

The case for carbon over weight

MRW's roundtable on the waste review provoked much debate and generated messages for the Government. In the first instalment of a new series, industry figures discuss carbon metrics and MRFs

IAN BOURTON: From an industry perspective, I can see benefits for carbon are massive. But it would be difficult for a local authority to understand that rather than weight. Measuring by tonnes is a lot more acceptable to communities. If you move it to the coalface, as such, it would probably lead to a decline because it would need a lot of education in the community.

GEV EDULJEE: I don't think it would make much difference other than targeting specific materials. If you look at the waste hierarchy and the carbon hierarchy, they more or less match each other. For both, the best gains are through re-use. What a tonnage-based system does is target heavy material, and carbon would concentrate on metals because they are the materials with the most gains in terms of carbon savings and also tackle plastics too. We want to carry on recycling materials as we already do, but by



AT A GLANCE

- Carbon metrics are considered an effective and modern way of thinking about resource efficiency
 - MRFs are getting better but are not without flaws
- WORDS: Tiffany Holland

using carbon it would mean targeting those that are lightweight, such as plastics and aluminium.

The solution could be to set tonnage targets for lighter, carbon-heavy materials and the carbon debate can be hidden in the background. Therefore, local authorities only see the target.

CHRIS DOW: I understand and agree with what Ian is saying. What is going on in the background is a chain of emphasis. Aluminium and plastic are heavily embedded with carbon and so we change the emphasis. There is a lot to be said for moving the debate away from weight to carbon. For years we have been dealing with very low target for plastics. If we use carbon as a way of effect on the environment, you absolutely need to consider it when trying to divert materials away from landfill.

MARCEL GOEMANS: Carbon should be a way of setting the targets. Carbon is one key issue we will see soon and I would argue that scarcity of materials in future is another. But I don't see how a carbon tool could be used in the day-to-day operations.

MIKE TURNER: There are advantages in measuring by weight of material. With carbon, you think about the logistics around the material – collecting and delivering it. But whatever you decide there has to be a reasonable target around it and there has to be a reasonable timescale to work towards. Everybody needs to benefit because this is what drives investment, and investment demands clarity.

GE: This is interesting because this is where a carbon-based policy could be used through a deposit refund system. Now that seems to me an excellent way of capturing material like aluminium.

MATTHEW THOMSON: But there's nothing stopping that being implemented in a voluntary agreement. Looking at it, Defra is not even close to saying we'll have carbon targets. They haven't warmed to carbon and collection. What they are saying is that they want to start reporting on carbon. It's way behind Scotland for instance, which has a carbon calculation up and running now. To me it seems as though they want to see how Scotland plays out, and they want to see how industry and community respond to talking about carbon as a language.

I think it gives us a good chance of rewarding good behaviour everywhere. For instance, if you have a washing machine, you get a good tonnage from that. But then it's a battle over recycling for tonnage versus re-use to see if viable product could be re-used over being shredded. I think carbon measurement can help us in that situation.

It's another way of thinking. First it was tonnage, now carbon and in the future there will be water. We're not going to lose tonnage – we can't because it has mass. But it shouldn't be the only thing we think about.

IB: It's one of those things about logistics. We [councils] are all changing to commingled. In an MRF they just pile it up, weigh it and associate it with us.

THE DEBATERS

- Ian Bourton (IB), project director, Oxford City Council
- Nigel Bridges (NB), managing director, Whitespace Waste Software
- Chris Dow (CD), managing director, Closed Loop Recycling
- Gev Eduljee (GE), external affairs director, Sita
- Marcel Goemans (MG), UK business director and Europe-Africa sector for waste, MWH
- Matthew Thomson (MTH), chief executive, London Community Resource Network
- Mike Turner (MT), UK operations director, Shanks



The logistics of actually segregating out aluminium and plastic and giving that a separate carbon rating or weight rating is a whole logistical rethink.

Moving into MRF standards

MTH: If you talk about targets, at the moment they are about what we take to facilities, not what we get out of them, and I think what's interesting in the review is the prospect of MRF standards. Bring it on. I'm not denying anybody's commitment to getting maximum material value. We take technology decisions at the moment and then it [technology] evolves, so we need technology to evolve and catch up. If we had carbon thinking applied to MRF outputs then it would accelerate the changes, and people wouldn't be able to get away with the mix coming out of MRFs at the moment.

NB: It's earlier in the lifecycle. So it's about what goes into the MRF and so what goes into the packaging. If there's less waste, there's less packaging. It's interesting you can focus on the carbon impact of what's coming out, but you need to focus on what's coming in too.

MTH: One important rider, if you actually look at the footnotes in the review, they target these high-carbon resource streams and it says "in terms of the total emissions of these waste streams per unit of waste". So I think that's a get-out, because in terms of a waste stream emitting carbon, aluminium is not going to go very far up the waste hierarchy if they go with that rider. I'd be interested in how far they'll go with that. I think they've given themselves a big 'get out of jail' card there. So it's going to be about other materials, such as food.

GE: There are certain things they want out because they are letting off greenhouse gas emissions. They target wood but nobody puts chunks of wood into landfill now, and actually it's difficult to degrade. So in terms of getting wood out of landfill, you can use it in a more efficient way if you recycle it. But in terms of the greenhouse gas perspective, I think it is a relatively minor issue.

Regarding MRFs, the drivers are more or less there for quality output. We don't need an MRF standard, which we might have needed three or four years ago. There are very tough drivers now. Either you pay £80/£90 for landfill or you get £70 revenue by recycling it. Now it's a no-brainer.

CD: Are we really being driven to quality when you can put a bale with 70% plastic and 30% landfill into a

THE CARBON METRIC QUERY

The waste review says: "We will promote resource-efficient product design and manufacture and target those waste streams with high carbon impacts both in terms of embedded carbon (food, metals, plastics, textiles) and direct emissions from landfill (food, paper and card, textiles, wood). We will promote use of life-cycle thinking in all waste policy and waste management decision and the reporting of waste management in carbon terms as an alternative to weight-based measures..."

container and send it to China for the same price as [dealing with it locally]? Really? Are we heading for the quality we want under those circumstances without having enforcement at the docks? I despair a bit at that.

MG: You don't even have to go to China. It's the same with Sweden.

CD: We deal with so many MRFs. I can tell you the differences between the levels of commitment they each have. We've got MRFs we absolutely love working with and they do the best with the equipment they've got and you can see the sincerity, and all the others are focused on just 'push the stuff through'.

GE: Yes, but you are dealing with a particularly difficult material. Businesses are cutting down on exports. Now those contaminated loads are being rejected more and more. If the Chinese don't like it, we can't send it. It's as simple as that.



MG: The days of sending out low quality are coming to an end.

CD: That's encouraging. You're quite right. But we've had various instances where we've rejected bales and they've gone straight to the dock for export.

MT: I think the concept's changing. I think good facilities are seen as an investment – and when operating in the commodity market you can't operate there unless the quality is there. So that thought process is beginning to change.

GE: In the past, Chris is right. But we have changed that and we need to invest and build, which takes time.

CD: I have been encouraged by a few MRFs recently, the brand new ones. And I look at them and I think "my word, the world has turned upside down". The output of them is beautiful. ■

Next week: waste prevention and the PRN system

MOVING INTO MRF STANDARDS

The responsibility deal between the Government and the waste industry said: "It is also critical for future-proofing the UK's recycling system by ensuring that its recyclable waste materials continue to be in demand in domestic and overseas markets. The Environmental Services Association (ESA) will develop quality measurement protocols on input and output quality as part of a Code of Practice for MRFs. The ESA and the Government will work together to promote take-up of these protocol standards across the sector."