

Thurrock Climate Change Action Plan

Update Note

Page 1

9th November 2021

Agenda Item 8



ARUP

Case for Local Climate Policy

Action long list

Action assessment

Suggested contents page

Next steps

Thurrock Climate Action Plan

Project Purpose and Approach

Purpose

To provide evidence to inform the development of the Local Plan;

Builds on Climate Change Scoping Study already completed;

Presents a break-down of emissions sources;

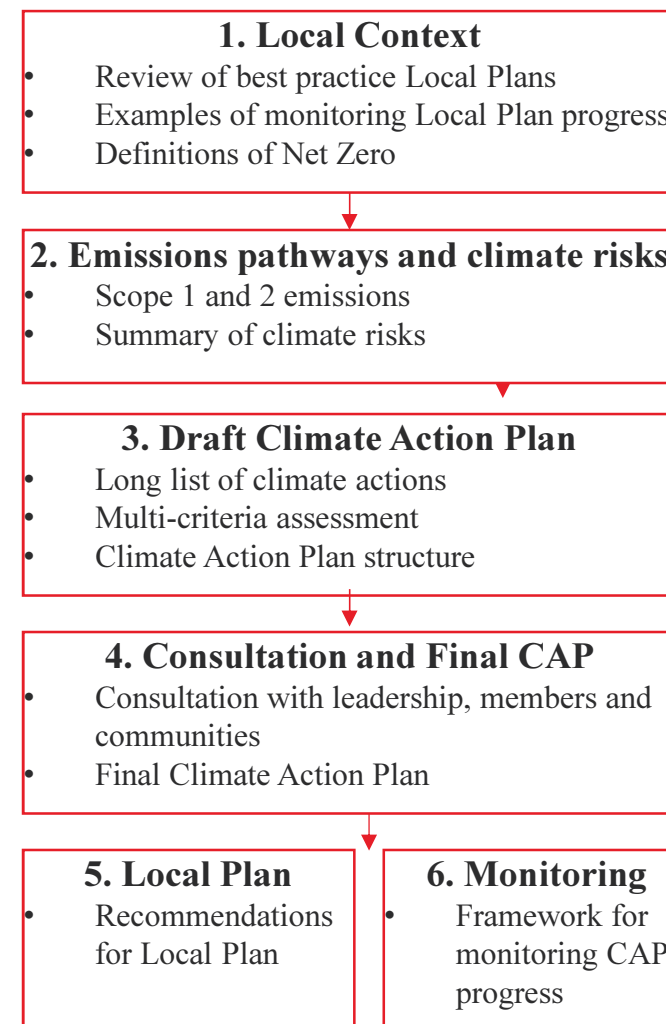
Outlines climate risks for the area;

Identifies routes to action to mitigate risks;

Identifies mechanisms and funding for overcoming barriers;

Establish clear timescales and accountability.

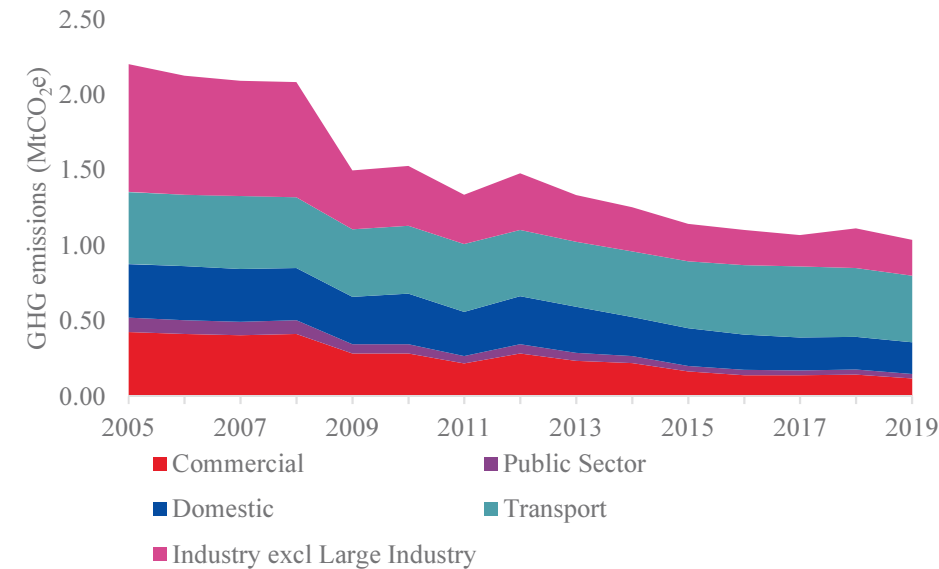
Approach



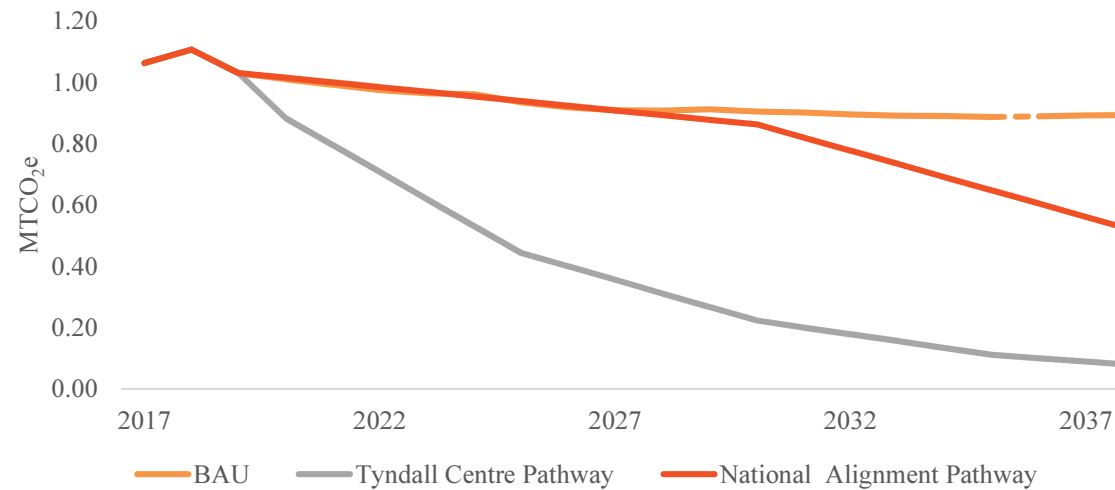
Case for local climate policy: mitigation

2019 local authority emissions data has been released by BEIS and shows that the total emissions for Thurrock in 2019 were 916.3 ktCO₂, with a per capita figure of 5.3 tCO₂ i.e. the CO₂ emissions emitted for every resident.

Thurrock had significantly higher than average industrial emissions in 2005 which have been brought down dramatically over the last decade closer across the rest of England due to its reduction in Industry. Domestic emissions are slightly above average, but transport emissions per capita are significantly lower.



- Applying and downscaling the BEIS 2019 Energy and Emissions projections for the UK to Thurrock provides a business as usual pathway.
- Have applied both a grandfathering carbon budget emissions reduction pathway and a national alignment pathway to net zero. [A grandfathering approach allocates emissions on the basis of recent emissions data 2011 – 2016]
- There are sixteen companies responsible for nine-point sources of carbon emissions in Thurrock.



Case for local climate policy: adaptation

By the end of the 21st Century all areas of the UK are expected to be warmer, and across all seasons – by 2070 this could be up to 5.4° C warmer in summer and 4.2° C warmer in winter.

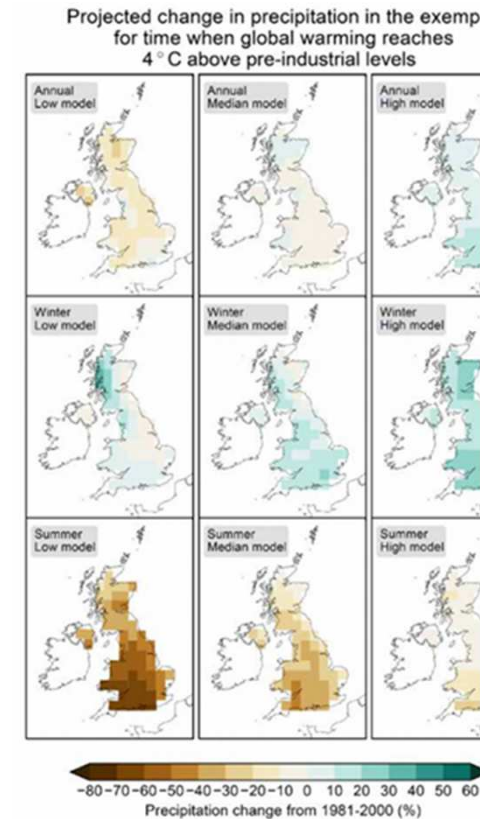
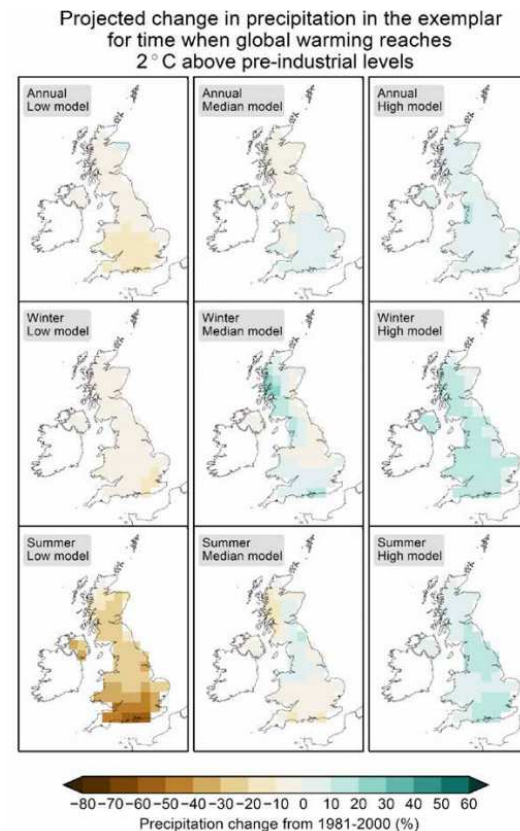
Summer temperatures are rising in Thurrock. The hottest summer day of the past 30 years was 36.6° C but if global average temperatures increase 2° C, the hottest summer day could be about 38.1° C and if temperatures rise by 4° C, it could be as high as around 42.5° C.

In Thurrock over the past 30 years, there were 8 rainy days on average per month in summer. If global average temperatures rise by 2° C, this could reduce to 7 days per month and at a 4° C rise it could be as low as 5 days.

On the wettest summer day of the past 30 years, 42mm of rain fell in Thurrock. At a 2° C rise, this could be about 45mm but at a 4° C rise, as much as 57mm, which is 36% more than now (Met Office and BBC, 2021. “What will climate change look like near me?”).

Further data is provided in the policy document for the winter seasons as well as the potential risk of flooding and drought.

It is anticipated that the risk of flooding will increase within Thurrock for the winter months with more extreme precipitation days.



Case for local climate policy: next steps

Confirm the growth and future housing projections to produce estimations of the embodied and operational emissions of future housing stock, and the impact of zero carbon housing policies.

Confirm the strategic sites of importance to assess the potential climate risks to those sites over the next century under different RCP scenarios.

Integrate the findings into the Climate Change Action Plan.

Action long list

Long list of climate change actions to reduce emissions and environmental impact, organised by key economic sectors (Energy and Industry, Transport, Buildings, Land Use and Food Systems, Waste) and those for the public estate and operations

These actions were drawn from Thurrock strategic documents, national government documents, partner strategies e.g. Thames Estuary Board Growth Strategy, public recommendations e.g. Thurrock Climate and Fairness Panel Final Recommendations

Total long list of 203 actions (see next page for examples)

Emphasis on Transport and Energy as these are areas with the highest emissions or limited progress in reducing emissions over the last decade

Arup provided additional best practice actions across buildings and industry



Action long list: Examples

Transport

- Create low emission and pedestrianised zones within Thurrock
- Implement surcharges for all large vehicles and HGVs that do not meet green criteria - both international (e.g. lorries coming from ports) and domestic

Energy & Industry

- Support the recycling of heat produced in industrial processes to reduce business energy bills and benefit local communities
- Commence roll-out of targeted district heat network projects led by Tri-LEP Strategic Energy Delivery Group and Greater South East Energy Hub

Buildings

- Close loopholes allowing homes to be built which do not meet the current minimum standards for new dwellings, including provisions around the

expiry of planning permissions. Undertake low-regrets action to support the assessment and benchmarking of whole-life carbon in buildings with a view to informing the future policy framework

• Land Use and Food Systems

- Plant XX hectares of mixed woodland to remove CO2 from the atmosphere
- Increase urban green space, using tools such as the Woodland Trust Greenspace Access Standard to identify areas that lack access to quality green space

• Waste

- Introduce a zero waste procurement policy that bans single-use plastics, excess packaging, specifies recycled content, favours appliances and goods that are repairable and recyclable.

Action assessment

RAG assessment of the actions is conducted considering the following criteria

- Development stage of action e.g. highly developed, early stage
- Alignment with national agenda on climate change
- Does Thurrock Council have the powers to act
- Indicative costs and resources
- Does it support populations through improving accessibility and inclusivity

Page 9

Grouping of similar actions to create a package of actions

Shortened list is 75 borough-wide actions and 10 for Thurrock Council itself

Actions aren't evenly spread across the sectors therefore some balancing required to involve all sectors in taking action against climate change

			RAG ASSESSMENT				
Action Title	Description	Associated target	Development stage (green = well developed, orange = further detail required, red = little detail)	Alignment with national agenda on climate change (green = mirror action, orange = some)	Does Thurrock Council have powers to act (green = yes, orange = enabling, red = no)	Indicative costs and resources (green = low, orange = can be afforded, red = high)	Supporting populations and accessibility (green = promote and accessibility does not damage and accessibility worsens inclusivity)
Improve the number and convenience of bus routes (this could include eco-friendly river buses)	Climate and Fairness Panel Final	To reduce emissions from the county to net zero carbon by 2050 on a pathway consistent with keeping the	Orange	Green	Green	Red	Green
Copy the TfL model for running buses so that bus companies get paid centrally rather than relying on making their own profit. This can help make bus fares cheaper for everyone and mean buses serve more areas.	Climate and Fairness Panel Final Recommendations	To reduce emissions from its own estate and operations to net zero carbon by 2032	Green	Orange	Orange	Red	Green
Create low emissions zones and use the money to fund free transport for people on low incomes. Include exemptions for people who need to use large cars (for example, people with disabilities)	Climate and Fairness Panel Final	To reduce emissions from its own estate and operations to net zero carbon by 2032	Green	Orange	Orange	Red	Green
Implement surcharges for all large vehicles and HGVs that do not meet green criteria - both international (e.g. lorries coming from ports) and domestic.	Climate and Fairness Panel Final	To reduce emissions from its own estate and operations to net zero carbon by 2032	Green	Orange	Orange	Red	Green
The government should increase investment in both electric vehicles and in researching the other low-carbon alternatives, including hydrogen.	Climate and Fairness Panel Final	To reduce emissions from its own estate and operations to net zero carbon by 2032	Green	Orange	Orange	Red	Green
The UK should invest in cleaner energy sources (for example, tidal power), new technologies and research and development.	Climate and Fairness Panel Final	To reduce emissions from its own estate and operations to net zero carbon by 2032	Green	Orange	Orange	Red	Green
A national green tax should be applied to carbon emissions. This tax must be designed to ensure it is fair to consumers and complemented by initiatives that help people to afford the alternatives.	Climate and Fairness Panel Final	To reduce emissions from its own estate and operations to net zero carbon by 2032	Green	Orange	Orange	Red	Green
Discounts for electric vehicles and bikes for disabled people. Disability benefits for helping people to travel around should be spent on low-carbon options, as long as this is achieved fairly (e.g. through government investment or subsidy, rather than the cost being borne by the individual).	Climate and Fairness Panel Final Recommendations	To reduce emissions from its own estate and operations to net zero carbon by 2032	Green	Orange	Orange	Red	Green
Invest in cycle parking, storage and cycle lanes so that cycling is a safe and desirable option. This could be paid for by using the money from surcharges for high carbon vehicles (for example, lorries coming from the ports).	Climate and Fairness Panel Final Recommendations	To reduce emissions from its own estate and operations to net zero carbon by 2032	Green	Orange	Orange	Red	Green
Create weather-protected, secure community car parks for residents, with charging points for electric vehicles. This should reduce on street parking and create more space for greenery.	Climate and Fairness Panel Final	To reduce emissions from its own estate and operations to net zero carbon by 2032	Green	Orange	Orange	Red	Green

Suggested contents page

Need to start considering the contents page for the climate action plan.

The Action Plan looks at interventions applicable to the borough as a whole, however also it is worth considering the enabling environment and the role that Planning can play to achieve action.

The sectors proposed reflect the industrial identity of Thurrock, the grouping of all buildings reflects the importance of reflecting planning, and the separation of land use and food from waste reflects the recommendations from the public engagement approach.

Each sector will follow this structure:

- **Overview**
- **Reaching net zero (emissions reduction contributions)**
- **Benefits**
- **Barriers**
- **Actions grouped by delivery group and timescale**
- **Funding pathways**

As Thurrock are leading on the organisation emissions, depending upon the alignment of the programmes it may be appropriate for this work to be contained within a separate strategy document

CONTENTS

1. Context
 - a. Climate change impacts/phenomenon
 - b. Global, national and local landscape of climate policy
2. GHG emissions
 - a. Summary of work on Thurrock organisation emissions
 - b. Region wide emissions
 - c. Net zero pathways
3. Delivery Mechanisms
 - a. Collaborative action
 - b. Community behaviour change
 - c. Council powers i.e. planning
4. Actions
 - a. Leadership Actions (*Organisation action priorities*)
 - b. Transport
 - c. Energy & Industry
 - d. Buildings
 - e. Waste
 - f. Land Use and Food Systems
5. Engagement
6. Monitoring and Transparency

Recommended engagement process

Engagement step	Participants	Objective
[1] Officer workshop	Climate change officer group	Draft the strategy structure Approach for prioritising actions Inclusion of organisation emissions
[2] Semi-structured interviews	Executive Directors/Directors (Waste, Planning, Transport, Countryside, Commissioning)	To identify any other ongoing programmes/projects to be reviewed and added to the action list
[3] Officer workshop	Climate change officer group	Review and finalise the short list (to be shared in advance)
[4] Member workshop	Climate change member group	Review and approve the strategy and its actions
[5] Business engagement	Example groups: Chamber of Commerce, Energy Hub, LEPS	Review and suggest any further actions or partner projects to be referenced
[6] Public engagement	TBD, internal mapping required	TBD – could provide actions or give feedback on the overall vision. The objective will determine the timing

Shortlisted actions

ARUF

Shortlisted actions

Transport

ARUP

Action

Provide core pedestrian and cycle routes, supported by 20mph zones, in Thurrock's principal urban centres

Improve connections between transport modes at interchanges / rail stations

Reallocate road space to sustainable modes of transport to encourage modal shift

Provide additional car parking at rail stations and interchange facilities to facilitate a shift to public transport for the main part of journeys

Encourage freight modal shift, including through a Freight Quality Partnership

Work with freight operators to reduce emissions from HGVs

Implement the South Essex Active Travel Network (a regional active travel programme to enable a significant modal shift)

Establish key public transport hubs (Living Stations) that will be a focus for public transport interchange, accompanied by high quality public realm.

Provide electric vehicle charging points across homes, businesses and existing infrastructure

Through the Freight Quality Partnership, liaise with train drivers on how to improve fuel economy and reduce emissions through more efficient driving practices

Deliver bus eco-driver training to train drivers on how to improve fuel economy and reduce emissions through more efficient driving practices

Invest in electric or hydrogen buses.

Improve the number and convenience of bus routes (this could include eco-friendly river buses)

Implement surcharges for all large vehicles and HGVs that do not meet green criteria - both international (e.g. lorries coming from ports) and domestic.

Discount electric vehicles and bikes for disabled people and incentives / schemes to ensure travel benefits for those on disability payments can be used on low-carbon options and that these are a priority choice.

Shortlisted actions

Transport

ARUP

Action

Create weather-protected, secure community car parks for residents, with charging points for electric vehicles. This should reduce on street parking and create more space for greenery.

Promote government's new industry-wide voluntary target for reducing HGV greenhouse gas emissions by 15% by 2025, from 2015 levels.

Operate Heavy Goods Vehicle platoons, which could deliver significant fuel and emissions savings.

Commence full programme of roll-out of EV charging and hydrogen fuelling infrastructure across 80 sites across the south east region led by the SEEH and CENEX.

Identify sites for consolidation centres near road links and micro-consolidation centres locally. However, local authorities do not have powers to oblige delivery companies to use these.

ARUP

Shortlisted actions

Buildings and Land Use

Action

Ring-fence Section 106 funding to be allocated to support nature and address community needs.

Require developers to set aside funds to tackle climate change and restore nature. These funds should be kept for residents to access on an ongoing basis to spend on schemes to enhance the local environment.

Support a new TrustMark government-endorsed quality scheme for energy efficiency improvements to ensure consumers get what they are expecting and have suitable financial protections in place.

Raise resident awareness of Simple Energy Advice, a new digitally led advice service that provides tailored advice to homeowners, landlords and tenants on how they can improve their home's energy efficiency.

Commence roll-out of full programme of energy efficiency and insulation to assist in homes achieving an EPC rating of C by 2032. To be led by the Tri-LEP Strategic Energy Delivery Group and GSEEH.

Overhaul the compliance and enforcement framework so that it is outcomes based (focussing on performance of homes once built). Fund local authorities to enforce standards properly across the country.

Undertake low-regrets action to support the assessment and benchmarking of whole-life carbon in buildings with a view to informing the future policy framework.

Include water efficiency measures in energy efficient retrofit programmes. Water efficiency should be included in social housing standards (such as the Decent Homes and Welsh Housing Quality Standard).

Encourage multi-benefit SuDS in all developments, to bring together other aspects of planning related to green infrastructure and to help address skills and knowledge gaps.

Specify high standards for new buildings on Council's own land. Local authorities can require that new homes or commercial buildings are built to Passivhaus or equivalent low emissions standards, or BREEAM Excellent.

Apply for funding from the Social Housing Decarbonisation Fund to continue upgrading the least energy efficient social housing.

Work with local authority partners to lobby government for stricter building regulations on new developments to enforce stricter energy efficiency performance.

Energy & Industry

Action

Create new opportunities to integrate logistics and advanced manufacturing land uses and reduce the need to travel

The feasibility of community municipal investment should be explored by Thurrock as an option for supporting new community owned initiatives. Funding should support and prioritise community groups and volunteering that address the climate and nature emergencies. This should include more support and investment for community energy groups.

Support the recycling of heat produced in industrial processes to reduce business energy bills and benefit local communities

Commence roll-out of targeted district heat network projects. To be led by Tri-LEP Strategic Energy Delivery Group and Greater South East Energy Hub

Commence full programme to inject hydrogen into the gas grid across South East region and / or English gas network, based on learning from a demonstrator project. To be led by National Grid and Southern Gas Networks

Commence roll-out of solar energy projects for Network Rail. To be led by the Tri-LEP Strategic Energy Delivery Group and GSEEH

Expand LoCASE programme to facilitate SMEs to develop and refocus to be ready to exploit the significant sector changes detailed in the South2East Energy Action Plan. To be led by the Tri-LEP Strategic Energy Delivery Group and project lead(s)

Commence roll-out of housing and community microgrids. To be led by the Tri-LEP Strategic Energy Delivery Group

Thurrock should develop green finance knowledge within the Council. Private sector investment and Green Finance will be required to deliver the scale of the change needed.

Thurrock should] assess the skills needed locally to deliver the net zero transition, developing green and low-carbon jobs and supporting a resilient recovery.

Existing district heat networks must switch to low-carbon sources (electric heat pumps/hydrogen) in the 2030s.

New planning policy needs to align more widely with spatial planning for sustainable transport and energy systems - to support decarbonised heat as a norm - based on appropriately sited, highly energy efficiency buildings and needs to support building retrofit across whole areas.

Identify areas suitable for heat networks which are effective in providing low-carbon heat to dense areas, particularly those with a baseload heat demand such as municipal buildings.

Shortlisted actions

Energy & Industry

ARUF

Action

Support schemes to improve broadband and mobile connectivity across the local area. Rural broadband is being supported by additional funding from councils through the Gigabit Broadband Voucher Scheme.

Local Plans should support renewable energy and low-carbon heat. These should include an energy policy that takes a positive and proactive approach to renewable energy generation and storage. Plans should also reference low or zero carbon heat for new and existing buildings.

Local authorities should work with their DNOs, neighbouring authorities and across their wider climate and energy partnerships to prepare local energy plans for their area. These will assess an area's energy demands for heat and electric vehicles, identify surplus heat sources and identify the best places for district heating, heat pumps, levels of energy efficiency measures needed and EV charging. Flexibility, smart demand management and energy storage should also be included.

Switch to renewable and low-carbon electricity, where possible ensuring that purchasing agreements lead to additional renewables being built, rather than just buying the output of existing renewables.

Work with employers and training providers to assess and improve skills availability for the renewable and low-carbon energy sector.

Comprehensive apprentice training programme, developed in conjunction with University Partners, kick-started by placing requirements on directly-commissioned works

Undertake energy demand mapping to identify priority zones for implementation of clean energy technologies and efficiency upgrades in conjunction with D2N2 LEP

Shortlisted actions

Energy & Industry

Action

Collaborate with industrial partners to identify opportunities for waste heat recovery to serve low-carbon heating schemes.

Develop a regional energy skills strategy that pinpoints priority areas for upskilling to support the green transition, identifies how we can work to retain and develop existing capabilities within the construction and industrial sectors, and creates investor-ready programmes to receive support from the proposed National Skills Fund

Work with local colleges and technical training centres to build up the number of vocational courses offered in low carbon sectors e.g. retrofitting, SHPs etc.

Evaluate existing skills of young people in the borough and develop retraining programmes in conjunction with BEIS and local business in the digital and construction sectors

Further develop partnerships with the nine large industrial sites operating in Thurrock e.g. Aggregate Industries to identify opportunities for reducing their emissions through capitalising on waste heat and hydrogen opportunities

Shortlisted actions

Waste

ARUP

Action

Develop a communications strategy: change the attitude and behaviour of local businesses on the issues around single use plastic and unnecessary packaging

Increase reuse/repurposing of waste from the Household Waste and Recycling Centre together with The Re-Use Partnership (TRUP)

Establish and provide a weekly 'separated' food waste collection service from households across Thurrock to promote a reduction in food waste

Encourage residents of communal buildings to recycle by expanding the pilot flat recycling scheme to bring the recycling collection service to around 1000 more residents and to council owned homes

Deliver a targeted communications strategy to increase resident and business recycling rates

Introduce schemes to increase the recycling and reuse of plastic and other packaging, e.g. a requirement for supermarkets to reduce all forms of packaging or a new incentive for food delivery companies to encourage the return and then recycling or reuse of packaging by their customers

Local authorities should ensure their LEPs support the development of a circular economy, including supporting resource efficiency and materials processing and reuse.

Identify limitations to diversion of other organic waste including food soiled materials, carpets, organic textiles, etc. from landfill

Develop a zero waste policy at all city and partner organised events to promote the importance of waste reduction

Next steps

Arrange and carry out internal engagement activities to finalise actions and contents

Arup to begin in-depth analysis:

- Barriers
- Benefits
- Funding routes/costs

Draft strategy

Discuss with Thurrock Council pathway/timeline for future engagement to be included in the strategy

ARUP

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