



Scottish Leather Group

**GROUP ENVIRONMENTAL REPORT**  
FOR THE YEAR ENDING 31<sup>st</sup> MARCH 2011





# GROUP ENVIRONMENTAL REPORT

FOR THE YEAR ENDING 31<sup>ST</sup> MARCH 2011

**PREFACE** In 2003 the group established a “zero waste strategy”. Our goal to maintain a sustainable business remains unchanged. The drivers for sustainability are control of costs, potential closure of landfill and the reduced use of unsustainable or declining resources. The group is now setting standards for sustainability within the leather sector as evidenced by our investments and performance. The initiatives already in place such as the thermal energy plant, allowing heat recovery from waste and our membrane water recycling projects, will lead to reduced business risk through internal operational control. These projects will also provide operational environmental cost savings principally through the insulation against market driven cost escalation. The commitments made in our inaugural report and achievements from the past year continue and are presented in conjunction with key performance indicators. We were also delighted to host HRH The Princess Royal to open the thermal energy plant, in July 2010.



The group is proud to report significant achievements in the year to 31<sup>st</sup> March 2011.

- Further reduction of our “specific energy consumption per hide” for the 6<sup>th</sup> successive year.
- The opening and operation of the groundbreaking thermal energy plant.
- Reduced environmental footprint from publicly reported activities.
- Advancement of our water recycling project by addition of the ultra filtration plant.
- Low carbon leather brand establishment.



Environmental costs for the year rose from £4.0 Million to £4.7 Million in the last year due to increased costs for utilities and waste disposal.

The Group was also pleased to receive the following awards for our environmental performance:

- Renfrewshire Chamber of Commerce (ROCCO) –Best environmental performance 2010
- Climate Week -Finalist- Best initiative by a large business– “Low Carbon Leather”
- Scottish Renewables –Finalist- Best renewable innovation award- Thermal Energy Plant

**ENVIRONMENTAL POLICY** It is the policy of Scottish Leather Group Limited that the affairs of all group companies are managed in a manner which ensures that, wherever possible, the improvement in quality of emissions to water, land or air is a constant aim and a significant feature in process and investment decision making.

Concern for the environment is integral and fundamental to the business strategy of Scottish Leather Group Limited and its subsidiary companies.



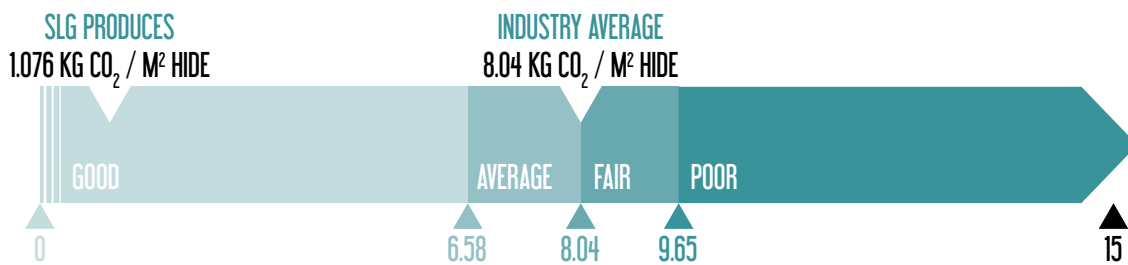
## SUSTAINABLE DEVELOPMENT MAKING LEATHER WITHOUT COSTING THE EARTH

The group recognised wasteful production processes of the industry as a whole and established a new way of thinking, i.e. to consider our process waste (cake, fleshings, hair, trimmings) as a raw material or resource. We can become self sufficient through this approach and embrace the concept of sustainable manufacturing.

A fully sustainable industry is one that has zero impact on the environment or, ideally, a positive impact on the environment and local community.

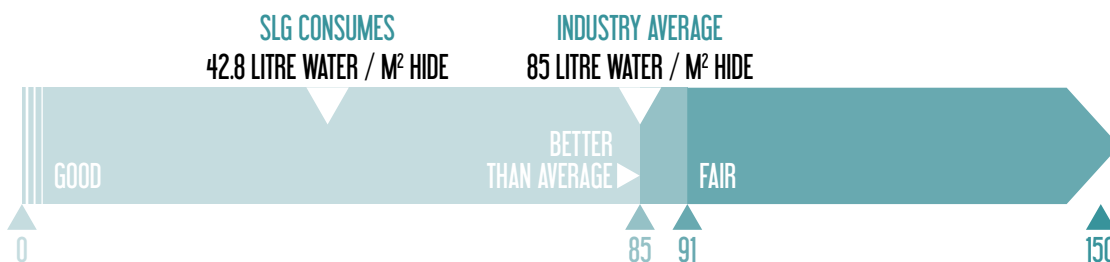
### CARBON DIOXIDE EMISSION

figures expressed in KgCO<sub>2</sub>/m<sup>2</sup> of leather produced



### WATER CONSUMPTION

figures expressed in L/m<sup>2</sup> of leather produced



## MANAGEMENT & CORPORATE SOCIAL RESPONSIBILITY

### “SUSTAINABLE DEVELOPMENT”

ECONOMIC OR ENVIRONMENTAL DRIVER	SLG STRATEGIC OBJECTIVE	YEAR TO DATE ACHIEVEMENTS	FUTURE ACTION OR DEVIATION
Management and Corporate Social Responsibility reporting.	Sustainable development.	Maintaining ISO 14001:2004. Low carbon leather. Awards for environmental performance.	Carbon footprint accreditation via group establishment of ISO 16001.

In addition to the ongoing accreditation to the ISO 14001 standard by all of the group companies we aim to be accredited to ISO 16001 – Energy Management System, by 2012. This will provide greater recognition and control of energy use and endorsement of our low carbon leather branding.



Bridge of Weir, a Scottish company that supplies Volvo Cars with leather for car upholstery and interiors, has a zero waste vision, which means that waste that cannot be used in manufacturing must be recycled at the production site.

A major step was taken in this direction during 2010 when the company managed to halve its carbon-dioxide emissions by means of a completely new heat plant. Thanks to this plant, 30,000 tonnes of waste that the company produces annually was transformed into 45 million kWh hours of energy, which in turn is used to heat the company’s facilities.

The heat and steam are used to dry and heat the leather. Oil, which is also derived from the leather fat, is used as fuel. The final residual product, mineral ash, is sold to the construction industry.

Since 2003, Bridge of Weir has had a biological treatment plant to handle its wastewater.

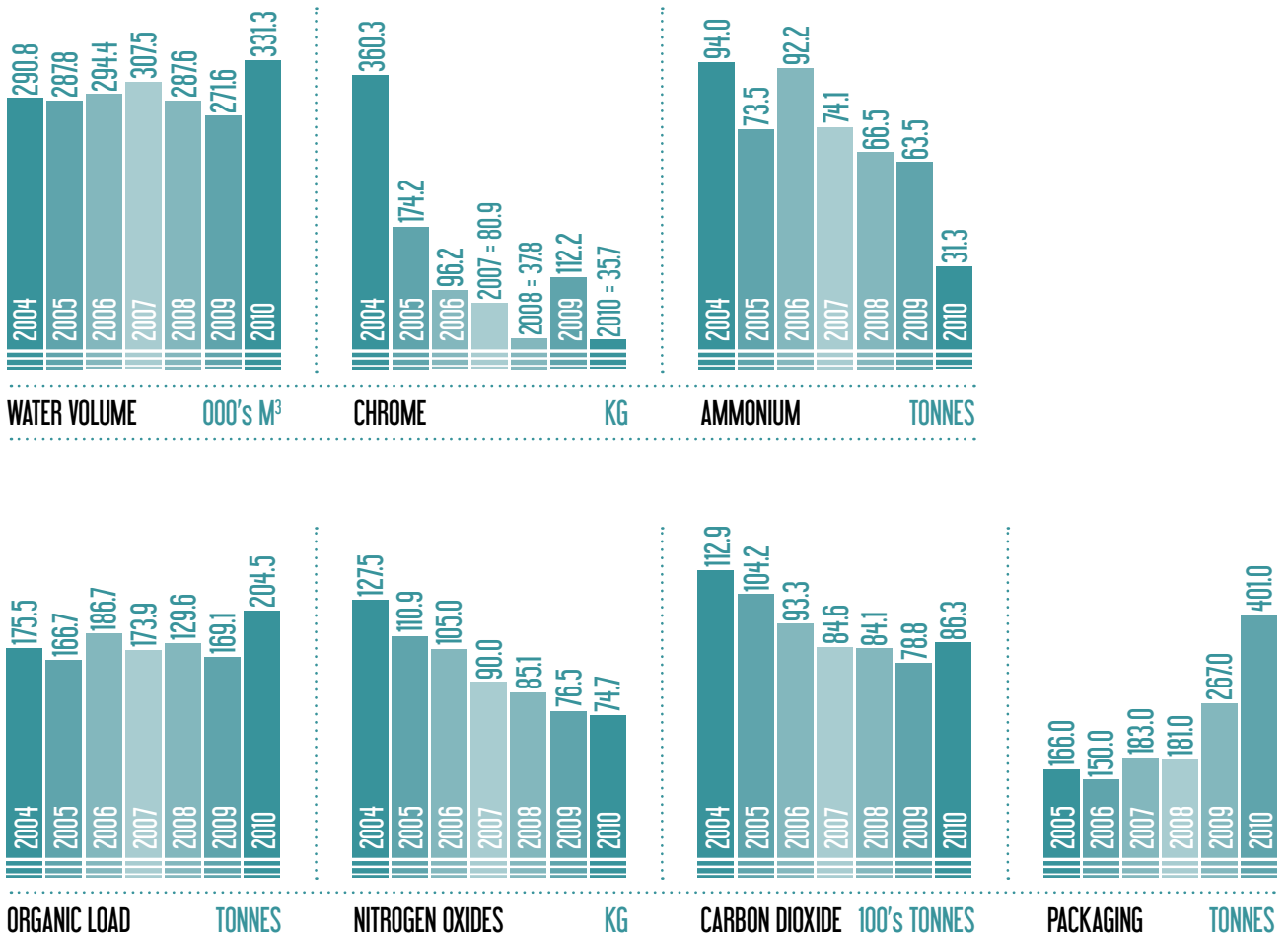


### VOLVO CAR CORPORATION

EXTRACT FROM CORPORATE REPORT 2010/2011



**FIGURE 1**  
**SLG DATA REPORTED TO THE**  
**SCOTTISH POLLUTANT RELEASE INVENTORY**



## “REDUCED CARBON FOOTPRINT” OR LOW CARBON LEATHER

ECONOMIC OR ENVIRONMENTAL DRIVER	SLG STRATEGIC OBJECTIVE	YEAR TO DATE ACHIEVEMENTS	FUTURE ACTION OR DEVIATION
“Climate Change”, carbon and utility costs.	Reduce Specific Energy Consumption (SEC as kWh/m <sup>2</sup> ).	SEC reduction continues to exceed target with a reduction of 30% from the 2003 benchmark year.	Continued carbon management, with substitution of renewable heat for fossil fuels.

Utility price concerns, ongoing political uncertainties and commercial risks of fossil fuel supply underline the need to continue our drive to improve efficiency and reduce our reliance on primary fuels. We continue to adhere to the energy hierarchy; energy efficiency, reusing heat or energy and the application of renewable energy. Increased production, a measure of the contribution of low carbon leather to group sales, has meant an increased carbon footprint in 2011 (figure 3). However, we have managed to reduce our specific energy consumption, expressed as energy use per hide (figure 4), for the 6th successive year. This issue is very much at the forefront of supply chain sustainability and is significant to our customers.

In recognition of the reduced carbon footprint in direct manufacture of leather the group has developed a low carbon leather brand. This branding recognises the local sourcing of raw material, low road miles in production and low energy use in manufacturing represented by the symbol below (figure 2).

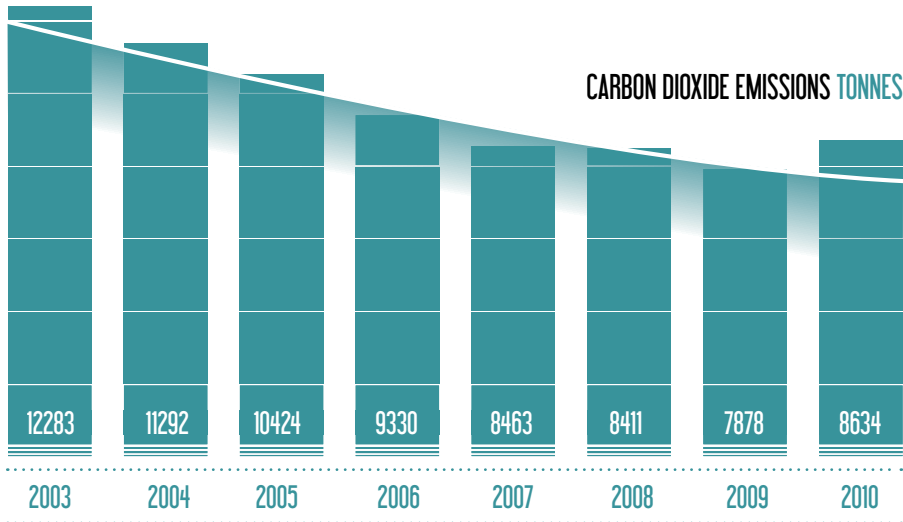
FIGURE 2



The reduced carbon emission is illustrated in figure 3 and 4.

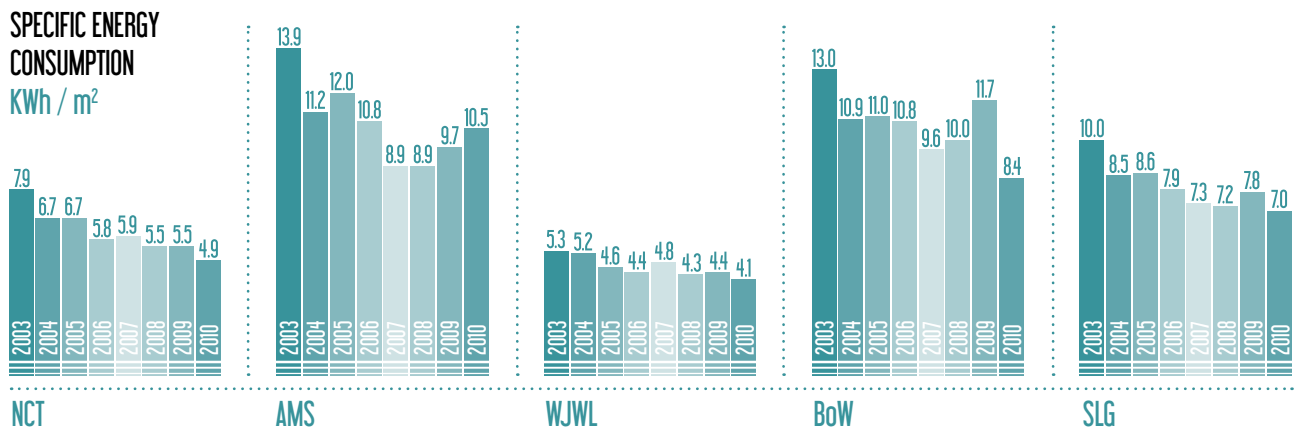
### FIGURE 3 GROUP REDUCTION OF CARBON FOOTPRINT BY 30% SINCE 2003

DATA AS DIRECT EMISSIONS OF CARBON DIOXIDE, CALCULATED  
USING CONVERSION FACTORS AS AT 2003



### FIGURE 4 SPECIFIC ENERGY CONSUMPTION (SEC) REDUCING ACROSS THE GROUP

ANNUAL REDUCTION OF ENERGY USE PER HIDE





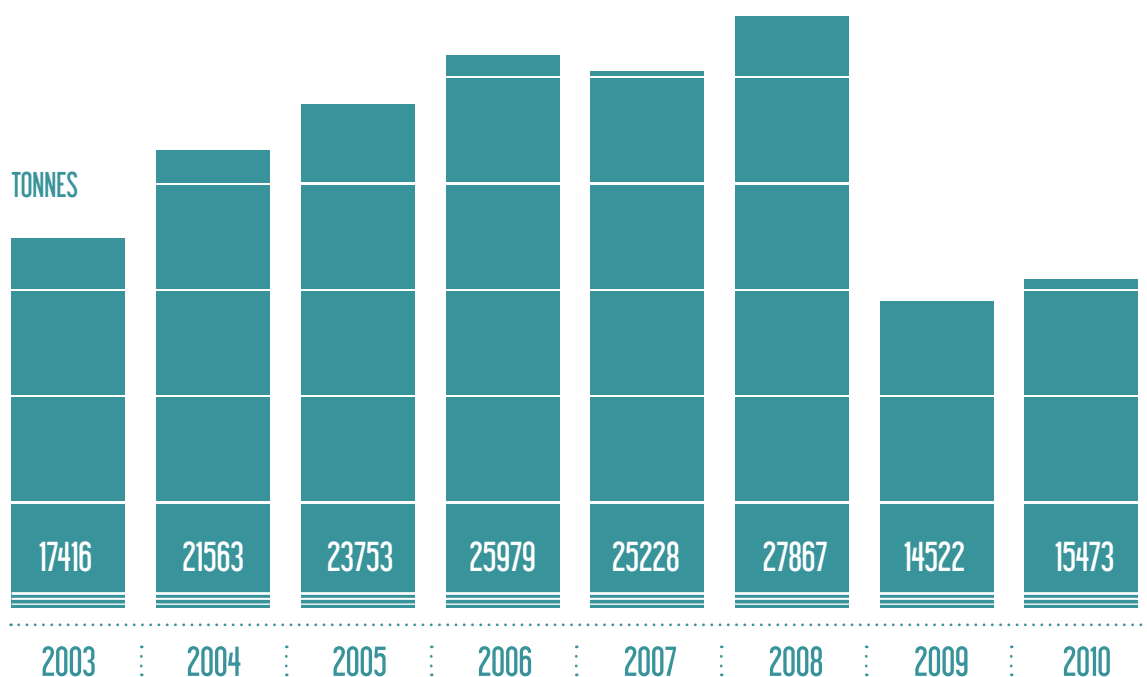


## TOWARDS ZERO WASTE

ECONOMIC OR ENVIRONMENTAL DRIVER	SLG STRATEGIC OBJECTIVE	YEAR TO DATE ACHIEVEMENTS	FUTURE ACTION OR DEVIATION
Landfill availability and costs, carbon and utility costs.	Avoid landfill by avoiding waste, employing beneficial reuse and recycling.	Recycling of wood, paper, plastic, cardboard, reuse of shavings and sale of trimmings. Processing of fleshing and filter cake within thermal plant.	Internal recovery of energy from 100% of group waste. Sale of all other non recoverable materials. Improved robustness of operations.

The Scottish Government plans to ban the disposal of biodegradable waste to landfill by 2017. The group is working to eliminate waste through efficient resource use, segregation of waste into disposal classes and thereafter recovery and recycling. Reclassifying waste as a resource for the recovery of heat represents a step change in our approach to disposal practice. We continue to seek beneficial routes for recovery or reuse of our process wastes.

**FIGURE 5**  
**EXTERNAL WASTE DISPOSAL TONNAGE (x100)**  
**SHOWING RECENT IMPACT OF INTERNAL CONVERSION**  
**OF FLESHING AND FILTER CAKE SINCE 2009**



# EFFICIENT WATER USE AND WATER RECYCLING

ECONOMIC OR ENVIRONMENTAL DRIVER	SLG STRATEGIC OBJECTIVE	YEAR TO DATE ACHIEVEMENTS	FUTURE ACTION OR DEVIATION
Eliminate water wastage and reduced ecological impact.	Avoid use of compounds of concern. Improved effluent treatment with potential for closed loop water use by 2015.	Chemical replacement with benign compounds is ongoing and enhanced via our REACH readiness.  Ultra filtration plant under construction.	Water recycling following advanced treatment to avoid off site discharge.

We source water from both private and public supplies and use this to produce leather efficiently, consuming on average 42 litres per m<sup>2</sup> of hide. This compares favourably with the European average of 85 litres per m<sup>2</sup>. The liquid effluent is currently discharged to licensed treatment plants, following extensive treatment at our own modern on site facilities. In response to demand from Scottish Water we have invested a further £1.2M in an ultra filtration plant at our Bridge of Weir site. This investment is the first phase of a project designed to recycle all of our waste water. Additionally, we have commenced work on upgrading the existing treatment works at Bridge of Weir with enhanced settlement and solids removal capability. A strategic review of group effluent treatment and water recycling is underway, to meet the needs of future production, as per our zero waste strategy.

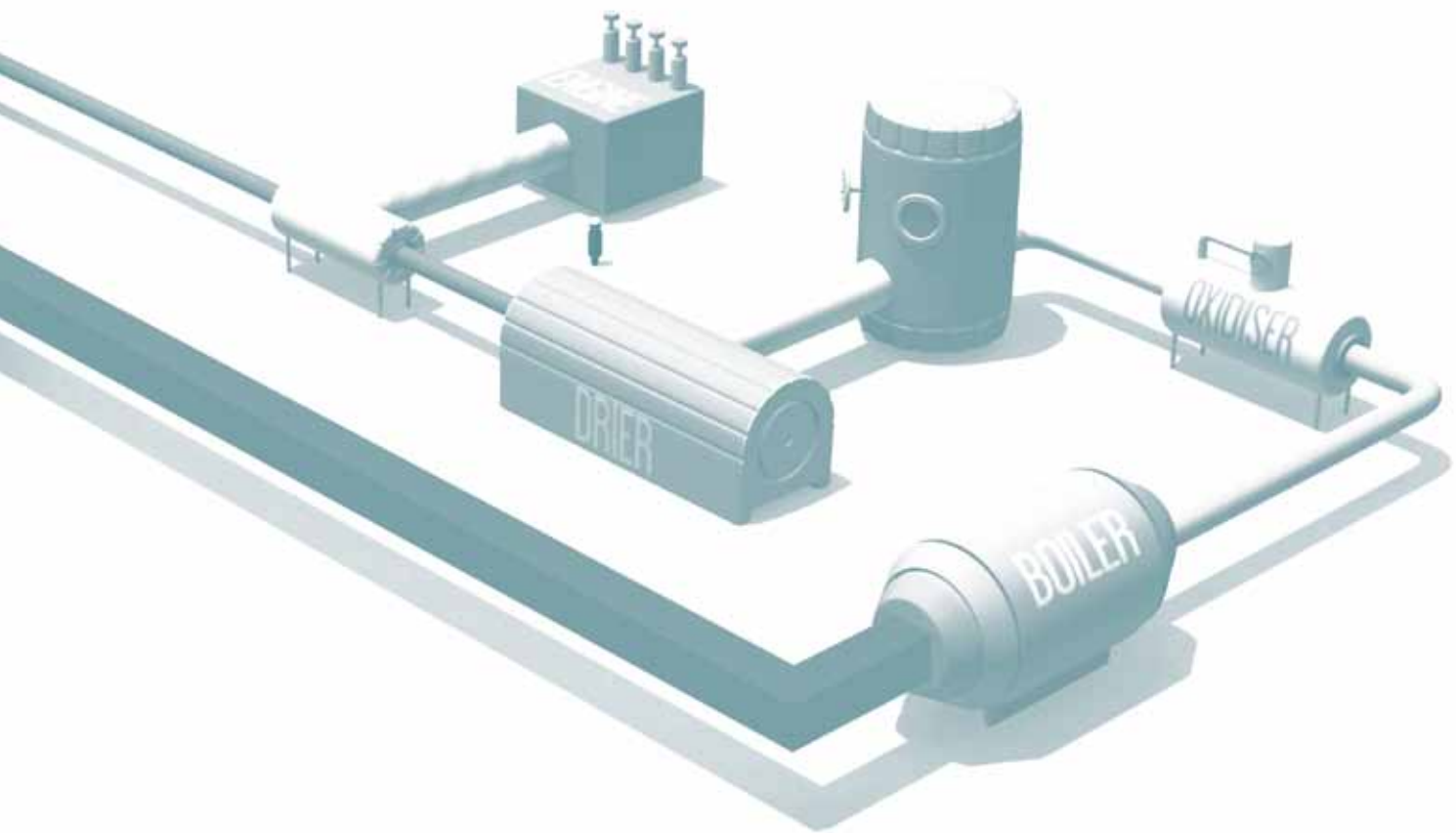


## REDUCED IMPACT BEYOND OUR BOUNDARIES

ECONOMIC OR ENVIRONMENTAL DRIVER	SLG STRATEGIC OBJECTIVE	YEAR TO DATE ACHIEVEMENTS	FUTURE ACTION OR DEVIATION
Odour, noise and air emissions.	Reduce impact beyond our boundaries.	Independent monitoring shows full regulatory compliance. Reduced off site disposal by half.	Noise and odour avoidance through improved process control and plant selection.

The group has invested significantly in these areas during the past year with an upgraded abatement plant at WJ&W Lang. Recently upgraded extraction within the Bridge of Weir effluent plant will be supplemented by further abatement plant to reduce its impact. We are also addressing noise emission further by applying acoustic enclosures, although we have consistently operated in compliance with our Integrated Pollution Prevention & Control (IPPC) permits.





## RENEWABLE ENERGY – DECARBONISING LEATHER PRODUCTION

### ECONOMIC OR ENVIRONMENTAL DRIVER

Renewable energy application.

### SLG STRATEGIC OBJECTIVE

Generate thermal energy from waste, to reduce gas purchase and avoid waste disposal.

### YEAR TO DATE ACHIEVEMENTS

Plant operation to avoid waste disposal and creation of renewable heat from waste.

Proof of concept.  
Proof of emission compliance.

### FUTURE ACTION OR DEVIATION

Operate plant to meet group throughput -reduce energy purchase and waste disposal .

The thermal energy plant was opened in July 2010, after which the plant became “operational” in November 2010. The plant ran for nearly 4000 hours during its first operational year. Much has been learned and much interest is apparent from customers and the leather industry. Further development is scheduled for the next year to improve throughput. However, the plant has given the group a basis for regulatory compliance as we look towards the cessation of biodegradable waste disposal to landfill.

Improvement in operational efficiency of the plant is high on the environmental agenda. Customers have responded favourably to this significant investment, as they seek to reduce their supply chain footprint, and it has provided us with a significant advantage over our competitors.

## COMPANY ACHIEVEMENTS

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**Andrew Muirhead**  
FINE SCOTTISH LEATHER

### **Andrew Muirhead & Son Limited**

Andrew Muirhead & Son benefited from the progress made in the previous year, notably on efficiencies in water heating and usage. The company's accreditation to ISO 14001 environmental standard was renewed.

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**Bridge of Weir**<sup>®</sup>  
FINE SCOTTISH LEATHER

### **Bridge of Weir Leather Company Limited**

Production volumes at Bridge of Weir have increased significantly this year impacting favourably on energy consumption per unit produced. Steam is now being supplied routinely from the thermal energy plant and is having a beneficial effect on the gas consumed by the

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**NCT**

### **NCT Leather Limited**

Recent approval for the installation of a new ultra-filtration unit at the effluent plant will lead to significant improvements in the quality of waste waters being discharged from site. New heat exchangers have been installed to make use of the steam from the thermal

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**Lang**

### **W J & W Lang Limited**

Although production volume has increased by 12% in the past year, W J & W Lang have continued to maintain their high standards of environmental control by achieving 100% compliance with outgoing effluent discharge consent and have been awarded "very good status" by the Scottish Environment Protection Agency (SEPA) for IPPC permit compliance.

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**SLG Technology**

### **SLG Technology Limited**

The successful opening of the thermal energy plant by HRH The Princess Royal was well attended by over 200 important stakeholders in the group's business. The company also received three national awards for

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There were no environmental complaints from neighbours or other parties. The company terminated the lease of its warehouse and office premises in Burnley, England. The warehouse was relocated to Glasgow in the previous year and the sales office was similarly relocated this year. Termination of the lease has obviated the need to heat and maintain empty premises and the carbon footprint has been lowered as a result of relocating the distribution function to Glasgow.

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company. Improved prices have been negotiated for recycled materials as a consequence of volumes and consistency of supply. New processes are being considered for the production of chrome-free leathers which show potential for significant environmental gains. A lighting project has pointed to significant savings through the installation of more energy efficient units. This has potential for a minimum of 60% savings in energy used for that purpose.

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energy plant, which should impact positively on gas consumption. The majority of fleshings have been transferred to SLG Technology for rendering into skin grease, with the associated revenue gained from this. A new raw hide store was completed during the year to allow the company to receive, inspect and prepare mainly locally sourced hides for either processing or trading. As a result all hides can now be stored on site and the company can avoid unnecessary transportation from external storage facilities.

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The effluent plant scrubbing system was replaced and various roof projects were completed during the year. The tanyard effluent open storage cells were replaced with a capped cell and relocated to within the effluent plant building, which has enabled any odours to be treated through the new scrubbing system. The hot water distribution system was upgraded using variable speed controlled pumps which operate by a pressure transducer and only run when there is demand. Previously the old system involved hot water pumps operating on a fixed timer. This, along with other measures has resulted in improved energy efficiency. The company remains compliant with ISO 14001 environmental standard and also with the producer responsibility obligations for packaging waste.

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its positive contribution to the environment. The thermal energy plant continues to operate fully in compliance with its PPC licence and work is ongoing to increase the throughput to meet increasing group production demand. The company has also made progress on the Combined Heat & Power (CHP) and water recycling projects in further support of the group's zero waste strategy. In addition the company continues to support the group's environmental activities and its regulatory compliance.

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Scottish Leather Group

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