

Stapleford Town Council Planning Environment and Climate Emergency Strategy Report.

Spring 2020

Introduction

This is the first report produced by the Planning Environment and Climate emergency committee after the Council voted to declare a climate emergency in September 2019. The Climate Emergency motion stated that the committee would report to full council on a 6 monthly basis and produce a strategy within 6 months as to how the aim to “reduce direct and indirect CO2 emissions of residents to less than 2 tonnes per person per year by 2027” would be met. A second document “Energy and Greenhouse Gas (GHG) Emissions of Stapleford Town Council” has also been produced which outlines the strategy for ensuring that all activities carried out by the Town Council achieve net carbon zero emissions by 2027. These are both bold and ambitious aims and reflect the council’s commitment to tackling the causes of anthropogenic climate change. The Covid-19 pandemic has delayed the delivery of these reports to the Town Council but the ability of society to adapt to crisis has been proven by the outbreak.

Methodology

Town and Parish Councils have far fewer powers than Borough and District Councils to make the radical changes to Stapleford’s infrastructure needed to decarbonise our community’s activities. However, through the powers given to local councils from the Localism Act (2011) and community events, we do have scope to influence development and encourage reduction in GHG emissions. Stapleford Town Council events committee has agreed to support a “Sustainable Stapleford” event in to engage with the community about the contribution residents, businesses and the council can make to act on climate change.

At present Stapleford Town Council has no data relating directly to resident’s carbon emissions. National government data from the Department for Business, Energy & Industrial strategy 2018 Greenhouse Gas emissions summary has been used throughout this document as an indicator of how day to day activities contribute to Stapleford’s residents overall GHG emissions. The committee acknowledges that socio-economic factors will contribute greatly to regional variation across the UK and as part of this strategy data is to be collected to enable a better estimation of residents GHG emissions and the effectiveness of the actions taken. This is discussed in the assessment section of the report.

In Part 1 of this report, each section outlines the source of the GHG emissions and sets out objectives to reduce them. The initial actions to be taken over the next six months by the council to work towards these objectives are then listed below. This strategy is to be used as a working document and actions may be added to, adapted or expanded upon as needed. The progress and outcomes of the actions will be monitored throughout the next six months and reported.

Part 2 of this report deals with remedial actions to be taken rather than reducing greenhouse gas emissions.

Part 1

Section 1: Emissions from Household Energy Usage

The residential sector accounts for around 15% of the UK's greenhouse gas emissions. The bulk of GHG emissions from residential households in 2018 was from the use of natural gas for heating and cooking. It should be noted that emissions related to residential electricity use, including electricity use for heating, are attributed to power stations and are therefore reported in the energy supply sector (which accounts for 23% of the UK's GHG emissions).

Objective 1 reducing the use of electricity from fossil fuel sources.

The easiest way to achieve this is for households to switch to a renewable energy tariff however these tariffs are usually more expensive and the current national energy demands cannot be met by renewable sources alone.

Using the Neighbourhood Plan and General Powers of Competence to cut domestic fossil fuel use

The NPPF states that local planning authorities "should support community-led initiatives for renewable and low carbon energy (paragraph 152)", but very few local plans have policy to reflect this national objective. Our neighbourhood plan is a great opportunity to fill this policy vacuum and encourage community owned projects that will return tangible benefits to our neighbourhood. Additionally, the General Power of Competence (GPC) gives local authorities, including eligible local councils, "the power to do anything that individuals generally may do" as long as they don't break other laws. The GPC clearly permits a local council to engage in commercial activity if it sets up a company or co-operative society to provide a service. The council can lend or invest money; it can trade; it can even sell energy to the National Grid. Therefore, an equally bold and ambitious plan to achieve our aim to reduce residential GHG emissions would be to set up a community energy company. This would reduce the upfront cost of buying solar panels whilst providing cheaper electricity and removes the risk to residents

How it could work

Residents of Stapleford would have access to a local solar power supply, built with pooled financial resources. As Stapleford is essentially an urban area it is undesirable for green spaces which have important habitat potential to be used as a solar farm but there is a great supply of suitable rooftop space which should be capitalised upon. The community solar installations would utilize rooftops suitable for efficient solar energy capture and allow residents to buy a share of a local solar system and the energy produced by it without installing panels of their own. Alternatively, residents could essentially rent their rooftops for the installation of solar panels if they are suitable.

Profits could be used to help owner occupied homes be more energy efficient by providing funding towards insulation and gas free heating systems.

For this to be achieved we would need support and engagement from the local community and potentially the Borough and County Council. The sustainable Stapleford event to be held in June provides an opportunity to promote this initiative and gauge community opinion towards it.

Actions

1. Investigate the viability of setting up a community energy company.
2. Include information and a survey on community energy companies in the sustainable Stapleford event.
4. Continue to work towards obtaining the Powers of General Competency.
5. Include supporting renewable energy initiatives in the neighbourhood plan.
6. Engage with the Borough and County Council to support the initiative.

Objective 2 Reduce the use of natural gas for heating and cooking.

Better insulation of homes can greatly decrease natural gas usage and cut household bills. Much of the social housing in Stapleford has undergone improvements by fitting external insulation cladding. This may be prohibitively expensive for private households. Even the best insulated homes will still emit CO₂ from the combustion of natural gas, however. Air heat source pumps eradicate the need for natural gas supply. Switching to induction hobs and electric cookers would also remove the need for Natural gas.

Actions

- 1, Include the stipulation in the Neighbourhood plan that new developments not previously allocated in the local plan, do not have a gas supply and that air heat source pumps and induction ovens as standard.
- 2, Work with Broxtowe Borough Council to further upgrade social housing to non-gas heating and cooking systems.
- 3, Provide information on insulation schemes and possible grants available for upgrading private homes at the sustainable Stapleford event.
- 4, Work with local businesses which supply kitchens and appliances to promote induction ovens

Section 2: Traffic and Transport Emissions

Transport was the largest emitting sector of the UK greenhouse gas emissions in 2018 accounting for 28% of the UK's emissions (assuming electricity and household emissions are treated separately). To reduce greenhouse gas emissions from transport there needs to be a shift in the modes of transportation used by residents. Walking and cycling do not emit greenhouse gases, public transport is then the next best option. Electric cars have a role to play but with the increasing population density within Stapleford, it is not sustainable for all households to own increasing numbers of cars as the road infrastructure will not cope and more green space may potentially be lost to road building schemes.

The "green hierarchy" of transport is as follows

- 1, Walk/cycle
- 2, Public transport

3, Electric car.

4, Petrol/diesel car

Objective 3 Reduce the overall amount of travel.

The zero-carbon solution is to utilize walking and cycling as the main modes of transport for residents, but this only works if the distances to be covered are relatively short. Additionally, the carbon footprint of other modes of travel can be reduced if shorter distances are travelled. Therefore, Stapleford should become self-sufficient, ensuring essential goods and services such as good schools, health centres, banks, shops and job opportunities are easily accessible without the need to travel large distances. The proposed HS2 line should not be used to encourage widespread longer distance commutes, but instead promote opportunities for business to relocate to the area to reduce the overall need for residents to travel.

Actions

- 1, Use the Neighbourhood plan and the Stapleford Town Deal application to ensure suitable business and retail developments to enable Stapleford to become self-sufficient in terms of goods and services available.
- 2, Use the Neighbourhood plan to capitalise on HS2 and the new business hub (former police station) to bring job opportunities to Stapleford. Include shared office space developments in the to enable remote working.
- 3, Use the Neighbourhood plan to integrate childcare provision in workplaces
- 4, Support the school curriculum by creating provision of outdoor teaching activities.

Objective 4 Improve cycle and pedestrian routes throughout Stapleford

Many of Stapleford's residential streets are narrow as they were built before widespread car ownership. This means that many roads do not have enough room for cycle lanes due to parked cars. Additionally, some main roads are unpleasant places for pedestrians and the lack of safe walkable routes for children adds to the congestion as parents drive their children to school. Air quality is also of concern in built up areas.

Actions

- 1, Work with the County Council and use Towns Deal to improve cycle networks, pedestrian routes and increase the number of pedestrian crossings. Consider pedestrianised areas and one-way systems.
- 2, Set up walk to school schemes.
- 3, Include the use of street trees and plants in the Neighbourhood plan to improve air quality on main roads.

Objective 5 Increase the use of public transport

Public transport infrastructure for those traveling to Nottingham City Centre comprises of the i4, 21 bus routes and the tram. These services are frequent but often overcrowded at peak times. The 510 “Stapleford shopper” bus links residential areas to shops and services and the 18 and 15 bus services provide links to Beeston, Long Eaton and Ilkeston. These services are less frequent, however. The proposed HS2 line has the potential to take traffic off the road for journey’s to London, Birmingham and Leeds. The government announced £5b worth of investment into local transport schemes in February when the HS2 scheme was given the go ahead.

Actions

- 1, Develop links with local public transport providers, invite to traffic and transport meetings and the sustainable Stapleford Event.
- 2, Seek funding opportunities related to HS2 to improve the frequency of buses to Stapleford.
- 3, Improve bus shelters in Stapleford.

Objective 6 shift private car ownership from petrol/diesel to electric

Petrol and diesel cars are to be phased out and electric cars are now more commonplace. There is still insufficient infrastructure in terms of charging points etc. to accommodate the shift which is required. As many dwellings in Stapleford do not have off road parking it is difficult for some residents to install charger points at home. Cliffe hill avenue car park is the only public car charging point in Stapleford and has 4 chargers. The cost is still prohibitive for some and there is some scepticism about reliability.

Actions

- 1, Add locations for charging points into the neighbourhood plan.
- 2, Look for funding opportunities to increase the number of charging points.
- 3, Have information about EV’s at the sustainable Stapleford event.
- 4, Look for new innovations in charging that do not rely on plug in stations e.g. air chargers.

Section 3: Goods and Services

A move to more localised shopping habits as proposed in the traffic and transport strategy will mean that businesses located in Stapleford will have a more direct influence on resident’s carbon footprint. Business accounts for 18% of UK greenhouse gas emissions. In truth the carbon footprint of goods consumed in the UK is probably far higher as this value does not take into account items purchased in this country that were manufactured overseas. Making consumers more aware of the environmental impact of products will enable residents to make informed consumer choices and allow market forces to drive change on the high street.

Objective 7 Reduce the Carbon footprint of goods and services provided by Stapleford Businesses.

The first step in reducing GHG emissions is understanding the sources of emissions. Commercial providers are available to write reports, but the cost can be prohibitive for small independent businesses. The Town council's climate emergency committee has produced its own energy and GHG emissions report following the GHG protocol. The report is of sufficient detail that it can be used by businesses as a guide to look at their own emissions. The council should work with local businesses, sharing knowledge and experience of the process to further help them understand the process. The council should also highlight the benefits to businesses such as cost efficiency savings and increased customer confidence.

A major criticism of Stapleford High street is that it contains many charity shops but buying second hand goods is an excellent way to reduce greenhouse gas emissions and cut waste (see section 5) Charity shops would benefit from rebranding as retro and vintage and the environmental benefits of charity shops highlighting. Businesses which create a circular economy would also be of benefit such as the sewing bee in Stapleford. Businesses such as this should be encouraged

Actions

- 1, Share the Stapleford Town councils Energy and GHG emission report with Businesses and provide advice on the process.
- 2, Introduce "Sustainable Stapleford" awards for businesses.
- 3, Rebrand and Market Stapleford's Highstreet as a sustainable place to shop. Promote charity shops as vintage, carbon free, shopping experiences.
- 4, Use the Neighbourhood plan to support the development of businesses in Stapleford, particularly those which can contribute to carbon reduction.

Section 4: Food

Agriculture accounts for 10% of the UK's greenhouse gas emissions. There has been much publicity regarding how a plant-based diet dramatically reduces GHG emissions as meat and dairy items have a much higher footprint. Food miles also contribute to the emissions of foods, especially if imported by air or transported in refrigerated lorries. If heated greenhouses are used by food producers to grow produce all year round this also adds to carbon footprint.

Objective 8 Reduce the consumption of foodstuffs with a large carbon footprint.

Encouraging people to eat more locally sourced seasonal foods can dramatically cut emissions. Stapleford Town council has a duty to provide allotments and owns five allotment sites which are available for residents to rent to grow their own fruit and vegetables. Some may feel that taking on an allotment may be too big a commitment, but gardens and even window boxes can be utilised to grow food. Stapleford also has many take-aways cafés and restaurants which have the potential to offer a diverse range of lower Carbon footprint menu choices.

Actions

- 1, Promote the allotments at the Sustainable Stapleford event.

2, Integrate carbon footprint reducing initiatives into the emerging allotment strategy e.g. provide water butts and composters to cut water and fertiliser use and reduce waste.

2, Introduce a vegetable patch category into the gardening competition.

3, Work with local cafés and restaurants to promote locally sourced, and vegetarian/vegan menu's along with "sustainable Stapleford business awards" as mentioned in objective 7.

Section 5: Waste

Waste management accounts for 5% of the UK's greenhouse gas emissions. The reduce re-use recycle principles have now been expanded to include repurpose and replace to encourage other ways of preventing waste. With growing concerns about single use plastics, consumers are switching to products and packaging made of other materials which may in fact increase the carbon footprint of the product. There is also some confusion about what materials can be recycled as provision varies between local authorities.

Objective 9 Reduce the amount of waste going to landfill.

Broxtowe Borough Council do provide recycling services for paper, cardboard, glass some plastics, cans and textiles. Households can also have garden waste collected. However, there are few opportunities to recycle some other mixed material waste such as tetra packs and toothpaste tubes which end up in landfill. Some supermarkets provide recycling points for foil and plastic packaging which the council do not collect but this is not widespread. There is also currently no food waste collection. The Stapleford food project has done some excellent work preventing waste food from supermarkets ending up in landfill by distributing unsold food from supermarkets to foodbanks and other community organisations. The many Charity shops in Stapleford are an excellent way of recycling furniture, clothing etc. Veolia are offering £1000 towards projects which change the way people think about waste.

Actions

1, Invite Veolia to the Sustainable Stapleford Event.

2, Investigate Providing more mixed material recycling facilities through teracycle.

3, Work with Broxtowe to expand the recycling services they provide.

4, Promote home composting at the Sustainable Stapleford event.

Part 2

Offsetting Using Green Spaces

Many companies offer carbon offsetting schemes whereby the amount of GHG emissions produced by one process are offset by reducing or taking up carbon emissions elsewhere. This can be by providing energy efficient light bulbs or cooking equipment to developing countries. Some schemes are criticized for just shifting the problem rather than dealing with the bigger issues of decarbonising

activities. Tree planting schemes remove CO₂ from the atmosphere, but the amount of CO₂ removed will depend on the age and type of tree planted. This should not be seen as an alternative solution to GHG reduction as 5-6 trees need to be planted to offset a single tonne of CO₂ emissions. Therefore, the number of trees that would need to be planted to offset the total emissions for the residents of Stapleford is around 864,000! Although not a solution on its own, as only 13% of the UK is woodland compared to a European average of around 35%, more trees need to be planted in Stapleford. The woodland trust recommends that towns and cities increase their tree canopy cover to 20%. There is a risk however that other important habitats for insects such as meadow and grassland in Stapleford parks and green spaces may be sacrificed to increase tree cover. An increase in street trees can enhance the Highstreet greatly, improve air quality (as mentioned in section 2) and provide habitat.

Objective 10 Increase the tree cover in Stapleford

Stapleford is fortunate enough to have mature woodland on Stapleford hill. It also has many parks and is surrounded by greenbelt. There is scope to increase the tree cover in parks and green spaces whilst maintaining other habitats.

Actions

- 1, Work with the Borough to update the Stapleford Hill management plan.
- 2, Work with the Borough to produce management plans for all parks and greenspaces within Stapleford.
- 3, Create a conservation volunteer group to help manage and maintain green spaces.
- 4, Create a town/park ranger role with the responsibility of leading the volunteer group.
- 5, Include Street Trees in the Neighbourhood plan.
- 6, Produce a survey of trees on streets and parks.

Preparing for Climate Change

Even if the targets for GHG emissions reductions are met, we have already experienced a greater frequency of extreme weather events which scientist have shown indicate that our climate has already begun to change since the pre-industrial period. The likelihood is that we will continue to experience more disruption due to weather conditions, so the Town Council need to prepare for this as much as possible.

Increased self-sufficiency as described in section 2 traffic and transport objective 3 will improve the towns resilience as extreme weather impacts on traffic and transport infrastructure. Also, the inclusion of a community electricity company in section 1 objective 1 will also improve the robustness of the town's energy supply. The greatest risk to Stapleford however is posed by the potential flood Hazard from the River Erewash. This is likely to be exacerbated by proposed construction work due to HS2 on the floodplain and the increasing development on greenbelt and greenfield sites which drain into the Erewash.

Objective 11 Reduce flood risk

The River Erewash forms the Eastern boundary of Stapleford and many homes and businesses are located next to the floodplain. Stapleford has benefited from a flood defence barrier but in recent times floodwater water has gotten close to the top of this barrier. Additionally, boundary brook which is on the border of Stapleford and Trowel has also threatened to flood houses.

Actions

- 1, include improved flood defences in the neighbourhood plan.
- 2, Create a wetland nature reserve on the floodplain as a flood mitigation measure.
- 3, Work with other stakeholders to draw up management plans of balancing ponds, brooks etc.

Assessment of Effectiveness and Progress Towards Aims

Data is required to benchmark Stapleford resident's current Greenhouse gas emissions. Resident volunteers will be sort to answer questions about their lifestyle which will enable a more accurate carbon footprint calculation for Stapleford to be carried out. Volunteers will need to complete this survey annually for a period of 7 years to enable us to determine that the GHG emission Target of 2 tonnes per person per year by 2027 has been met.

Actions

- 1, create a survey to determine residents GHG emissions
- 2, Promote the survey at the Sustainable Stapleford Event and using social media.