

## Appendix 2

### Supporting Information for Action Plan

#### Own operations

The day to day operations of the council is the area in which SNC have the most direct control and although it is a small contributor to emissions in the district, if we are to reach net-zero, all emissions must be addressed and as a local authority, it is important that we lead by example.

Emissions from our own operations are currently measured annually for the following areas:

- Energy use from gas and electricity in corporate buildings.
  - The corporate buildings being the main council offices; The Forum, and the depot; Tove Depot.
- Energy use from gas and electricity in leisure centres.
  - There are two leisure centres; Towcester Centre for Leisure and Brackley Leisure Centre. These are managed on behalf of SNC under a design, build, operate and maintain contract with Parkwood Leisure and subcontractors Legacy Leisure.
- Fuel usage from fleet vehicles.
  - SNC operate an in-house waste collection and street cleansing service
- Business mileage from grey fleet.
  - SNC do not operate pool vehicles for the majority of staff, so travel for business purposes is taken using personal vehicles or public transport

It is expected that the scope of this annual reporting will be expanded in the future to include indirect emissions such as those from water and waste. This will be considered alongside other future unitary partners to develop one consistent approach and methodology.

The most recent report for financial year 2018/19 showed that the highest levels of emissions came from energy use from the leisure centres, followed, in order, by fleet fuel usage, energy from corporate buildings and grey fleet mileage.

#### Corporate buildings and leisure centres

To reach net-zero in both SNC's corporate buildings and the leisure centres will require investment in technologies such as renewables generation and alternative systems for heating and hot water. Before undertaking these kinds of projects, it is necessary to first ensure that energy demand is reduced and used as efficiently as possible as per the energy hierarchy as shown in Figure 3.

To identify opportunities for energy reduction and improved energy efficiency, a consultant has been contracted to carry out energy audits for the four main council buildings and produce a report detailing their findings. SNC will use this report to carry out a program of works alongside staff engagement and education. Until the report is produced it is not possible to know the level of emissions reductions that can be achieved through these measures as some building improvements have been completed previously. It is also not possible to know costs, but a small amount

of funding has been put to one side for this work. If the recommended works exceed this amount, options such as a SALIX loan will be considered and paid back from the savings accrued.

Longer-term projects such as renewables will be scoped and recommendations made to WNC.

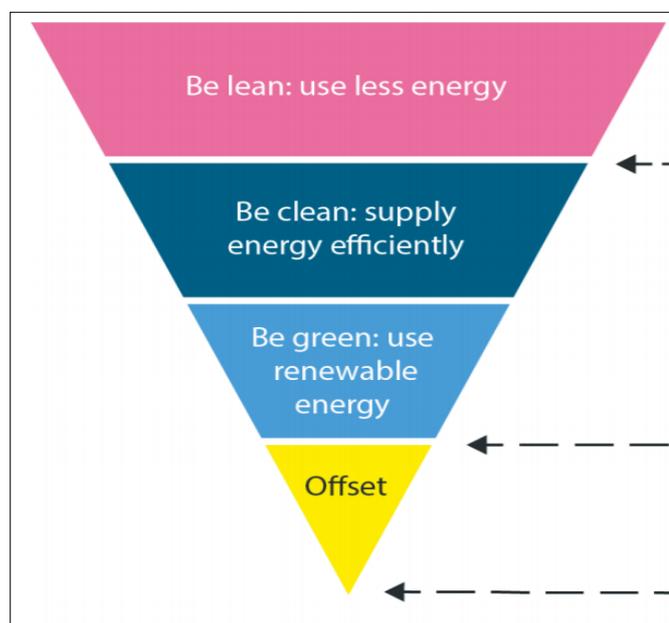


Figure 3: Energy Hierarchy<sup>1</sup>

## Fleet fuel usage

Currently all of the refuse collection and street cleansing vehicles used by SNC are diesel, as are the smaller trucks which are used by operational supervisors, additionally, there is one small fully electric van which is used by environmental services officers. All of the diesel vehicles are Euro VI and so alternative drop in fuels such as GTL would have negligible impact on emissions.

To bring emissions from this area to net-zero will ultimately require the replacement of all of these vehicles with zero emissions vehicles (ZEV), current technologies available are fully electric or hydrogen vehicles.

At this time, it is not possible to replace all of the fleet vehicles with either of these options for the following reasons:

### Hydrogen

- Current lack of refuelling infrastructure
- Cost of new vehicles currently prohibitive

### Electric

- Cost of new vehicles currently prohibitive
- Electric refuse vehicles currently on the market do not have sufficient range for a rural district such as South Northamptonshire

<sup>1</sup> [https://www.london.gov.uk/sites/default/files/zero\\_carbon.pdf](https://www.london.gov.uk/sites/default/files/zero_carbon.pdf)

- Charging infrastructure not currently available at the depot
  - Due to the number of vehicles and the need to charge them all at the same time, there would likely be a need for upgrades to the electricity grid to cope with the increased demand

All of the above restrictions reflect the current situation, it is expected that within the coming decade most of these barriers will be removed. To reflect this, current policy is to explore all options for replacement, including ZEV, as vehicles come to the end of their lives.

Until the above technological and cost barriers are removed, reducing fuel usage is the most effective way that SNC can reduce emissions in this area. SNC will use route optimisation software to ensure that the rounds followed by the refuse collection crew are the most efficient, reducing mileage and in turn fuel usage. This will be accompanied by analysing data from the existing CMS which monitors driver behaviour and providing additional driver training as necessary to increase fuel efficiency. This work will be carried out by the operations manager who will be supported by an external consultant (the same consultant will be carrying out the energy audits mentioned above). The use of the software has already been budgeted for within the environmental services budget.

The providers of the CMS software estimate, that if it is used optimally, then it can lead to an 8% reduction in fuel usage. If this is used alongside route optimisation software the reductions should be higher, but the increased properties built in the district mean that the refuse trucks now have to travel further. Overall, balancing these different factors, a target of an 8% reduction in emissions from fleet fuel usage from 2018/19 will be set for financial year 2020/21.

An 8% reduction in fuel usage would mean a reduction of 72.7 tonnes CO<sub>2</sub>e and a saving of more than £23,000 in fuel costs.

## **Business mileage**

Emissions from business mileage contribute around 3% to the overall total for SNC's own operations. As such it has been decided that it is not an effective use of resources to revise the business mileage policy and introduce pool cars at this time, particularly due to LGR which will likely see these policies change again. Instead, SNC will conduct internal communications to promote alternatives such as teleconferencing, car sharing and use of public transport wherever possible.

## **Procurement**

SNC procure a number of goods and services to support the work that is done by the council. Currently there is no policy in place that includes climate change or emissions as a consideration in these purchasing decisions. The climate change officer will work with the procurement team to review this and devise a process or policy so that these considerations will be included.

## **Communications**

Every individual produces direct emissions every day from the energy they use to power and heat their homes to the fuel they use for travel. Additionally, everybody

causes indirect emissions, which actually account for a larger proportion of emissions overall. These are those emissions which arise beyond the boundaries of the district and possibly even the country but arise as a direct consequence of actions taken by those within the district. They arise from the treatment of the waste we produce and the water we use and are embedded in everything we eat and buy and in every service, we use. As such individual behaviour change is crucial if the district (and the UK) are to achieve net-zero.

There is a huge amount of, often conflicting, information about climate change and what is the right action to take, which can be overwhelming and confusing for everyone. As a local authority we are a trusted voice to provide impartial and accurate information and so have a key role to play in encouraging and educating residents and businesses on what they can do for the best.

Specific and targeted communications will be developed in other workstreams, but SNC will also deliver a year-long communications campaign providing general information for everybody living and working in the district.

The communications campaign is branded as the 'Climate change challenge' and is designed to be informative, engaging and positive. The campaign will be delivered through SNC's social media platforms, the SNC review, print media where possible and will be supported by additional information which will be added on an ongoing basis to the council's website. Alongside these external communications, related internal communications will be delivered through the monthly Staff Times e-newsletter.

Each month focuses on a different topic related to climate change e.g. energy, transport, waste and will include the following:

- One over-arching challenge
  - May not be a sustainable lifestyle change but,
  - Designed to get people talking and thinking about their emissions and lifestyles
  - Hope is that people will use these challenges as a gateway to other actions; finding their own way to reduce emissions
- Top tips that everyone can follow to make a difference
- Information on why we need to take action in this area, backed up by more information on SNC website

The communications campaign will be a collaboration between the in-house communications team and the climate change officer, so the main resources for this will be officer time. The success of the campaign will be assessed by monitoring social media interactions, the number of times embedded links are followed, and the number of direct contacts received as it will not be possible to monitor the direct impact on emissions.

The Climate Change Challenge is for the most part a one-way communications campaign, but SNC recognise the importance and value of working with others and so, in addition to delivering this campaign the climate change officer will:

- Identify local groups/individuals with an interest in this area, provide support and assist in developing a network/forum for these groups so that knowledge,

resources and ideas can be shared

- Develop partnerships with individuals/organisations who are able to deliver/support actions which we are not
- Engage with Parish and Town councils to understand how best we can support any climate change actions

## **Housing**

Reducing the emissions generated by the existing housing stock in South Northamptonshire will be key to reaching net-zero and staying within our carbon budget. However, SNC cannot directly control what people choose to do or not do in their homes and are not in a position to provide funding to residents to carry out work. Therefore, their main role is to provide information on options, their benefits and any funding available. SNC will also seek feedback from householders as to the barriers that prevent them from carrying out work and use this to develop a strategy for WNC and to inform national government how they can best support residents.

## **Insulation**

The Tyndall Centre recommends that 2063 properties in the district have their insulation upgraded each year up until 2030. This target would mean that all properties in the district were properly insulated by 2030. Properly insulated buildings have reduced costs from both heating and cooling as well as increased health benefits due to greater protection from extreme temperatures.

Advice will be provided by SNC on the options and their benefits and signpost to possible funding/support to complete this work. Advice will be provided through the following channels:

- Devise a method of communicating with those living in fuel poverty to advise on the benefits and funding available for improving insulation
  - It is estimated that 9% of properties in South Northamptonshire are in fuel poverty which is around 3420 properties
- Create an online collection of information and signpost to other services providing advice and funding for energy efficiency measures which can be taken at home
- Provide some printed materials for those seeking information but do not have access to the internet

## **Eco-heating**

The Tyndall centre recommends that 1314 eco-heating systems are installed each year, these are systems such as heat pumps. Heat pumps are powered by electricity, so the emissions they generate are entirely dependent on the source of this electricity. The electricity grid has been decarbonising rapidly in recent years and this is set to continue which is why there is a strong push towards electrification in a number of sectors to reduce emissions. However, this is putting increased pressure on the electricity grid, in some areas this could mean that it is not possible to connect a large number of heat pumps all at the same time and instead there may be a delay while upgrades to the grid are made. Currently, switching to a heat pump will be most beneficial to those not connected to the gas grid, as such, SNC will directly contact these residents to advise them of the options, benefits and funding available to switch to a heat pump:

- There are more than 12,000 properties in South Northants not on the gas grid
  - SNC will aim to contact at least 8,000 of these properties as not all properties, for example flats will be suitable for heat pumps
- Follow up with meetings/presentations at local parishes/villages if there is sufficient interest
  - Explore opportunities for heat networks in areas where there will be difficulty in connecting a large number of individual properties

The above actions will be taken by the climate change officer in collaboration with the housing team. The main financial costs will be for direct mailing to the properties identified above and for printing costs of information leaflets, design of these will be carried out by an in-house team.

## **Waste and recycling**

Compared to the rest of England, South Northamptonshire are one of the best districts for waste management, with the most recent figures showing a rate of 61% for recycling, reuse and composting. The Tyndall centre recommends increasing this figure to 70% by 2025, which would require an increase of just under 2% year on year. The ultimate goal however, is to move to zero waste which will require a largescale shift in consumption habits.

### **Increase recycling, reuse and composting**

SNC already provides a comprehensive fortnightly recycling service as well as kerbside collection of WEEE and batteries and weekly food waste collection. SNC can encourage more residents and businesses to take full advantage of these services by:

- Refreshing communications
  - SNC do provide regular communications campaigns but it important to keep the messaging current
  - Communications will highlight links between waste and climate change
  - Focus to be on reduction and reuse whilst also providing reminders on how to use waste services correctly and fully

### **Move to zero waste**

A move to zero waste means a wholesale shift in consumption behaviour which will need to take place across the whole country at the very least and will require businesses to shift from goods to services models amongst other things. This is well beyond the scope of the district but SNC can assist in providing some opportunities for re-use and extending the life of goods which may help to begin to shift the mindset of some. They will do this by:

- Engaging with local groups and communities to support the establishment of regular repair and reuse events
  - Repair cafés are widely established around the UK and there is a supportive network to help establish new ones
- Reuse events allow people the opportunity to swap items they no longer want.

These can be general events or for specific types of items e.g.

- Swishing (for clothes)
  - Books
  - Craft items
  - Children's items
  - Sport equipment
- These events will also provide the opportunity to seek feedback in regard to the barriers to reuse and repair and these can be used to inform recommendations for WNC

The Waste and Recycling Team are experienced in delivering events and communications campaigns and appoint a part of their budget to these activities, they will also receive support from the climate change officer where required.

## **Tree planting**

Rapidly reducing emissions as far as possible is the key to achieving net-zero and keeping global heating below 2°C. However, there are some emissions which cannot be removed completely, such as those from agriculture. South Northamptonshire is a largely agricultural district and so it is necessary to find a way to re-absorb the emissions this sector produces. Carbon can be sequestered into sinks, the most significant of these being the sea, soil and vegetation such as trees. Increased canopy cover from trees can also help minimise some the effects of global temperature increases such as reducing flooding, erosion and local temperatures.

There are also a wide variety of other environmental, social and health advantages from increasing, restoring and enhancing tree cover.

The Tyndall Centre recommends that South Northamptonshire aims to have a minimum of 20% tree cover as soon as practicable. In numbers this would mean:

- 20% of South Northamptonshire's land area is 12,680 hectares
- According to the National Forest Inventory 7% of South Northamptonshire is woodland, this inventory only accounts for woods not individual trees or small areas, so total canopy cover will actually be higher, so a very low estimate would be that there is currently 10% canopy cover in the district
- This would require the planting of an additional 6340 hectares to meet 20%
- 1000 to 2500 trees can be planted on one-hectare, averaging 1750
- Using this average that would mean the planting of 11,095,000 trees or around 120 trees per person currently living in the district

This is an awful lot of trees and despite the large number of benefits they provide, trees can also cause problems if the wrong tree is planted or if they are planted in the wrong place and if they are not maintained properly after planting. The climate change crisis needs to be viewed alongside the biodiversity and loss of nature crisis and so very careful consideration needs to be given as to which lands and habitats should to be turned over to tree planting, many other habitats also absorb carbon whilst providing other environmental services and so trees should not be seen as the only solution and in many cases enhancing or restoring existing habitats may be a better option. Additionally, it is important that productive agricultural land is not turned over to tree planting as this will mean that emissions from food production

would be exported overseas, as the UK has some of the world's highest environmental and welfare standards this would be extremely counter-productive.

With the above in mind, SNC will develop a long-term strategic plan for tree planting and management across the district, with the possibility of extending this work across the whole West Northamptonshire area. This plan will map existing habitats and land uses and identify suitable sites for planting, restoration and enhancement work. Additionally, SNC will begin tree planting in the district, aiming to plant one tree for every resident (92,515) in the winter of 2020/21. SNC do not own enough land to complete this much planting on their own estate and so will reach out to other land owners such as Parish and Town Councils and other public and private organisations for collaboration.

The above actions will be co-ordinated by the climate change officer, utilising the expertise of officers at SNC as well as external parties where necessary. £20,000 has been set aside in the climate change budget for tree planting activities and SNC could also be eligible for some external funding streams.

## **Planning**

SNC has an opportunity to shape the future of the built environment through planning decisions it makes today and the contributions it makes to planning policy documents which are in development for the West Northamptonshire area. Several policies already exist which have provisions to ensure developments include elements that will both mitigate and adapt to the impacts of climate change. These include:

- Joint Core Strategy
- The Local Plan Part Two
- Supplementary Planning Documents
- SNC design Guide

To date the provisions in these documents have not always been fully utilised and other planning constraints have taken priority. The planning team take their lead on decisions from members and so the climate change officer will attend at least one planning meeting to provide more information to members regarding the links between planning and climate change and the opportunities and policies available with the aim of increasing awareness and support for a more climate change friendly approach to planning decisions.

Currently in development is a review of the Local Plan Part One which covers the whole of the West Northamptonshire area:

- This document is in the very early stages of a review process
- Currently climate change features very prominently in this review and it is crucial that this approach continues throughout the process and into the final plan

To assist planners in decision making, the climate change officer will also work with them to develop a range of reference documents surrounding climate change considerations.

## **Transport**

Transport is the biggest contributor to emissions in the district but as a district authority, SNC has very limited powers in terms of roads and public transport and WNC will be able to be much more effective in these areas. However, SNC can still make a contribution to encouraging those living and working in the district to reduce their emissions from transport. The Tyndall Centre makes the following recommendations:

- 40% commuting by public transport, cycling or walking by 2030
- Increase car sharing for remaining car users
- Minimum 59 EV chargers by 2030

### **Increase active travel**

There is already a network of walking and cycling routes around the district, but there is always room for improvement and so SNC will carry out a review of this network in collaboration with the leisure department and plan a programme of works for improvements to make walking and cycling more appealing to those living and working in the district. Increased promotion of these routes and the benefits of more active travel will be delivered, again in collaboration with the leisure team. Funding has not been allocated for this work and will need to be sourced either from grant funding or from council budgets.

### **Increase car sharing**

Many car clubs and car sharing platforms are available across the UK and SNC can increase their use by promoting these services. Increased use of services like these will need to happen to move people away from individual car ownership and towards a more service-based approach to travel if we are to reach net-zero. This is a behavioural shift which is well beyond the boundaries of the district but making people more aware of these services could lead to changes such as removing the need for a second car.

### **EV charge points**

SNC own a number of car parks in the main urban areas of the district and will review all of these sites to assess their feasibility for the installation of EV charge points. As technology is developing rapidly in this area, it is not useful to install large numbers of charge points at this stage as they may need to be replaced in the near future, however, it is important to provide enough chargers so that a lack of charging infrastructure is not a barrier to EV ownership. Instead, SNC will install one post with two fast charge points at each site which is identified as suitable, this should also mean there are no issues in regard to capacity on the electricity grid.

Funding is available from OLEV in the form of the On-street Residential Charge Point Scheme, this can be used to install charge points in car parks as long as they meet certain criteria. The funding provides up to 75% of the capital installation costs, the remaining capital and maintenance costs need to be provided either by the applicant or a third party. There are a number of private businesses offering such services in return for the income generated from payments to use the charge points. Parish and Town Councils are also eligible to apply for this funding and SNC will engage with them to provide guidance and support on this process as they are best placed to assess need and suitable locations in their areas.