



Temperature Controlled Logistics

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Pakman Awards Green Transport of the Year: McCulla (Ireland) Ltd

McCulla (Ireland) Ltd is one of the UK & Ireland's leading temperature-controlled warehousing and logistics companies, serving the UK, all of Ireland and the rest of continental Europe. Being established in 1969 by David McCulla, the Company is fast-approaching its 50th anniversary and is now under the ownership and direction of the second generation of the McCulla family. Brother and sister, Ashley and Carol (the youngest two children of the Company Founder), jointly took control of the business in 1992 and have developed it from a company turning over £700,000 to one turning over **£23.5m**.

McCulla Ireland remain family-owned, operating and performing at the highest standards, without losing the values the company was built on.

The Company has two strategically placed cold storage facilities within Ireland: one based in Lisburn in Northern Ireland, just 30 minutes from Belfast Port, and one in Dublin in Southern Ireland, just 30 minutes from the Dublin Port. Both sites include modern cold storage facilities. The Dublin cold storage area is 36,000 square feet and the Lisburn facility is 46,500 square feet.

The Company is proud to be heavily involved in implementing numerous environmentally-beneficial processes and facilities, including investment in renewable energy sources, an efficient fleet, driver training initiatives, and many other activities.

INSTALLATION OF ANAEROBIC DIGESTER PLANT

McCulla has invested £3m in an anaerobic digester plant at its Lisburn site. Since its installation in February 2017, the coldstore no longer relies on grid electricity. McCulla believes it is the **only** company in the UK and Ireland to have a **totally carbon-neutral coldstore**.

The plant currently runs on grass/rye/maize silage, chicken litter and cow slurry, and McCulla has planted 500 acres of agricultural grass product for its supply. However, the Company intends to move to waste food streams to fuel the AD plant. This waste will not only make enough power to run both of the Company's coldstores (Lisburn and Dublin) but will also power up to 35 artic trucks. This second phase of the AD plant installation will be complete by the end of 2018. Within the coming months, the plant will produce biogas, meaning the Company will be able to make its own compressed natural gas. McCulla will be trialling gas-powered trucks in the near future and the Company aspires to be running a fleet consisting of at least **35% CNG** powered gas trucks within the next five years. As well as generating biogas, the AD plant also creates hot water as a by-products. The Company is talking with a local hospital about the possibility of piping the hot water to it.

Not including the by-product benefits, the environmental impact of the AD plant can best be quantified using information supplied by McCulla's electricity provider. The electricity that powered the Lisburn coldstore previously created 343 tonnes of carbon per year. The AD plant provides **125%** of the electricity required for the facility (extra 25% sent back to grid), therefore, McCulla estimates the AD plant has reduced carbon production by **428 tonnes per year**, equating to **1,256 tonnes of carbon dioxide**.

RAINWATER HARVESTING

McCulla has been harvesting rain water for 10 years, a procedure whereby rainwater is collected in containers and then reused for the Company's cooling towers and to wash vehicles. From this activity, the saving is estimated to be **10,213 cubic metres** of water annually.



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FLEET & DRIVER INITIATIVES

- **Fleet Investment**

McCulla is focused on continually improving the efficiency of its fleet, which is comprised of 100 trucks and 150 trailers as well as Mercedes Sprinter vans and rigids up to 18 tonnes. The Company has invested heavily in vehicle technology and has worked hard to improve usage to minimise environmental impact.

The average vehicle age is only **3 years** and the Company is committed to a Euro VI fleet replacement. The Company's fleet replacement policy for Euro VI trucks was started in 2015, with almost **half** of the fleet already being Euro VI. McCulla is currently in talks with truck suppliers for an order of an additional 20 Euro VI units for delivery in early 2019.



The Company has also invested in twin deck trailers to minimise the number of vehicles required on some routes, has included aerodynamics kits on trailers, and the latest fridges are ThermoKing low-noise units.

- **Focus on Driving Style**

McCulla Ireland is extremely committed to the development of its dedicated staff of 200+ employees, not least concerning its drivers. The Company operates an annual training matrix which covers all aspects of the business.

McCulla is committed to using only its own drivers, who all undergo meticulous ongoing training facilitated by two in-house Driver Trainers. Training focuses mainly on safe and economic driving styles, which obviously correlate strongly to fuel efficiency and therefore minimised environmental impact.

All Drivers have five weekly KPIs that they are monitored against and each week all drivers receive a 'Driver Performance Score', which is linked to financial incentives. McCulla Ireland has Bluetree telematics running on all trucks AND trailers, which allows driver performance to be analysed. The five KPIs are as follows:

- Vehicle idling
- Use of cruise control
- Harsh braking
- Harsh acceleration
- Over-speeding

The top performing drivers earn up to £40 extra per week, whilst the Driver Trainers work with the lowest performers to improve their scores.

Training manuals have also been developed for all staff, which include information relating to environmental practices.

The above proactive fleet and driver initiatives have resulted in a **4.95%** improvement in mpg achieved over the last three years. Based on the first 18 weeks of 2018, the fleet is now averaging **9.12mpg**, a further improvement of 0.024 on the same period in 2017, which was 0.166 ahead of same period in 2016. This demonstrates a continued



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focus on driving style and fleet efficiency. Using the year-to-date mileage as a comparison, on an annualised basis this is a saving of **145,021 litres of fuel** against the mpg that was being achieved in 2014 (8.698mpg). This amount of diesel is the equivalent of **112 tonnes of carbon** per year.

- **Commitment to vehicle maintenance to ensure optimum fuel performance**

McCulla Ireland vehicles are operated and maintained to the highest standards. All equipment is purchased with five-year European maintenance agreements in place, on full repair and maintenance packages from the manufacturers. Likewise, all tyres are supplied with 24/7 cover with Continental and fridges with ThermoKing, both including full European cover.

To ensure that vehicles are operating at their most efficient and are compliant with legislation, McCulla Ireland employs four in-house mechanics (plus one Apprentice) to carry out full inspections each time the vehicles return to the depot, as well as a Maintenance Manager to oversee performance, safety and compliance. Drivers are trained to carry out stringent vehicle checks prior to any vehicle movement. This, coupled with the manufacturers' contract maintenance, ensures that the fleet is always at its optimum condition. All vehicle damage is also repaired as quickly as possible. The tractor unit fleet is inspected every eight weeks and trailers every 11 weeks.

McCulla has a 100% compliance record with both DVSA in the UK and RSA in Ireland and consistently achieves a 98% first time MOT pass rate. In the last 18 months, all McCulla vehicles that have undergone roadside enforcement checks have had no vehicle defects.

- **Proactive Use of Technology**

Using telematics and satellite tracking, McCulla identified that 30-35% of the fleet's engine running time was idling. The Company had a system bespoke-designed to introduce five-minute cut-outs into the engines. All fridge units have been switched off high-speed as a conscious decision to reduce emissions.

FACILITIES

All facilities are bespoke-designed to the highest specification and are fully EC-approved. The thermal efficiency of storage equipment and the Company's fleet of vehicles is of paramount importance and McCulla Ireland strives for the highest recognised standards in all aspects of the business, including:

- ISO 9002
- HACCP food safety management system – Higher accreditation
- CMI Higher Certificate in Management
- British Retail Consortium Food Safety Standard – Double Higher Award (highest available) at Lisburn and the Dublin facility has recently achieved Grade 'A' BRC accreditation also
- Transported Asset Protection Association members – currently working towards accreditation to the 'Trucking Security Requirements' Standard (industry standard for the transport of high value goods)
- European Good Distribution Practice approval (standard relating to the pharmaceuticals supply chain)
- Investors in People

Both coldstores are bespoke-designed, flexible and fully EC-approved, with a combined capacity of 9,000 tonnes across a number of chambers, capable of running at temperatures ranging between +5°C and -25°C.



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DUBLIN FACILITY

The Company's facility in Dublin was opened in 2014 to offer storage and cross-docking of McCulla and third-party customers' goods and to provide an enhanced export solution to the UK and beyond. Prior to the Dublin depot being established, all cross-docking used to happen at Lisburn regardless of the end delivery location, so this has allowed McCulla to take **200,000** road miles out of its operation, thus increasing efficiency and reducing carbon footprint by **271,000 kgs of carbon dioxide**.

COLDSTORE CONTROL SYSTEMS

McCulla has implemented sophisticated Endeco Technologies warehouse control systems which optimise electricity usage. Sensors and controllers have been implemented throughout the coldstore, which provide reporting on the energy demand of individual assets within the facility. The reports are proactively interrogated to fine-tune energy efficiency, by highlighting inefficient assets, for example.

In the last 12 months, McCulla has fully upgraded its stock control system and an upgrade to the blast freezing facility is also imminent due to a specific customer demand. The up-tempering facility is computer-controlled and a system has been included which monitors air flow within the chambers to ensure consistent temperature control via adjustable airflow. This has an added benefit of making the chambers more efficient and therefore more environmentally friendly.

OTHER

All waste products are recycled as far as possible, including paper, pallets, cardboard, plastic and metal. McCulla has also gained distribution rights for an innovative product called 'Nanobite', a patented spray used in oil/diesel spills that converts hydrocarbon contamination into water and carbon dioxide. It is a 100% environmentally-friendly alternative to traditional methods, such as dispersants, toxic chemicals or the introduction of lab-produced bugs and microbes. This is just one example of how McCulla is involved in areas outside of its core business that are concerned with environmental protection.

Whilst McCulla Ireland is passionate about the industry becoming more socially responsible and it takes its duty to protect and improve the environment very seriously, the Company also sees many other benefits of 'going green'. Although the Company's investment has been huge, McCulla Ireland appreciates the return on these investments. Anything that the Company can do to optimise fuel economy or energy consumption, ultimately reduces environmental impact AND saves money. Likewise, many customers are becoming more focused on environmental requirements from their suppliers, so this is something that McCulla is proud to promote during tendering opportunities.

Because many of the environmental initiatives are driven by Managing Director, Ashley McCulla, there is 'top-down' integration and buy-in, meaning the environment is a core theme that runs throughout the organisation. The above long-term commitments to environmental protection are proof that McCulla Ireland is dedicated to proactive and continual improvements, from large scale projects at a significant financial cost to the business, to ongoing tweaks to facilities and processes.



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SUMMARY FOR PRINT:

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