



# Environmental Legislation Discussion

- Dr. Wendy Buckley
- Client Director
- Carbon Footprint Ltd
  
- [wendy.buckley@carbonfootprint.com](mailto:wendy.buckley@carbonfootprint.com)
- 01256 592599



# 'Net Zero' - UK's Contribution to Climate Emergency

**Net zero Greenhouse Gas emissions by 2050**

Goes beyond the **Climate Change Act 2008** of an 80% reduction in GHG's by 2050 (on 1990 levels). It should be noted that this varies as below:

- England – Net zero by 2050
- Scotland – Net zero by 2045
- Wales – 95% reduction by 2050



Dept for BEIS @beisgovuk · 4h

Today we make history as the first major economy in the world to legislate to end its contribution to #climatechange entirely. Laws signed by @CSkidmoreUK and which come into force today commit the UK to #netzero emissions by 2050  
#cleangrowth [socii.in/daxrz](http://socii.in/daxrz)



5

76

113



Retweeted

# Net Zero – UK's Contribution to Climate Emergency

- Could be delivered for the same financial cost as the original target (**1–2% of GDP**)
- **Rapid cost reductions** as a result of mass deployment of renewables technologies (such as offshore wind)
- Target should cover all sectors of the economy (now incl. **international aviation and shipping**)
- To be met by **UK domestic effort**
- Coincides with the '**Climate Emergency**' motion
- This target **might be legislated in early 2020** in advance of the 2020 UN Climate Change Summit

# Progress with 25 Year Environment Plan



In May 2019 the Government published the first report on progress of the implementation of the 25 Year Environment Plan

- According to the Report around 90% of its actions have been delivered or are being progressed (since Jan 2018) including:
  - **cutting down on plastic waste** by implementing bans on plastic straws, cotton buds / stirrers and extending the 5p plastic bag charge;
  - **overhauling the waste system** with a comprehensive Resources and Waste Strategy;
  - publishing a **Clean Air Strategy** which sets out plans to cut pollution through a more coherent regulatory framework and stronger powers to local authorities to control sources of air pollution;
  - protecting precious wildlife habitats by **launching a review** to strengthen and enhance England's National Parks and Areas of Outstanding Natural Beauty (AONBs).
  - Environment Bill to be introduced early in the second session of Parliament.

# Reforming the UK producer responsibility system for packaging waste

Through Packaging waste: reforming the UK producer responsibility system for packaging waste it is proposed that the full net cost of managing packaging waste is placed on the producers of plastic packaging, consistent with extended producer responsibility and polluter pays principle.

- Incentives to encourage producers to design and use packaging that can be recycled;
- the businesses that would be obligated under a packaging extended producer responsibility system;
- producer funding to pay local authorities for the collection and management of household packaging waste.



# Hunt v Johnson





# UK Bottle Return Schemes

Scotland's new Deposit Return Scheme will include

- **aluminium and steel cans** and drinks containers made of **glass and Polyethylene Terephthalate (PET) plastic**
- The only exempt premises will be those that sell drinks to be consumed on site, such as pubs
- HDPE-made plastic bottles, which usually carry milk, will be excluded as milk is seen as *an essential product*
- **Consumers will be charged an extra 20p and will be refunded this amount when the empty container is returned**
- It is expected to be up and running by 2021 with a 12 month transitional period. England has consulted on bottle return scheme: this was held in **February 2019 and closed in May 2019**



# Waitrose Oxford - Bring your own containers for limited lines

Store trials taking place in Oxford with the aim of reducing unnecessary plastic and packaging, including:

- Shoppers will be able to **fill their own containers** with a range of products from a series of dispensers
- **Refillable options** will include wine and beer, Ecover detergent, pasta, rice and cereals
- Will include a pick and mix range of frozen fruit
- Prices will be up to **15% cheaper** than the packaged alternatives
- A **borrow-a-box scheme** will be introduced to help carry shopping home



# CRC Energy Efficiency Scheme ends this year



- CRC Energy Efficiency Scheme (Revoked)
  - Last reporting year is **2018/19**
  - Last 'CRC Annual Report' to be submitted **in July 2019**
  - Last purchase of CRC allowances will be in the 'buy to comply' sale in June/July 2019
  - Need to be careful not to **over purchase allowances** as refunds are '**discretionary**' ...



# Climate Change Levy (CCL)

## An increase in utilities bills

- Increased **1st April 2019**

Taxable commodity	Rate from 1 April 2017	Rate from 1 April 2018	Rate from 1 April 2019	Rate from 1 April 2020
Electricity (£ per kilowatt hour (KWh))	0.00568	0.00583	0.00847	0.00811
Gas (£ per KWh)	0.00198	0.00203	0.00339	0.00406

Elec  $\uparrow$ 45% and Gas  $\uparrow$ 67%



# Streamlined Energy and Carbon Reporting (SECR)

**Companies (Directors' Report) and Limited Liability Partnerships (Energy and Carbon Report) Regulations SI 2018/1155**

- Applies to all **UK registered listed companies** AND applies **large private companies** meeting at least two criteria of
  - 250 employees
  - £36 million turnover
  - balance sheet total £18 million
- Applies for reporting years starting **1 April 2019**



# Energy Saving Opportunities Scheme (ESOS)

## – Phase 2 ends 5 December

- Applies to **large businesses** (250 plus employees OR £44.8 million annual turnover and balance sheet total of £38.6 million)
- Deadline is **5 December 2019**.
- Most organisations select energy data running with Financial Year
- To be compliant:
  - Appoint a registered ESOS Lead Assessor
  - Calculate Total Energy Consumption (TEC)
  - Complete Energy Audits and a Transport Assessment may be required!
  - Regulator (EA) notification must be submitted by 5 December



# Refrigeration and freezer equipment: Changes to refrigerant gases that can be used – New Guidance Available

*The 2020 Ban - under UK and EU legislation, a ban is coming into force on 1 January 2020 that will ban refrigerants with a global warming potential (GWP) greater than 2500 being used to service or refill your refrigeration or freezer system.*

Published: May 2019

Available from Environment Agency

## What you will need to do:

- Calculate the carbon dioxide equivalent of your refrigerant
- Ask your refrigeration service provider or maintenance technician for advice on what steps you can take to manage the impacts of the F-Gas Regulations
- Switch to an alternative refrigeration system
- Central pack systems;



### Refrigeration and freezer equipment: Changes to refrigerant gases that can be used

May 2019

#### The 2020 ban

Under EU and UK law, a ban is coming into force on 1 January 2020 that will ban refrigerants with a global warming potential (GWP) greater than 2500 being used to service or refill your refrigeration or freezer system.

This will affect all equipment containing these refrigerants. This is equivalent to over 40 types of common products. It is expected to affect most of the refrigeration and freezing equipment in use in the UK. Some minor exemptions have been allowed for certain products.

Some equipment will not be affected by the ban as it does not contain any refrigerant. These include some types of freezers and some types of air conditioning units.

Other equipment may be exempt from the ban if it is not being used to service or refill the system. These include some types of air conditioning units and some types of refrigerated display cabinets used for a particular food product, such as a supermarket.

**What are the changes?** The main changes to the regulations are that it is illegal to service or refill equipment containing refrigerants with a GWP greater than 2500. It is also illegal to import, export, or supply these refrigerants. There are some minor exemptions to this.

#### Reduction in the use of HFCs

HFCs are a group of man-made refrigerants that contribute to climate change.

The UK is committed to phasing down the use of HFCs by 2050 in line with the Paris Agreement.

From 2020, only equipment containing refrigerants with a GWP of 2500 or less will be allowed to be imported or supplied.

If you are one of the systems described below, you may still be able to use refrigerants controlled by the Directive.

#### Who this guidance is for

This guidance is for businesses that have equipment containing refrigerants that fall under the new regulations. It also applies to individuals who are responsible for these systems.

These include service companies, manufacturers, importers, exporters, and users of these products.

Commercial units, domestic fridges and freezers, and other domestic equipment are not covered by this guidance. These are covered by other regulations.

Central pack systems, commercial display cabinets, heat exchangers, and other equipment that contains refrigerants with a GWP greater than 2500, will still be controlled by a separate regulation.

For example, a supermarket will be controlled by this regulation.

For example, a supermarket will be controlled by this regulation.

You can check which category you fall into using the 'HFC checker' on the Environment Agency website.

Further information	Call 0300 056 5556	or email <a href="mailto:enquiries@environment-agency.gov.uk">enquiries@environment-agency.gov.uk</a>	Follow us on Twitter @EnvAgencyUK
---------------------	--------------------	---	-----------------------------------

Page 1



# Fluorinated Greenhouse Gases Regulations – fines

- Introduction of new **civil penalties** from £50k - £200k:
  - £200k – intentional release of gases or failure to comply with enforcement notice
  - £100k – breach of measures to minimise leakage
  - £50K – failure to keep and maintain records
- Records can be kept by third parties
- Organisations must be able to present these in 28 days
- The Regulator in England is the Environment Agency



# Streamlined Energy and Carbon Reporting (SECR) – new guidance March 19

*Environmental reporting guidelines: including Streamlined Energy and Carbon Reporting requirements*

Updated: 31 March 2019, - BEIS (Gov.UK)

## Updates include:

- Group reporting legislation
- Public sector reporting requirements
- Mandatory GHG reporting requirement;



# Carbon Footprinting ISO Standard Updates

**ISO 14064 – Part 1, Part 2 and Part 3**

**Used to report on Greenhouse Gases**

- ISO 14064 – Part 1 Organisation GHG Inventory
  - Updated in December 2018
- ISO 14064 – Part 2: Project GHG Inventory
  - Update published in May 2019
- ISO 14064 – Part 3: Verifying GHG Statements
  - Update published in May 2019



# Southern Water's £126M Fines and Criminal Action

- Southern Water fined a record £126m for spills of wastewater into the environment from sewage plants & deliberately misreporting its performance.
- Customers to get a rebate of at least £61 each.
- "*What we found in this case is shocking,*" said **Rachel Fletcher**, the head of water regulator Ofwat, while Southern said it was "*deeply sorry*".
- The Environment Agency has launched a criminal investigation into the case.
- "*We are pursuing our own criminal investigation into Southern Water due to suspected permit breaches at a number of its sites,*" the EA said in a statement.



Getty Images



# Sewage pollution leads to £200,000 restorative charity donation

- **Yorkshire Water Services** paid £200,000 to the Yorkshire Wildlife Trust - burst water sewer caused raw sewage leakage into **River Trent**
- Yorkshire Water Services cleaned the watercourse and repaired the rising main that burst (causing the pollution) cost £235,000;
- The Environment Agency issued an **Enforcement Undertaking** - donation of **£200,000** to the **Yorkshire Wildlife Trust** will be used to fund the Humberhead Levels Nature Improvement Area.



# £500,000 penalty for sewage discharge at Sutton Park

- **Severn Trent Water** sentenced for discharging thousands of gallons of raw sewage from sewer network onto land at Sutton Park, West Midlands.
- The polluted area was environmentally sensitive & an Site of Special Scientific Interest (SSSI)
- Fined **£500,000**, ordered to pay prosecution costs of **£50,693**, and a victim surcharge of **£120**.
- Sewer discharging into Longmore Valley **0.65 hectares of rare and sensitive plants being destroyed**.





# 27 illegal waste sites uncovered by Environment Agency and HMRC

- Officers from the Environment Agency and HMRC visited more than 50 suspected illegal waste sites across the East of England in a single day (May 2019)
- Officers found:
  - 4 sites where waste had been burnt illegally;
  - 4 sites which were actively and illegally treating and transferring waste;
  - Some of the sites contained overflowing skips and more than 5,000 tonnes of waste being stored illegally

**If convicted of illegal waste activity, offenders face unlimited fines and up to five years in prison.**

**Illegal waste activity** is estimated to have cost >£600 million in 2015 in England alone.

# **£28,000 penalty for farming companies who caused pollution**



- **2 Nottinghamshire farming companies** have been fined a total of **£28,800** for causing pollution to a pond through the discharge of maize silage effluent;
- The excessive amount of maize stored, coupled with the manner in which it was kept, caused a runoff of highly polluting maize silage effluent;
- **Resulted in the death of 35 fish** and at the time caused a significant impact on the local groundwater.
- **Fined £8,800** and ordered to pay **costs of £20,000**



# Environmental Legislation Discussion

Dr. Wendy Buckley  
Client Director  
Carbon Footprint Ltd

[wendy.buckley@carbonfootprint.com](mailto:wendy.buckley@carbonfootprint.com)  
01256 592599

---

# Streamlined Energy and Carbon Reporting

Gary Shanahan, Head – Business and Industrial Energy Efficiency, Tax and Reporting

SBN - 28 June 2019



Department for  
Business, Energy  
& Industrial Strategy

# Clean Growth Strategy

- The Clean Growth Strategy sets an ambition to improve business productivity by enabling businesses to improve energy efficiency by at least 20 per cent by 2030.
- This means that energy use would need to fall by 20% and energy intensity by 45% in 2030 compared to 2015 levels.
- This will deliver:
  - Up to £6bn in cost savings for businesses
  - Carbon savings of up to 22 MtCO<sub>2</sub><sub>e</sub>



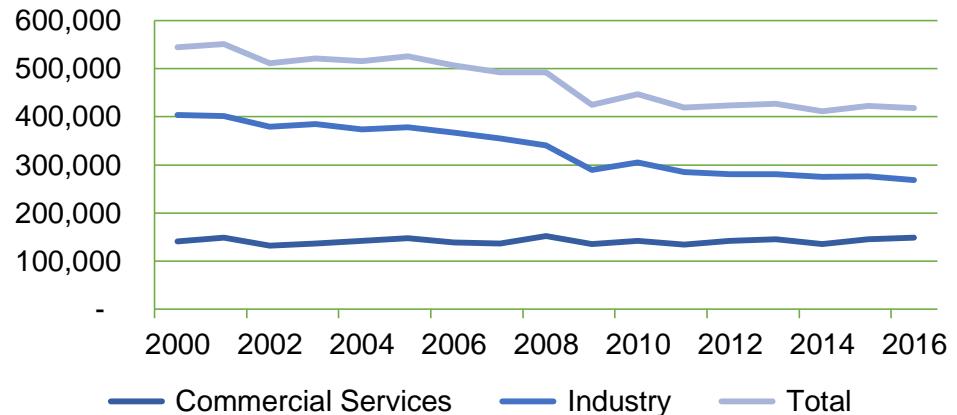
# Helping businesses to improve the way they use energy

- Call for Evidence (Jul 2018) sought views on how to deliver the 20% ambition - responses due to be published later this year
- We sought views on a number of proposals and approaches to make buildings more energy efficient e.g.:
  - Improving energy efficiency requirements for new & existing buildings
  - use of more sustainable technologies, benchmarking building performance and tools to monitor and evaluate building energy use and performance.



# Energy demand for businesses and industry

- Since 2000, energy use has been steadily decreasing
- Over 90% of the decrease has been delivered through increased energy efficiency in sectors like chemicals
- Energy use in the commercial sector has more or less remained flat. As floor area has increased, energy intensity has improved

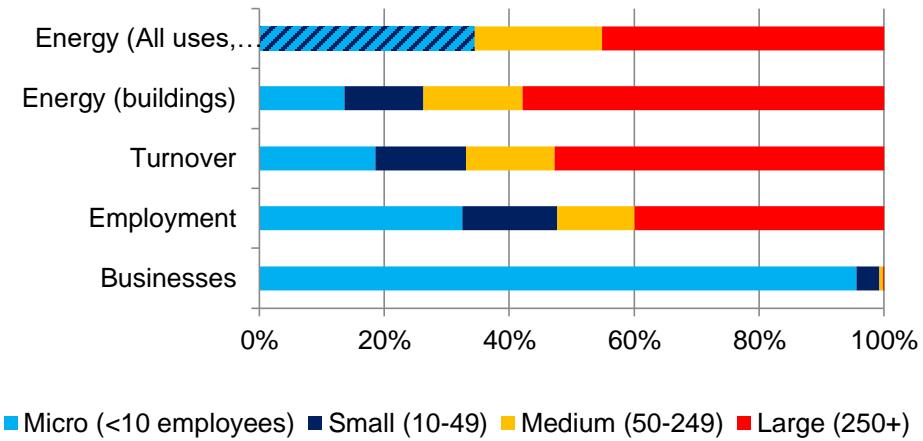


# Small and medium enterprises (SMEs)

Views on availability and quality of information for SMEs

trusted partners that could influence

How could SMEs be encouraged to take action?



## SMEs – Budget 2018 Announcement

The government will issue a call for evidence on introducing a new Business Energy Efficiency Scheme, focused on smaller businesses. Over time, this scheme will reduce business energy bills and carbon emissions. The call for evidence sought views on a range of possible delivery options.



## CRC/SECR

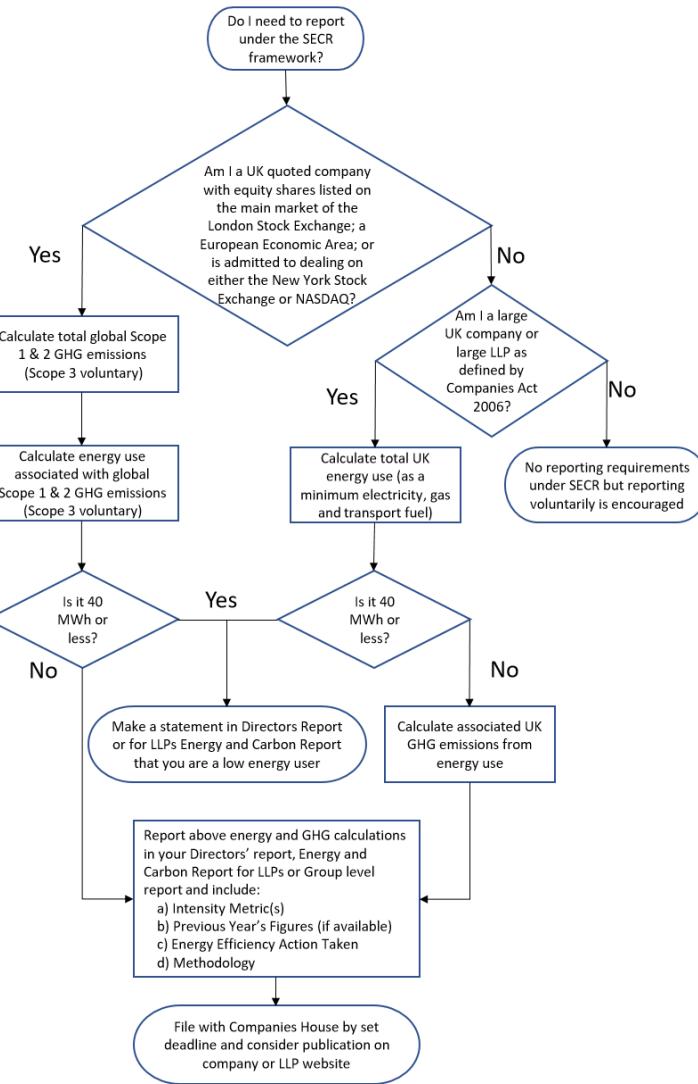
- In March 2016 Government announced that CRC would close after the end of current phase – final CRC reports would be required by July 2019 and allowances surrendered by October 2019.
- The reporting element of CRC would be replaced by a new streamlined energy and carbon reporting framework (SECR) on which we would consult;
- Public consultation on SECR was published on 12 October 2017 which ran until 4 January 2018 (over 150 responses). Government published response / decisions on 18 July 2018.



Department for  
Business, Energy  
& Industrial Strategy

## CRC/SECR

- CRC legislation laid on 18 July 2019 makes this current phase the last one and HMT have already legislated to move the price signal to CCL (with increased rates from 1 April 2019 and increased CCA discounts)
- SECR came into force on 1 April 2019. The Companies (Directors' Report) and Limited Liability Partnerships (Energy and Carbon Report) Regulations 2018 were made on 6 November.
- Synergies with (unchanged) ESOS requirements for all large undertakings.



- Different approaches for:
  - quoted companies – builds on existing MGHG – and doesn't just apply to large; and
  - unquoted/LLPs  
  - Guidance published on 31 January:  
<https://www.gov.uk/government/publications/environmental-reporting-guidelines-including-mandatory-greenhouse-gas-emissions-reporting-guidance>



Department for  
Business, Energy  
& Industrial Strategy

## Quoted companies

Continue to require **all UK incorporated quoted (not just on LSE) companies** to report in Directors' report on:

- **global scope 1 and scope 2 GHG emissions (scope 3 voluntary);**
- **methodology used; and**
- **intensity metric.**

SECR requires total underlying **energy use and energy efficiency action taken.**



Department for  
Business, Energy  
& Industrial Strategy

# Unquoted companies/LLPs

Require **large unquoted companies and large LLPs** to include within **Directors' report (or LLP equivalent)**:

- **UK energy use** and associated **emissions** (as a minimum)  
- UK energy use = **electricity, gas & transport** (as a minimum)
- **intensity metric** (chosen by companies), **Energy efficiency action** taken in period of report and **Methodologies used** in calculation of disclosures
- Large as per **Companies Act** – at least 2 of balance sheet (£18M+), turnover (£36M+) and employees (250+);



# SECR

- Electronic reporting – can be done on **voluntary basis** but not mandatory
- Directors to confirm if any information withheld on grounds of being **seriously prejudicial** to company, **not being practical to obtain** or if organisation uses **40MWh or less energy** in reporting period
- If the relevant report is a group report, the company or LLP must make the required statements on the basis of its information and its subsidiaries

# SECR verification / assurance

## External verification or assurance

There is no requirement in the legislation for independent assurance; however, we would recommend it as best practice. Voluntary independent assurance on the accuracy, completeness and consistency of energy use, GHG emissions data and energy efficiency action is encouraged as beneficial to both internal decision-making and for external stakeholders.

As part of their overall responsibilities in an audit of financial statements, the auditor is required to state in the auditor's report whether, based on the work undertaken in the course of the audit, the information in the Directors' Report:

- Is consistent with the financial statements;
- Has been prepared in accordance with applicable legal requirements; and
- Contains any material mis-statements.

# SECR – When?

“These Regulations have effect in respect of financial years beginning on or after 1st April 2019.” So:

- a. if a company’s financial year ran from 01/04/2019 – 31/03/2020 the first time they would need to comply with SECR would be in their first set of accounts published following this period in 2020
- b. If a company’s financial year ran from 01/01/2019 – 31/12/2019, they would need to comply for the period 01/01/2020 – 31/12/2020

Will still be reporting under MGHG and CRC (by July) in 2019

Department for  
Business, Energy  
& Industrial Strategy



## Public Sector

Will still have commitments under CRC if participants in current Phase. Will also have obligations under SECR if include limited company or LLP elements and meet eligibility thresholds.

Public bodies may also be covered under either the **Greening Government Commitments**, which commits central Government departments to a 43% reduction in greenhouse gas emissions by 2020; or the voluntary target set for the wider public sector **in England** under the **Emissions Reduction Pledge** which encourages organisations to sign up to a 30% carbon reduction target from 2009/10 to 2020/21.

The emissions captured here will be buildings emissions, domestic travel and fugitive emissions. Separate arrangements may apply in other parts of the UK.

# Energy Savings Opportunity Scheme

- ESOS established in 2014 - a mandatory energy assessment scheme for large undertakings in the UK.
- Assessments carried out every 4 years to identify cost-effective energy saving measures.
- Key dates:
  - 31 December 2018 – was qualification date for Phase 2 of ESOS
  - 5 December 2019 - compliance deadline of 5 December 2019 for qualifying companies
- ESOS evaluation is underway and due to be published in 2019

# ESOS – Phase 2

- Guidance Minor Changes, now published and new portal
- ISO 50001:2011 superseded by ISO 50001:2018 - certification under either of the 2011 and 2018 versions of the standard is accepted;
- Qualification date 31 December 2018
- Compliance deadline of 5 December 2019

# Industrial Energy Efficiency

**Industrial Energy Efficiency Accelerator** : £9.2M competition to identify and accelerate deployment of new energy efficient technologies and processes to UK industry / manufacturing sectors

**Climate Change Agreements** - Now in Final Target Period (2019 and 2020) – with CCL discounts to March 2023 - evaluating to inform decisions on future schemes

**Industrial Heat Recovery Support Programme** - £18M available to co-fund feasibility studies and capital equipment

**Industrial Energy Transformation Fund** – up to £315 million of investment, to support businesses with high energy use to transition to a low carbon future and to cut their bills through increased energy efficiency.

**Industrial decarbonisation challenge** - Establish the world's first net-zero carbon industrial cluster by 2040 and at least 1 low-carbon cluster by 2030

# Questions?

---

## Schemes

CCA – [cca-help@environment-agency.gov.uk](mailto:cca-help@environment-agency.gov.uk)

CRC – [CRChelp@environment-agency.gov.uk](mailto:CRChelp@environment-agency.gov.uk)

ESOS – [ESOS@environment-agency.gov.uk](mailto:ESOS@environment-agency.gov.uk)

SECR – [Reporting@beis.gov.uk](mailto:Reporting@beis.gov.uk)

## Evaluations

CCA – [CCAResearch@beis.gov.uk](mailto:CCAResearch@beis.gov.uk)

ESOS - [esos@beis.gov.uk](mailto:esos@beis.gov.uk)

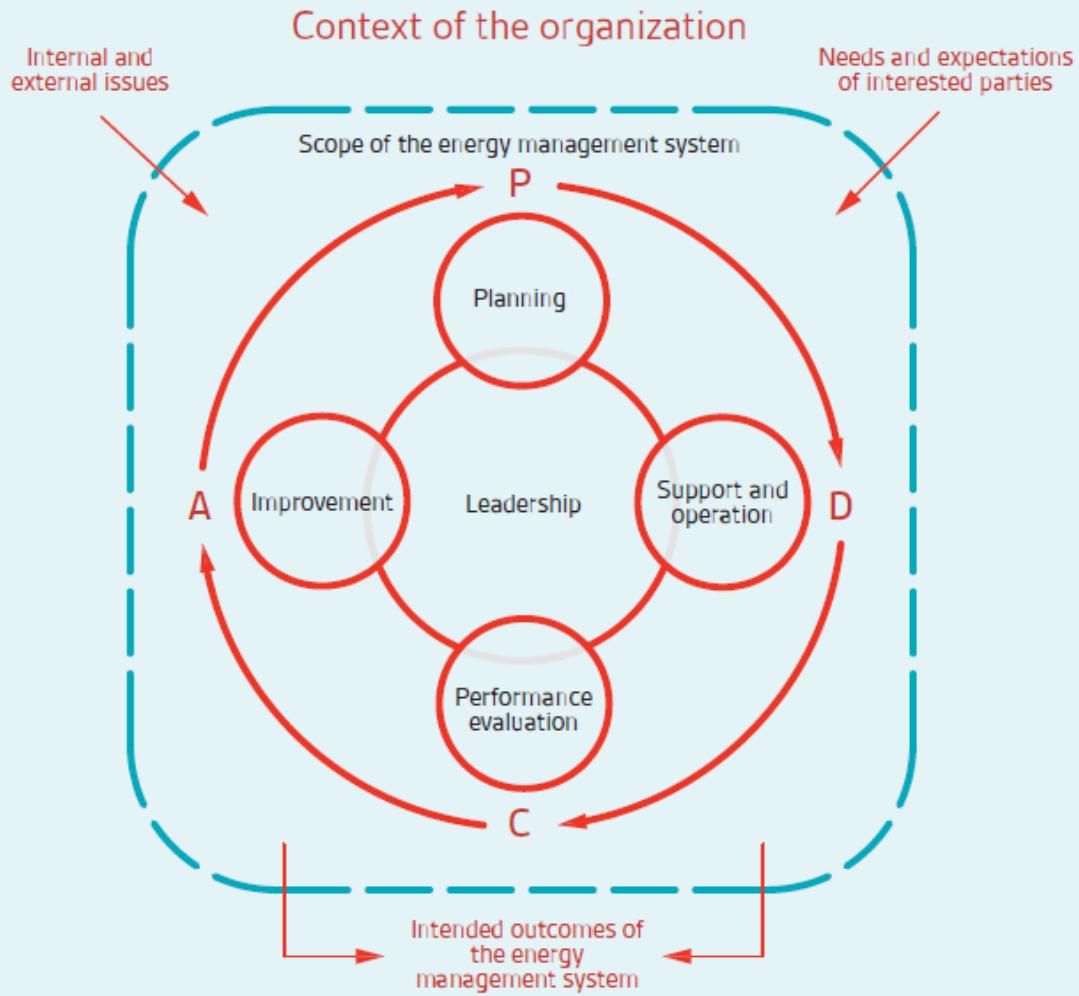


# ISO50001 Amanda Pakes Product Champion

June 2019



By Royal Charter



The background of the image is a photograph of a wind farm. Several white wind turbines stand in a green field under a clear blue sky with a few wispy clouds. The turbines are positioned at different heights and angles across the frame.

Cost

Compliance

Environment

Reputation

Risk  
Management





Resources

Management  
buy in

# What Do Our Customers Say About ISO50001?

**"We don't trumpet our standards – they're a business tool, not a marketing tool, there to drive performance. They help achieve consistency in our production processes, and drive the right behaviours."**

Denise Graham, Technical Manager, Tata Global Beverages

A series of projects, including fitting intelligence software to compressors to help them work more efficiently, saw the company make overall savings of £56,000 in the first year alone, and an additional £28,000 in the second year. "We may well have made some of those savings without certification, but it focused our minds and helped us to achieve the savings more speedily," says Denise Graham.

# What Do Our Customers Say About ISO50001?

## **Viridor**

"Achieving ISO 50001 not only helps shape our own desire to be a socially responsible business, but demonstrates to our customers and stakeholders that Viridor is committed to transforming itself into a company with reduced costs and less reliance on fossil fuels, ready for the future".

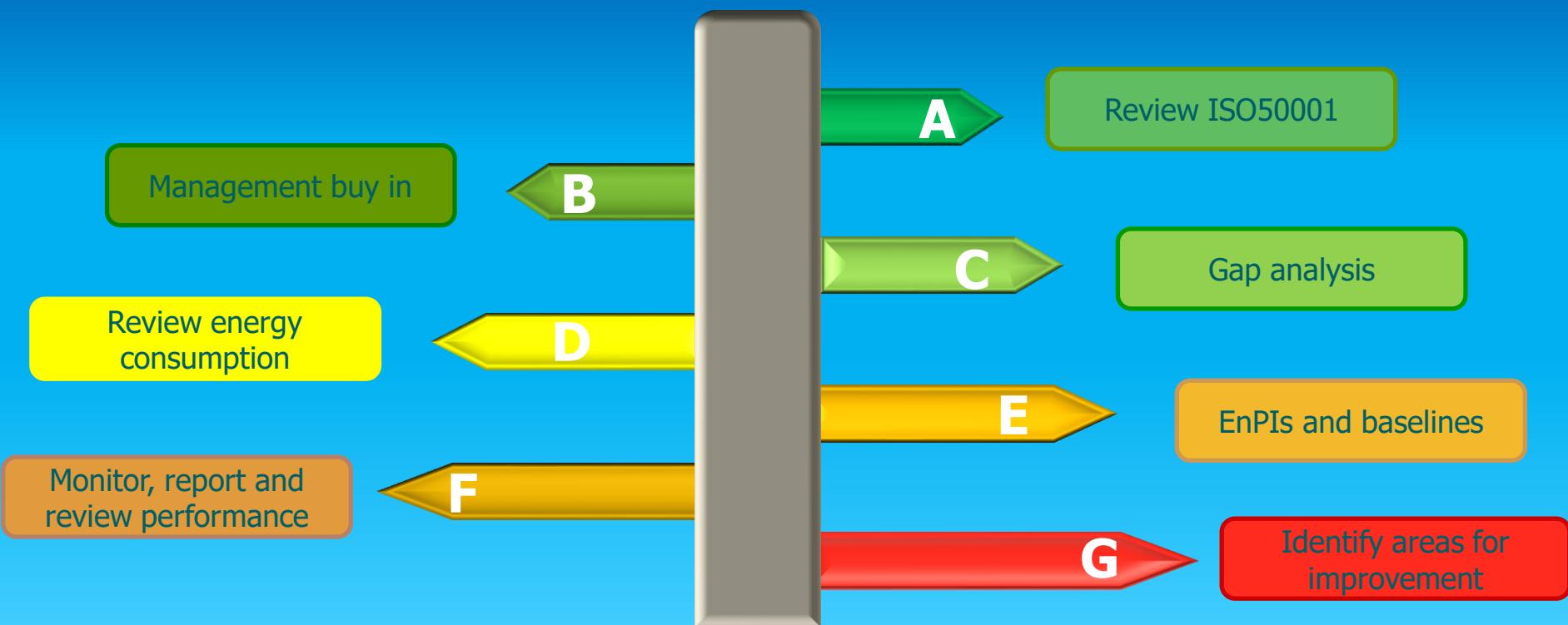
Andrew Whitehorn, Head of Sustainable Business, Viridor

## **Morgan Lovell**

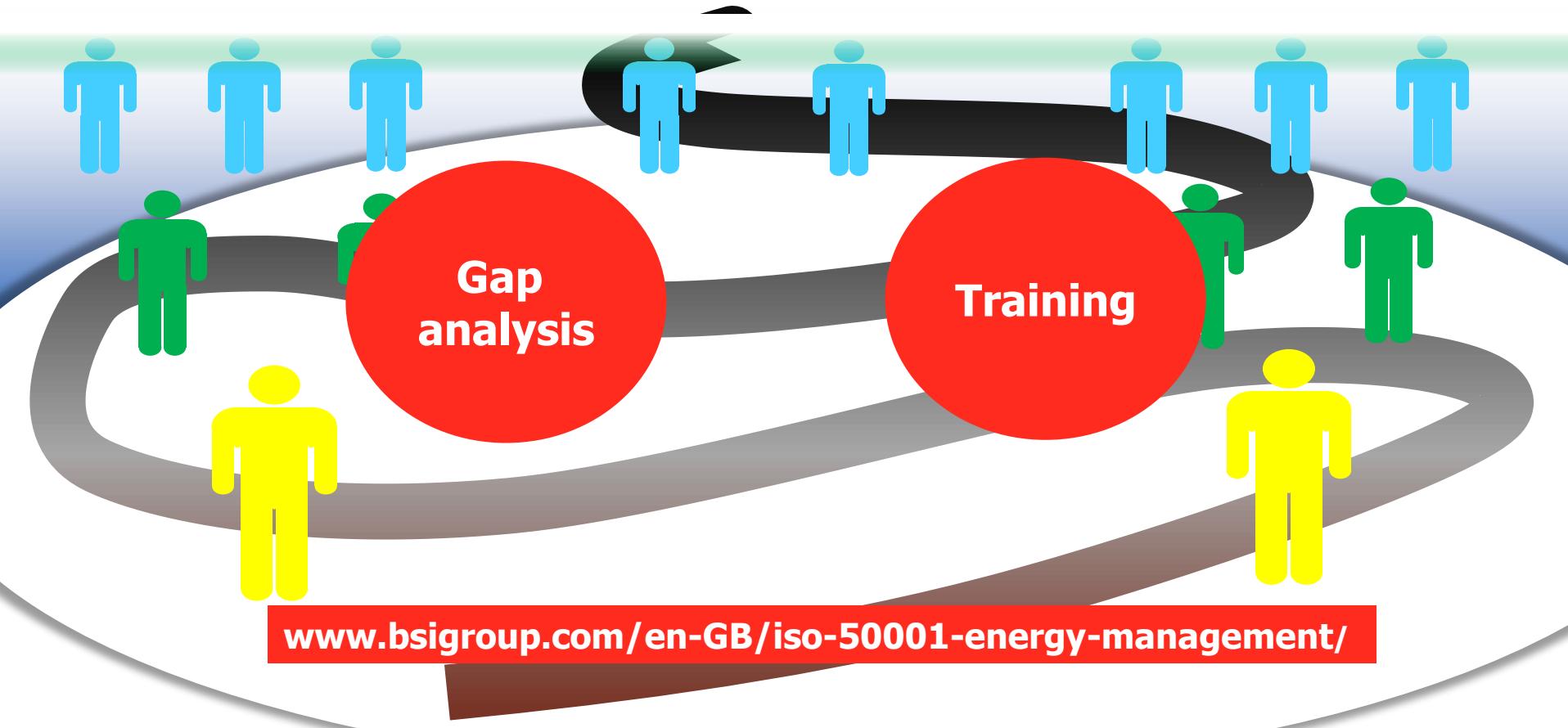
"Morgan Lovell has always been an environmentally conscious organization. However the ISO 50001 energy management standard provides a credible benchmark against which we can monitor and continually improve our performance going forwards."

Sophie Hutchinson, Sustainability Manager, Morgan Lovell

# Some Practical Tips



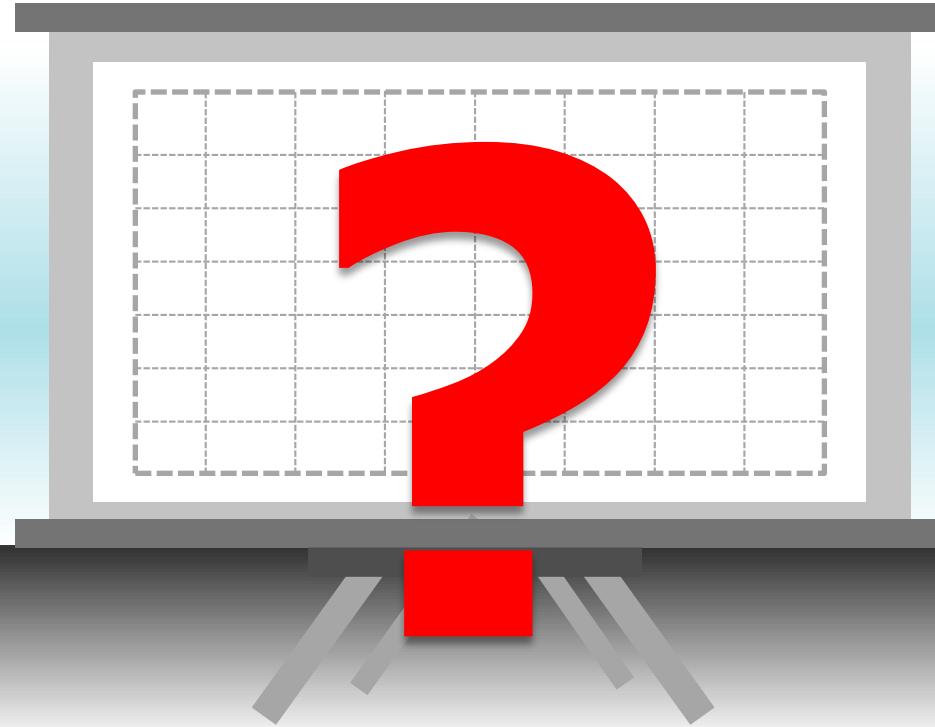
# How Can BSI Help?



# **GHG & Environmental Information Verification**



# Questions





# OUR JOURNEY TO CARBON NEUTRALITY AND BEYOND

---

PRESNTATION BY PETER SHARMAN

ASSOCIATE DIRECTOR FOR SUSTAINABILITY AT MULALLEY

FRIDAY 28<sup>TH</sup> JUNE 2019





# MULALLEY – WHO WE ARE

- Mulalley is a private (family) owned business with a turnover in excess of £150 million per annum.
- We commenced trading in 1972 and were set up by the O'Malley family. Our primary business is construction and construction related activities. The majority of these projects are delivered under Partnering arrangements with our Partner Clients who include RSL's, Councils, ALMOs, educational and health authorities.
- We operate from our main offices in Woodford Green, Essex, where our 400+ professional, administrative and operative staff are based.
- Additionally, we currently have a number of satellite offices and depots throughout London and the South East, each with staff numbers ranging between 5 and 30.
- <http://www.mulalley.co.uk>



## The impact of property and construction

The construction sector contributes £138bn per annum to the UK economy and employs around 9% of the total workforce.<sup>1</sup>



# £138bn

46% of all the raw materials extracted in the world are used for the supply of products and materials to the construction and buildings maintenance industry.<sup>3</sup>



# 46%

Buildings and construction account for nearly 40% of energy-related global CO<sub>2</sub> emissions – around 12.5bn tonnes.<sup>2</sup>

# 40%



In the UK, the construction sector uses some 60% of all the sawn softwood consumed. This is equivalent to a forest of 170 square km, an area larger than Manchester, each year.<sup>4</sup>

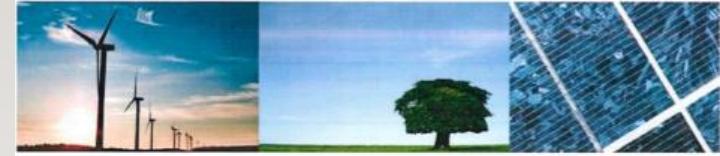


# 170 km<sup>2</sup>

# THE BEGINNING OF OUR JOURNEY

---

- October 2012 initial commissioning
- November 2012 – project put on hold
- Business case, case studies, meetings ...
- March 2013 back on!
- January 2014 data complete –
- February 2014 – hallelujah!



Carbon Footprint Ltd certifies that

Mulalley

has assessed its carbon emissions. During the period of

1<sup>st</sup> April 2012 to 31<sup>st</sup> March 2013

the organisation released 1,678.24 tonnes of CO<sub>2</sub>e.

26 February 2014



CO<sub>2</sub>e  
Assessed

John Buckley, Managing Director,  
Carbon Footprint Ltd

The assessment was carried out in line with the requirements of the Carbon Footprint Standard. For more information on the Carbon Footprint Standard please see [www.carbonfootprint.com](http://www.carbonfootprint.com)

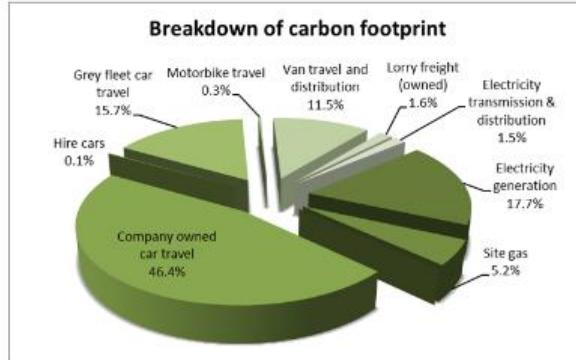
# INITIAL REPORT BREAKDOWN

Downham!

## Summary of Latest Carbon Footprint Assessment



**Breakdown of carbon footprint**



Category	Percentage
Company owned car travel	46.4%
Electricity generation	17.7%
Site gas	5.2%
Van travel and distribution	11.5%
Grey fleet car travel	15.7%
Hire cars	0.1%
Motorbike travel	0.3%
Lorry freight (owned)	1.6%
Electricity transmission & distribution	1.5%

Period of calculation	Total footprint (tCO <sub>2</sub> e)	Tonnes of CO <sub>2</sub> e per employee	Tonnes of CO <sub>2</sub> e per EM turnover
1 April 2012 to 31 March 2013	1,678.24	3.83	13.87

Carbon Footprint Ltd [www.carbonfootprint.com](http://www.carbonfootprint.com) © Carbon Footprint Ltd 2014

# SECOND CARBON FOOTPRINT REPORT

Our second report in October 2014 for the 2013/14 year showed an increase in absolute emissions but a reduction of 6.8% based on turnover

## Cost Analysis



Emissions Source	2013 Emissions (tCO2e)	2014 Emissions (tCO2e)	Estimated Costs in 2013 (£)	Estimated Cost in 2014 (£)	Annual Cost Savings (2013 - 2014) (£)
Staff Owned Cars	263.0	305.5	£ 386,507	£ 449,050	-£ 62,544
Company Cars	778.0	666.3	£ 403,811	£ 345,865	£ 57,947
Company Vans	192.8	271.7	£ 100,047	£ 141,016	-£ 40,969
Building 1 - Electricity (including T&D)	323.2	347.0	£ 66,828	£ 71,760	-£ 4,932
Building 1 - Gas	87.7	75.0	£ 21,436	£ 18,338	£ 3,098
Company Lorries	26.6	21.6	£ 13,796	£ 11,191	£ 2,606
Other Travel	7.1	5.6	£ 3,570	£ 2,795	£ 775
<b>TOP LEVEL SUMMARY</b>	<b>1678.23</b>	<b>1692.68</b>	<b>£ 995,996</b>	<b>£ 1,040,015</b>	<b>-£ 44,019</b>

### Key Points

- Approx. £350k was spent on company car fuel in 2014 (about £60k less than in 2013)
- However an increase of about £60k spent on staff owned cars (travel expenses) can be seen.
- Electricity costs increased by approx. £5,000 over the last year (to over £70,000)

# THANK GOODNESS FOR ESOS!

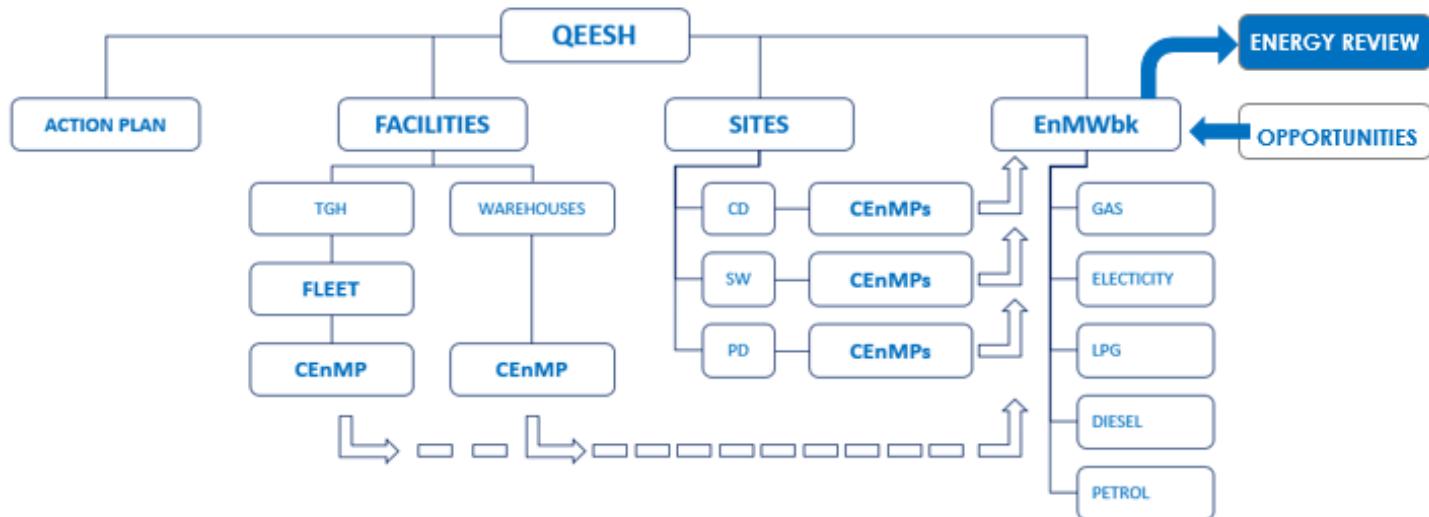
---

- First aware in August 2014
- Reviewed various options and chose the ISO50001 route
- Approved and committed to BSI in January 2015
- Created our Energy Management System – see slide to follow
- Initiated our Energy Performance Review Panel & Comms – see slide to follow
- Created our Energy Management Workbook – see slides to follow
- Commissioned Carbon Footprint to carry out our Head Office Energy Audit

# The EnMS

CEnMP = Contract Energy Management Plan  
EnMWbk = Energy Monitoring Workbook

## Energy Management System





## Energy and Environmental Performance Review Panel 2019

The Energy and Environmental Performance Review Panel is a non-executive group of Directors and Managers who meet quarterly. The members of the Panel are identified on the M-Net portal and are reviewed annually. Its purpose is to evaluate, advise and assist the Board of Directors in developing and implementing cost effective energy and environmental performance initiatives to enable the Company to use less energy and strive to achieve excellent levels of service.



Director Responsible  
for Energy  
Operations Director  
**BRUCE BENSON**  
(Permanent Appointment)



Purchasing Director  
**RICHARD HATCHER**  
(Permanent Appointment)



Director of Lancaster Plant  
Hire and Sales  
**RON TAYLOR**  
(Permanent Appointment)



Chairman  
Associate Director for  
Sustainability  
**PETER SHARMAN**  
(Permanent Appointment)



Sustainability Manager  
**EMMA DEWEY**  
(Permanent Appointment)



OPERATIONS DIRECTOR  
(Permanent Appointment)



Development Manager  
**LIAM O'MALLEY**  
SHERRYGREEN HOMES  
(Permanent Appointment)



PRECONSTRUCTION  
DIRECTOR  
**SIMON COVELEY**  
(Permanent Appointment)



PROPERTY  
MANAGEMENT  
COORDINATOR  
(Permanent Appointment)



SUSTAINABILITY &  
ENVIRONMENTAL  
OFFICER  
(Permanent Appointment)



ASSOCIATE DIRECTOR  
(Annual Appointment)  
CONTRACTS MANAGER



Andre Culleton  
CONTRACTS MANAGER  
(Annual Appointment)



M&C HEAD OF  
DEPARTMENT  
(Annual Appointment)



ASSOCIATE DIRECTOR  
(Annual Appointment)



Danny O'Reilly  
ASSOCIATE DIRECTOR  
(Annual Appointment)



DAVID PARSONS  
SENIOR ARCHITECT  
(Annual Appointment)



# m-net

Wednesday, June 26, 2019

Font size: A A

## Managing energy

It is important that as a responsible company we manage the use and consumption of our energy.

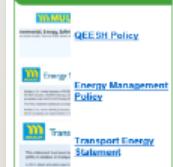
We are working towards certification to the Energy Management Standard 50001. Our policies, objectives and procedures to comply with this new standard are available here. Please take the time to review these.

Our energy usage data is detailed in the Energy Management Workbook and we would urge you to read these.

Complying with this new standard makes good business sense as it will ensure cost savings to the business and will help us make the world a better place.

Please help us to save energy, save money and save the planet!

### Polices



### Objectives



#### Energy Objectives

### Energy Monitoring Workbook



### Training DVD



### Energy suggestion box



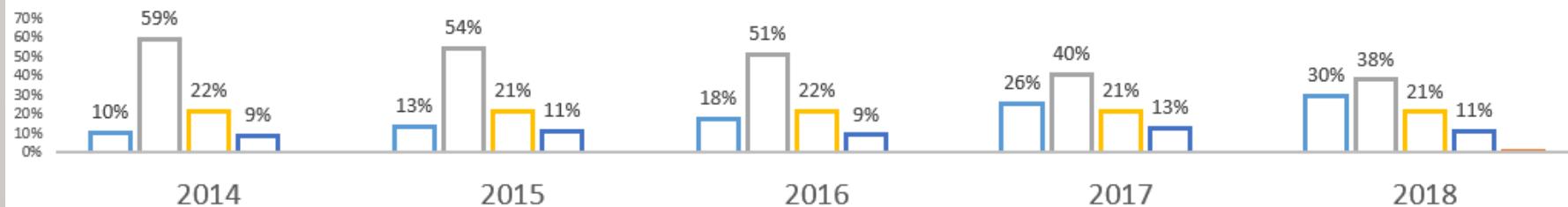
### Energy news



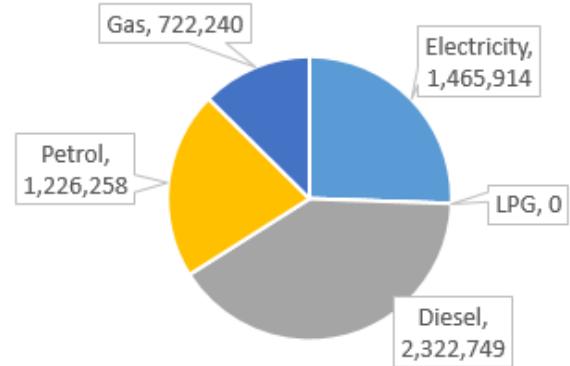
Source (kWh)	2012	2013	2014	2015	2016	2017	2018	2019	2020
Electricity	389,064	669,747	971,950	1,465,914	1,597,660	1,647,478	1,851,708	687,673	
LPG	0	0	0	0	1,278	0	0	0	
Diesel	2,178,396	2,719,882	2,801,881	2,322,749	2,028,284	1,788,746	1,660,304	392,311	0
Petrol	805,290	1,079,093	1,189,937	1,226,258	1,128,697	976,623	821,508	218,888	0
Gas	334,603	552,173	505,116	722,240	606,430	551,807	412,674	187,097	
TOTALS	3,707,353	5,020,894	5,468,884	5,737,161	5,362,350	4,964,654	4,746,194	1,485,969	4,589,729
			87%			93%		96%	
Electricity	10%	13%	18%	26%	30%	33%	39%	46%	
LPG	0.0%	0.0%	0.0%	0.0%	0%	0%	0%	0%	
Diesel	59%	54%	51%	40%	38%	36%	35%	26%	0%
Petrol	22%	21%	22%	21%	21%	20%	17%	15%	0%
Gas	9%	11%	9%	13%	11%	11%	9%	12.6%	

## MAIN AREAS OF ENERGY CONSUMPTION %

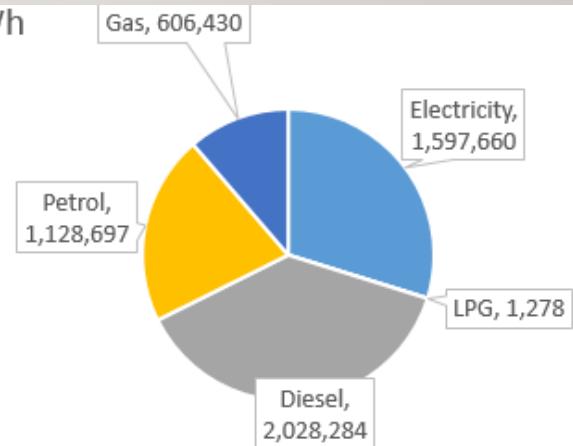
■ Electricity ■ Diesel ■ Petrol ■ Gas ■ LPG



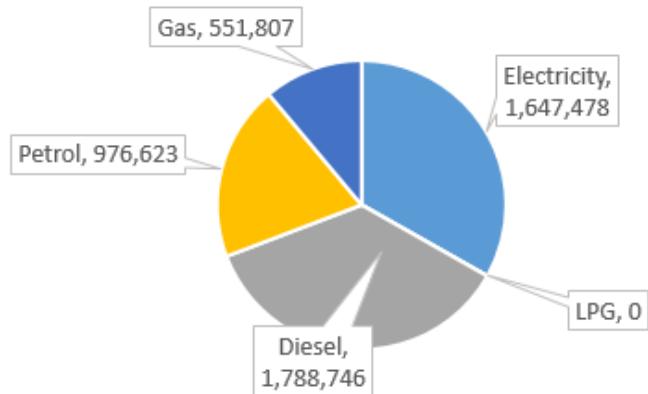
2015 kWh



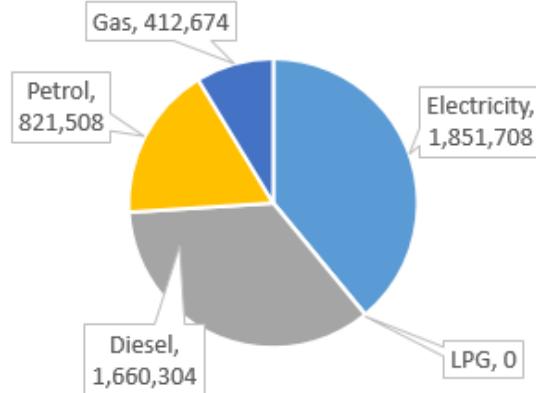
2016 kWh



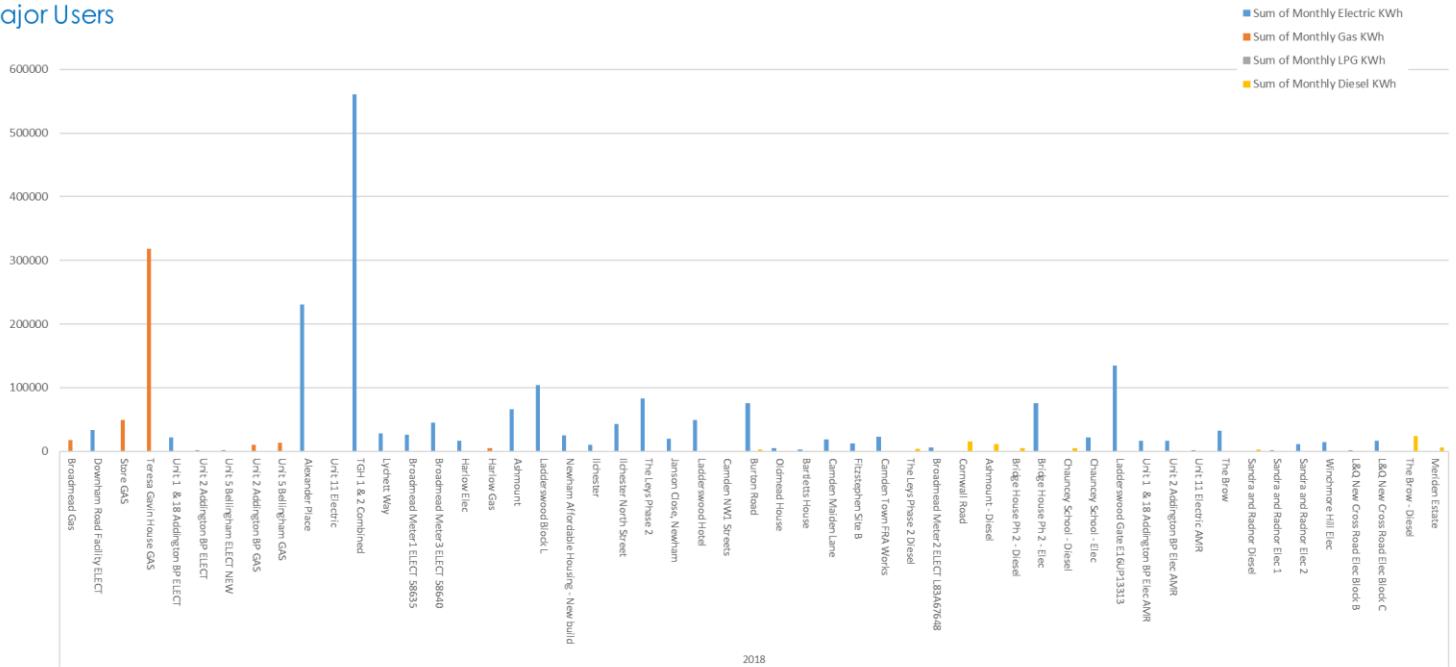
2017kWh



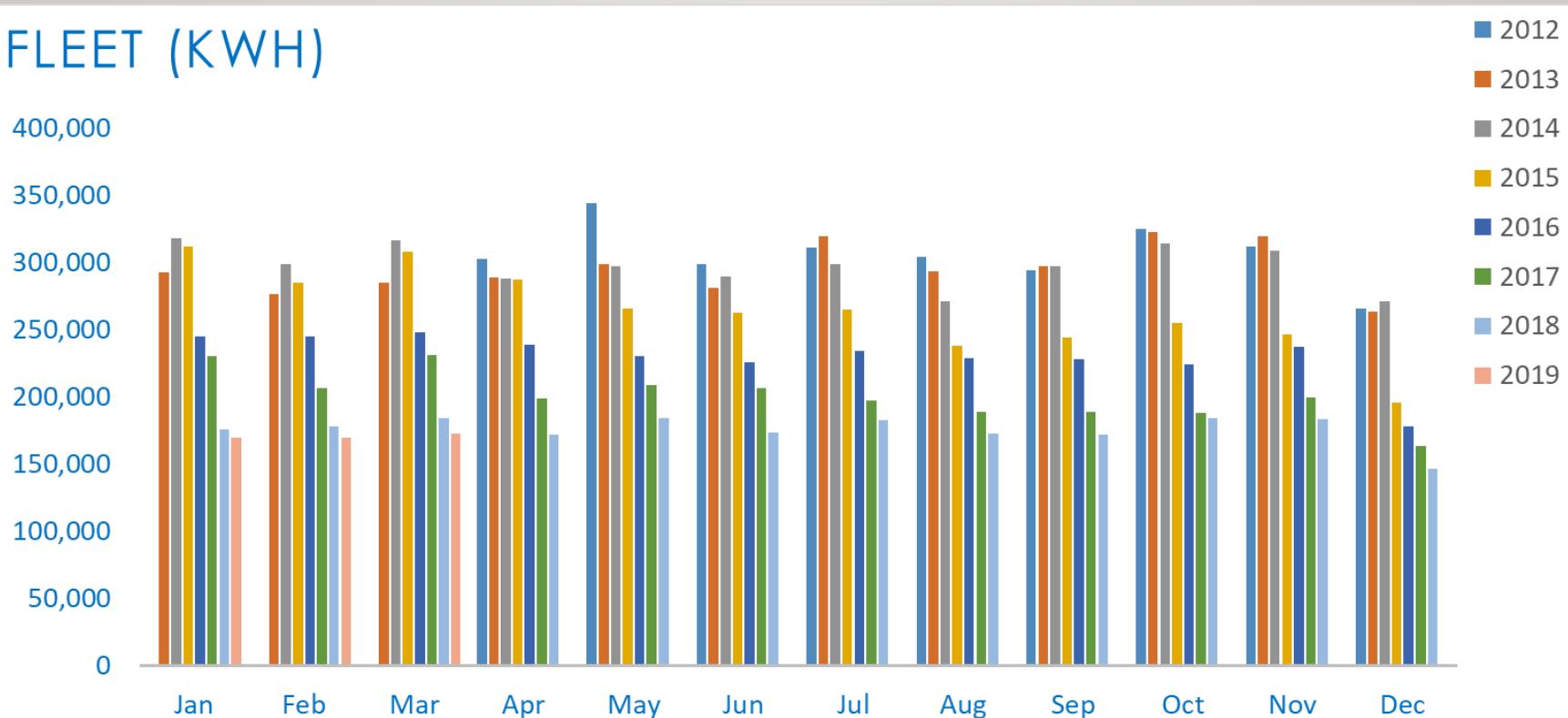
2018kWh



## Major Users



## FLEET (KWH)





## Blazing the Energy Trail

Mulalley is proud to be one of the top 5% of companies to achieve compliance with the new ESOS (Energy Savings Opportunity Scheme) legislation. We are committed to being a sustainable organisation and recently received ISO 50001 Energy Management System certification. This enabled us to inform the Environment Agency (EA) that we are fully compliant with the new ESOS legislation well ahead of their December deadline.

Around 14,000 UK firms are required to comply with this new legislation before 5th December 2015 and The EA have confirmed that to date just 647 organisations have notified them that they are ESOS compliant.

Mark Gouldstone, Sustainability Management Specialist, BSI said: 'Achieving certification to ISO 50001 is a credit to everyone at Mulalley and clearly demonstrates their commitment to becoming a more energy efficient organisation. The team should feel proud that they have achieved this well ahead of the December ESOS deadline.'

Mulalley Managing Director Brendan O'Malley said: "Our entire company has worked hard to implement our energy management systems which enable us to improve energy performance, achieve sustainable growth and in turn maximise savings. We are delighted to be amongst the first companies in the UK to achieve ESOS compliance."



**ESOS**  
Energy  
Savings  
Opportunity  
Scheme

Table 8: Mulalley's carbon footprint comparison and percentage change

Element	2012/13	2013/14	2014/15	2015/16	2016/17	% change on 2012/13	% change on 2015/16
Company Vehicles	997.31	959.58	909.99	775.43	693.92	-30.42%	-10.51%
Grey Fleet (Car and Van)	262.95	305.50	353.38	390.67	418.23	52.2%	2.4%
Site Electricity (Head Office /Downham Road)	323.16	347.02	325.07	312.47	268.15	-17.0%	-14.2%
Site Gas (Head Office only)	87.67	75.00	84.75	95.43	85.64	-2.3%	-10.3%
Motorbike travel	4.95	0.97	7.52	6.78	1.10	-77.7%	-83.7%
Hire car travel	2.19	4.62	2.46	1.26	0.38	-82.7%	-70.0%
<b>Total Tonnes of CO<sub>2</sub>e</b>	<b>1,678.24</b>	<b>1,692.68</b>	<b>1,683.18</b>	<b>1,582.03</b>	<b>1,467.42</b>	<b>-12.6%</b>	<b>-7.2%</b>
Tonnes of CO <sub>2</sub> e per employee	3.81	3.68	3.46	2.87	2.76	-27.68%	-3.76%
Tonnes of CO <sub>2</sub> e per £M turnover	11.94	10.95	10.49	9.01	9.93	-16.81%	10.23%

Company Emissions Profile

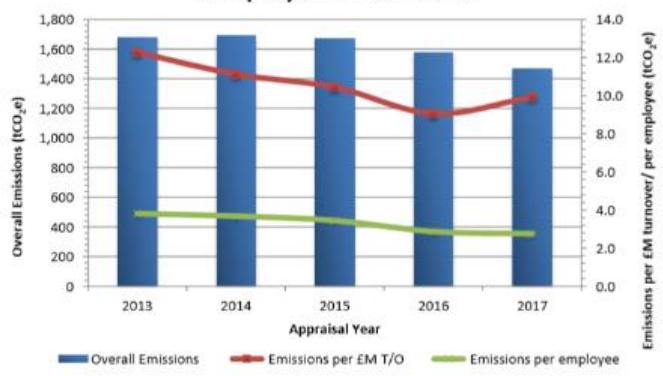
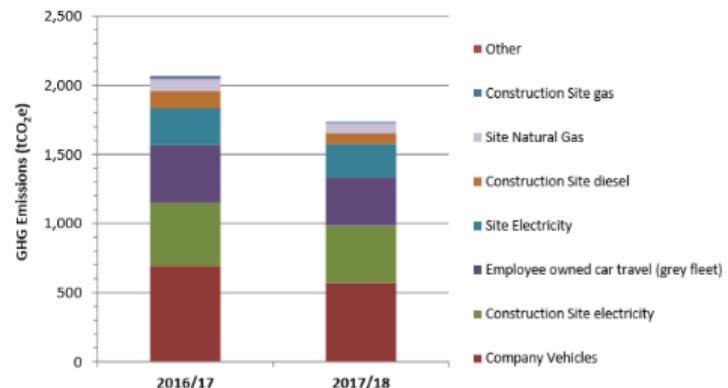


Figure 7: Emissions Benchmarks from 2013 to 2017

Table 7: Mulalley's carbon footprint comparison and percentage change

Element	2016/17	2017/18	% change on previous year
Company Vehicles (Cars, Vans, Lorries)	693.92	571.83	-17.6%
Construction Site electricity	457.61	413.23	-9.7%
Employee owned car travel (grey fleet)	418.23	347.17	-17.0%
Office Electricity	268.15	243.68	-9.1%
Construction Site diesel	121.83	76.02	-37.6%
Office Natural Gas	85.64	74.96	-12.5%
Construction Site gas	20.10	6.89	-65.7%
Other (hire car & motorbike travel, LPG)	1.55	0.15	-90.3%
<b>Total Tonnes of CO<sub>2</sub>e</b>	<b>2,067.03</b>	<b>1,733.92</b>	<b>-16.1%</b>
Tonnes of CO <sub>2</sub> e per employee	3.89	3.42	-12.0%
Tonnes of CO <sub>2</sub> e per £M turnover	13.67	12.79	-6.4%

Mulalley Total Emissions 2016/17 - 2017/18 (tCO<sub>2</sub>e)



# OPPORTUNITIES – ACHIEVED AND PENDING

---

## Opportunities Achieved

- Board buy-in and support, EPRP, communications and e-learning
- Massive improvements in fleet
- ECO cabins and green energy, site awareness, lighting, TRV improvements
- Maintained ISO50001 and revised policies and objectives

## Opportunities Pending

- LEDs! Fabric, boilers, air conditioning, PCs, printing, monitoring ...

## Mulalley goes carbon neutral



Mulalley has successfully achieved carbon neutrality, following an intensive programme of carbon and energy management and reduction within the business.

Mulalley has had a programme of carbon and energy management in place for 5 years and over the past year has reduced their carbon emissions by 24%.

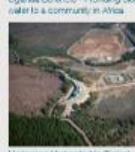
Sustainability is a key consideration for Mulalley and carbon management is a key aspect of this alongside ISO 50001, their membership of the Considerate Constructors Scheme (CCS) and also compliance with the Energy Savings Opportunity Scheme (ESOS).

To achieve carbon neutrality, Mulalley has had independent assessments of their carbon emissions assessed by Carbon Footprint Ltd, the sustainability consultants, and put in place carbon management plans to reduce them. Mulalley has now taken the final step to offset the unavoidable emissions, via supporting four projects from around the world that not only offset their carbon emissions but also provide additional health and welfare benefits in developing regions of the world.

The carbon offset projects include a clean water project in Uganda, cookstoves in Kenya, small scale hydroelectric power in Chile and wind-power in India.

Company Director Eamon O'Malley said "We are proud to become a carbon neutral business and will continue to monitor, reduce and support communities around the world to minimise the impact our business has on the environment."

Dr Wendy Buckley, Client Director at Carbon Footprint Ltd said "A great achievement by Mulalley and one that marks them out as a leader. They have committed to measure, reduce and offset emissions that affect our environment on a proactive basis rather than out of compliant measures that others do."



## Mulalley leads the way in construction and retains carbon neutrality status

Mulalley is proud to announce that the Company has retained its carbon neutrality status for the second year running, following an intensive 6-year carbon and energy management programme.

Unavoidable carbon emissions have been offset by supporting four projects from around the world, which reduce global emissions by an equivalent amount to that emitted by the company.

Mulalley reduced absolute emissions by 7% in 2016/17 compared to the previous year. This is in addition to the 24% carbon reduction made previously. Also, the scope of reporting has also been expanded to include all business operations under green-house gas (GHG) Scopes 1 and 2.

Carbon emission reductions have been achieved by upgrading of plant and vehicles, staff training, investing in more efficient site equipment and procuring eco cabins, some with solar photovoltaic panels.

Mulalley has had a robust, independent assessment of their carbon emissions completed by Carbon Footprint Ltd. Sustainability is an important consideration for Mulalley. Managing carbon aligns with Mulalley's ISO 50001 (energy management) accreditation, compliance with the Energy Savings Opportunity Scheme (ESOS) and membership of the Considerate Constructors Scheme (CCS).

The chosen carbon offset projects are all internationally certified and align with the UN Sustainable Development Goals that aim to end poverty, protect the planet and ensure prosperity for all. Those most relevant to Mulalley and the company's values include climate action, responsible consumption and production, sustainable cities and communities, health and well-being and finally decent work and economic growth.

As well as having a local and global environmental benefit, the projects also bring social and economic benefits to communities.

Company Director Eamon O'Malley said "We are extremely pleased to retain our carbon neutral status which highlights our commitment to reducing our environmental impact. We will continue to monitor and reduce our own energy consumption, but in the interim, are proud to be able to support other communities to help achieve the Sustainable Development Goals."



Dr Wendy Buckley, Client Director at Carbon Footprint Ltd said "Mulalley has extended its carbon management achievements, succeeding in implementing carbon and energy savings directly in their business as well as carbon offsetting all emissions to render the business carbon neutral. This they continue to do as a proactive step, ahead of legislative requirements and in-line with sustainability best practice."

The four chosen carbon offset projects are:

### Borehole rehabilitation in Uganda.

Provides accessible drinking water for a community to reduce disease and time spent walking to collect water in an area where ~60% of communities do not have access to clean, safe water. It also reduces the demand for firewood to boil water



### Solar Power in India.

Two solar power plants in Tamil Nadu and Telangana provide 58.25 MW of clean electricity to the grid, providing reliable energy and reducing greenhouse gas emissions, as well as construction job opportunities



### Cookstoves in India.

Provides new improved cooking stoves for households in India to improve air quality which causes 400,000 deaths of women and children in India every year. The stoves reduce the demand for non-renewable biomass fuel, thereby reducing greenhouse gas emissions and saving women and children time and money



### Deforestation prevention in the Amazonian Rainforest in Brazil.

Aims to prevent unplanned deforestation and preserve biodiversity habitat by creating a "private conservation reserve". Local people are trained in a range of issues from forest management to land-use and capacity built to enable small businesses to succeed



# CARBON NEUTRALITY



## Scheme Founding Partner – Mulalley – celebrates achieving carbon-neutral status

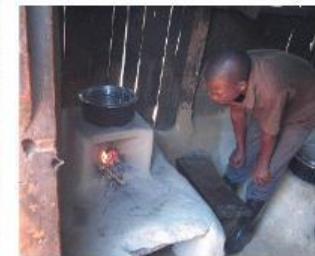


One of the Scheme's very first Partners – Mulalley – has been certified as carbon neutral, thanks to a rigorous sustainability management programme leading to company-wide energy savings and through helping communities in developing countries.

The considerable contractor implemented an intensive carbon and energy reducing management programme five years ago and the hard work paid off this year, with a sizeable 24 per cent reduction in its carbon emissions.

To achieve its carbon-neutral status, Mulalley was independently assessed by sustainability consultants, Carbon Footprint Ltd., which teamed up with the contractor in 2015 to formulate and implement a carbon management plan.

Mulalley's aim was to accurately monitor and measure its carbon footprint, with the ultimate goal being to reduce its environmental impact and increase its overall efficiency. A variety of ongoing measures have been put into practice, including staff training, online training, upgrading of plant and vehicles, and investing in more efficient site accommodation, including the installation of solar photovoltaic panels.



### Helping the developing world

The final step taken by Mulalley was to offset its unavoidable emissions by supporting four environmentally-friendly community projects in developing parts of the world.

Explaining this valuable work, Mulalley's Associate Director for Sustainability, Peter Sharman said: "Mulalley chose to support various good causes including Carbon Footprint Ltd's Ugandan Borehole Project which provided clean drinking water for the local people.

"In Kenya we introduced eco-efficient cooking stoves and in Chile we supported the Carbon Footprint Mariposas Hydroelectric Project, bringing economic benefits to the communities as well as reducing emissions. In India we supported a wind power generation project. I also took time out with my children to support an Eco Camp in Sri Lanka, where we all planted some trees."

"We found all of this work very rewarding and such an eye-opening experience. It was enormously satisfying to give something back to communities which do not have the blessses we take for granted over here, such as clean drinking water and cooking facilities."

Praising Mulalley's success, Carbon Footprint Ltd's Client Director Dr Wendy Buckley said: "This is a great achievement for Mulalley and one that marks them out as a leader.

"They have committed to measure, reduce and offset emissions that affect our environment on a proactive basis, rather than opting for just compliant measures."

### Carbon Footprint Ltd's Solution

Carbon Footprint Ltd worked with Mulalley to provide a sustainability programme including:

- Annual Carbon Footprint Appraisals
- Energy Saving Opportunity Scheme (ESOS) support
- Energy audits and documentation to help with legal compliance
- Providing various management workshops on topics such as sustainability, travel and internal and external sustainability marketing
- Access was also given to international and UK-based carbon offsetting programmes to fully establish Mulalley's business as carbon neutral.
- For more details see: [www.carbonfootprint.com/construction](http://www.carbonfootprint.com/construction)

# SHARING BEST PRACTICE WITH THE CCS



---

## CARBON NEUTRALITY CERTIFICATE

A handwritten signature in black ink, appearing to read "John Buckley".

John Buckley  
Managing Director, Carbon Footprint Ltd  
[www.carbonfootprint.com](http://www.carbonfootprint.com)

### Awarded to Mulalley and Company Ltd

Date: December 2018  
Certificate Number: CF2016-2413



Carbon  
Neutral

---

#### Carbon Footprint Assessment

**Scope:** Company

**Methodology:** ISO 14064-1 and DEFRA Guidelines

**Included in the assessment:** HQ and all site building energy, company vehicle travel and personal car, motorbike and hire car travel.

**Assessment Period:** 1 April 2017 to 31 March 2018

**Emissions Total:** e.g. 1,734 tonnes CO<sub>2</sub>e

**Assessment undertaken/assured by:** Carbon Footprint Ltd

#### Carbon Offsetting

**Emissions Offset:** 1,734 tonnes CO<sub>2</sub>e

**Project Title and References:** Kenya tree planting and protecting the Amazon (Kenya and Brazil) Standard VCS- several references; Uganda borehole (clean drinking water) Reference: VPA 43 GS-1247, Gold Standard VER; Solar power project (India) Standard VCS.



### Kenya Tree Planting and Protecting the Amazon:

This project provides an opportunity to plant trees in Kenya as well as helping to protect the Amazon Rainforest – the largest remaining rainforest in the world. The Amazon is known for its amazing biodiversity; containing 10% of all species, including many endangered species.

For each tCO<sub>2</sub> being offset, one native tree is planted in the Great Rift Valley, Kenya and an additional tCO<sub>2</sub> is offset through the Brazilian Amazon Verified Carbon Standard (VCS) Reduced Emissions from Deforestation and Degradation (REDD) project to guarantee the emission reductions.



### Borehole in Uganda:

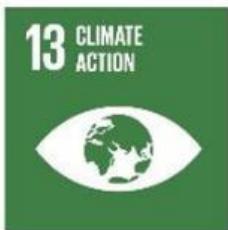
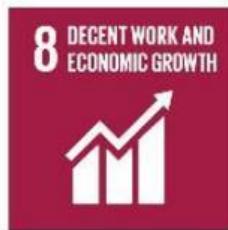
This project works with local communities to identify and repair broken boreholes. As well as health benefits, communities no longer need to boil water before drinking, saving firewood and preventing the release of carbon emissions. This will be the very first programme to implement the new Gender Equality methodology from the Gold Standard.



### Solar Power in India:

Co-ordinated by the ACME Group and based in India, this bundled project supports the installation of grid-connected renewable energy sources (namely solar PV cells), supplying energy into the Indian National Grid. The project provides sustainable employment (reducing poverty), improved healthcare, sanitation and educational benefit to the communities.





Our planet faces massive economic, social and environmental challenges. To combat these, the Sustainable Development Goals (SDGs) define global priorities and aspirations for 2030. They represent an unprecedented opportunity to eliminate extreme poverty and put the world on a sustainable path.

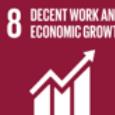
The Sustainable Development Goals (SDGs) define global sustainable development priorities and aspirations for 2030 and seek to mobilize global efforts around a common set of goals and targets. The SDGs call for worldwide action among governments, business and civil society to end poverty and create a life of dignity and opportunity for all, within the boundaries of the planet.

“Business is a vital partner in achieving the Sustainable Development Goals. Companies can contribute through their core activities, and we ask companies everywhere to assess their impact, set ambitious goals and communicate transparently about the results.”

Ban Ki-moon, United Nations Secretary-General

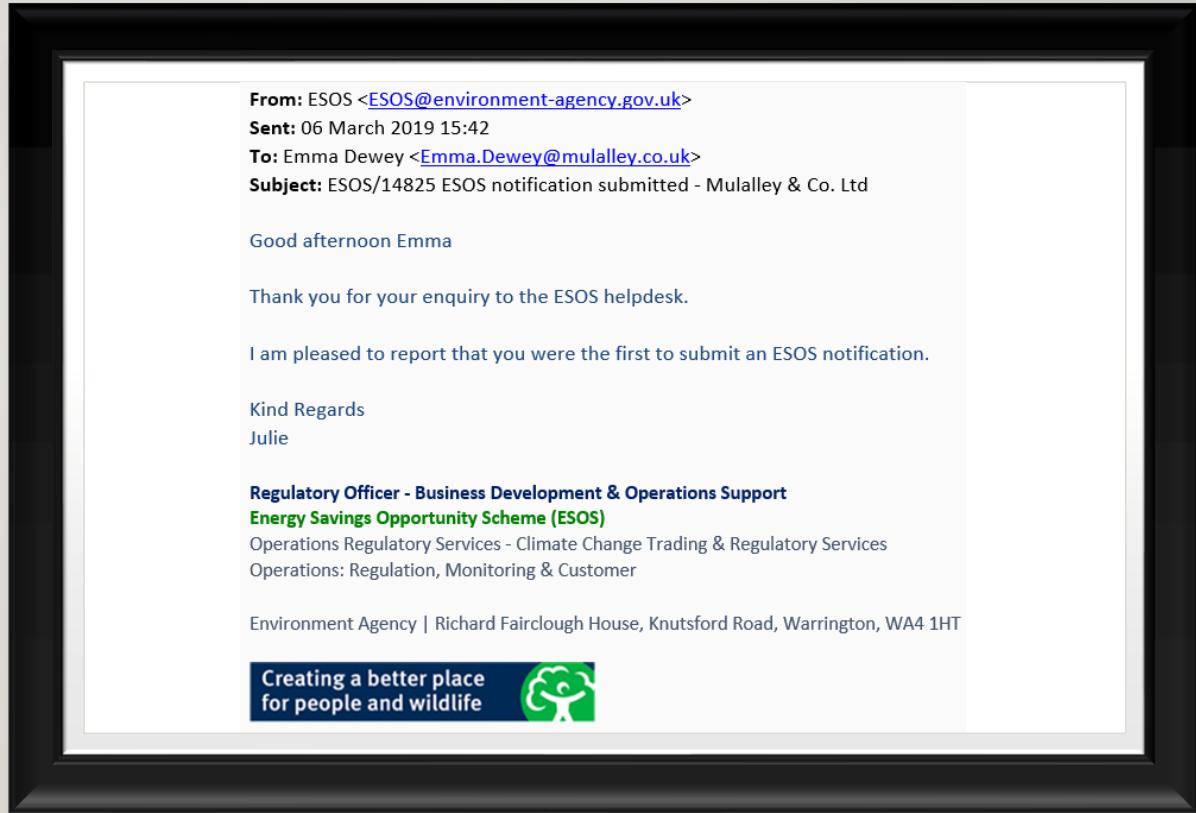


# OUR CHOSEN SDGS:

	SDG Title	Description	Link to Existing Work	Materiality
1	 <b>13 CLIMATE ACTION</b>	Take urgent action to combat climate change and its impacts*	ISO 50001 – carbon reporting; carbon neutrality; Energy Management policy; sustainability policy	<b>High-</b> construction has a high carbon footprint, whilst new buildings can help both mitigate climate change and improve resilience to its impacts
2	 <b>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</b>	Ensure sustainable consumption and production patterns	Waste report monitoring; Sustainability policy; Sustainability Procurement policy; ISO 14001; ISO 9001; ISO 50001; QESH; Environmental Management policy	<b>High-</b> construction relies on finite resources which if in short supply could impact the business. Stakeholders also may require evidence of sustainable purchasing and reduced waste.
3	 <b>11 SUSTAINABLE CITIES AND COMMUNITIES</b>	Make cities and human settlements inclusive, safe, resilient and sustainable	Mulalley Trust; BREEAM; ISO standards	<b>High</b> – predominately focused in urban areas to provide more efficient, sustainable settlements e.g. reduce waste, improve air quality, access sustainable transport/ green space/ services.
4	 <b>3 GOOD HEALTH AND WELL-BEING</b>	Ensure healthy lives and promote good well-being for all at all ages	Investors in People Gold; Health Check activities; provision of free fruit; Resident Liaison ISO 9001 Quality Assurance; CCS; Health and Safety policy	<b>High</b> – with several hundred employees, we can directly impact health and well-being amongst a demographic known to have poor physical and mental health. We can indirectly benefit the well-being of our clients' customers
5	 <b>8 DECENT WORK AND ECONOMIC GROWTH</b>	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Apprenticeships and work experience programme; Management and Trainee programme; Mulalley Trust;  Modern Slavery Act Policy, Training Policy	<b>Medium</b> – whilst we consume energy, we do not supply it so this is captured by SDG 13. Indirectly we provide this through more energy efficient homes. Scope for renewables is limited on our own estate.

# FIRST COMPANY TO ESOS PHASE 2 COMPLIANT!

---



# SECR PROMOTED TO THE BOARD (AND ESOS)

---

- SECR – the Streamlined Energy and Carbon Reporting framework will replace the CRC or the Carbon Reduction Commitment and applies to large UK companies. The start date for SECR will be 1st April 2019 and it is possible that your first reports could be submitted in April 2020.
- The idea of the SECR is to simplify carbon and energy reporting for UK companies whilst also allowing a company to identify areas where they could save on energy costs and reduce carbon emissions.
- SECR has a degree of cross over with the Energy Saving Opportunity Scheme (ESOS) scheme.
- SECR will not charge for emissions like CRC does, instead the CCL (the Climate Change Levy) will be increased to cover reduced tax revenue. The increase will be from 0.583 p/kWh to 0.847 p/kWh.
- I intend produce a SECR compliant report this year as a benchmark and trial

# A QUICK RECAP OF OUR JOURNEY

---

- Tricky start
- Then came ESOS!
- Achieved ISO50001 and ESOS compliance
- Became carbon neutral and have maintained this
- First company to be ESOS Phase 2 compliant
- Embarking on adopting the SDGs
- Preparing for SECR
- But the journey never ends and there is always more to do ...
- “The Greatest threat to our planet is the belief that someone else will save it.” Robert Swann

# TO FINISH, MY FAVOURITE PROJECT - TREE PLANTING IN KENYA!

