

DRAFT MRWA Response – BEIS Net Zero Review Call for Evidence

Note - The final MRWA response will be made through Government's online citizen space system and not in this Word document format. This response is focused on 'Overarching questions' Q.1 – 7 and 'Questions for local government / communities' Q. 24 – 28.

Links to Call for Evidence

<https://www.gov.uk/government/consultations/review-of-net-zero-call-for-evidence/net-zero-review-call-for-evidence>

<https://beisgovuk.citizenspace.com/nzs/call-for-evidence-on-net-zero-review/>

Overarching questions

1. How does net zero enable us to meet our economic growth target of 2.5% a year?

Further economic growth will be challenging if carbon emissions are not significantly reduced. If emissions do not follow an effective trajectory towards net zero there are significant risks of societal and environmental damage and therefore serious risks to the economy itself. Net zero is a prerequisite for future growth and meeting the United Nations Sustainable Development Goals (UN SDGs).

Net zero can incentivise businesses to rethink and innovate around their purpose, function and business growth opportunities. The world is changing and businesses that do not evolve and adapt to new needs, values and consumer demands may not survive the climate challenge. Net zero promotes a system change where sustainable businesses can thrive by meeting the needs of people and communities, using resources efficiently, reducing costs, protecting the planet and avoiding waste.

MRWA recognises that net zero encourages a change from a linear economy (make, use, dispose) to a circular economy model, where materials are kept in economic use at their highest value for longer and used efficiently to reduce waste and production costs. A circular economy strengthens relationships in the supply chain and secures scarce resources helping businesses to become more robust to global economic shocks. Furthermore, greater circularity shifts the focus from making a product to delivering a service. This opens up the possibility for businesses to grow more prosperous customer relationships over time, helping to decouple growth from waste and carbon emissions. Economic growth rooted in this net zero carbon and zero waste thinking can help serve people and planet today, tomorrow and for the generations to come.

2. What challenges and obstacles have you identified to decarbonisation?

Together with our partners, MRWA is working towards a goal of achieving zero avoidable waste and net zero carbon across the Liverpool City Region by 2040. MRWA recognises there are significant challenges in achieving decarbonisation linked to the production and consumption of material resources, together with the issues of data, infrastructure and costs.

1) Production - Most businesses are not incentivised to reduce the waste and carbon emissions associated with consumer use and then disposal of their end of life products. However, according to the Ellen MacArthur Foundation (Completing the Picture, 2019) 45% of carbon emissions are associated with the production of goods and materials including food, steel, cement, plastic and aluminium. The waste management of these domestic materials falls to local authorities (LAs) who are obligated to arrange and fund the collection, recycling and residual treatment of waste. This arrangement provides no incentive for businesses to reduce the environmental impact of their products and, in effect, represents a local government public sector subsidy for UK plc's inefficient use of resources. As a result, the flow of low value, carbon intensive, often single use items to consumers continues. These materials are then costly to treat as wasted resources and often difficult to repair, reuse or recycle leading to avoidable carbon emissions, environmental impacts and missed opportunities to improve social value from the sustainable use of material resources.

LAs are working hard to engage with consumers and push against this flow of waste material, but cannot directly influence the products which businesses manufacture and put onto the market. Meeting net zero requires a system change and for Government to engage businesses on taking full financial responsibility through extended producer responsibility (EPR) for the end of life treatment and carbon emissions of their products, so improving overall resource efficiency and conservation. MRWA is encouraged by the proposal to implement EPR for packaging waste from April 2024, which can accelerate the diversion of carbon intensive materials, such as plastics, from residual waste treatment and the associated carbon emissions. MRWA encourages Government to proceed with its proposals to review EPR for other material streams, e.g. textiles and furniture, whilst also progressing restrictions on single use plastics where supported by life cycle analysis assessments. Effective use of EPR can incentivise the removal of avoidable cost from the waste resources management system and deliver the transition towards a zero waste and net zero carbon circular economy.

2) Consumption - Action on sustainable production (supply) must be matched by a behavioural change shift to sustainable consumption (demand). Local and national education and awareness initiatives must challenge the perceived inevitability of waste and present the benefits of rethinking resources and of living in a thriving zero waste society.

MRWA understands that the most effective way of reducing carbon emissions from material resource use is from reducing the waste generated in the first place. More focus is required on preventing waste and on reusing, recycling, repairing and sharing items which can generate significant social value as well as minimising carbon emissions. The largest single fraction of domestic waste locally and nationally is food waste, for example MRWA undertook a waste composition analysis exercise in 2021-22 which identified that 33.5% of kerbside household residual waste was food and drink waste, and 73% of this was avoidable. According to WRAP's Love Food Hate Waste campaign, 70% of UK food waste come from homes and food waste prevention measures by these consumers could save 36 million tonnes of greenhouse gas emissions per year. www.lovefoodhatewaste.com.

As well as wasting money, avoidable food waste creates greenhouse gas emissions from the carbon embedded in food and drink through the farm to fork supply chain. Additional emissions are created through residual waste treatments, particularly where food is landfilled creating methane emissions, a much more powerful greenhouse gas than CO₂ and a recent focus for action from the UN IPCC 6th assessment round of reports. Significant emissions are also generated by treatment of difficult to reuse or recycle plastics in residual waste.

Rethinking resources and aiming for zero waste requires a significant increase in product reuse. Reuse levels have increased through online platforms from freecycle to ebay, but for reuse to become a mainstream, easy and affordable option for all households and communities, investment in reuse skills and infrastructure is required. This can include a network of hubs and services comprising kerbside collection, distribution systems, local drop off points in the community, repair workshops and lending, retail or donation outlets. MRWA hopes that the forthcoming National Waste Prevention Programme will embrace this opportunity to prioritise reuse and deliver the clear carbon, social value and sustainability benefits available from rethinking resource use.

The need to increase recycling rates remain important. The performance of existing kerbside recycling services can be improved through a sustained campaign to reduce contamination of recycling collections and to increase the capture of existing target materials for recycling. There is significant scope to improve recycling performance further and capture a wider range of materials. If implemented and fully funded, Government's consistent recycling proposals will take an important step towards this goal and contribute towards the twin aims of zero avoidable waste and net zero carbon.

3) Data and costs – Whatever actions are taken to tackle emissions, we cannot mark our progress without measuring and monitoring the decarbonisation achieved. Quantifying progress towards net zero is difficult for a number of reasons, including:

- Identifying and understanding emission sources.
- Measuring or estimating emissions from these sources.
- Accessing consistent calculation methodologies.
- Comparing the relative impacts of different climate actions.
- Meeting the cost of resourcing the data gathering, monitoring, analysis and reporting required, including staff and external expertise.

Moving forward, Government must support LAs, businesses, sectors and organisations achieve efficient and effective data reporting and monitoring standards. Reaching net zero is a long-term goal, but there is a risk of losing momentum through the difficulties and obstacles which organisations can face in measuring their progress having made the commitment to act on climate change.

4) Infrastructure and costs – The resources and waste sector will face significant investment costs in supporting net zero, for example from:

- improving infrastructure, including new recycling collection services for food waste and other materials, electric or hydrogen powered vehicles capable of zero emissions, anaerobic digestion facilities and new sorting technologies at

material recovery facilities (MRFs) to separate an expanded range of recyclable materials.

- adopting new low carbon technologies e.g. carbon capture, utilisation and storage (CCUS) at waste treatment facilities, including energy from waste (EfW) facilities.

It is hoped that extended producer responsibility and Government net burdens funding will fully support these costs, but it is unclear when this support will commence, how fully and how, if at all, it will support the upfront capital investments required to drive and accelerate the net zero transition that urgent climate action requires. Government action on delivering the 2018 Resources and Waste Strategy has been delayed for a number of reasons, but this in turn is stalling the actions which LAs and businesses are able to take without incurring significant financial risk.

3. What opportunities are there for new/amended measures to stimulate or facilitate the transition to net zero in a way that is pro-growth and/or pro-business?

The Environment Act 2021 provides Government with powers to set resource efficiency standards and requirements on products, and to act on extended producer responsibility (EPR), waste prevention, reuse and recycling to secure the transition towards a zero waste, net zero carbon circular economy. The Act is almost a year old and we are still waiting for regulations and any significant moves to exploit the system change opportunities to reduce waste and emissions made possible by this legislation. As the UK is struggling to keep to its net zero 2050 trajectory MRWA believes it is time to accelerate the implementation of measures to:

- Introduce resource efficiency standards on products, including design for durability and easy and affordable reuse, repair and recycling. Wherever possible waste and carbon emissions should be designed out of product and resource use and clean production methods should eliminate the risk of persistent organic pollutants escaping into the environment.
- Proceed with packaging EPR commencement from April 2024 and fulfil the commitment to review other waste streams for EPR by 2025.
- Without delaying EPR introduction, review how EPR can also capture responsibility for mitigating the carbon emissions from product use and end of life waste treatment.
- Publish a meaningful national Waste Prevention Programme as a priority. This must have the capacity to catalyse the growth of small businesses, social enterprises, community organisations and other businesses from an expanding reuse culture and the shift to a zero waste, net zero carbon circular economy.
- Publish Government's responses to the 2021 / 22 consistent recycling, deposit return scheme and single use plastic consultations as soon as possible and set out a timescale for consistent recycling implementation aligned with the needs of the net zero 2050 trajectory.
- Review opportunities to bring the national 2050 timescale forward to ensure Government, businesses and communities are prioritising climate action in light of the growing global concern that the urgent action is not being taken quickly enough.

MRWA considers that careful design of these interventions will create business growth opportunities through the demand for sustainable products and services from a circular economy aligned with the trajectory and goals of achieving zero waste and net zero carbon.

4. What more could government do to support businesses, consumers and other actors to decarbonise?

Working with local and regional stakeholders, Government can implement business resource efficiency support programmes to enable a transition to zero waste, net zero carbon circular economy led growth. A national framework of funding support could utilise and develop existing regional services, examples include the Liverpool City Region Low Carbon Eco-Innovatory and the West Yorkshire Resource Efficiency Fund.

<https://growthplatform.org/programme/low-carbon-eco-innovatory/>
<https://www.westyorks-ca.gov.uk/projects/clean-energy-and-environmental-resilience/resource-efficiency-fund/>

MRWA considers that Government could lead by example and showcase its own circular economy action across the public estate. Circular economy development could be nurtured by considering key public buildings and locations as anchor organisations in local / regional zero waste, net zero carbon circular economy hubs within thriving, sustainable communities. Anchors could include hospitals, universities, business parks, leisure and shopping centres, public offices, libraries, transport hubs, etc.

Consumers are not hearing strong or coherent national messages about easy steps they can take to decarbonise their day to day lives, the benefits of small changes and how this can work for them and their communities, in terms of time, convenience and the cost of living. MRWA believes consistent national messaging can provide the foundation and backing for distinctive local / regional campaigns and ensure effective and efficient messaging and communications. Net zero financial incentives for behavioural change should be developed carefully to avoid being viewed as penalties in the difficult economic climate which households are now experiencing.

5. Where and in what areas of policy focus could net zero be achieved in a more economically efficient manner?

It is MRWA's view that extended producer responsibility (EPR) can play a key role in the efficient and effective decarbonisation of materials resource use and waste management. As referred to in our response to Q.3, Government should proceed at pace with packaging EPR commencement by April 2024 and the review of other waste streams for transition to EPR, e.g. textiles and furniture. The application of EPR to wider waste streams will ensure that businesses (producers) are directly and transparently incentivised to reduce waste and carbon emissions arising from their products, in line with the overriding polluter pays principle. Measures should be enacted to ensure that EPR delivers resource efficient approaches by businesses and that the costs of avoiding change are not simply passed onto the consumer adding to their cost of living pressures.

Whilst expanding EPR, Government should consider how EPR can interact with consumer 'pay as you throw' approaches to secure the benefits of further resource efficiency for circular economy growth and sustainable communities. The incentives for zero waste and net zero carbon action must be clear and achievable for businesses and consumers if the desired behavioural change is to be realised, whilst taking cost of living pressures into account. There remain opportunities to modernise waste regulation in light of the urgent need for climate action, and measures to ensure legislation remains fit for purpose can incentivise the behavioural change required for meeting net zero and zero waste priorities. MRWA supports a review of waste legislation, e.g. Controlled Waste Regulations 2012, to ensure it is aligned with the Environment Act 2021, the UN Sustainable Development Goals and delivery of a zero waste, net zero carbon circular economy.

An important area of waste policy is around household waste collection frequency, particularly residual waste. Research and evidence from across the country has, over several years, demonstrated the advantages of reducing residual waste collection frequency, in terms of promoting increased participation in recycling schemes, limiting the growth of waste arisings and improving waste service efficiency without risks to public health or local environmental quality. However, Government policy seems reluctant to accept the net zero carbon, zero waste and cost benefits of a locally flexible approach to waste collection frequency decisions. MRWA considers that national policy should be founded on a sound evidence base and respect the need for locally appropriate decisions around cost and carbon efficient service delivery methodologies.

6. How should we balance our priorities to maintaining energy security with our commitments to delivering net zero by 2050?

MRWA identifies several opportunities to deliver both energy security and net zero carbon:

- Separate food waste collection – The priority is to prevent food waste at source, but when food waste is generated it can be recovered as a valuable resource through home or community composting. Where this is not possible, separate food waste collections and the anaerobic digestion (AD) of this material can generate biogas for direct use in vehicles or the gas grid, or as a fuel source for generating renewable electricity. The solid compost output from AD can improve soil structure and fertility, so reducing emissions further by reducing peat extraction and artificial fertiliser use. It is MRWA's view that Government must now implement its commitment to introduce fully funded separate food waste collections and in doing so reduce greenhouse gas emissions from the landfill of mixed residual waste. Collections could be made through electric, biogas or clean hydrogen fuelled vehicles to minimise emissions from the additional vehicle movements which food waste collections would create. Government should engage with the AD sector to ensure a network of AD facilities are easily accessible across the country, including the development of neighbourhood scale technologies which can support a system change towards localised renewable energy generation and

the development of robust, thriving communities. Local renewable energy generation can also support communities combat cost of living pressures.

- **Energy from Waste (EfW) Carbon Capture Utilisation and Storage (CCUS) –** The priority is to achieve zero avoidable waste which means reducing residual waste to a minimum. Where waste still requires residual treatment, EfW provides a reliable technology for treating material without the risk of emitting methane from landfilling waste, and also secures the benefits of energy recovery in the form of electricity, heat or steam. Reducing residual waste is a progressive, longer-term goal on the zero waste trajectory, but MRWA considers that Government can drive action to roll out CCUS technology to EfW sites in the shorter term and reduce carbon emissions per unit energy generation from these facilities.
- **Micro-renewables and energy conservation –** The waste sector has local, regional and national infrastructure networks including large buildings, hardstanding space, closed and operation landfill sites and a wide range of vehicle fleets. Novel use of space, buildings and surfaces across these networks can deliver micro-renewables energy generation and reduce energy requirements from fossil fuels and the national grid, e.g. solar, wind, heat pumps, biomass, green roofs and walls for cooling and insulation, rainwater harvesting and water reuse. Government policy should support and promote these sustainable opportunities to decarbonise waste and resource management operations.
- **Hydrogen –** The technology around sustainable hydrogen fuel continues to grow. Research and development projects can investigate the potential for generating hydrogen from waste materials. This could support the development of a new generation of circular economy waste treatment technologies geared to net zero emissions energy production.

7. What export opportunities does the transition to net zero present for the UK economy or UK businesses?

UK based organisations include some of the leading resource efficiency practitioners and advocates for the transition to a zero waste, net zero carbon circular economy. MRWA considers that net zero provides opportunities for these organisations to share this knowledge and expertise with international partners and support communities around the world make the change to a more sustainable future.

Questions for businesses

8. What growth benefits/opportunities have you had, or do you envisage having, from the net zero transition?
9. What barriers do you face in decarbonising your business and its operations?
10. Looking at the international market in your sector, what green opportunities seem to be nascent or growing?

11. What challenges has the net zero transition presented to your business?
12. What impacts have changing consumer choices/demand had on your business?
13. What impacts have decarbonisation/net zero measures had on your business?
14. What more could be done to support your business and/or sector to decarbonise?
15. Do you foresee a role for your business within an expanded UK supply of heat pumps, energy efficiency, electric vehicles, hydrogen economy or clean power?
16. For clean power industry: what barriers to entry have you found in deploying new plant and technologies?
17. How many green jobs do you estimate will be created in your sector by 2030?

Questions for the public

18. Have you or are you planning to take personal action to reduce your carbon emissions (for example through how you travel, what you buy, how you heat your home)? If so, how?
19. Do you face any barriers to doing this? What are they?
20. What would help you to make greener choices?
21. What is working well about the measures being put in place to reach net zero?
22. What is not working well about the measures being put in place to reach net zero?
23. Do you have any further comments on how efforts to tackle climate change are affecting you?

Questions for local government, communities and other organisations delivering net zero locally

- 24. What are the biggest barriers you face in decarbonising / enabling your communities and areas to decarbonise?**

MRWA has discussed the key issues of production, consumption, data, infrastructure and costs in its response to Q.2. Those points are equally applicable here and should be read alongside our comments on behavioural change below.

MRWA is working with its partners towards achieving zero avoidable waste and net zero carbon by 2040. Decarbonising resource use to meet this goal in our local communities will require significant behavioural change through education and awareness raising communications and campaigns. It will be important for residents to understand that small changes can collectively lead to bigger positive impacts in

their lives and for their communities as well as for the planet. Contemplating the scale of climate change is daunting for many people. It can be easy for individuals to conclude there is nothing they can meaningfully do in the face of this challenge, or that it's someone else's problem to solve considering the more immediate day to day personal challenges they may face, such as the cost of living. Neighbourhoods need hope and support to take easy, small steps towards net zero and resist the natural apathy that can easily overwhelm people when they face what can appear impossible challenges. A community focussed approach to delivering zero waste, working with effective community organisations, can potentially provide the right encouragement to embed the behavioural change we need at a community grassroots level. MRWA and its partners need to harness people's hearts and minds if the twin goals of zero waste and net zero carbon are to be met, but if this opportunity can be grasped then change can be sustained and significant.

Some of the key behavioural changes required on the trajectory towards zero waste and net zero carbon include:

- Smart shopping behaviours to avoid over-consumption of products which may then become waste.
- Buying reused and recycled (alongside improved accessibility and affordability of these products).
- Preventing food waste through understanding 'best before' dates, good storage techniques, portion control and meal preparation skills.
- Growing more food at home or locally.
- Home and community composting confidence, skills and accessibility.
- Improved domestic reuse and repair skills.
- Easier access to, and greater uptake of, affordable local reuse, repair, lending and sharing services.
- Increased donation of appropriate quality items for reuse.
- More effective use of recycling services to capture more recyclables whilst preventing contamination of recycling collections (right waste, right bin).

25. What has worked well? Please share examples of any successful place-based net zero projects.

MRWA, in partnership with its contractor Veolia, coordinates an annual Community Fund which provides grants to community waste prevention, reuse and recycling projects to the value of £165,000 per annum. In 2021-22, the fund supported 17 community projects who diverted 653 tonnes of waste from disposal with a CO₂e saving of 717 tonnes. As well as preventing waste, diverting materials from residual waste treatment and avoiding carbon emissions, the fund benefits individuals and communities by providing training opportunities, making environmental improvements, supporting isolated or vulnerable people and helping households struggling on low income, collectively amounting to a significant level of social value. The fund has continued to run annually for over 10 years and is regularly over-subscribed despite growth in the financial value of the fund over the years.

More information on the Fund and project examples can be found at the link below, which includes a short video summarising successes and outputs from our 2021-22

Community Fund. A further 16 projects are being supported in our latest 2022-23 fund.

<https://www.merseysidewda.gov.uk/what-we-do/supporting-residents-and-community-groups/>

26. How does the planning system affect your efforts to decarbonise?

MRWA's main opportunity to affect decarbonisation depends on securing the consumer behavioural change required to reduce the avoidable waste which we must deal with. MRWA does not have planning powers but where infrastructure development is required to support new services then responsible improvement of planning timescales is welcome, subject to public and planning authority consultation. Any future change to the planning system should not be at the expense of proper and transparent democratic processes or environmental and social protections.

27. How can the design of net zero policies, programmes, and funding schemes be improved to make it easier to deliver in your area?

MRWA considers that Government could strengthen its out-reach to the regions and more proactively engage with stakeholders around the development of waste resources policy, programmes and funding schemes. MRWA continues to actively engage in consultation and call for evidence exercises, and these opportunities are welcomed. MRWA also attends Government webinars on relevant issues and there is opportunity for Government to develop this line of stakeholder engagement further. Recent DEFRA webinars on packaging extended producer responsibility have been particularly useful for sharing information. A return to face to face or hybrid workshops around the country can allow conversations and capture added value which webinar / online sessions alone cannot fully replicate. Physical events also allow attendees face to face access to Government representatives, which is not always easy to achieve for organisations located away from the London area. Government should be mindful of engaging practitioners at the community level, as well as local authorities, who will be able to input 'real world' tried and tested experience into programme design for effective and pragmatic local delivery.

28. Are there any other implications of net zero or specific decarbonisation projects for your area that the Review should consider?

MRWA is developing a Zero Waste Strategy and this will contribute to wider action by partner authorities across the Liverpool City Region to achieve zero avoidable waste by 2040. To achieve this objective Government progress or support would be welcomed in the following areas:

- Publication of the National Waste Prevention Programme as soon as possible, including national support to enable local areas to implement impactful food waste prevention programmes and develop effective reuse networks and hubs.
- National campaigns on waste prevention and reuse to support local, community focussed education and awareness raising strategies.

- Expertise and funding support to improve our knowledge of local consumer choices and motivations and to understand the most effective approaches to effect behavioural change.
- Clear, socially just and consistent financial incentives for consumers to adopt zero waste, net zero carbon behaviours.
- Government decisions to ensure implementation of fully funded national consistent recycling proposals without further delay, in order to support the expansion of recycling services and the reduction of carbon intensive residual waste volumes.
- Government commitment to maintain the April 2024 introduction of packaging extended producer responsibility (EPR) proposals and progress on the commitment to review other material streams for EPR.
- Government review of deposit return scheme proposals for drinks containers to ensure reuse is prioritised over recycling. Development of deposit return scheme proposals, in association with business and community organisations, for difficult to manage items including electronics, furniture, mattresses, paint, textiles, etc.
- Further national restrictions on single use plastics to improve resource efficiency and reduce the volume of difficult to reuse or recycle plastic requiring residual waste treatment and avoidable carbon emissions.
- Funding programmes to support circular economy innovation / pilot projects which have the potential for delivering inward investment, local economic growth and progress against zero waste, net zero carbon trajectories.

Questions for academia and innovators

29. How can we ensure that we seize the benefits from future innovation and technologies?

30. Is there a policy idea that will help us reach net zero you think we should consider as part of the review?

Strategy and Development Team

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