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Summary

This work to create a plan to move to Net Zero for the Salisbury Centre, completed over several months, involved a small team from the Salisbury Centre staff working with The Surefoot Effect CIC. The team gathered information which was used to create baselines of energy use and CO2e emissions, after which they examined the areas where change could be made, looked at a variety of sector standard solutions and determined which might have the most effect not only on the Centre's stage 1, 2 and 3 emissions, but how they might also influence the wider community to reduce emissions. The group agreed to categorise actions as short term (within 2 years), medium term (within 4 years), and long term (beyond 4 years) and that all actions and categorisations were to be reviewed annually.

The purpose of baselining is to identify where best to expend effort in reduction. There also needs to be an acknowledgement that it will not be possible to reduce to emissions to zero without the significant infrastructure (eg the decarbonisation of the energy sector) and systems changes (eg a full shift across Scotland to a circular economy) required, which can only be made by governments.

Over the course of the project many actions were identified, but most are not quantifiable in terms of exact amount of savings until the action is completed, hence a recommended re baselining in 4 years. Most of the work to achieve Net Zero industry-wide is done on an estimated basis as it would be very costly to create an exact baseline or exact savings. A quick example is a simple office chair – how many emissions (and specifically which) were emitted during the building of that chair? Most manufacturers will not know this themselves. We do know though that getting a pre-used office chair locally will be less carbon intensive than a new chair made somewhere else.

The baseline showed that food purchased by the Centre was a relatively low contributor to the carbon footprint at less than 1t CO2e per year. Short term actions are centered around conversations with staff, trustees, and the wider community about moving to making choices based on ethical, fairtrade plant-based and whole foods. There is a medium term aspiration to lower the Centre's own footprint by exploring what can be grown in the garden for Centre meals.

Travel emissions related staff and board travel are again relatively low at 1.22t CO2e per annum. Actions to reduce that are limited to trying to recruit both staff and board members who live locally and encouraging non-car travel into the Centre by staff and trustees. The primary actions for the short term are to encourage the wider community to use public transport and/or cycling to travel in to the Centre.

Purchased goods and services are the most carbon intensive part of the baseline at 13.19t CO2e, 44.02% (food subtracted out of this number) of the total per annum. The emphasis of the actions in this area was to source second hand items wherever practicable, to buy recycled items such as paper and bin bags, and to ask suppliers about their supply chains.

The survey of waste for this project, done over a short time, showed approximately 100kg of waste per month goes to landfill, which equates to emissions of 0.54t CO2e, 1.88% per annum. Actions in this area are to continue giving things away through meadow share and charity shops, the Remakery and to consider composting cardboard in the garden more often. Again, this is an area where Centre users can be influenced to consider packaging and what they are putting into the landfill bin.

A priority, as for anyone trying to heat and otherwise power a building, is to address energy efficiency. This project accessed the help available from Surefoot's HeatHack (HH) project looking at

energy efficiency. The HH work acknowledged a significant amount of energy efficiency work had already been done as part of the Centre's Living Lighter project and indicated that as a first priority the following should be investigated as soon as possible: turn off hot water preheat (if this is an option), control ventilation manually, put countdown timers on some electrics, restrict access to heating plant, update heating controls, install floor coverings (carpet and underlay) in the office to improve insulation and working temperature. Notably the Centre is applying for green energy funding for an air source heat pump.

Other actions can be found in the relevant sections below for each of the areas summarised above.

Method

As with all successful strategies for change, Net Zero for Teams from The Surefoot Effect begins with the in-house team. we adopt a holistic approach. We believe, everything that needs to be done in the business can be achieved by the people in the room. Using a combination of workshops and support for finding the information you need to move forward, we work with the unique challenges your business faces to help you implement the right changes for your organisation.

The Surefoot Effect helps create and execute an action plan to achieve that. Our approach is tailored to ensure the Net Zero plan is viable for in house operations.

We commissioned a reputable consultancy, who has worked with the Salisbury Centre for many years to create a baseline report using industry-standard best practice. The Salisbury Centre team provided the base data used in the baseline.

The Surefoot approach is based on holding a series of workshops to review the areas of the baseline to identify and agree the actions to be taken. The Centre was able to take advantage of Surefoot's funded HeatHack programme to examine in 4 sessions the possible options to improve heat efficiency and thermal comfort in the Centre. Workshops were then held to examine the areas of Food, Travel and Purchasing to identify and agree actions.

Overview of Baseline

The Centre-commissioned baseline showed the following Green House Gas emissions across all categories:

Category		CO2e/annum	Percentage
Purchased goods and services*		13.19	44.02%
Natural Gas		9.48	31.64%
Fuel- and energy-related activities**		2.93	9.78%
Home working /hybrid working		1.69	5.64%
Employee commuting		1.22	4.07%
Food		0.89	2.97%
Waste generated in operations		0.56	1.88%
	Totals	29.96	100%

^{*}includes food **electricity usage

The methodology used followed industry standards across Scopes 1 (Natural Gas), 2 (Electricity), and 3 (other emissions related to the Centre or staff and board in relation to activity for the Centre).

It would be possible to extend the baseline in the future to include visitor travel to provide a more extensive picture.

More information can be found in the report complied by consultants <u>Beyond Green</u> using data provided by the Centre.

Actions and estimated reductions in baseline

Food

Current Situation

While the centre is doing fairly well in terms of low carbon food choice (plant milk, vegan/veggie food) there is still the issue of food waste and choices by other centre users. People seem to respect the request not to cook meat or fish on the premises

The baseline shows emissions related to food purchased by the Centre are at 0.89t CO2e. This was calculated by using an industry standard calculation for food based on spend, then halved as the Centre buy exclusively vegan food. To get any more detailed than this for 0.89t CO2e is not a good expenditure of effort at this time, as each individual food purchased would need to be carbon footprinted.

Foods the Centre buys for Internal meetings, events hosted by the Centre (vegan)

- Oat milk
- Black and herbal tea
- Coffee
- Local bakery
- Fruits and breads from Refillery or Coop
- Hummus
- Home made cake
- Cookies
- Popcorn
- External caterers (Nourishing Change and Himalaya Café)

Foods that gets donated by other people / businesses to share

- Often out of date, and / or won't necessarily get eaten
- Often people bring leftover food from a shop that won't get eaten here (Q? Can we influence shops to not make so much food so as to have so much waste and ask people not to bring in so much so that we have a glut of food excess)

Foods that get bought or brought in by people to events ie: community suppers and lunches.

- Often people bring in fish or meat-based items
- Unethical / non-Fairtrade items or controversial companies like Nestle etc.

Foods that get bought or brought in by external room hires

- Cow's Milk
- Coffee and tea (usually by non Fairtrade companies)
- Sugar
- Domino's pizza
- Local deli food

- Variety of biscuits, chocolates, cakes
- Deli meats such as salami/ham etc

ACTIONS

Short Term

Facilitating a conversation first with the staff and trustees to decide the best way forward and how they will then communicate it further. Propose that we explore using the language of 'plant based and whole food' diet versus 'vegan' to remove some of the potential for polarisation that occurs around the subject. Then expanding this conversation with the community and beyond.

More signage around fairtrade and ethical goods, plant based food etc.

Work with community lunch group to facilitate a discussion on food choice (after the initial staff and trustee group)

Change the wording in the Ts and Cs for external room hires to explain why we encourage plant-based diet.

Add information about this in the library, building on the booklet Alan produced, adding signage – how to identify what is in the garden, how to cook in most sustainble ways, use, prepare, etc.

Start doing cooking/food waste workshops again? With funding.

None of these items address the Centre's own purchase of food. It will be very difficult to monitor, measure and report on the impact of these actions. However, perhaps a quarterly or six-monthly spot check of non-plant based foods left in the kitchen could give an indication of changes the community may have made?

Consider keeping track of food purchased for the centre for 6 months and do an analysis based on packaging, local provenance, etc before re baselining. Speak to caterers about their supply chain.

Transition toward the medium term action: Explore options for a workshop to spot what's in the garden and when?

Medium Term

Grow more immediately community event useable food (eg soft fruit. Squash, courgettes, tomatoes, salad, potatoes, carrots, etc – low maintenance as possible) in the garden and polytunnel. This will decrease the food miles and packaging element of food used in the centre. An average of 26% of the carbon footprint of food is attributable to transport and packaging. The current footprint of the mainly vegan food purchased for centre events is quite low at 0.969 tonnes CO2e per annum for about 6 events with an average 20 people at each. If half of the food for events was grown at the Centre, the savings on that half (at 26%) would be 0.13t CO2e.

The centre can continue its work with people to address the issue of ethics beyond just what the food is, but also how it is sourced (Fairtrade, more than Fairtrade etc) working with partners at Rhryze Mushrooms, Earth in Common at Leith Community Common

Ask GreenCity about carbon footprint of purchased items.

Long Term

None identified

Actions to be considered going forward but not yet adopted

There is also the issue of food packaging. Is there scope for larger scale influence with neighbouring shops and encouraging attendees at events to bring food in reusable containers, and to prepare their own food?

Travel

Current Situation

The baseline shows 1.22 tonnes of CO2 relate to Employee and Board commuting. How do people travel now?

- Noted the Centre has good public transport links already.
- Many people take the train, bus, walk or cycle.
- Paid parking encourages people to take public transport even if they wanted to drive, but is an issue for people who have to drive.
- Parking can be cheaper than the bus/train, plus potential free parking (Mon-Wed) in synagogue next door
- Not a lot of scope for improvement in employee commuting or home working.
- Biggest opportunity is to influence others.
- Some people drive for access reasons or to transport things.
- We already encourage people by saying the bus tends to be easier than parking locally.
- Have already requested drop kerbs from the Council.

ACTIONS

Short term

On website, switch parking information with park and ride information and add information about nearest electric car charging points.

Put some wording at the top of the transport section of the website encouraging people to consider carbon emissions of how they travel, with links to Net Zero and our Environmental policy. Find wording that acknowledges people may sometimes need to drive and that avoids shame/guilt.

Add photos of bicycle parking and explain that there is covered bicycle parking within the grounds.

Mention on website that we have a shower on site for people cycling in.

Add design intern's simplified map to our comms including website, showing ease of access from public transport routes.

Add a chained up bike pump to encourage and support bicycle use.

Survey employee and board team annually to evaluate the change in carbon footprint.

The projected footprint has already reduced from 1.22t CO2e per annum to 1t CO2e per annum due to a change in staffing.

Medium Term

Consider sharing more detail about emissions of different transport modes, in context of Net Zero, e.g. eco noticeboard / blog post on website (linked to in newsletter). Could include quotes from participants on what they've learnt from the process. Include other benefits of active travel (health, quiet, clean air, cost, etc.).

Consider offering space / collaboration with groups who promote cycling and walking. E.g. University Sustainability Department.

Promote pleasant walking routes and interesting sites to see on the way from the city centre.

Consider batching up orders to come as one delivery.

With less, emphasis, consider having items delivered to a centralised drop off point rather than directly to the Centre (especially if several items and carriable – picking up via walking or cycle use suitcase or trolley for larger items). These last two items have the potential to reduce the carbon emissions of the Centre, but would need to be calculated for each individual event.

Long Term

Enquire with Changeworks about possibility of having an electric car charging point installed close to the Centre.

Consider increasing bicycle parking capacity in the front garden, e.g. better rack in shed, additional racks outside kitchen / art room. Consider SusTrans/Cycle Scotland grants.

Consider collaborating with Dr Bike, Shrub Wee Spoke Hub, Bridgend or Sustrans, to deliver bicycle repair workshops and/or cycle confidence and safety.

Consider whether we could collaborate with Bridgend on bicycle hire station at the Centre.

Seek to influence (or team up with others / see who in the community is interested) for improved cycle lane facilities and other safety features such as speed cameras in the vicinity including in the road immediately outside and around Holyrood park.

Purchases

Current situation

The baseline shows 13.19t CO2e emissions (of which 0.98 is attributable to capital goods which can be depreciated across several years in terms of both cost and emissions). Emissions from purchases are across several categories:

Widely variable by year:

- Furniture, other manufactured goods,
- Building & Maintenance

Likely to be repeated:

- Rates
- Cleaning Services
- Training
- Other Service Activities
- Accountancy, Legal and Professional fees
- Insurance
- General Office Equipment
- IT Hardware
- Printing
- Banking and Financial Services
- Cloud Services
- Equipment Hire
- Business Travel (external)
- Telecommunications (emissions are included in electrical spend for the purposes of baselining)

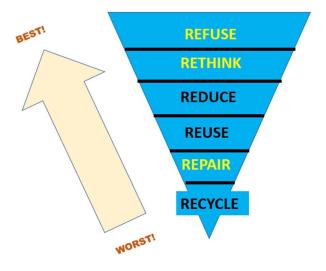
For the items which are likely be repeated year on year in some form, emissions are 8.66t CO2e per annum. In this category is 1.98t CO2e per annum which is attributable to rates, for work the council does on with the money contributed by the Centre: everything from road maintenance to schools and social services. This will be difficult to affect in any way except by lobbying the council to be as sustainble as possible in its operations. It is understood that cleaning has now been taken in house, and so that expense will not be repeated, although the emissions will, but only in terms of the Centre's overhead for staff, accounted for elsewhere. The spend on other services activities will fluctuate year on year.

The main actions that can be taken for services are to ensure suppliers are acting in the most sustainable manner possible, although, in the sessions, it was highlighted that this is a very time-consuming process and possibly not viable for a small staff team to undertake.

For purchases of goods, the best way to reduce emissions is to focus on the "R's" as depicted below. Is 'it' really needed? Is there another way to do what this 'thing' will do? How big a thing is needed? Or how many of a thing? Can a current item be reused in some way? Or

can the current items be repaired? Can a refurbished one be bought instead of new? Again, though, these options can be time consuming to be researched. Buying good quality used goods where possible and ensuring the energy efficiency of any new or used electrical goods purchased will be essential.

The R's:



ACTIONS

Short Term

Buy or source second hand, where possible. If not, buy high quality items at the outset to maximise their life. Measure on a case by case basis, and record purchasing decisions, if not exact CO2 savings (difficult to source accurate information).

Look at building and maintenance spend and consider where could be more eco.

Stay with eco cleaning supplies.

Look into recycled bin bags.

Check office paper is recycled. (and other paper products)

Do a stock take of our stationery.

Check with printer if they have a rate for recycled/eco printing.

For staff and trustees: speak when you are in person instead of sending an email, where possible. Consider deleting old emails, limiting reply all and unsubscribe from unwanted newsletters

For all of these items, a measure of savings on a case by case basis will be required and any amount deducted from the baseline. For example, using recycled paper can save up to 38% carbon emissions as opposed to using paper made from virgin materials.

Medium Term

Review green cloud provider. (One Drive in use currently: Microsoft is working toward carbon neutrality. https://www.wired.com/story/amazon-google-microsoft-green-clouds-and-hyperscale-data-centers/ https://www.cloudwards.net/what-is-green-cloud-storage/)

Research trusted suppliers for spending on repairs and maintenance supplies (acknowledging that many suppliers/contractors in this industry won't be open to the conversation). This may come out of the review the architects are doing. And possibly form Edinburgh Climate Hub.

Waste

The survey of waste over a short time showed approximately 100kg of waste per month goes to landfill, which equates to emissions of 0.54t CO2e per annum. The rest of waste is recycled or composted and amounts to 0.02t CO2e per annum, leaving little room for reduction in any way other than to reduce what goes into that waste stream. In future measure over a much longer period

ACTIONS

Short term

Continue giving things away through meadow share and charity shops, remakery

Consider composting cardboard in the garden more often, esp toilet rolls!

Medium Term

For the 100kg per month going to landfill, the action is to examine the make up of this waste and again, determine how to amend purchasing to reduce the waste.

Much of the waste will, of course, be coming from Centre users, and so a significant action, as with food, will be to gently educate those coming into the Centre to make their purchasing choices with an eye to waste.

Energy Use

HeatHack background

The Centre used the Surefoot HeatHack programme to investigate how to make the Centre's energy use more efficient. Over a few months a team met and worked through the HeatHack process, using heat monitoring and group work to determine a set of actions to reduce energy related CO2e emissions and to improve thermal comfort in the Centre. Many actions have already been completed during the Living Lighter project, double glazed windows, and underfloor insulation for example. Other actions are in progress as indicated below.

Overall direct energy use at the Centre yields a per annum figure of 10.43t CO2e, comprised of 9.48t CO2e from natural gas and 0.95t CO2e for electricity including residential area

The other aspect of energy use emissions for the Centre is working from home (1.69t CO2e).

Actions

Short term

Turn off hot water preheat (check if this is an option)

Control ventilation manually

Put countdown timers on some electrics

Restrict access to heating plant

Update heating controls

Install floor coverings (carpet and underlay) in the office to improve insulation and working temperature.

Heated throws for the office and curtains for the evening.

To reduce emissions from home working, consider more working at the Centre in winter (assuming the Centre is a comfortable temperature and no additional plug in heating).

Consider any efficiencies for people working in the same space at the same time (e.g. aligning working days, only using one of the two offices at a time, coming in instead of working from home if the office is already in use by someone else and therefor heated).

Applying for green energy funding for heat pump

Medium term

Add or switch to infrared heating

Create a draught lobby

Insulate under the ground floor

Switch to more efficient appliances as old ones need to be replaced, try to find refurbished Applying for green energy funding for solar

And Beyond

Annual review

It is recommended:

Progress against short, medium and long term actions is reviewed annually

Check annually for any new actions to be added

Publish accomplishments

Revisit

in 2 years – internal team

If funding permits, it is recommended to commission another baseline in 4 years' time.