



Environmental Sustainability Report

2021

*NET ZERO
2040*

Enhancing our environment in challenging times

A note from the Managing Director...



2020 was a challenging year for so many reasons. 2021 was supposed to be the year that we all emerged from the horrible shadow of Covid-19 – instead, we were “locked down” for just as long. It was one of the most challenging periods in our lifetimes.

However, it was also a time of resilience, hard work and dedication. Our domestic customers required CSG more than ever, and we rose to the challenge. When industry returned, we saw huge demand for our services; our drivers and operatives – our key workers – moved tirelessly to ensure we maintained our excellent service to all our customers, regardless of the challenges.

This was all carried out to the backdrop of a climate emergency. If we can all show the same resilience, hard work and dedication as did in the face of C-19, I have no doubt we can all solve the issue of climate change.

That is why we have aligned ourselves to the Environmental Service Associations target of Net Zero by 2040 – 10 years ahead of the UK government. We have already started on this journey, from increasing our energy and fuel efficiencies across our business activities to maximising our waste recovery rates – our Blackburn site operates at 100% waste recovery. We have set up working groups to develop zero to landfill strategies and have begun our journey to a fully electric fleet of HGV tankers.

Each of our goals are supported by ambitious actions and dynamic people. Our people are key to ensuring that we deliver on our goals of a sustainable future for all.

CSG is 90 years old in 2024. Our founder, Edgar “Bunny” Hart, started with a second-hand tanker and a vision. Our services may have changed, but our core values haven’t – a sustainable business in a sustainable environment providing sustainable employment. That is CSG.



Neil Richards
Managing Director

Our core services

CSG occupies a key position in the UK's waste and environmental sector. We are playing an important role in enabling the movement towards a sustainable circular economy through the provision of our core services. Our growing customer base includes leading supermarket chains, blue-chip manufacturers, thousands of SMEs and tens of thousands of individual households. We are based at 28 locations across England and Wales, operating across Great Britain.

WHAT DO WE DO?

Waste Haulage



Our team of 160 drivers operates our fleet of waste haulage vehicles and removes hazardous and non-hazardous waste for businesses and households across the UK. The CSG fleet includes curtain-sider lorries which accommodate wastes in drums, IBCs and packages. Our articulated and rigid tankers collect waste in bulk liquid form. These include vehicles with glass-lined tanks which are specially adapted to transport hazardous chemicals safely by road.

Waste Treatment & Recovery



We operate 13 waste treatment and transfer facilities across the UK, all staffed by highly skilled chemists and operatives. We prioritise resource recovery and waste recycling over disposal wherever possible. Several of our facilities carry out unique treatment processes which neutralise hazardous chemicals. Our hazardous waste treatment facility in Cadishead near Manchester is the largest of its kind in the UK and specialises in the processing of complex industrial

waste streams. Due to its uniquely broad permit and range of processes, CSG Cadishead receives industrial waste from many third-party waste carriers and brokers. As such, it is a vital pivot in supporting UK industry.

Industrial Cleaning



CSG carries out specialised cleaning services in environments such as storage tanks, lagoons and oil refineries. We design and manufacture robotics which enable confined space cleaning in hazardous conditions to take place safely and effectively. Our operatives are trained to deliver a rapid response to emergency chemical and oil spill incidents. We safely clean-up and remove waste from spills, preventing contamination of the environment.

Wastewater Engineering

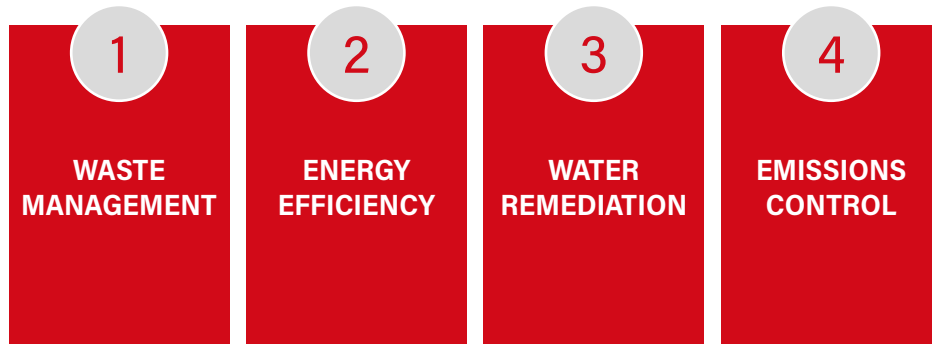


Our engineers install and maintain wastewater assets including pump stations, package sewage treatment plants and wastewater interceptors. These vital systems perform a crucial role in enabling people to access to wastewater treatment in remote locations and in preventing pollution.

Our approach to Environmental Sustainability

CSG is committed to positively contributing to a sustainable future for all. We are positioned to be a vital link in the circular economy through the provision of waste management and services which promote innovative recycling and recovery techniques. At CSG we recognise that our core business activities must be managed responsibly to minimise negative impacts, prevent pollution and enhance positive environmental impacts.

To help us focus our efforts, we have set out **four environmental pillars**:



Our numerous environmental sustainability initiatives are developed to drive continuous improvements in each of these pillars.

The CSG approach to environmental sustainability is enhanced by our overall business ethos of trust and transparency. By focussing on these pillars, we will reduce negative environmental impacts and push for more responsible waste management.



Protecting the Environment is our Business

Our environmental impacts at a glance

2021 was a year still affected by Covid-19, but business operations and group efficiency have continued to improve:

FLEET EFFICIENCY

There have been increases in efficiency across the fleet, the amount of waste collected per litre of fuel used has increased from the previous year. This is likely due to more efficient routing through our PDA system and an improved driver awareness around efficiency and efficient driving practices.

TOTAL WASTE RECOVERY

Total waste recovered as a percentage of total waste accepted has remained broadly level with the 2020 figure. Any slight variations are likely due to the nature of waste received.

PLANT EFFICIENCY

Overall, emissions have increased due to the use of more energy. However, efficiency throughout the group has increased, due to improvements in operations and a greater process efficiency throughout the treatment plants.

A SUSTAINABILITY COMMITTEE

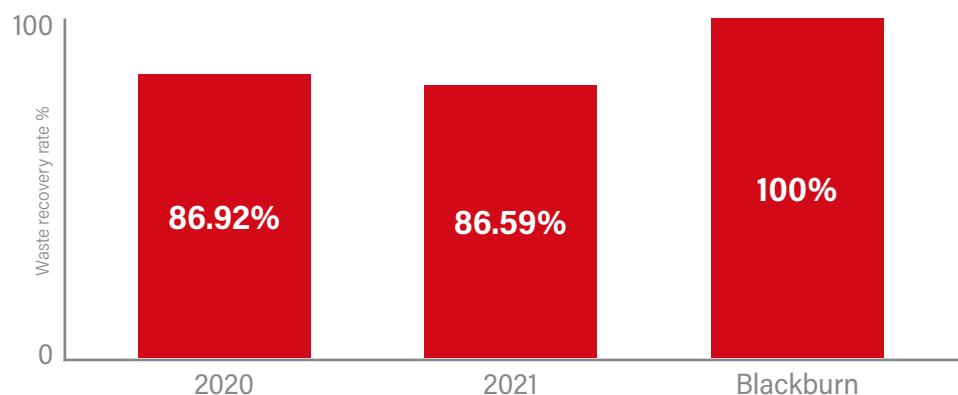
CSG has established a Sustainability Committee, set up to enhance the sustainability performance of the business. Employees from multiple areas of the company have volunteered to develop their sustainability ideas, these initiatives are helping to improve a wide range of environmental aspects within CSG, including energy efficiency, waste treatment initiatives, office and community initiatives and customer choice.



Waste Management

Our goal is to increase waste recovered as a proportion of total waste accepted into CSG facilities. We aim to divert waste away from landfill by sending waste onwards to EfW (Energy from Waste) disposal facilities or to facilities that can further process the waste.

WASTE RECOVERY - KEY FINDINGS



- ▶ CSG's overall waste recovery rate of 86.59%. 2020 was 86.92%.
- ▶ Blackburn achieved a 100% recovery rate.

Individual site recovery rates

CSG Site	Recovery
Aylesford	95.14%
Blackburn	100%
Botley	95.58%
Bristol	92.59%
Cadishead	71.90%
Coventry	95.51%
Sealand	96.83%
Worcester	96.33%
Sheffield	88.51%
J&G	98.05%
Wilton	0%
Middlesbrough	94.52%
Recyc-Oil	100%
Total	86.59%

The following should be noted:

- Cadishead has a relatively high disposal figure. This is in part due to the nature of wastes arriving on site – Cadishead is often a final outlet to a number of complex wastes which have already undergone significant recovery treatment processes. These wastes, therefore, have a limited recovery potential when they reach Cadishead and can only be sent for disposal.
- CSG Wilton is a small transfer station which sent all waste in 2021 for onward treatment prior to disposal. This is due to the nature of the wastes received on site. Only a small amount of waste was accepted, this has little effect on CSG's overall recovery rates.
- Middlesbrough increased recovery rates by 3 percentage points compared to 2021, this is attributed to our every improving processes.
- Although disposal rates are low throughout the Group, following processing the only outlet for some wastes is disposal, this is likely due to the waste received having a higher sludge content.

Waste Management

WASTE RECOVERY



Waste Management

WASTE MANAGEMENT INITIATIVES

- ▶ Our recovery facility in Blackburn was the first CSG facility to achieve 100% recovery for all waste accepted, a landmark achievement. This was achieved in part by deploying intensive deconstruction of wastes received, segregation of each component and routing of each component to specialist outlets for recovery.
- ▶ J&G signed up to the PRN/PERN scheme in 2021. This provides producers of packaging a certificate to show that packaging has been recycled, which J&G carry out both on site and through a number of selected partners across the UK. J&G recorded a huge 98.05% recovery rate in 2021!
- ▶ Recyc-Oil has recently upgraded the on-site waste oil treatment processes. Previously, waste oil was treated via a filter press system which produced an intermediate oil phase which required further offsite treatment prior to re-refining. Upgrading to a centrifuge disk stack system, the waste oil is now of sufficient quality to be sent direct for re-refining. Recyc-Oil recorded a 100% recovery rate in 2021!
- ▶ All of our treatment staff are offered the opportunity to complete a Level 4 Certificate of Technical Competence (CoTC) through the Chartered Institute of Waste Management. This is an EA approved training scheme demonstrating best practice in the management of hazardous and non-hazardous wastes.
- ▶ As of the end of 2021, 44% of all CSG Oil Treatment Plant staff are CoTC holders.



Energy Efficiency

Our goal is to use energy and fuel in the most efficient way possible. We aim to treat more waste per unit of energy through better process efficiency, and collect more waste per litre of fuel used through better routing and more fuel efficient driving.

ENERGY EFFICIENCY - KEY FINDINGS

- ▶ Process **efficiency increased by 17.24%** in 2021.
- ▶ **17.8% more waste collected** per litre of fuel used in 2021.

Our 2021 actual energy usage totalled 3135MWh.

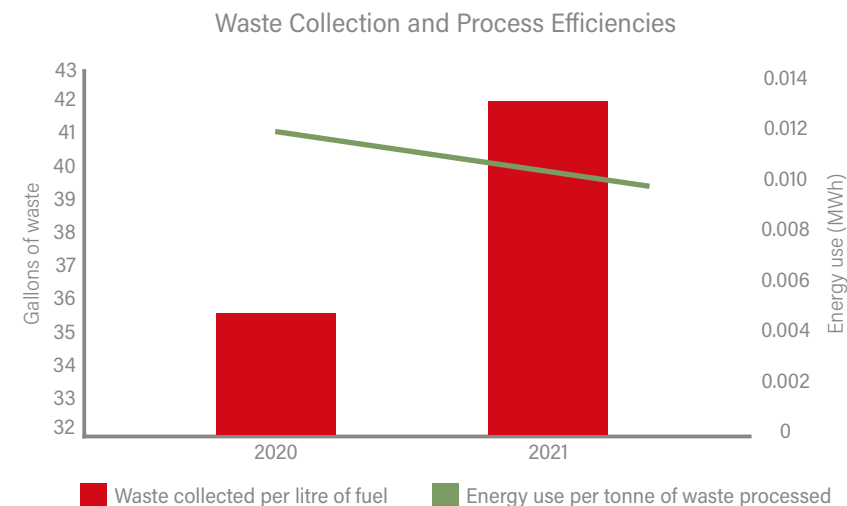
In 2021, CSG's waste facilities used 3433.5 MWh of Primary Electricity Energy¹ to process 357,257 tonnes of waste. This means CSG used 0.0096 MWh/tonne processed against 0.0116 MWh/tonne in 2020.

The waste accepted into our treatment plants this year was treated more efficiently. One example of this is the oily sludge received at Aylesford oil treatment plant which required less energy to process than the sludges received in 2020. Another site, Middlesbrough, received more waste but energy use remained roughly consistent – again, this points to greater process efficiency.

Fuel

Group fuel totalled 3,497,749 litres for all fleet operations (this excludes company car or van journeys). The Group covered approximately a massive 6,317,520 miles at an overall efficiency of roughly 8.2mpg.

CSG collected 124,439,330 gallons of waste (not including J&G operations) and used 2,963,034 litres of fuel (excluding J&G) this means CSG achieved a collection rate of 42 gallons (191 litres/kg) of waste collected per litre of fuel used.



¹ Primary energy is a metric used by the EA. For consistency, this report has chosen to use that metric when discussing treatment energy use

Energy Efficiency

ENERGY EFFICIENCY INITIATIVES

- ▶ CSG offer Safe and Fuel-Efficient Driving (SAFED) training to our professional drivers, this training programme aims at retraining our drivers in safer driving, modern fuel-efficient driving techniques and a reduction in the risk of a driver collision. Encouraging fuel efficient driving techniques improves fuel efficiency, considering the 6,317,520 miles of road that was covered by CSG drivers in 2021, SAFED can have a huge impact on fuel efficiency.
- ▶ Old halogen lighting has been replaced with LED lighting systems, producing better light performance as well as low energy consumption. Tackling these small wins across our sites, will help the company progress to the larger goal of a more energy efficient CSG.
- ▶ CSG is continuing to advocate the use of Hybrid company cars among employees. Investments in new Euro-VI compliant HGV tankers to replace older vehicles are continually underway. These tankers are equipped with the latest technology in order to meet new emission limits and are compliant with the Clean Air Zones being introduced across the country.



At CSG, we operate a rolling 8-year fleet replacement scheme. When a vehicle reaches 8 years old, it is sold and replaced with a new Euro VI vehicle meaning we always have the most efficient models on the road and ready to go. Our maintenance programmes ensure older vehicles still have miles left in them, and we make sure they are re-sold rather than scrapped to prolong the effective life of the vehicle.

Mick Arnold
Fleet Engineer

Water Remediation

Our goal is to recover as much water as possible and recycle this back into the water cycle. We aim to treat water-based wastes to remove as much of the contaminants as possible to enable as much water as possible to be recovered and recycled.

WATER REMEDIATION - KEY FINDINGS

- ▶ 100% of water used in our treatment processes is treated and recycled.
- ▶ Over 320000m³ of water cleansed and recycled back into the water cycle.

In 2021, CSG used 34370m³ of water at the permitted waste facilities. This equates to 0.096m³/tonne of waste processed. Water is fundamental to our treatment processes, all water used on our plants is treated prior to recycling back into the water cycle.

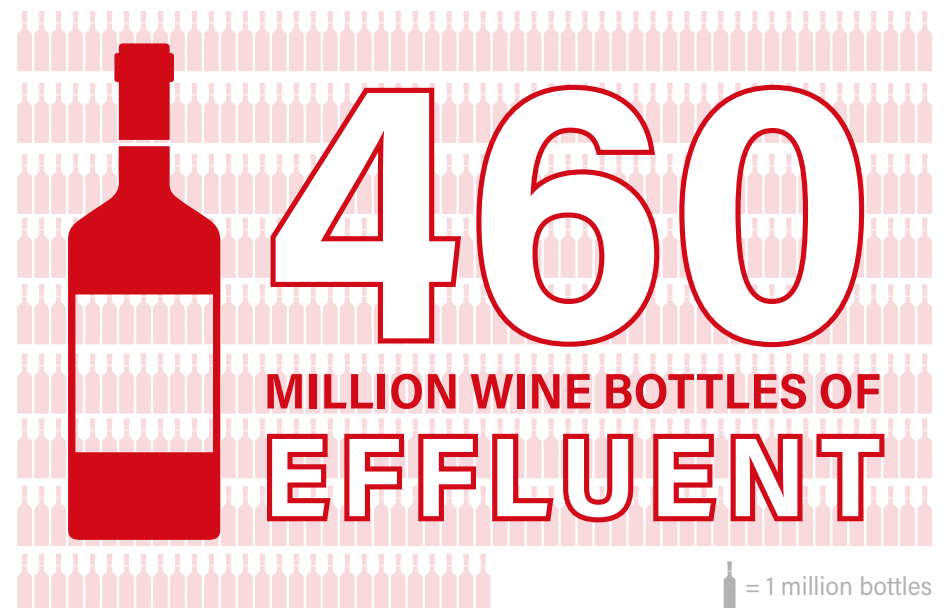
Effluent – CSG cleansed and **recovered 321491m³** of contaminated water in 2021. This is enough to fill 3.5 Royal Albert Halls; 150 Olympic sized swimming pools; **460m bottles of wine**; 1.786m bathtubs; 7 RMS Titanics!

WATER REMEDIATION INITIATIVES

- ▶ The water that CSG applies to site activities is needed for operational purposes, without water our treatment plants would not work, our fleet would not be cleaned, and operations would fail. Water is only used when it is required to ensure that excessive use does not occur.
- ▶ CSG are experts in domestic aqueous wastewater treatment, maintaining and servicing domestic septic and cesspit tanks throughout the country. We have stringent procedures and management systems which are regularly

assessed by internal and independent third body auditors to ensure compliance with the standards. Regular visits from the Environment Agency verify our processes against our permits, ensuring we are safeguarding the environment. Wastewater is treated at our sites against controlled limits set by our water regulators and the Environment Agency. The trade effluent from our treatment sites is discharged to local sewer treatment plants to be treated again at a higher standard before being released back into the water cycle. This means that 100% of water used for our treatment processes is treated and recycled back into the water cycle.

- ▶ Several of our facilities are utilising rainwater collection for use on site. Aylesford is a prime example, using rainwater harvesting to supply water for site activities. New rainwater harvesting initiatives are currently being researched, including the practicability of storing rainwater on more of our sites for reuse.



Emissions Control

Our goal is to reduce like-for-like emissions each year. We aim to do this by reducing our overall carbon footprint per unit of turnover, reduce our haulage emissions per km and decrease our CO₂e emissions per unit of waste treated.

EMISSIONS CONTROL - KEY FINDINGS

- ▶ Operational (waste haulage and permitted site activities) carbon footprint has increased by 10%. However, turnover increased by 15%.
- ▶ CSG haulage emissions per km have decreased by 5.5%, the amount of CO₂e emitted per gallon of waste has also decreased by 23.66%.
- ▶ CO₂e emissions released from waste treatment process energy have decreased by 32.75%.

CARBON FOOTPRINT

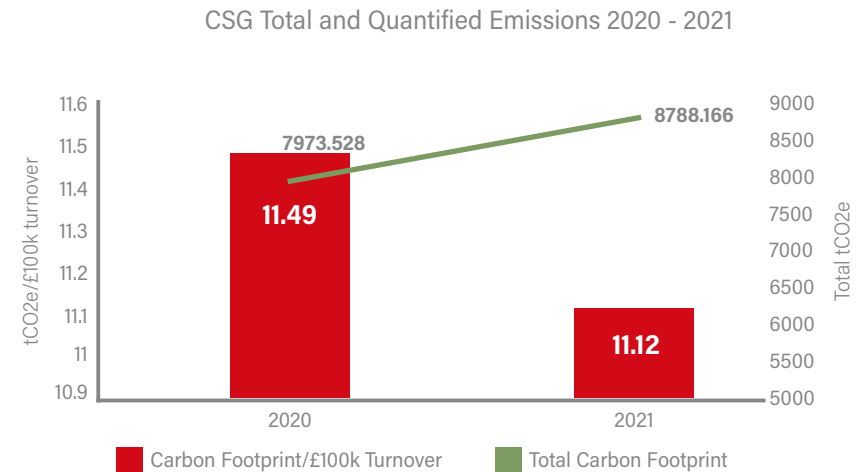
CSG's 2021 carbon footprint, based on fleet and site-based operations is 8,788,166kgCO₂e. Our carbon footprint in 2020 was 7,973,528kgCO₂e, CSG has increased business operations carrying out more jobs and servicing an ever growing number of people.

CSG's waste haulage operations produced 0.86kgCO₂e/km. The freight industry average is typically between 0.85 and 0.90kgCO₂e/km (FTA data). This has reduced from 0.91kgCO₂e/km in 2020.

CSG's waste haulage operations produced 0.071kgCO₂e/gallon collected, down from 0.093kgCO₂e/gallon in 2020.

WASTE TREATMENT & RECOVERY

CSG's waste treatment process energy produced 0.78kgCO₂e/tonne processed against 1.16kgCO₂e/tonne in 2020.

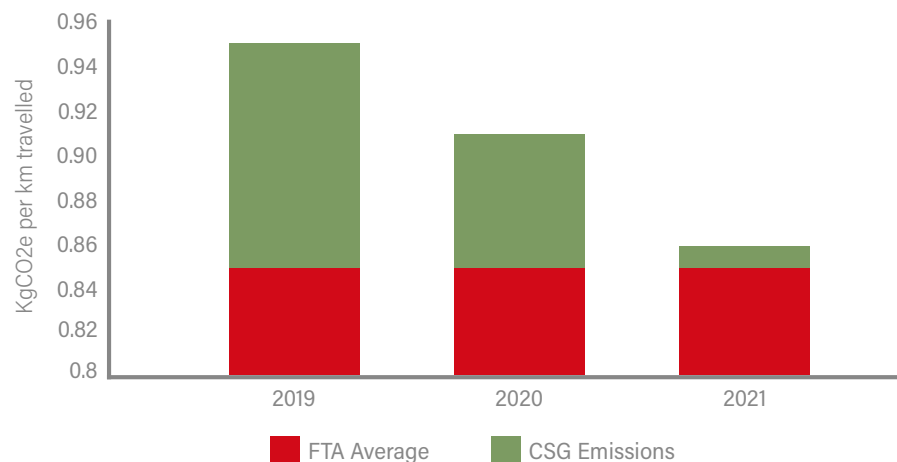


CSG's carbon footprint increased in 2021 which on the surface of it looks concerning. However, we had an incredibly productive year in 2021, recording one of our strongest business performances in our history. What was encouraging was, as a proportion of our turnover, our carbon footprint reduced in 2021. Our initiatives have led to less CO₂ being emitted on a like-for-like basis.

Natalie O'Donoghue
Graduate Environmental Technician

Emissions Control

CSG Fleet Emissions vs Freight Average



The FTA/Logistics UK produce an overall freight average of 0.85KgCO₂e per km travelled – this is typically from large haulage companies travelling huge distances on motorways. CSG's daily operations are generally small distances with a lot of PTO work – this is when the engine needs to run on idle to power the pumps needed to get waste on to our tankers. We, therefore, thought the freight average was beyond our operational abilities. However, through our initiatives, we are **now almost level with the national average** and are aiming to go below this in the coming years.

Jen Cartmell
Treatment Director

EMISSIONS CONTROL INITIATIVES

- ▶ The Safe and Fuel-Efficient Driving (SAFED) training given to CSG's HGV drivers can have a massive impact on reducing the greenhouse gas emissions produced by our fleet. By training our drivers through this initiative they become reskilled in the fundamentals of safe and fuel-efficient driving. Aspects like clutch control, braking, gear selection and tyre pressure can influence fuel consumption and the quantity of Greenhouse Gas (GHG) emissions released into the atmosphere.
- ▶ CSG is part of the Environmental Services Association (ESA), the trade body representing the UK's resource and waste management industry. The ESA is at the forefront of debates surrounding the waste management process, recycling and recovery initiatives, playing a vital role in driving higher standards within the waste industry through consultations and meetings with members. Membership of this association indicates CSG's dedication to improving the waste industry and its effects on the environment, that is why CSG has committed to the ESA's 2040 Net Zero objective, to become a net zero GHG emission sector.
- ▶ Hydrotreated Vegetable Oil (HVO) is a fossil-free alternative to mineral diesel, known as an advanced biofuel or renewable diesel. HVO results in up to 90% reduction in Greenhouse Gas Emissions* in addition to a cleaner burn and the production of significantly lower NO_x and particulate matter**. CSG has investigated the use of this fuel as a drop-in replacement for diesel, assisting in reducing our carbon footprint and moving us towards our goal of Net Zero 2040. Conversations with a HVO supplier have been held and research into the compatibility of this fuel for our company is currently being undertaken.

Emissions Control

- ▶ As this is a fairly new fuel alternative, working collaboratively with our HVO suppliers is imperative.
- ▶ CSG will only use certified palm-oil free HVO fuel, the negative impact of the production of any fuel is as important to CSG as any benefit the end use may bring.
- ▶ Tyre pressures on vehicles can have a direct impact on fuel usage, carbon emissions and pose a safety risk to road users. Operations at CSG ensure that tyre checks on HGVs and tankers are carried out on a daily basis prior to any work being fulfilled. Underinflated tyres require a bigger force to make them turn, this means that the engine will burn more fuel releasing more GHG emissions. By completing regular checks and keeping tyres at their optimum pressure, risks to both the environment and road users are reduced massively.

*Source: (Watsons) Based on UK Government GHG scope 1 conversion factors per litre fuel.

**Source: (Watsons) Based on average emission reduction figures recorded by Neste as compared to those of conventional sulphur-free diesel. The findings are published in more than 40 scientific publications.



Good Governance, Trust & Transparency

Regulation is a key driver in the waste industry. Changes in legislation or its interpretation can be brought in quickly and have a significant and far-reaching impact on our business. Therefore CSG maintains a short decision-making tree, allowing us to efficiently react to any such changes. This hierarchy also allows us to roll out changes to our business quickly and effectively. Such responsive decision making is essential for us to enable valid sustainable changes to be rolled out across the business with minimal fuss and maximum reward.

ENVIRONMENTAL ASSURANCE

At CSG we have recognised that protecting the sustainability of our Group requires strong governance. All of our sites operate under a management system certified to ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018 or are working towards this.

These standards set out best practice for business governance and set out the requirements for a continually improving environmental management system. This drives CSG's environmental performance, allowing the business to strive for improvements to the environment wherever possible.

CSG are audited against these standards by DNV, a UK and Norwegian-based independent UKAS accredited third party. Working with DNV demonstrates that our processes are robust, effective and continually improving.

We run our own scheme of internal audits. These are regularly completed by our proficient employees to ensure compliance with the standards, our own management systems and the requirements of all applicable legislation.



Verification of our systems is vital to ensuring CSG runs effectively, efficiently, and sustainably. We have independently audited, robust procedures in place to ensure the quality of our service remains at the highest level, whilst also enhancing environmental performance wherever possible.

Antony Gerken

Head of CSG's Internal Audit Group

CSG are also audited against best business practice by Achilles, a supplier-verifier operating on behalf of some of our major clients. Achilles produce an audit score – in both 2020 and 2021, CSG achieved a perfect 100% score against Environmental, H&S, Quality and Corporate & Social Responsibility criteria.

Our system covers compliance with a number of mandatory reporting and emissions reductions schemes, for example:

EXAMPLE 1

ESOS – Energy Savings Opportunity Scheme

CSG undergo a mandatory energy assessment to ensure we are working towards improving Group energy efficiency. This involves working with an independent accredited third-party assessor for a period of time, this assessor will identify energy saving opportunities, these are then implemented over the following 12 months.

Good Governance, Trust & Transparency

EXAMPLE 2

SECR – Streamlined Energy and Carbon Reporting

CSG evaluate all energy use annually and produce a carbon footprint, as highlighted in the sections above. This is included within our Annual Report which is assessed and verified by our accountants, BDO. This data is also subject to verification by DNV as part of our systems audits.



Industry has recently become aware of the potential issues of ‘greenwashing’ – using suggestive statistics to infer that a business is ‘greener’ than it actually is. At CSG, we recognise the value of data verification which is why we open our statistics to several organisations to check our data is accurate and our methods are robust.

Antony Gerken

Head of CSG's Internal Audit Group

09	< 0.038	
028	< 0.038	
415	< 0.038	
529	< 0.038	
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077	0.038	
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