

Net Zero-Carbon Leeds City Region

Sector-Specific Low-Carbon Workshops – Summary Report

SE² – August 2019



1. Introduction

The Leeds City Region is committed to becoming net zero-carbon by 2038 and to have shown significant progress by 2030. Achieving the ambition will require transformational change across all parts of the economy. Collaboration and collective action across businesses, industry, academia, government and civic society is necessary if the commitment is to be delivered.

The [Leeds City Region Energy Strategy and Delivery Plan](#) (ESDP) adopted in 2018 started the process of identifying how the Leeds City Region could begin to work towards becoming net zero-carbon. To build on this and to begin the process of establishing the partnerships and collaborations that will develop and deliver the required scale of change, a series of four sector-specific low-carbon workshops were convened by the West Yorkshire Combined Authority (the Combined Authority) over a two week period in June and July 2019, covering power, buildings, industry and transport.

This report summarises the key themes emerging across the workshops and has been written by the independent workshop facilitator, Rachael Mills of SE². More detailed reports for each workshop are separately available: summaries of the action plans for each session are provided in **Appendix 1**.

2. Strategic support for net zero-carbon

The workshops demonstrated the wide and strong support for the Combined Authority's work in this area and the urgent need to act on climate change. Over 150 stakeholders attended the workshops and not one of them questioned the need for action. The presentation given by the Tyndall Centre for Climate Change (Tyndall Centre) at each of the workshops emphasised the scope of the task ahead and pace at which we must work. The scale of the task ahead must not be underestimated: to meet their targets, the City Region must reduce carbon by 14.5 percent a year, every year, with immediate effect.

It was also clear however that the net zero-carbon targets cannot be delivered with the current resources available, both at local and regional levels. Political leaders and senior officials must be prepared to commit the necessary resources, be it capital funding or additional staff. The action plans from the workshops provide multiple suggestions for next steps: these will need to be prioritised, with the Combined Authority and Leeds City Region Enterprise Partnership (the LEP) acting as a facilitator to move the agenda forward.

It is vital that the momentum gained from these workshops is not lost. Ongoing communications will be needed so stakeholders can see that progress is being made, understand how they can continue to be involved and what their responsibilities are. Linked to this, a governance structure will be needed to track achievements across all strands of the ESDP.

3. The need for collaboration

Collaboration from a wide-range of stakeholders will be necessary to deliver on the net zero-carbon commitments. All of the workshop participants understood that the Combined

Authority and the LEP cannot deliver the work programme alone and many made personal commitments to get involved with the work going forwards.

It was also recognised, however, that more stakeholders need to be brought into the process, to further strengthen the delivery of the City Region targets. These included:

- The investment community for large-scale projects;
- Influential industrialists, to show thought leadership at a regional level;
- Large employers, for example to encourage modal shift of staff and home working;
- National experts and trade bodies who can help support the City Region;
- Distribution Network / System Operators, to assess grid constraints and readiness for growth in local power generation;
- House builders, both large and small;
- Training organisations to upskill the supply chain;
- Cross-regional engagement e.g. Metro Mayors; and
- Other successful project to learn lessons.

Collaboration also needs to be fostered between current stakeholders to enable projects to be taken forwards, for example:

- Connect potential renewable energy hosts with local demand customers; and
- Engage local communities in local energy schemes and neighbourhood level planning.

4. Building the evidence base

For many of the themes that emerged from the workshops, further intelligence gathering is required, from scoping and mapping to fact finding research. These need to be prioritised and commissioned, working collaboratively and smartly wherever possible. As part of this, critical decision pathways also need to be developed so as to ensure that carbon reduction opportunities are not missed when it comes to investment and policy decisions, and are able to be delivered at pace.

Different types of evidence building were identified within the workshops and included:

- Exploring the potential
 - Public estate retrofit and renewable energy programmes;
 - Large-scale and building-mounted PV and battery storage;
 - Community energy schemes;
 - Different waste stream collections to facilitate energy from waste plants;
 - Onshore wind through local planning;
 - Increased cooling demand;
 - Owner occupier and private rented sector retrofit schemes;
 - Transport hyperhubs;
 - Single multi-modal ticketing;
 - Trading for personal emissions; and
 - Travel planning app to include carbon cost of journey choices.
- Mapping

- Pipeline for potential public estate renewable energy installations;
- Where intensive energy users are who could benefit from demand side response (DSR);
- Possible sites for hydrogen trials;
- Alignment of planning requirements across the City Region;
- Industrial sector across the City Region – size, scope, drivers, and barriers;
- Regulations and standards affecting different stakeholders;
- Fuelling infrastructure for hydrogen and electric vehicles;
- Demand for electric vehicles, both now and in the future; and
- Policy-maker mapping at local, regional, national, and international levels.
- Develop case studies and business cases for all the above as well as demand side response and community energy schemes.

5. An influencing role for the Combined Authority and the LEP

In many of the areas discussed in the workshops, there was a call for influencing of central Government to provide policy certainty. There is an opportunity for the City Region to show leadership at a national level by having a clear, well-understood and strategic set of ‘asks’. This will require the development of an influencing strategy to prioritise which topics the Combined Authority will pursue and which will be shared or delegated with other partners and stakeholders.

The ideas put forward to the Combined Authority and the LEP to influence included:

- Power
 - Onshore wind;
 - National electric vehicle charging framework, also included in Local Plans;
 - Regulator needs to make local supply agreements easier; and
 - Decision required on Carbon Capture, Utilisation and Storage (CCUS).
- Buildings
 - More resource needed e.g. enforcement for private rented sector;
 - Strengthening of the Minimum Energy Efficiency Standards (MEES);
 - Green mortgages and stamp duty / tax breaks for efficient buildings;
 - Stronger standards for builders; and
 - Expand Building Regulations to include a wider range of materials.
- Industry
 - Need for strong political direction; and
 - Opportunity to influence UK Government post-Brexit.
- Transport
 - Proper long-term plan for transport (e.g. capacity), possibly at a regional level;
 - Proper funding and powers for Transport for the North (TfN);
 - Specifically include wording on hydrogen in Clean Air Zones, but must be low carbon;
 - Mandate action on HGVs (only standard currently is EuroVI);
 - Standardisation of charge points; and
 - National campaign for behaviour change in transport.

Appendix 1. Summary of workshop proposals

Power

Generation

Public estate renewable energy programme (power)	<ul style="list-style-type: none"> • Scope the potential for renewables in the public estate and map the pipeline of potential projects. Revisit regional heat map. • Connect possible hosts with local demand (e.g. local authorities, NHS, Universities, major employers, SMEs)
Community energy schemes (power)	<ul style="list-style-type: none"> • Audit of potential community energy schemes. • Engage communities. • Neighbourhood planning.
Energy from waste	<ul style="list-style-type: none"> • Model optimised waste energy generation. • Explore waste stream collections – green, buildings and schools. • Introduce food waste collections – domestic, industry and commercial – what can be done at a regional level?
Onshore wind	<ul style="list-style-type: none"> • Audit of Local Plans to assess what is permitted where.
Other	<ul style="list-style-type: none"> • Technology improvements needed to reduce inefficiencies in the distribution network at a building level. • Higher building standards required to reduce demand.

Storage

<p>Energy storage for council housing mounted solar photovoltaic panels</p>	<ul style="list-style-type: none"> • Understand the potential – existing and new PV and heat pumps. • Explore institutional investors who would be interested in aggregation / scale and develop offer. Could also run green financing workshops for industry / private sector so they understand the options. • Engage with Distribution Network / System Operator to assess readiness. • Undergo process for PV / battery procurement.
<p>Large-scale PV with batteries</p>	<ul style="list-style-type: none"> • Map potential sites and grid constraints – need to understand local demand and infrastructure. • Learn from other regions who have invested (e.g. Warrington).
<p>Solar carports</p>	<ul style="list-style-type: none"> • Scope potential sites, especially park and ride sites, but also non-local authority sites (e.g. supermarkets, NHS, National Trust)
<p>Incentives for charging electric vehicles at different times</p>	<ul style="list-style-type: none"> • Leeds pilot – vehicle to grid and vehicle to building

Demand Side Response

<p>Build the evidence base</p>	<ul style="list-style-type: none"> • Map where the intensive users are and what's already viable. • Develop case studies. • Develop business case scenarios (e.g. revenue streams for different levels of aggregated demand). • Engage with potential private and public sector participants. • Bring together national expertise and encourage collaboration.
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Buildings

Low Carbon Heat

H21 implementation, skills and supply chain	<ul style="list-style-type: none"> Identify public sector sites for trials. Ongoing work required on public acceptance.
Public estate renewable energy programme (heat)	<ul style="list-style-type: none"> Identify clusters / zones to scale-up heat pumps. Investigate growing demand for cooling.
Community energy programmes (heat)	<ul style="list-style-type: none"> Support community groups and help build the business case (e.g. planning tools, networks, crowd funding).
Whole energy systems pilot	<ul style="list-style-type: none"> Scope local pilot area (e.g. social housing) and secure funding.
Other	<ul style="list-style-type: none"> Learn from 'heat as a service' trials. Investigate green gas and waste heat opportunities.

Retrofitting

Public sector retrofitting	<ul style="list-style-type: none"> Map public sector asset base regionally.
Scale up Better Homes Yorkshire	<ul style="list-style-type: none"> Review programme to understand how domestic energy efficiency measures can be rolled out at pace and scale. Encourage whole street approach e.g. through competitions. Develop programme for shared benefits for tenant / landlord.
Standards and legislation	<ul style="list-style-type: none"> Develop partnerships with training organisations to support the

	<p>required skills growth (e.g. to meet Trust Mark standards).</p> <ul style="list-style-type: none"> • Gather evidence on Building Regulations
Private rented sector	<ul style="list-style-type: none"> • Understand current situation e.g. high-level database. • Develop landlords register e.g. linked to licensing. • Training of enforcement officers – though capacity is an issue. • Develop a fuel poverty programme.
Owner occupiers	<ul style="list-style-type: none"> • Develop owner occupier scheme: understand viability and impact / benefits – not just domestic sector. • Explore linking of retrofitting to planning permission. • Promotion campaigns e.g. health benefits, smart technology.
Other	<ul style="list-style-type: none"> • Develop support for micro-SMEs. • Widen the market for technology suppliers / new solutions. • Explore ‘mini grid’ trials for heat / efficiency measures. • Understand how we get the right data to support decision making.

New Build

Improve Local Plan housing policies	<ul style="list-style-type: none"> • Directors of Development to agree common approach to low carbon planning policies: link into devolution asks. • Better align different supplementary requirements: prioritisation. • Make sure current standards are met. • Make Section 106 agreements mandatory.
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<p>Promote sustainable design and construction</p>	<ul style="list-style-type: none"> • Re-examine mandatory tests before building handover to check they're performing as designed. What is the enforcement action? • Ensure procurement briefs are tight from an energy efficiency perspective, especially in the public sector. • Engage with large house builders / SMEs. • Conditional leasing of land for better standards. • Lifecycle analysis for new build and cost of living in the new home.
<p>Other</p>	<ul style="list-style-type: none"> • Need consistent metrics. • How can we separate sustainable assets from homes themselves? • Change standard contracts to include sustainable standards. • Prove new technologies work to encourage builder confidence.

Industry

Funding

<p>Vision</p>	<ul style="list-style-type: none"> • Develop a vision for industrial decarbonisation. • Analysis required of industrial sector in the City Region: size, UK vs international business, drivers, barriers.
<p>Engagement</p>	<ul style="list-style-type: none"> • Engage with trade bodies. • Cross-regional engagement e.g. Metro Mayors. • Engage with investment community: what information do they need, when? • Identify case studies e.g. CCUS to help us understand how to engage e.g. with BEIS.

<p>Scope funding opportunities</p>	<ul style="list-style-type: none"> • Timeline and decision-making points, mapped against business decision-making points. • Incentive schemes for bigger ideas e.g. CCUS without crippling the Government. • Promote existing climate funds (including DSR) and explore how savings can be recycled back into carbon / sustainability budgets. • Innovative business models to accelerate decarbonisation process: widen scope for revenue generation beyond silos. • Facilitate collaboration to apply for funding and provide route to impartial investment advice.
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Technical

<p>Gather evidence</p>	<ul style="list-style-type: none"> • Understand the barriers, funding streams. • What's happening in the public sector? Can we replicate? • Map the sector e.g. large / medium / SME businesses, largest emitters.
<p>Collaboration</p>	<ul style="list-style-type: none"> • Combined Authority role to lead collaboration. • Information / expertise / tools not available locally.

Standards

<p>Review</p>	<ul style="list-style-type: none"> • Review current fleet of regulation / standards, including planning • Explore how we can improve e.g. to make less administratively onerous.
<p>Engagement</p>	<ul style="list-style-type: none"> • Engage with influential industrialists: opportunity for thought leadership.

Transport

Hydrogen Vehicles

<p>Fuelling infrastructure and map</p>	<ul style="list-style-type: none"> • Map who's doing what already. • Get involved with showcase projects. • Cost analysis for hydrogen fleets to help investment decisions.
<p>Support hydrogen vehicle use</p>	<ul style="list-style-type: none"> • Gather evidence from pilot schemes elsewhere. • Support smaller local authorities with decision making for fleet. • Develop business case for hydrogen trains.
<p>Policy certainty / direction</p>	<ul style="list-style-type: none"> • Understand policy-maker map: locally, nationally and internationally. • Align our language with national policy makers e.g. HMT. • Opportunity for hydrogen leadership regionally e.g. with H21. • Get on and do projects: builds evidence base and momentum.

Electrification

<p>EV charging and infrastructure</p>	<ul style="list-style-type: none"> • Understand who needs to charge, when and where. • Map demand, both now and in the future. • Look beyond public or city centre spaces. Learn from others. • Embrace innovation e.g. road surface charging, hybrid HGVs, vehicle to grid opportunities.
<p>Hyperhubs</p>	<ul style="list-style-type: none"> • Understand commercial viability. • Consolidation hubs e.g. for last mile deliveries, nodal yards for rail connections.

	<ul style="list-style-type: none"> • Explore low carbon taxi options e.g. cheaper fares for EVs.
Public engagement	<ul style="list-style-type: none"> • Awareness of where charge points are and how to drive smart. • Share existing MOSAIC segmentation work. • Change perceptions of technology, range, charging.
Fleet manager engagement	<ul style="list-style-type: none"> • Segmentation: public sector, public transport and commercial. • Understand use, demand, fleet renewal cycle, availability, etc.

Behaviour change / modal shift

Spatial policy	<ul style="list-style-type: none"> • Review spatial frameworks in light of densification of cities. • Enable freight vehicles to use bus lanes at night. • Look at barriers of shifting freight to rail e.g. air quality planning. • Ensure green infrastructure is considered in all projects.
Behaviour change schemes	<ul style="list-style-type: none"> • Communication, e.g. on air quality, impact of trips, anti-idling, etc. • Develop real time displays showing air quality. • Engage with big employers and support staff programmes. • Enable people to trial new technologies through work e.g. EVs, hydrogen, electric bikes. • Encourage school walking / cycling programmes. • Credits for making trips in a sustainable way.
Regulation / policy change	<ul style="list-style-type: none"> • Develop a regional parking plan and strategy to reduce it.

	<ul style="list-style-type: none"> • Consistent workplace charging across the City Region. • Make public transport cheaper e.g. target certain groups. • Make stronger links with public health.
Single multi-modal ticketing	<ul style="list-style-type: none"> • Map what single multi-modal ticketing could mean and how it could work. • Learn from other regions e.g. Greater Manchester. • Explore what more we can do to incentivise e.g. mobility credits. • Stipulate open data within contracts across public transport.
Active travel infrastructure	<ul style="list-style-type: none"> • Ensure that major infrastructure investment e.g. rail is linked with walking and cycling. • Connectivity strategy: modal targets for local authorities.
Other	<ul style="list-style-type: none"> • Offer incentives to businesses to allow homeworking and link with good value ticketing e.g. season tickets. • Prescription / discount schemes for GPs to prescribe electric bikes. • Explore better solutions for accessible transport out of hours. • Ensure green vehicle consistency across Park and Rides.

Future Mobility

Planning and development	<ul style="list-style-type: none"> • Allocate carbon ratings to new development sites. • Develop understanding of carbon impact of planning decisions. • Develop methodology for assessing carbon in planning terms.
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	<ul style="list-style-type: none"> • Encourage public transport-led development models.
New technology	<ul style="list-style-type: none"> • Develop cycling infrastructure to support uptake of e-bikes. • Work with employers to embrace smart working and webinars. • Carry out carbon analysis of working from home. • Develop e-taxi and e-bus models. • Understand potential and impacts of autonomous vehicles. • Promote smart parking and smart programmes for sustainable travel. Link to carbon credits or reward systems. • Have no car days across city or town centres. • Explore congestion charge or workplace levy for employers. • Explore modifying options for demand e.g. changing start / finish times of working hours. • Review night-time delivery options for freight.
Carbon credits	<ul style="list-style-type: none"> • Work with employers on sustainable travel rewards. • Explore trading for personal emissions e.g. to include air travel.
Shared mobility	<ul style="list-style-type: none"> • Identify possible organisations for trials. • Review areas of parking pressure as trial possibilities. • Identify local car clubs or rural groups who may participate. • Bring in community transport providers. • Take best practice ideas from where it's working elsewhere.

Journey planning	<ul style="list-style-type: none">• Develop an app to link to journey planning: explore funding options, focus on public transport first.• Discuss trial with Google: car as minor option and cost is shown.
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