MRWA – Fractional Climate impact/Carbon-based Levy – outline

In reviewing the way the Authority works with constituent Councils to assess different options for the Levy mechanism one outline proposal has been considered that includes considerations of the Climate/Carbon impacts and values of each tonne of waste, and whether / how that might affect the way the levy is divided among District Councils. The outline model below is a very high-level theoretical construct which may point the way to a different future Levy model. The draft model makes some assumptions, which would need to be reviewed and amended and agreed in light of a more detailed consideration, but which are used for illustrative purposes.

In the proposed draft-model each tonne of waste is divided into some of its constituent fractions on the basis of whether the waste is a high climate impact/carbon value or a low climate impact/carbon value and including an assessment of the lifecycle impact of each type of waste. The fractions may then be allocated a weighting to reflect the higher / lower climate/carbon value. In this case the example uses a combination of so called 'bad waste' tonnes which are sent for residual disposal, and 'good waste' tonnes which are sent for recycling.

Where a 'bad waste' tonne contains high climate/carbon values that are sent for processing then the weighting applied would increase as more carbon would be released from processing. Where a 'good waste' tonne contains high climate/carbon values the weighting would work the other way round, assigning a lower score as the high carbon value tonne will be recycled and the carbon would not be released in that round of processing.

Bad Waste – Residual	
Climate/Carbon Value of the fraction of a tonne	Weighting applied
Very High	0.8
High	0.5
Medium	0.4
Low	0.2
Very Low	0.1
Total weighting per tonne	**2.0**

Good Waste - Recycling	
Climate/Carbon Value of the fraction of a tonne	Weighting applied
Very High	0
High	0.05
Medium	0.15
Low	0.25
Very Low	0.3
Total weighting per tonne	**0.75**

In the example above a 'standard' residual tonne of waste might carry an overall weighting of 2.0, compared with the weighting of a standard tonne of recycled waste which may have an overall weighting of 0.75 in order to continue to incentivise recycling in overall terms and at the same time continue to disincentivise residual waste in overall terms.

These constructed weightings may then be applied to the 'bad waste' and 'good waste' tonnes to arrive at a weighting per tonne – to use as the basis for allocating the tonnage element of the levy in this proposed model (this would be likely to provide a complex model that provided outcomes similar to the 'good waste / bad waste with an incentive' model described elsewhere).

Apart from the agreement over how many fractions of waste could be used to represent each tonne, which may not be universally accepted, there will also need to be agreements over the weightings

applied to each fraction, those show above are meant as illustrative and should not be regarded as a proposal at this stage. Each of these elements will need to be agreed by all of the constituent Authorities before moving forward with any such proposal. (The metrics for this model are not yet in place or agreed.)

Thereafter the model could be used to calculate a levy allocation. However, under the present proposal it will allocate the same weightings to each tonne for every authority, and so the outcome would be little different from the existing proposal of "Good Waste & Bad Waste". In order to provide greater incentive to de-carbonise the waste stream it will become important to analyse a tonne of good waste and a tonne of bad waste for each collection Authority. So, a tonne of bad waste for one Council may be subtly different in composition from a tonne of bad waste from a different council. In the end Councils may find their tonnes of bad waste and similarly their tonnes of good waste could add up to different weightings. If Councils work to de-carbonise the waste arisings by, for example, reusing higher carbon materials, their costs would reduce, whilst those who do not may find their weightings (and costs) stay the same or even increase:

For example:

Council	Residual Bad waste weighted tonne score	Recycling Good waste weighted tonne score
A	2.2	0.65
B	2.1	0.75
C	1.9	0.8
D	1.8	0.7
E	2.0	0.78

Under this approach there would begin to be some significant differentiation in the Levy between higher scoring and lower scoring waste tonnes, and therefore between the way Levy costs are allocated to District Councils.

In order to deliver an approach like this Councils would need assurances about the way fractions in waste tonnes were measured and would be likely to want the most up to date information to be used. This would be likely to involve carrying out a very regular and audited waste composition analysis that the Councils agreed at the outset and which they could review during the course of the analysis. Because it would impact on the Levy charge for each Council there would need to be a strong evidence base for the differential in each Council's waste tonne fractions. Ensuring that the Councils were assured about the accuracy of the waste fractions would become a significant administrative task for the Authority and the Councils, and probably also for the waste contractors. (Again, the metrics for this approach are not yet fully available and developing an approach that all the constituent Councils can agree will need to be the focus should the proposal be taken forward.)