



Massey Bros (Feeds) Ltd **Environmental Report 2020**

Chairman's Report

We now have 19 years of environmental data. We recognise that our business activities do have an impact on the environment and have developed our Environmental Policy to provide a system to help manage our impact on the environmental. We have made a clear statement that we will be Carbon Neutral by 2035.

The raw materials Massey Bros use are renewable from organic resources and co-products from other processes with minimal waste and so have limited impact on the environment. We will however be investigating the carbon footprint of each material so that we can measure the footprint of our feeds. Our most significant environmental impacts come from 2 sources. The first is power consumption at our manufacturing sites which has the effect of producing carbon dioxide. The second is diesel from our commercial fleet of vehicles which again release various greenhouse gases into the atmosphere such as Carbon Monoxide, various hydrocarbons and Oxides of Nitrogen and particulates. We are now starting to measure the impact of business travel in the business.

Taking figures collected over previous years it is possible to see that the carbon dioxide produced per tonne of feed manufactured. With the use of regular monitoring to ensure operators run the plant as efficiently as possible, the replacement of existing plant with more energy efficient plant, installing solar panels and manufacturing products that require less energy to produce, the last few years overall show continued reduction in emissions since commencing measurements.

Using figures collected for diesel usage and relating them to the types of engines running in these vehicles, both the emissions/km and emission/tonne have stayed reasonably static. These figures represent a significant improvement since 2001. As the majority of our fleet is made up of the Euro VI engine, Hydro-Carbons and Nitrous Oxides are significantly reducing.

We have 19 years of figures for the waste produced which demonstrate that we have cut our waste by over 70% since we started to measure it. We now separate our waste and recycle much more. As a result it is very difficult to achieve any additional waste reduction as our raw materials are renewable and organic.

We have 18 years of water usage figures. This year our water usage is around one third of the usage in 2004. Water is an integral part of the process and these stable levels now reflect that we have approached the minimum usage for the operation.

In summary, both our water usage and waste levels are at a level that is difficult to reduce. Water is an integral part of the process. Our carbon dioxide emissions per tonne remain consistently lower than 6 years previously. This is due to manufacturing more products that require less energy to produce and our vehicles emissions are continuing their long term downward trend.

Richard Massey
Chairman



ENVIRONMENTAL POLICY

Mission Statement

Massey Bros (Feeds) Ltd play an important part in the food chain. As consequence of this we must satisfy the most rigorous standards of quality control to ensure that the resultant food is safe and wholesome. Animal welfare standards must always be met and we recognise our responsibility to the environment.

Scope

This environmental policy statement applies to our manufacturing facilities.

Environmental Policy

- We will manage our business activities that have the potential to significantly impact the environment following the principles of BS EN ISO 14001:2015.
- We will comply with all relevant environmental legislation, regulations and other appropriate requirements.
- We are committed to continually improving environmental performance and prevent pollution.
- We will use resources efficiently and take appropriate opportunities to minimise waste through re-use and recycling.
- We will develop environmental action plans with achievable and realistic targets which will be monitored and reviewed periodically.
- We will provide appropriate training and information to our staff so that we are all able to comply with this policy and achieve our aims.
- This policy will be periodically reviewed by the directors to ensure its continuing relevance.

Kynan Massey
Managing Director

January 2019

Profile of the Organisation

Massey Bros (Feeds) Ltd has 2 manufacturing sites, both in the North West of England. One is based in Holmes Chapel, Cheshire and the other in Preston, Lancashire. It is a family business established over 140 years ago and still run by the family. It produces animal feed at both sites that is delivered to farms from the midlands to Scotland and into Wales.

Management Systems

The board member with overall responsibility for the environmental system is the Managing Director. The environmental team has been expanded to include not only the site managers but supervisors from each of the mill teams. This team has led the implementation of an Environmental Management system that assesses our environmental impacts. Objectives and targets are set at least annually in accordance with our environmental policy. At each site there is a local team, led by the site manager that ensures the environmental system is implemented. There is an annual review to ensure the system is kept up to date, objectives and targets are assessed and training is reviewed.

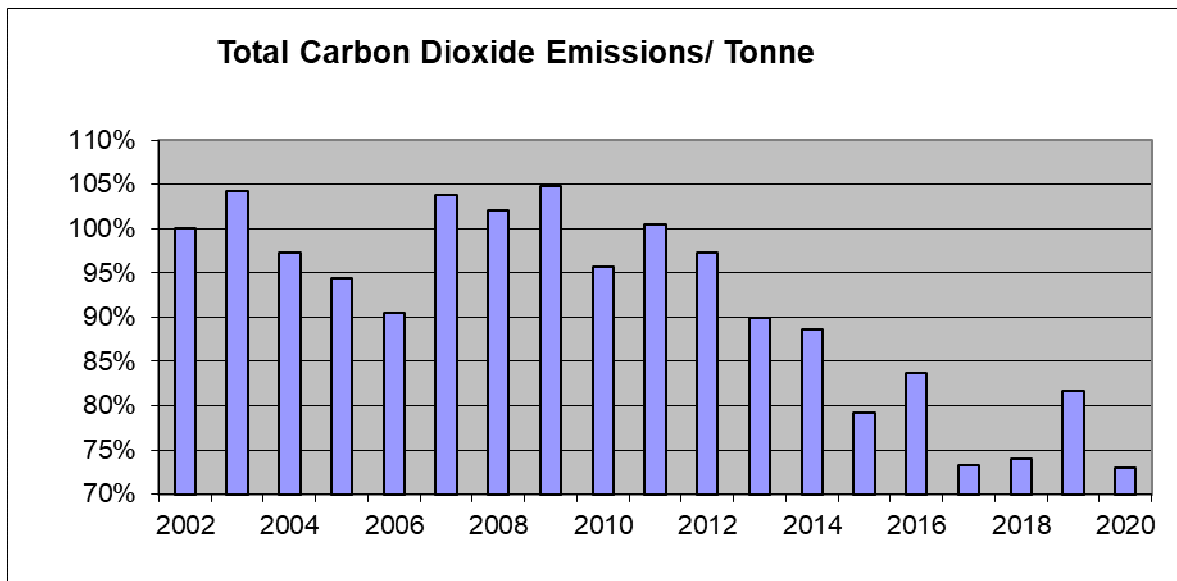
Key Environmental Impacts

From our environmental management system, we have established that our key environmental impact is the emission of greenhouse gasses (notably Carbon Dioxide.) The greenhouse gases are emitted in two main ways. First, carbon dioxide emitted can be calculated from the grid electricity, gas and gas oil that is used at each site. Second, various emissions can be calculated from the diesel used by our fleet of commercial vehicles and knowing the type of engines in each one. Below is a table detailing the emissions for both Articulated Vehicles and Rigid vehicles by engine specification.

HGV	Carbon Monoxide	HydroCarbon	Nitrous Oxides	Particulates
Euro I	4.5	1.1	8.0	0.61
Euro II	4.0	1.1	7.0	0.25
Euro III	2.1	0.7	5.0	0.10
Euro IV	1.5	0.5	3.5	0.02
Euro V	1.5	0.5	2.0	0.02
Euro VI	1.5	0.1	0.4	0.01

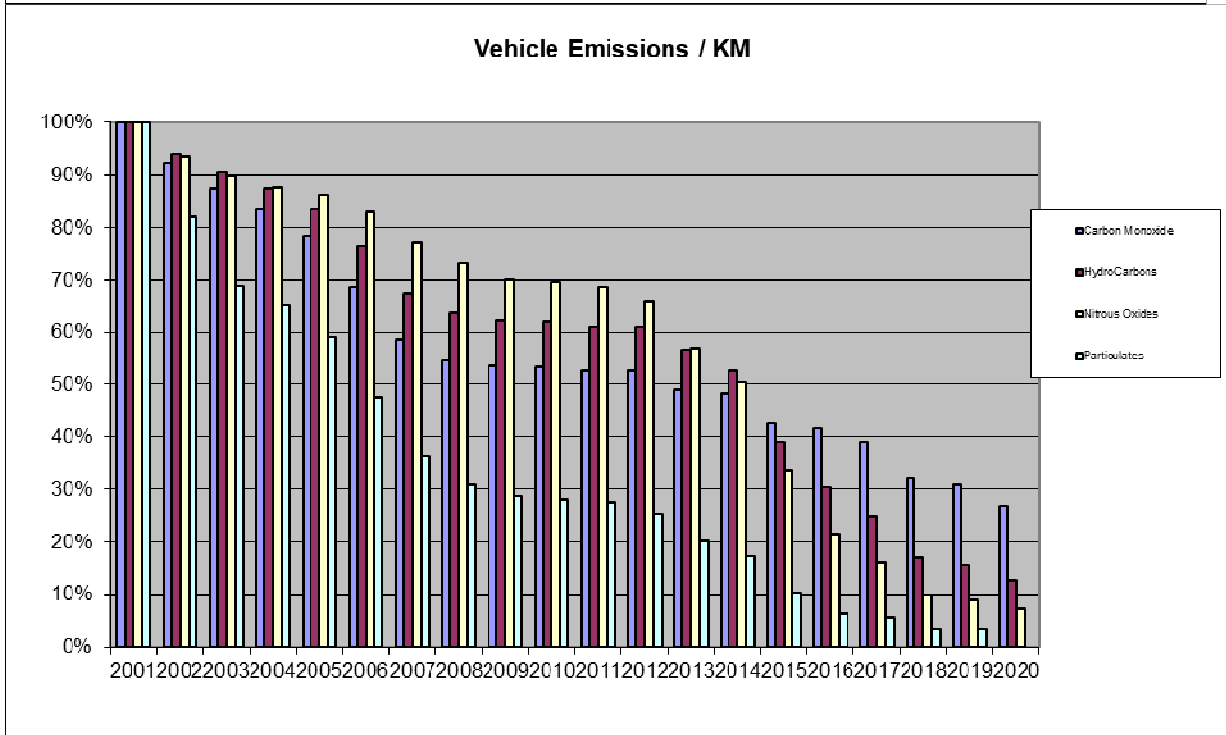
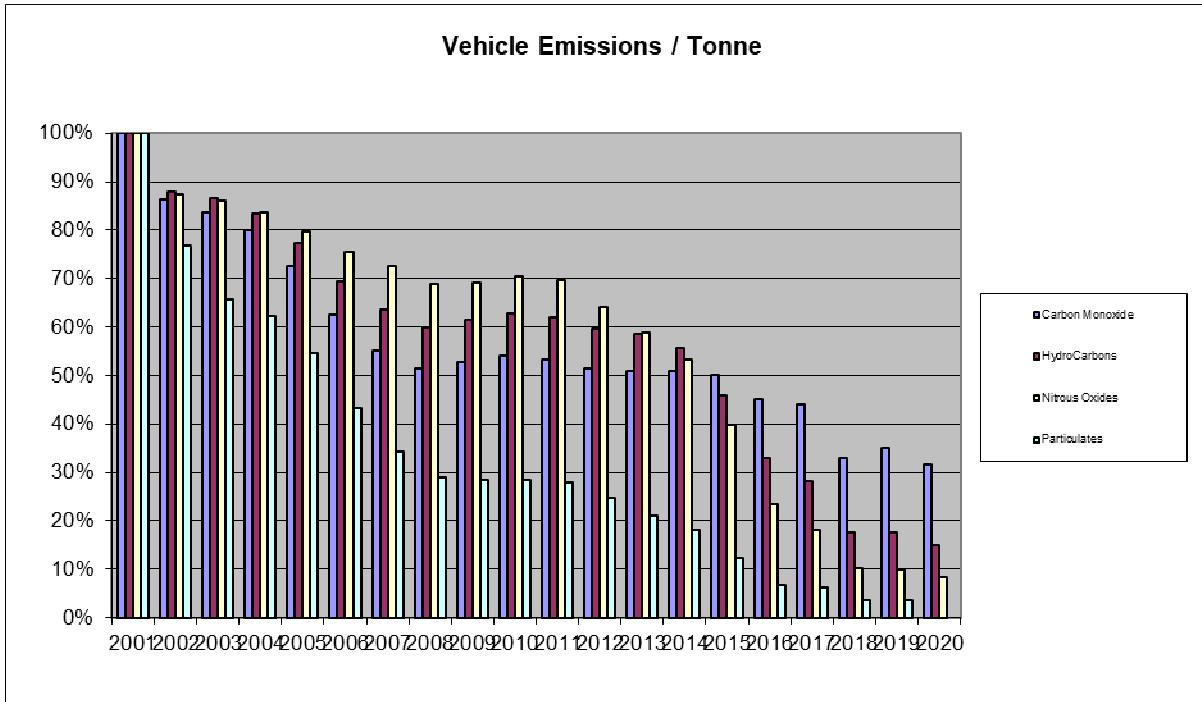
Carbon Dioxide from Manufacturing Sites

Taking 2002 as the base year, we have calculated the units of electricity and quantity of gas and gas oil used at each site. This has been converted to an amount of carbon dioxide produced and divided by the tonnage manufactured. We work hard every year to try and improve our efficiency and it can be seen that over the last few years we have seen significant improvements. We continue our regular monitoring to ensure that the plants are run as efficiently as possible. Seven years ago we replaced the presses on one of our production lines with a single larger press to help cut energy usage and thus carbon dioxide emissions on that line by about 25%. We are still broadly in line with our 9 year downward trend - emissions have reduced by more than 20% since 2002.



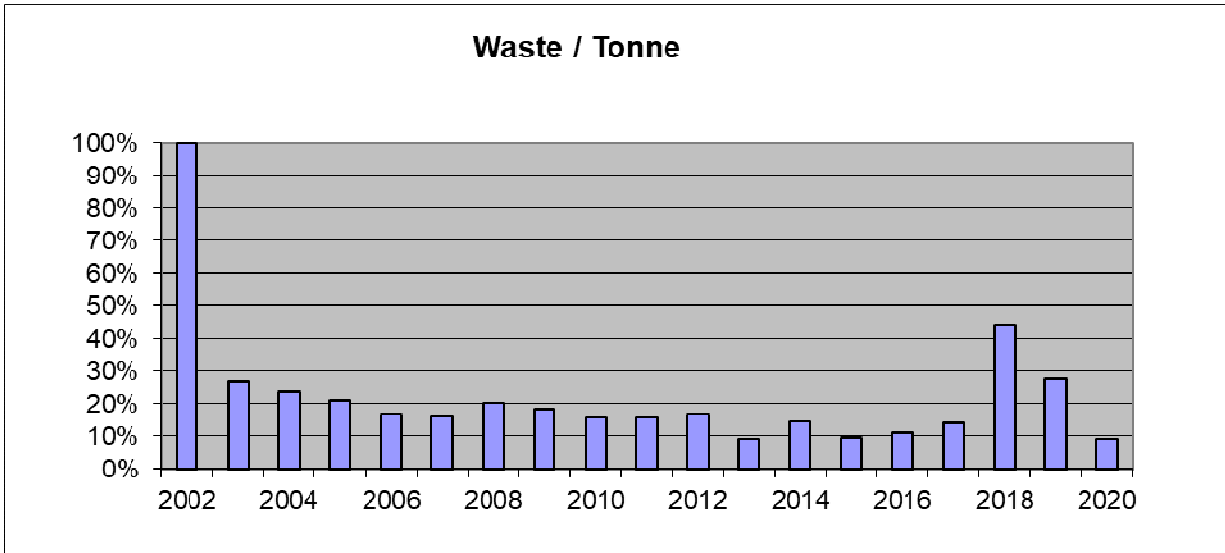
Greenhouse Gases from Commercial Fleet

Taking 2001 as the base year, we have calculated the amount of diesel used by each engine specification in the fleet and from this we have calculated how much of each of the 4 measured gases has been produced. There has been a significant reduction in both emissions/100 Kms travelled and emissions/tonne. This is set to drop again for Hydro-Carbon and Nitrous Oxide emissions as more of our fleet is made up of Euro VI engines. The most impressive reduction is in particulates which are less than 5% of what they were in 2001 – similarly Hydrocarbons are less than 20%. There has been some publicity regarding Nitrous Oxide emissions from diesel engines but with the constant renewing of the fleet, this is about 20% of what it was in 2001.



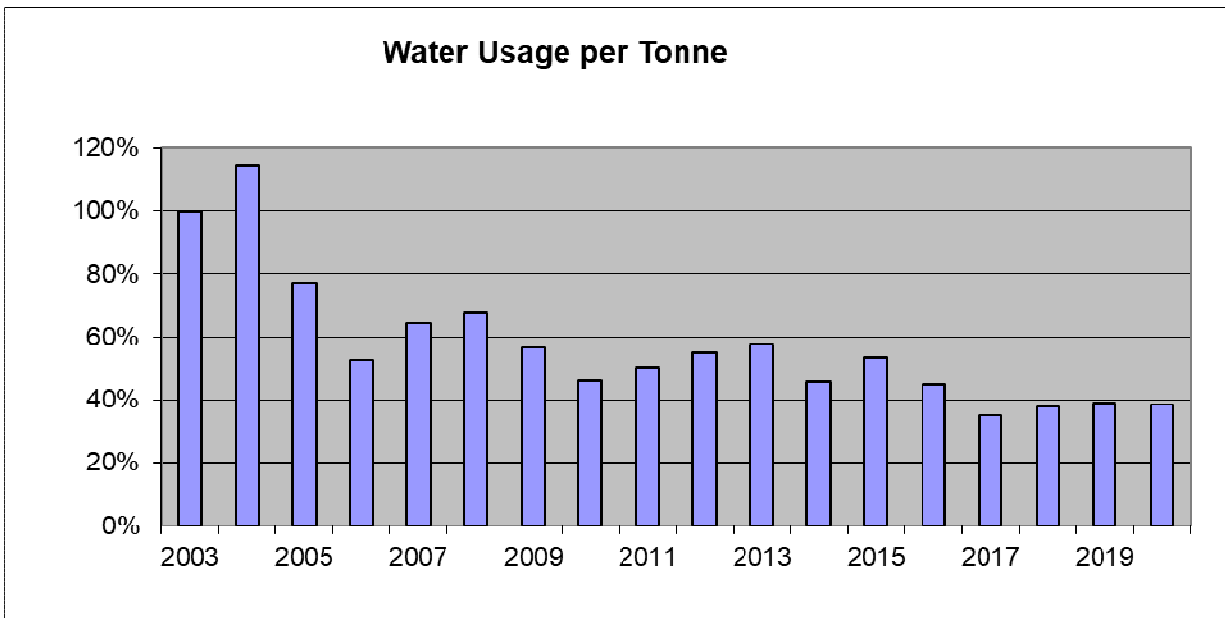
Waste

We keep records of the amount of waste that is produced. In 2003 we began recycling. The effect this has had on the waste we have produced per tonne of feed can clearly be seen from the graph. Since we examined this area of waste in 2002, we have significantly reduced the waste we produce to such a level where it is hard to reduce it any further. Although there has been an increase in 2018 and 2019, it is pleasing to see we have returned to the lower levels from 2013 – 2017..



Water Usage

For the last 18 years we have kept records of our water usage. Having seen initial improvements in water usage after we started to measure it, our water usage is reasonably constant. We are now using about 40% of the water we used in 2003. Monitoring water usage on a monthly basis means that should any leaks occur, they are spotted quickly. Additionally, the figures do not show that we are using non-potable water in appropriate places around our site which further lessens our environmental impact.



Conclusion

We have now got 19 years of environmental data. Our most significant impact continues to be carbon dioxide emissions relating to our power usage. We can see that there is a long term down trend in our usage / tonne since we began to keep records. We have changed the mix of products we manufacture and are investigating various projects to further reduce our electricity usage. We have seen the benefits of all the action we have taken and it is pleasing to see this decrease.

We also have a significant impact from diesel usage in the commercial fleet. We can also see that this has reduced over each year and we have implemented a policy of regularly replacing the fleet with the latest fuel efficiency technology to help continue this trend.

It is clear to see the benefit of assessing our environmental impact and continuing to measure it year after year. We will continue to try and find ways of reducing our environmental impact. Taking the four areas above and the results we have achieved and actions we have taken, this shows our clear commitment to reducing our environmental impact.

We will now be increasing our focus on our environmental impact and aim to be carbon neutral by 2035. For this, we have begun to measure the carbon footprint of our feeds and look at the environmental impact of the other areas of our business, the most significant being business miles.