes through which water is pumped, heated by the sun, and then transported into the domestic hot water system.
- **Wind Turbines** In 2015 the Government introduced new rules for wind power. Currently a local planning authority may only grant planning permission for a wind energy development involving one or more turbines if:
 - the development site is in an area identified as suitable for wind energy development in a Local Plan or Neighbourhood Plan; and
 - following consultation, it can be demonstrated that the planning impacts identified by affected local communities have been fully addressed and therefore the proposal has their backing.

Luppitt parish is not considered to be a suitable location for a commercial wind farm or for individual or grouped medium or large scale commercial wind turbines due to the expected negative impact upon the landscape and habitats. Any micro or domestic scale non-commercial wind turbines would be required to comply with the policies in this Plan.

- **Hydro-electric Power** The power potential available in a river relates directly to the weight of water falling through a vertical distance combined with the volume of flow. In an exercise carried out by the University of Exeter in 2011, the River Otter was identified as having potential for small-scale hydro-power whilst recognising the importance of protecting riverside habitats and migrating fish, together with other environmental sensitivities.
- **Biomass** Boilers that convert wood or wood pellets into hot water for central heating and hot water systems. Given the existing wooded areas in Luppitt, and some areas of low grade agricultural land that could be planted for woodland, there may be potential to provide a viable renewable fuel for biomass.
- **Anaerobic Digestion** Digesters that utilise for fuel a specifically grown crop (eg maize) and in other cases various types of agricultural organic waste material. The use of digesters is expensive, complex, and controversial, as agricultural land may be used to grow crops for fuel rather than food for human or animal consumption and may result in a significant increase in traffic movements. Digesters that produce methane from farm waste on the other hand could be seen in another light.
- **Heat Pumps** A 'ground source' heat pump circulates a mixture of water and antifreeze around a loop of pipe in the ground and heat from the ground is absorbed and passes through a heat exchanger into the heat pump for use in the building. An 'air source' heat pump extracts heat from the outside air even when the temperature is as low as -15° C. Heat pumps have some impact on the environment as they need electricity to run, but the heat they extract from the ground, air, or water is constantly being renewed naturally.

8.9 New Development

In 2006 the Government required all new homes from 2016 onwards to be 'zero carbon' (i.e. generate as much energy on site from renewable sources as they consume) and introduced the Code for Sustainable Homes combined with a tightening of the Building Regulations. However, in 2015 this standard was relaxed to speed up construction to meet the demand for new homes. New homes are now effectively 'low carbon', a standard determined by Part L of the Building Regulations. This will change as the Government is consulting on a '*Future Homes Standard*' to be implemented by 2025 requiring world-leading levels of energy efficiency. The Parish Council will expect any new development, whether domestic or commercial, to be fully compliant with the Building Regulations and the latest Government guidance and not to be occupied before an EPC is issued.

8.10 Existing Buildings

To help reduce the parish carbon footprint the Parish Council will encourage house owners and owners of commercial buildings and farms to improve the energy efficiency of their properties where possible by introducing renewable forms of energy and improving insulation of the building's fabric.

Equipment on buildings should be non-reflective and sited, so far as is practicable, to minimise the effect on the external appearance of that building and the amenity of the area. Any external visible alterations and equipment should reflect the policies in this Plan and not adversely impact upon the rural landscape and the character of the settlements.

Whilst permitted development rights may apply to certain renewable energy installations, others may require planning permission, but all must adhere to the Building Regulations. Certain equipment such as solar photovoltaic panels are not permitted on, or within the curtilage of, a Listed Building.

8.11 Policies - Climate Change

Policy CC1 - Climate Change and New Development

In recognising the impact of climate change, the need for carbon reduction in the construction and use of buildings and the increased use of renewable energy sources, great weight will be given to applications for new development that are designed to the highest technical standards in this regard.

Policy CC2 - Renewable Energy Retrofit

The retrofitting of renewable energy schemes will generally be supported on domestic, farm and other buildings providing they are designed and constructed of materials that are non-reflective and integrate sympathetically with the built surroundings and do not adversely affect neighbouring properties, the landscape or habitats through visual impact, reflection, noise, smell, vibration or light.

Policy CC3 - Renewable Energy Scale

1. **Renewable Energy Schemes** Renewable energy schemes will generally be supported if they are of a domestic/non-commercial scale or for collective parish community benefit. Larger commercial/non-domestic scale renewable energy schemes will generally be resisted as being out of character with the rural parish landscape and its status as an AONB.
2. **Wind Turbines** Wind turbines (except pole or building mounted domestic/non-commercial scale turbines) and wind farms will be resisted as being out of character with the rural parish landscape and its status as an AONB.
3. **Solar Photovoltaic Panels**
 1. Solar photovoltaic panels installed on domestic or agricultural buildings will generally be supported providing they are non-reflective and do not adversely impact upon the landscape or neighbouring properties.
 2. Field-based photovoltaic panels will generally be resisted unless they are of domestic/non-commercial scale, sited in close proximity to existing buildings, are well-screened and non-reflective and do not adversely impact upon the landscape or neighbouring properties.
 3. Field-scale photovoltaic panels for commercial use will be resisted, except as in No 4. below.
 4. Field-scale photovoltaic panels for collective parish community benefit and decided by a majority vote of parishioners will be supported, providing they are well-screened and non-reflective and do not adversely impact upon the landscape or neighbouring properties, comply with the other policies in this Plan and meet the requirements of Strategy 46 of the Local Plan (*Landscape Conservation and Enhancement and AONBs*).

8.12 Community Actions - Climate Change

CA15 Information Sharing - The Parish Council will support the provision of knowledge and information about climate change and renewable energy and make it available to parish residents through the Neighbourhood Plan website

CA16 'Green Code' for Luppitt - The Parish Council will encourage parishioners to adopt and implement a 'Green Code' for Luppitt to help reduce carbon emissions, increase recycling and reduce waste.

CA17 Monitoring Opportunities - The Parish Council will continually monitor opportunities for renewable energy within the parish.

8.13 Policy Justification

Section 17.2 of the Local Plan provides a useful framework for this section:

17.2 The Climate Change Act (2008)⁶⁸ has put in place legally binding targets for the UK to achieve an 80% reduction in greenhouse gas emissions by 2050 with reductions of 34% by 2020, against a 1990 baseline. Emissions from buildings account for approximately half of all emissions nationally. There is little scope to force existing buildings to become more energy efficient, other than by offering incentives to upgrade and making renewable technologies a requirement of applications for refurbishment or extension, but all new development will be required to be “low carbon”.

The NPPF requires local authorities to encourage 'all communities' to be supportive of renewable energy and reduce carbon:

97. To help increase the use and supply of renewable and low carbon energy, local planning authorities should recognise the responsibility on all communities to contribute to energy generation from renewable or low carbon sources. They should:

- have a positive strategy to promote energy from renewable and low carbon sources;*
- design their policies to maximise renewable and low carbon energy development while ensuring that adverse impacts are addressed satisfactorily, including cumulative landscape and visual impacts;*
- consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure the development of such sources;*
- support community-led initiatives for renewable and low carbon energy, including developments outside such areas being taken forward through neighbourhood planning; and.*
- identify opportunities where development can draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers.*

The community's stance on climate change is set out in Section 7 of the *Transform Research Consultancy Report* upon the *2018 Luppitt Parish Questionnaire*. A majority was in favour of certain types of renewable energy. 79% were supportive of domestic photovoltaic panels or tiles and 70% were supportive of a community-led and community-owned renewable energy initiative for the benefit of Luppitt parish residents. A majority (74%) also agreed that domestic scale installations or a community-owned initiative should have 'no or low impact upon the landscape, settlements and road infrastructure' to be acceptable. Various specific comments were also made including objections to fields of photovoltaic panels but support was expressed for photovoltaic panels fixed to agricultural buildings. Overall, there was significant parish interest in, and support for, exploring different forms of renewable energy.