

Energy Opportunity Saving Scheme (ESOS) Assessment Report

GI GROUP HOLDINGS RECRUITMENT LIMITED

(Company number 07577190)



Date: 29th January 2019

ESOS Assessment completed by: Jake Griffiths

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2 Executive Summary

This Report has been completed to meet the Energy Opportunity Saving Scheme (ESOS) Regulation requirements and is designed to help organisations realise the benefits of energy saving opportunities.

GI Group Holdings Ltd were able to demonstrate their commitment to energy reduction and compliance with ESOS regulations through agreeing to participate in this energy assessment. A range of energy saving opportunities have been identified within this report which GI Group Holdings Ltd may consider implementing.

To meet the regulatory requirements GI Group Holdings Ltd have adopted 1st January 2018 to 31st of December as the annual energy reference period. Total energy consumption cost £347,477 which was a relatively small part of a total turnover of £326,004,652. The total expenditure by the GI Group Holdings Ltd represents a 13% increase in energy related costs since the 2015 ESOS assessment. This relates partly to the purchase of Marks Sattin, INTOO and Tack.

Of the total energy expenditure, 77% related to vehicle transport (59% GI Recruitment Grey Fleet, 14% Vehicle Fleet, 2% INTOO and 2% Marks Sattin Grey Fleet), Chesterfield HQ Unit B 2% and Marks Sattin/GI Group office 2%, and the remainder across other group offices. 2018 office related energy consumption is estimated to be 811,614 kWh.

Compliance with the ESOS regulations requires the focusing on the 90% areas of most significant energy consumption which would allow smaller offices to be excluded in the assessment. Where appropriate reference is still made to improvement opportunities to the GI Group as a whole. Energy consumption by staff working at home was also not included in the assessment.

Data sampling and verification was undertaken for use of fleet vehicles and office energy consumption from annual fuel card charges and office energy metered data were available (provided by Inspire Energy). Grey fleet energy consumption data which represents 64% of energy costs is not currently collated centrally. This monitoring issues emphasises the importance of Improvement Opportunity 1 Grey Fleet Management and Data Collation which could be implemented through changes in administration of staff travel expenses at little cost to the organisation. Further improvement opportunities were identified in monitoring office energy consumption. Implementing these improvement opportunities will help the GI Group Holdings Ltd meet annual reporting requirements relating to the compliance obligations and the Streamlined Energy and Carbon Reporting (SECR) and Companies (Directors' Report) and Limited Liability Partnerships (Energy and Carbon Report) Regulations 2018 which came into force on 1 April 2019.

A further 17 improvement opportunities were identified relating to vehicle fleet efficiency improvements, staff awareness of energy issues, LED lighting installation, reviewing heating control settings, lighting controls, driver performance monitoring, car hire/grey fleet use and IT improvements. Estimated total costs to implement the identified improvement opportunities were £86,978 with estimated savings of £45,503, 412,274 kWh and 102,260 kg CO₂e (or 102 tonnes of CO₂e). Further details have been included within the Action Programme (Page 5) and in the main body of the report.

3 Action Plan

Improvement Opportunity No:	Title	Financial Saving (£ Per Annum)	Cost to Implement (£)	kWh Saving (per annum)	CO2 Savings (kg per annum)	Pay back (Years)	Site/Location	Priority	Page No
1	Grey Fleet Management and Data Collation	£22,040	No cost to implement	95,469	23354	Immediate	All	High	10
4	Vehicle Fleet Efficiency Improvement	£11,808	No cost to implement	90,015	22019		All	High	12
5	Office Energy Monitoring		No cost to implement	43,574	11138	Immediate	All	High	13
6	Energy Awareness amongst Staff		No cost to implement	43,574	11138	Immediate	All	High	13
7	LED lighting	£4,673	£21,194	33,385	8533	4.7	All	High	14
8	Improved Heating Control Settings	5%	Dependent on office settings	43,574	11138	Immediate	All	High	14
9	LED Lighting	£508	£1,289	3,638	930	2.5	Unit B	High	16
10	Boiler Control	£218		7,272	1337	Immediate	Unit B	High	17
11	LED Lighting	£610	£882	4,453	1138	1.4	Unit C	High	19
19	Lighting PIRs (meeting rooms and kitchen areas)	25%	£25 (dependent on number of unit)				All	High	
12	PIRs in meeting rooms	£2.80	£50	20	5	18	Unit C	Medium	19
13	LED lighting in stairwell	£19	£145	136	35	7.5	Unit C	Medium	19
2	Fleet Driver Performance Monitoring	£4,723	14,400	36,000	8806	Annual cost	All	Medium	10
14	Boiler Running Time	£68		2,278	419	Immediate	Unit C	Medium	19
15	LED Lighting	£233	£690	1,664	425	Immediate	Bristol	Medium	22

16	LED Lighting	£429	£762	3,062	783	Immediate	Chesterfield	Medium	24
17	Storage Heater Replacement	£145	£681	2,898	741	4.7	Chesterfield	High	24
3	Car Hire rather than Grey Fleet	20% per journey	Dependent on data				All	Low	11
18	Thin Client Computing	£26	£1,380	1,262	323	53	Chesterfield	Low	24
TOTAL		£45,503	£86,978	412,274	102260				

4 Introduction

4.1 Important Notice

Whilst we have tried to make sure this report is accurate, we cannot accept responsibility or be held legally responsible for any loss or damage arising out of or in connection with this information being inaccurate, incomplete or misleading.

4.2 Organisation Overview

The GI Group is a subsidiary of Gi Group Holding S.r.l. which is based in Italy and provides support to companies wishing to source temporary and permanent staff. Activities include sourcing, search and selection, training, outplacement, and HR consulting. The GI Group is represented in the UK by GI Group, Marks Sattin, Intoo and Tack (these trading names are used within this report). The GI Group operates from a range of leased offices across the UK. Activities are office based with visits to clients.

GI GROUP HOLDINGS RECRUITMENT LIMITED. Company number 07577190

Registered office address Draefern House Dunston Court, Dunston Road, Chesterfield, Derbyshire, S41 8NL. Operating from Draefern House, Dunston Court, Dunston Road, Chesterfield, Derbyshire, S41 8NL - United Kingdom. Activities include Temporary and Permanent Staffing, HR Consulting and Training. GI Group operates from offices across the UK.

GI Group have offices in Andover, Barnsley, Basingstoke, Bristol, Burton-Upon-Trent, Cardiff, Chesterfield, Coalville, Coventry, Derby, Doncaster, Glasgow, Grimsby, Hatfield, Chesterfield HO Unit C, Chesterfield HO Unit B, Hounslow, Hull, Leeds, Leicester, London (Elm Street), Mansfield, Milton Keynes, Northampton, Nottingham, Peterborough, Portsmouth, Scarborough, Scunthorpe, Sheffield, Southampton, Stockport, Warrington.

Marks Sattin (UK) Limited. Company Number 01594927

Registered office address 1st & 2nd Floor Elm Yard, 13-16 Elm Street, London, England, WC1X 0BJ. Operating from Elm Yard, 13-16 Elm Street, WC1X 0BJ. Activities include specialist recruitment service for interim and permanent positions across Commerce & Industry, Financial Services, Specialist Markets, Executive Search, Business Change and Technology. Marks Sattin have offices in London (Elm Street), Birmingham, Leeds, Manchester and Reading.

Intoo (UK) Limited. Company number 10288858

Registered office address Draefern House, Dunston Road, Chesterfield, Derbyshire, United Kingdom, S41 8NL. Operating from Elm Yard, 13-16 Elm Street, WC1X 0BJ. Intoo provides hi-touch, people-centric outplacement & career transition, coaching, mentoring and change management services.

TACK TMI UK LIMITED. Company Number 11781487

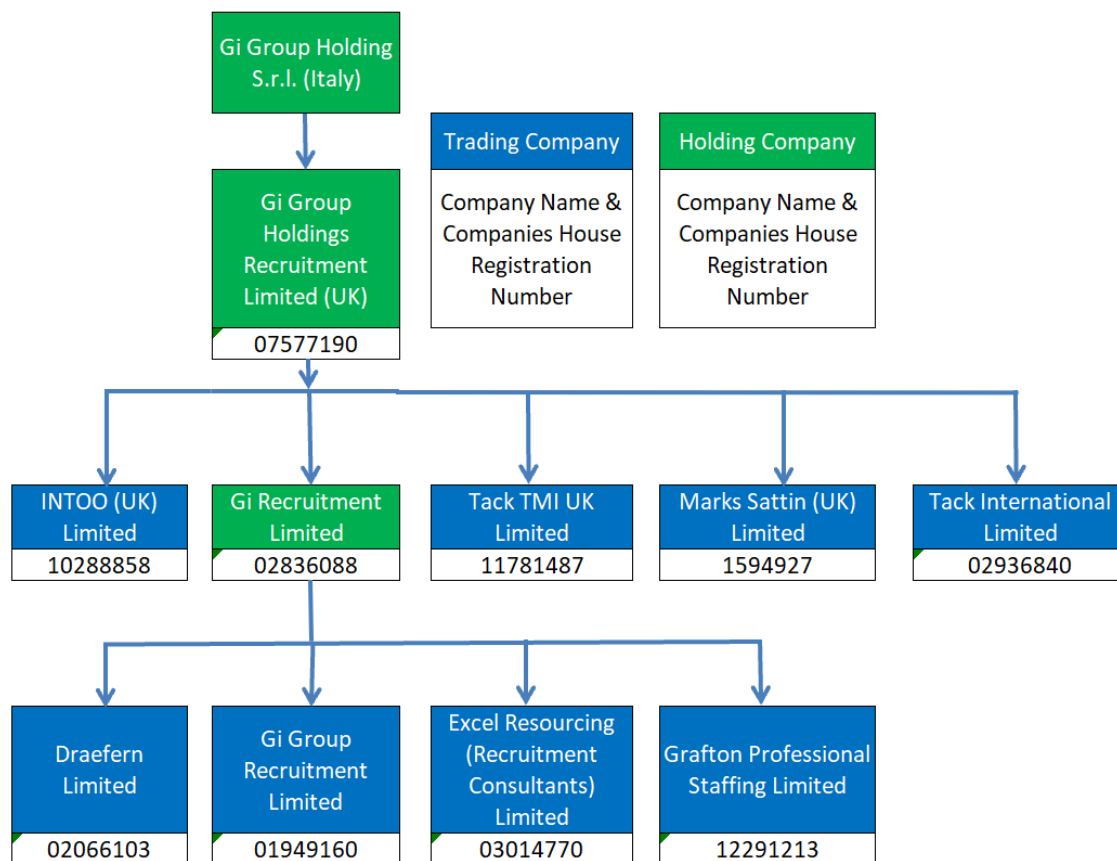
Registered office address Draefern House Dunston Court, Dunston Road, Chesterfield, Derbyshire, United Kingdom, S41 8NL. Operating solely from Elm Yard, 13-16 Elm Street, WC1X 0BJ. Provides training courses and learning solutions to develop individual and business performance.

TACK International. Company Number 02936840

Registered office address Draefern House Dunston Court, Dunston Road, Chesterfield, Derbyshire, United Kingdom, S41 8NL. Operating solely from Elm Yard, 13-16 Elm Street, WC1X 0BJ. Provides training courses and learning solutions to develop individual and business performance.

Registered office address Draefern House Dunston Court, Dunston Road, Chesterfield, Derbyshire, United Kingdom, S41 8NL. Operating solely from Elm Yard, 13-16 Elm Street, WC1X 0BJ. Provides training courses and learning solutions to develop individual and business performance.

Group Structure - Gi Group Holdings



4.3 ESOS Qualification

Organisation qualify for the second compliance period if, on 31 December 2018, it met the ESOS definition of a large undertaking. Corporate groups qualify if at least one UK group member meets the ESOS definition of a large undertaking. A large undertaking is:

- any UK company that either:
 - employs 250 or more people, or
 - has an annual turnover in excess of 50 million euro (£44,845,000), and an annual balance sheet total in excess of 43 million euro (£38,566,700)

- an overseas company with a UK registered establishment which has 250 or more UK employees (paying income tax in the UK).

The GI Group in the UK meets the qualification threshold in relation to the ESOS regulations because on the qualification date of the 31st of December 2018. In the UK organisation employee numbers were 524. Staff numbers have increased since the 2015 ESOS assessment from 325 to 524 (GI Group UK - 375, Marks Sattin - 139, Intoo - 5, Tack - 5). 2018 turnover was GI Group £294,279,939, Marks Sattin £30,880,105, Intoo £770,509 and Tack £740,99.

4.4 Compliance Route

There are a number of different routes to ESOS compliance. GI Group have chosen the ESOS assessment route.

5 Assessment Method

5.1 Energy Audit Methodology

The methodology used was in accordance with BS EN 16247 - Energy Audit to meet the requirements of the UK the ESOS Regulations 2014 and appropriate to the agreed scope and aims of GI Group Ltd using a sampling approach has been used.

A sampling approach was used visiting a number of GI Group and Marks Sattin Offices. Offices visited included Chesterfield Units B and C (GI Group), Chesterfield (GI Group), London (GI Group), London (Marks Sattin), Reading (Marks Sattin), Bristol (GI Group) whilst undertaking the energy assessment during October, November and December 2019. Site tour was undertaken by the assessor to gain an understanding of onsite energy consumption in relation to the building and processes.

Data sampling and verification was undertaken at the Chesterfield Unit B and C to ensure the data was reliable and relevant to observed processes and data verification was undertaken of provided data to trace the origin and processing of energy data. Where possible data was collated from direct meter readings, monthly data provided by the energy broker (Inspired Energy), invoice data, fuel card data or half hourly data. However data could not be obtain for all energy consumption and some estimating of consumption had to be made.

The energy analysis and site assessment findings were compiled into this report to provide real data, an insight into the organisations current energy management performance, and recommendations on opportunities to improve that performance through reductions in energy consumption. Where improvement opportunities were identified cost effectiveness analysis of the energy saving opportunities were undertaken and in discussions with onsite staff suggestions made were appropriate in relation to monitoring of the achievements of the targets and implemented improvements. Detailed data was taken from the site visits which included business travel, building structures, heating, lighting, air conditioning, glazing and ventilation.

The report was collated by consultant Jake Griffiths (ESOS Lead Energy Assessor) who prepared the report after receiving information provided by members of Gi Group staff on current practices and an operational viewpoint of how energy is managed. Our consultants would like to thank Emma

Goodall (Compliance Administrator) at GI Group and Kate Conquest (Operations Manager & Data Co-Ordinator) at Marks Sattin for providing support, information to enable this report to be compiled.

A representative selection of GI Group offices were visited during the assessment that reflected the GI Group, Marks Sattin, Tack and INTOO property estate. The selection was based on energy site energy consumption and being a representative sample of the group. Information obtained was used help determine improvement opportunities across the group. Locations visited:

- Head Office Unit B – 25th September 2019, 17-18th December 2019.
- Head Office Unit C – 25th September 2019, 17-18th December 2019.
- Chesterfield Office – 18th September 2019
- Elm Street Office - 6th November 2019
- Bristol Office – 5th December 2019
- Reading Office – 7th November 2019

A desk top assessment was also undertaken at the 2 Head Office sites of the GI Groups use of grey and leased vehicles.

5.2 Energy consumption

The reference period for calculation of total annual energy consumption for ESOS Phase 2 compliance is the 1st of January 2018 to the 31st December 2018 for building and vehicle usage. Total energy consumption was calculated from spend on energy consumption during the reference period. Areas of energy consumption included.

GI Group			
<i>GI Group</i>	<i>Marks Sattin</i>	<i>INTOO</i>	<i>Tack</i>
Grey Fleet	Grey Fleet	Grey Fleet	Grey Fleet
Vehicle Fleet	Buildings/Office Use	Buildings/Office Use	Buildings/Office Use
Buildings/Office Use			

5.3 Transport

GI Group grey fleet and vehicle fleet (75) consumption collated from fuel card payments (collated from fuel card expenditure spreadsheet) and staff expenditure claims. Estimated split of 16p (20%) and 34p (80%) mileage claims for Grey Fleet. INTOO were able to provide a spreadsheet of expenses claims. Estimate grey fleet travel spend travel expenses at 36p per mile provided by Tack but no verifiable data (travel and accommodation currently grouped together). Whilst some business trips can be undertaken by public transport, for example in London, due to the nature of clients car transport is the favoured option.

5.4 Buildings/Office Use

The GI Group rents office space in a wide variety of building across the UK, some of which are management by landlords and others by GI Group members of staff. Depending on the type of property rented area can be the whole of the building where there is some control over the building

fabric or occupy office rooms within a shared building and have no control over building fabric, shared space etc.

5.5 Electricity

Electricity energy data has been provided by the GI Group energy broker Inspired Energy for the following offices; Andover, Basingstoke, Burton, Chesterfield HQ Units B & C LF, Coalville, Coventry, Derby, Doncaster, Glasgow, Grimsby, Hull, Mansfield, Northampton, Nottingham, Portsmouth, Scarborough, Sheffield, Scunthorpe, Southampton, Stockport. Supplier invoice data (Hull,) and actual meter readings (Chesterfield HQ Units B & C LF) were also sampled and compared again

From the 20 offices where the metered data was available an average energy demand of 128 kWh/m² was calculated and this figure was used to estimate energy demand across the remaining offices; Barnsley, Bristol, Hatfield, Hounslow, Leicester, Leeds, Peterborough, Southall, Warrington.

The same energy demand was also used to assess energy consumption at the Marks Sattin Offices in London (shared with GI Group), Manchester, Leeds, Reading and Birmingham. INTOO and Tack occupy desk space at the Marks Sattin London Office.

5.6 Gas

Gas energy data has been provided by the GI Group energy broker Inspired Energy. Monthly data has been monitored for properties where gas consumption metered data collated from 2016. For a number of properties separate gas energy performance data is unavailable and included in the rent for the buildings. Gas invoice data was cross referenced with data provided by Inspired Energy and onsite meter readings (Chesterfield HQ Units B & C).

6 Energy Consumption Across GI Group

<i>GI Group (Offices)</i>	Electricity kWh	Gas kWh	Cost Electricity 11 p/kWh	Cost Gas 0.02 p/kwh	Meter squared	Sub Total	% energy total
Andover	30775		3385	0	67.2	3452	1
Barnsley	17190	14370	1891	287	134.3	2313	1
Basingstoke	2421		266		129.2	396	0
Bristol	12544	10486	1380	210	98	1688	0
Burton	11887		1308		65.83	1373	0
HQ - Unit B	46975	24241	5167	485	411.7	6064	2
HQ - Unit C LF	8150	22781	897	456	155	1507	0
Coalville	5650	21203	622	424	48.22	1094	0
Chesterfield	13719		1509		68.9	1578	0
Derby	45583		5014		241.2	5255	2
Doncaster	14273	19513	1570	390	165.7	2126	1
Coventry	22676		2494		149.8	2644	1
Glasgow	4109		452		82.5	534	0
Grimsby	19960		2196		128.4	2324	1
Hatfield	17880		1967		139.69	2107	1
Hounslow	26099		2871		203.9	3075	1
Hull	40476	4595	4452	92	266.57	4811	1

Leicester	19009		2091		148.51	2240	1
Leeds	12234		1346		95.58	1441	0
Mansfield	12774	221	1405	3	93.17	1502	0
Northampton	14441		1589		74.99	1664	0
Nottingham	15179		1670		130.5	1800	1
Peterborough	16602		1826		129.7	1956	1
Portsmouth	12388		1363		121.6	1484	0
Scarborough	13653	24500	1502	368	125.85	1995	1
Scunthorpe	24346		2678		270.53	2949	1
Sheffield	13944	16646	1534	250	127.6	1911	1
Southall	19679		2165		153.74	2318	1
Southampton	22931		2522		147.7	2670	1
Stockport	19216		2114		114.45	2228	1
Warrington	16742		1842		130.8	1972	1
	573506	158556	63086	2964			
<i>Marks Sattin (Offices)</i>							
London (GI, INTOO, Tack)	47104		5181		368	5549	2
Manchester	1600		176		12.5	189	0
Leeds	21376		2351		167	2518	1
Reading	5632		620		44	664	0
Birmingham	3840		422		30	452	0
	79552		8751				
<i>Transport</i>							
GI Group							
Grey Fleet (GI Group and Draefern)						203942	59
Fuel Card Purchase						47234	14
Mark Sattin							
Grey Fleet						5141	1
Tack							
Grey Fleet						3000	1
INTOO							
Grey Fleet						8317	2
Total Energy Cost						347477	

7 Areas of Significant Energy Consumption

Areas of significant energy consumption are those assets and activities representing 90% of total energy consumption:

- Grey Fleet GI Recruitment 59%
- Vehicle Fleet GI Recruitment 14%
- Grey Fleet INTOO 2%
- Grey Fleet Marks Sattin 2%
- Chesterfield HQ Unit B 2%

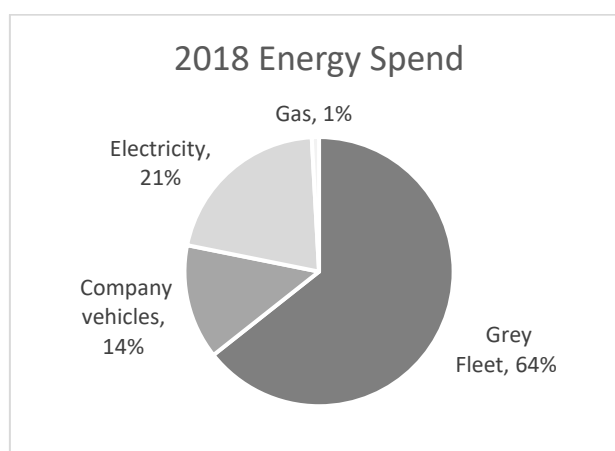
- London Office 2%
- Andover, Barnsley, Derby, Coventry, Grimsby, Hounslow, Hull, Leeds, Scunthorpe, Southall and Southampton are the larger office energy consumers and together > 10%.

The remaining 10% of GI Group offices (GI Group, Marks Sattin, INTOO and Tack) may be removed from that ESOS Assessment because they can be regarded as de minus.

Total energy spend and consumption for 2018 and 2014/15 for the GI Group (GI, Marks Sattin, INTOO and Tack).

	Percentage energy spend	2018 Energy spend	2015 Energy Spend
Grey Fleet	64%	£220,400	£221,042*
Company vehicles	14%	£47,234	
Electricity	21%	£71,846	£65,854
Gas	1%	£2,964	£10,551
Total Spend		£342,444	£297,447

* Grey Fleet and Company Vehicles



Estimated total consumption of electricity and gas 811,614 kWh in 2018 compared to 734,166 kWh in 2014/15.

7.1 Current Energy Consumption Monitoring

Grey Fleet – Grey fleet usage is monitored through expense claims by members of staff. Data is not currently collated on mileage undertaken, energy or the types of vehicles used. Different parts of the GI Group in the UK have different travel allowances for personal vehicles for business purposes. GI Group claim between 16p (approximately 20% of claims) and 34p (approximately 80% of claims) per mile, Tack 36p per mile and Marks Sattin 45 p per mile. Whilst mileage data is received centrally as part of staff expenses claim this data is not collated centrally and vehicle sizes/types are not collated.

The assessor estimated grey fleet energy consumption using guidance in Complying with the Energy Savings Opportunity Scheme/Environment Agency/Version 5.0/A.9 Converting expensed mileage into energy usage. Estimation made from expenses claims from mileage allowance, emission conversion factors for different types of cars taken (UK Government conversion factors for Company Reporting 2018 for 'Passenger vehicles' and 'Fuels' for the conversion factor kg CO₂e per mile for an average petrol/diesel car on a gross CV basis) and current vehicle fuel prices (Petrol £1.28, Diesel £1.32 per litre).

Vehicle Fleet – Vehicle fleet fuel purchase monitored on a monthly basis. Staff with company cars currently purchase using a fuel card and data collated on central spread sheet. Data is not currently collated on mileage undertaken. Vehicle fleet energy consumption data in litres is not currently collated monthly or reported annually. Vehicle fleet expenditure is collated and reported annually.

Building Energy Consumption – Energy broker Inspired Energy currently collates electricity and gas monitoring data. Consumption profile data is available for 2 offices. A number of properties occupied by the GI Group do not have meters.

The GI Group is obligated under the UK government's Streamlined Energy and Carbon Reporting (SECR) as part of the Companies (Directors' Report) and Limited Liability Partnerships (Energy and Carbon Report) requirements and needs to comply for financial years starting on or after 1 April 2019. Obligated organisations or groups will need to report their UK energy use from electricity, gas and transport fuel – as well as the associated GHG emissions – including at least one intensity metric.

1. Improvement Opportunity – Grey Fleet Management and Data Collation

To further develop current grey fleet management including benchmarking existing grey fleet including; journeys made, mileage, vehicle type, g/km, mpg, and vehicle maintenance. Improved collation of grey fleet usage can result in a more accurate picture of vehicle usage. Benefit from monthly collation to monitor progress in delivery of energy objectives to be met. To estimate fuel consumption and convert to kWh and carbon emissions. Improved data collation estimated to save 10% in energy consumption (some estimates 15% saving).

Currently grey fleet mileage is not currently collate centrally and an estimate has been made of potential savings of. Total cost GI Group 2018 grey fleet of £220,400 per annum with potential savings of £22,040 or 95,469 kWh.

(Free support may be able to be accessed through the Energy Saving Trust. For further information contact Ian Featherstone, Account Manager, Supply Chain. Tel: 020 7222 0101).

2. Improvement Opportunity – Fleet Driver Performance Monitoring

Driver efficiency monitoring including breaking, acceleration. Real time monitoring with plug into the car. On dashboard device or mobile apps able to provide live data on the engine, driver performance and the road been driven on. Different service providers estimate savings of between 5% and 20% energy performance (Verizon Connect, Lightfoot and WeNow are 2 examples of companies providing the service). Costs include individual unit cost and ongoing monthly fee for each vehicle.

Verizon Connect provided monthly costs per vehicle of £9 to £16 per vehicle. For further information contact Mark Rallings, Senior Business Development Manager Tel. 0118 923 2164.

Mark.Rallings@verizonconnect.com

In 2018 36,006 litres of fuel (majority diesel) were purchased using the fuel card costing £47,233. A 10% reduction would result in a saving of £4,723 or 3,600 litres/36,000 kWh. Annual cost of ongoing monitoring of all vehicles £14,400.

Suppliers estimate a reduction of at-fault accidents of 10% and 40%.

3. Improvement Opportunity - Car Hire rather than Grey Fleet

Grey fleet vehicles tend to approximately 2.5 years older than company fleet vehicles resulting in a reduction in efficiency of approximately 20%. For journeys over 80 miles hire cars which are likely to more energy efficient are (British Vehicle Rental and Leasing Association - BVLRA). Potential savings to be determined after improved data collection of grey fleet usage.

7.2 Carbon Emissions

Carbon emissions savings were calculated from estimated kWh savings. Conversion factors were sourced from *gov.uk Conversion Factors 2019: condensed set spreadsheet*.

7.3 Vehicle Use (Grey Fleet & Leased Fleet)

Vehicle use account for approximately 80% of the GI Groups total energy costs. Staff use their own vehicles for business travel to visit clients. Due to the nature of meetings and practicalities for most journeys outside major urban areas public transport is not thought to be a viable option.

Grey Fleet

Grey fleet energy consumption is the GI Groups largest area of energy consumption. Guidance to staff on use of their personal vehicles for GI Group work is provided through the GI Group Driving Policy (27th August 2019) and Drivers Handbook (v7 Aug 2019) focusing primarily on Health and Safety issues. Over recent years as part of the GI Group ISO 14001 certification there have been email communications with staff based at the Head Office to improve awareness of environmental issues relating to use of vehicles and opportunities to improve driver performance. Email communications include:

- Car Maintenance & Driving Techniques
- 10 top tips to improve fuel efficiency
- Increasing Fuel Efficiency Email Communication
- Car Maintenance & Driving Technique
- Driving more efficiently
- Top Tips to Increase Your Fuel Efficiency.

The ecodriving communications have not been sent to all staff.

Leased Vehicle Fleet

Vehicle fleet currently administered by Aaron Hill (Fleet & Pay Roll Manager). Mileage is collated annually. GI Group currently has 75 cars on 3 year lease arrangements starting from 2017. Staff with

fleet vehicles have been provided with guidance relating to health and safety issues. GI Group staff based at the Head Office building have been provided with a number of email communications relating to reducing vehicle use environmental impacts. Currently the vehicle fleet has an average of 119 g CO₂/km. Aaron Hill has been in discussions with car leasing organisations regarding improvement opportunities for the 21 Nissan Qashqai 129 g/km.

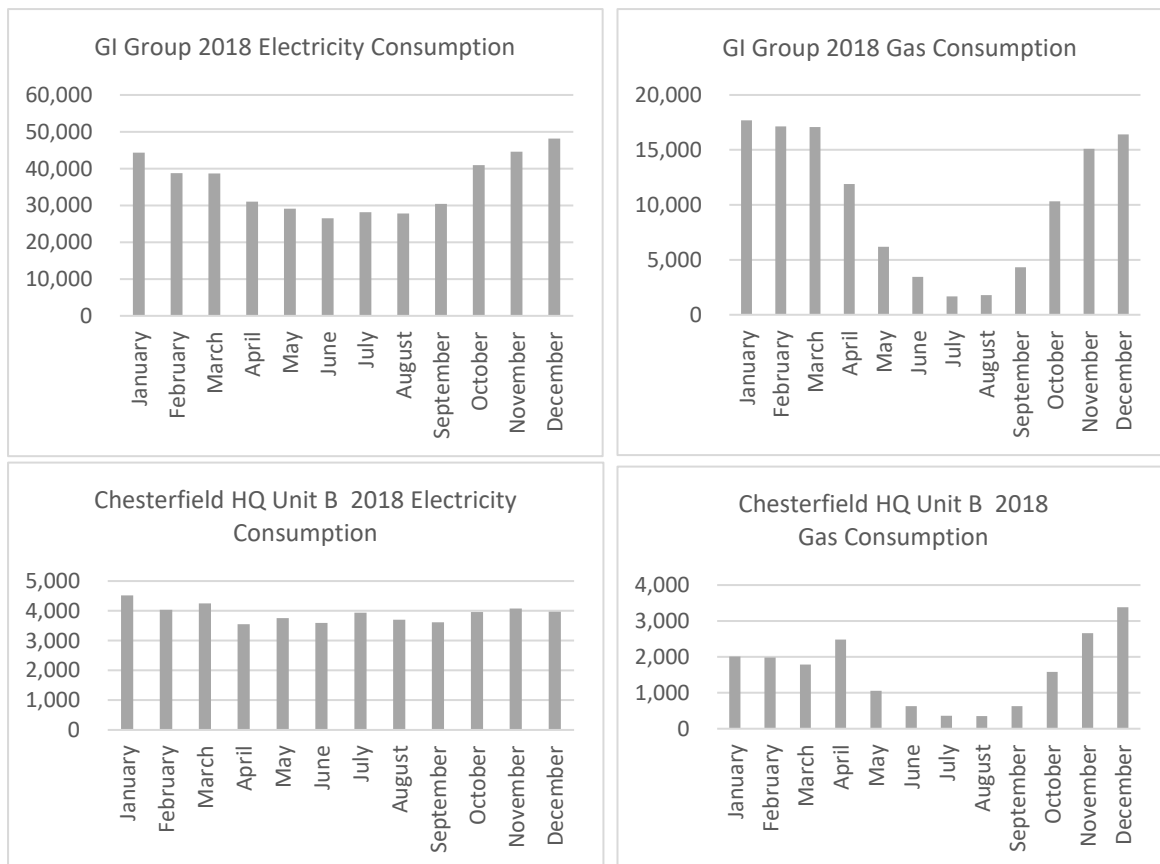
4. Improvement opportunity – Vehicle Fleet Efficiency Improvement

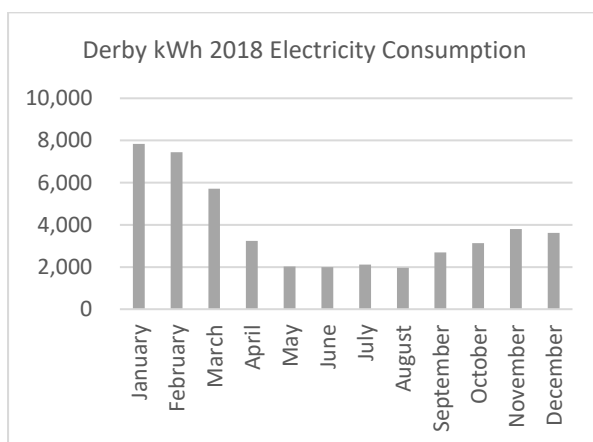
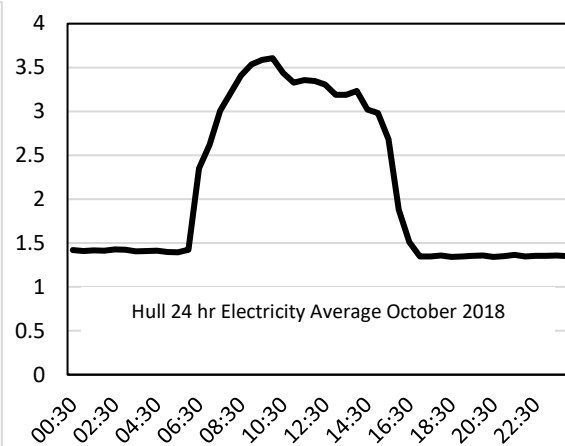
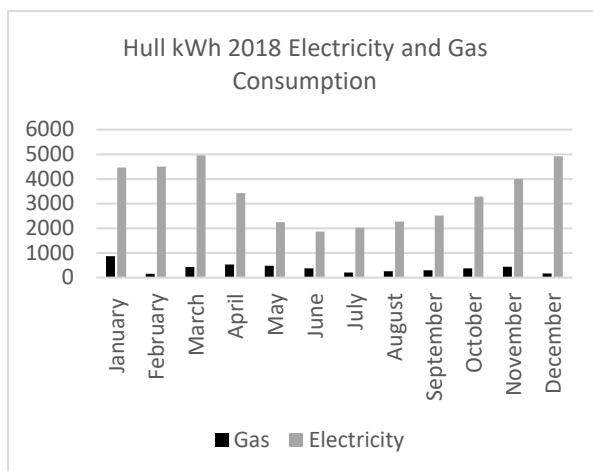
Improvements in energy performance and changes in technology suggest a 25% reduction in energy consumption when replacing the current vehicle fleet when they come to the end of the current 3 year leases. Opportunity to switch to hybrid vehicles with emissions of 89 g km. This can be undertaken in a rolling programme over the next 3 years. Aaron Hill (GI Fleet & Payroll Administrator) has already been in discussions with vehicle fleet suppliers in relation to the replacement of the twenty one Qashqai Diesel Hatchback 1.5 dCi N-Connect 5dr 4WD with emissions of 129 g/km with the Toyota C-HR Hybrid with 86 g km. The replacement at the end of the lease period would be at no extra cost to GI Group.

In 2018 36,006 litres of fuel (majority diesel) were purchased using the fuel card costing £47,233. A 25% reduction would result in a saving of £11,808 or 9,001 litres/90,015 kWh.

7.4 Office Energy Consumption Profiles 2018

Examples of energy consumption profiles collated from number of sampled offices from metered consumption. Examination of usage identified a significant overspend at the Andover office from incorrect meter reading data over a number of years.





5. Improvement Opportunity – Office Energy Monitoring

To prepare energy reporting structure and start to collate data in preparation for the annual submission. To collate centrally monthly electricity and gas consumption data, use to estimate energy consumption in unmetered offices, to benchmark and monitor progress in delivery of energy objectives. kWh / m2 energy consumption can start to be monitored on an ongoing basis. Improved understanding significant areas of energy consumption will bring improved controls. The Carbon Trust have estimated that savings of between 5-10% in total energy consumption can be made through improved monitoring and targeting.

Improved data collection would allow application of energy analysis techniques such as degree days and 24 hour analysis to identify what the baseload is and whether there are opportunities to switch of appliances when they are not needed (over weekends or holidays) or change the time when they come on and go off.

2018 energy consumption across the GI Group 871,483 kWh with potential energy saving of 43,574 kWh. A financial saving cannot be calculated because energy costs are included in the office rent at a number of offices.

6. Improvement Opportunity - Energy Awareness amongst Staff

One of the most cost-effective techniques for improving energy efficiency is encouraging employees to practice the concept of 'good housekeeping' and to take ownership of the energy that they use in their workplace. An energy awareness campaign would improve understanding of key areas of energy consumption amongst staff and improvement opportunities. Savings in excess of 10% have been achieved at little cost by organisations that have adopted these techniques and 5% is generally acknowledged as attainable with little cost to the organisation.

2018 energy consumption across the GI Group 871,483 kWh with potential energy saving of 43,574 kWh. A financial saving cannot be calculated because energy costs are included in the office rent at a number of offices.

7. Improvement Opportunity – LED lighting

The assessor visited 4 GI Group office which all used fluorescent lighting which can be replaced with LED lights. Savings dependent on wattage of lights being replaced however a saving of 50% in energy consumption in the remaining 27 offices if all are currently using fluorescent lights. 1 panel per 6.5m² office space. Cost of installation (368 LED light panel @ 36 Watts per panel at the 27 offices, estimated installation cost £300/disposal £10 at each office).

Estimated installation cost at the 27 offices £21,194 with annual energy savings of 33,385 kWh and cost saving of £4,673 (saving to GI Group or Landlord) and payback of 4.7 years.

8. Improvement Opportunity – Improved Heating Control Settings

The Carbon Trust has estimated that recalibration of heating control systems for space heating and DHW systems may result in savings of 5-10% of the overall energy consumption of the boiler plant or air conditioning systems. For example, turning down the boiler thermostat by 1C or 2C (10-20% saving), moving the morning start time to come on half an hour later in the morning or switching of half an hour earlier in the evening. Estimated energy savings of 5% across the 36 GI Group offices.

2018 energy consumption across the GI Group 871,483 kWh with potential energy saving of 43,574 kWh. A financial saving cannot be calculated because energy costs are included in the office rent at a number of offices.

8 Conclusion

A range of energy saving opportunities have been identified in this ESOS assessment, a number of which do not incur any costs to GI Group. Others improvement opportunities do incur some financial investment. Whilst there is no legal requirement to implement them the assessor recommends that they are taken forward.

9 Appendix - Site Visit Audit Reports

9.1 Chesterfield Head Office Unit B

Auditor	Jake Griffiths	Date	25/9, 17/12, 18/12
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Organisation Contact	Emma Goodall Compliance Administrator	Site Address	GI Group Recruitment Ltd Unit B Dunston Court, Dunston Road, Chesterfield, S41 8N
Scope of assessment	Building Energy Consumption		
<p>Overview:</p> <p>Provides head office functions to GI Group across the UK. Building on small industrial estate to the North of Chesterfield.</p> <p>2 floor brick-built building with cavity walls built around 1990. Building occupied 0730 to 1730 Monday to Friday with only very limited occupation at the weekends. Occupancy level high with up to 20 people per floor of the building. Building layout includes shared stair well, reception area, opened planned offices, individual meeting rooms, and small server rooms.</p>			
Energy use	Current situation	Opportunity	
Lighting	31 4X18 watt fluorescent light in inset luminaire on 1 st floor and 8 units on ground floor. Some in open planned office, meeting rooms and reception area. 3 luminaire have been replaced with LED light panels in offices and all in the stair well. Number of 50 watt inset spotlights. LED lighting has been installed in the stair well over the past 3 years.	Opportunity to replace with LED light panels	
Lighting Controls	Lighting controlled manually from wall panel. Staff encouraged to switch of lights when not in use. No automated light switches.	Opportunity to install PIR switches.	
A/C units	<p>A/C units</p> <p>A/C units only installed in Building B. Split units with wall mount caged units at elevated level (following theft of previous units at ground level). TM44 assessment undertaken 18/10/2016.</p> <ul style="list-style-type: none"> ➤ Ground floor board room. ➤ Ground floor server room. ➤ Ground floor open plan office. ➤ Ground floor reception. ➤ 1st floor managers office. ➤ 1st floor open plan office. <p>Upstairs building B. separate units. Cooling set to come on when temperature reaches 26C and heating on until temperature reaches 17C however testimony given that usually controlled manually switched on an off. Not on at weekends because of manual controls.</p> <p>4 A/C control panels in open plan office area and different units may end up competing with each other.</p> <p>On day of assessment room temperature at 21C.</p>	Improve control of A/C to ensure different units are not working against each other.	

Domestic Hot Water	Downstairs combi boiler (CR Remeha Avanta Plus boiler) provides hot water to kitchen/toilets. Previously provided hot water to upstairs shower however this has been removed. Boiler controls set for 7:30 to 5:30 7 days a week. 3 radiators on each floor with individual controls. Noted that hot water tank in loft area and provided by hot water from boiler however shower has been removed. Have investigated removal of tank but technical problems identified.	Boiler to settings to be changed to 5 days rather than 7 and daily to 5:00 rather than 5:30. Remove hot water tank.
IT	Workstation computers connected to central server. Number of different desk top computers at work GI work stations. On first floor 8 small printers and 1 multifunctional devise.	Consider rationalising number of printers per floor and
Window	Double glazed windows make up approximately 30% of the façade of the building. The windows can be opened providing free cooling. All windows had internal sun blinds. Aspect of building rectangular approximately North to South with solar gain along the shorter wall profile.	
Staff working practices	Staff encourage to turn lights off when not in use. Information posters near switches. Quarterly environmental performance including travel, gas and electricity information.	

Estimation of savings

Lighting

Current

10 hrs X 0.018 kWh X 4 X 40 X 252 days X £0.14 = 7,257 kWh or £1,016 per annum

Proposed

10 hrs X 0.036kWh X 40 luminaires X 252 X £0.14 = 3,628 kWh or £508 per annum

Labour estimated £300

Disposal cost £30

£23.98 per panel (tool station) replacement cost with 36 w = £959

9. Improvement Opportunity – LED Lighting

Total cost labour and materials £1,289

Annual Saving £508 or 3,638 kWh per year

Simple payback period = 2.5

LED lights estimated to last 5 times as long as fluorescents. Over 10 year life span replaced 5 times (disposal £0.50, labour £10, bulb cost £1 per change, 2.5 changes over life time), LED last 20 years.

Boiler

Boiler to be set to 5 day rather than 7 day operation. Staff leave office B by 5:30pm. Consider reducing switch off time of boiler from 5:30pm to 5:00pm.

Estimated 30% saving.

10. Improvement Opportunity – Boiler Control

Annual usage 24241 kWh X 0.30 X £0.03 = £218 saving or 7,272 kWh per annum.

Whilst difficult to estimate potential savings benefit from disconnecting the hot water tank.

IT Server Room

Server room temperature A/C setting of 21C consider increasing to 23C. Estimated saving of 8% per 1C increase in temperature setting on thermostat (Carbon Trust).

24 hr X 365 X 4 kWh (A/C energy consumption) X 0.04 (percentage saving) X 0.14 £/kWh = £192 or 1402 kWh saving per annum.

9.2 Chesterfield Head Office Unit C

Auditor	Jake Griffiths	Date	25/9/2019, 17/12/2019, 18/12/2019
Organisation Contact	Emma Goodall Compliance Administrator	Site Address	GI Group Recruitment Ltd Unit C Dunston Court, Dunston Road, Chesterfield, S41 8N
Scope of assessment	Building Energy Consumption		
<p>Overview:</p> <p>Provides head office functions to GI Group across the UK. Building on small industrial estate to the North of Chesterfield. GI Group currently occupy the top floor of 2 storey building. Testimony given that the ground floor of Building C is being vacated and therefore not included within this report. Moved from the ground to 1st floor in 2019. Similar building design to Unit B with cavity walls built around 1990.</p> <p>Building occupied 0730 to 1730 Monday to Friday with only very limited occupation at the weekends. Occupancy level low to medium with around 10 people occupying the office. Building layout includes shared stair well, reception area, opened planned offices, individual meeting rooms, and small server rooms.</p>			
Energy use	Current situation	Opportunity	
Lighting	23 inset luminaires on 1 st floor with 0.036w and 0.018w fluorescent bulbs. Located in open plan office and meetings rooms. Some in open planned office, meeting rooms. Fluorescent emergency lighting in stairwell.	Opportunity to replace with LED light panels.	
Lighting Controls	Lighting controlled manually from wall panel. Meeting room lighting cannot be controlled separately from open plan office area. No automated light switches. Staff encouraged to switch of lights when not in use.	Separate open plan lighting from meeting rooms controls. Opportunity to install PIR switches in meeting rooms and office areas.	

	Meeting room occupancy estimated at 1-2 hrs max per day however lights on for up to 9 hours a day.	
Domestic Hot Water	Baxi – Due-Tec 28 combi ERP in upper floor of Building C. Provides hot water and comfort heating to second floor to upper floor. Currently set to come on 7:30 until 5 on boiler control. 6 radiators. TVRs are in place on sampled radiators. 3 radiators on 1 st floor.	
IT	Workstation computers connected to central server. Computers lock down but do not hibernate.	Ensure sleep mode activation estimated saving 95% saving when not in use.
Window	Double glazed windows make up approximately 30% of the façade of the building. The windows can be opened providing free cooling. All windows had internal sun blinds. Aspect of building rectangular approximately North to South with solar gain along the shorter wall profile.	
Staff working practices	Staff encourage to turn lights off when not in use. Information posters near switches. Quarterly environmental performance including travel, gas and electricity information.	

Estimation of savings

Lighting

Current

Meeting room 1

10 hrs X 0.036 kWh X 3 X 2 X 252 days X £0.14 = 544 kWh or £69 per annum

Meeting room 2

10 hrs X 0.036 kWh X 3 X 2 X 252 days X £0.14 = 544 kWh or £69 per annum

10 hrs X 0.018 kWh X 4 X 2 X 252 days X £0.14 = 362 kWh or £51 per annum

Open plan office area

10 hrs X 0.036 kWh X 3 X 17 X 252 days X £0.14 = 4,626 kWh or £647 per annum

Total annual light electricity consumption estimate = 6,076 kWh or £836 per annum

Proposed

Replace with 23 LED light panels 36 w @ 23.98 per panel.

= £552

Labour estimated £300

Disposal cost £30

Open Plan Office

10 hr X 0.036 kWh X 17 X 252 days X 0.14 = 1,542 kWh or £215 per annum

Meeting rooms

1.5 hr X 0.036 kWh X 6 X 0.14 X 252 days = 81 kWh or £11 per annum

Total annual light electricity consumption estimate = 1,623 kWh or £226 per annum

11. Improvement Opportunity – LED Lighting**Total cost labour and materials £882****Annual Saving 4,453 kWh or £610 per annum****Simple payback period = 1.4 years**

LED lights estimated to last 5 times longer than fluorescents lights. Over 10 year life span replaced 5 times (disposal £0.50, labour £10, bulb cost £1 per change, 2.5 changes over life time), LED last 20 years.

PIR (Passive Infra Red) sensors in meeting rooms

Cost of unit = £25 (in 2 meeting rooms) = £50

Cost of installation = £0 (Installed at the same time as LED panels)

Estimate saving of 25%.

Energy consumption after installation of LED panels

1.5 hr X 0.036 kWh X 6 X 252 days X 0.14 X 0.25 = 20 kWh or £2.8 per annum

12. Improvement Opportunity – PIRs in meeting room**Total cost labour and materials £50****Annual Saving 20 kWh or £2.8 per annum****Simple payback period = 18 years**

Stairwell

Current

10hrs X 0.036 kWh X 3 fluorescent X 252 X 0.14 = 272 kWh or £38 per annum

Proposed

10hrs X 0.018 kWh X 3 LEDs X 252 X 0.14 = 136 kWh or £19 per annum

Replace with 18W Cool White LED Flush Light @ £30 per light = £90

Labour estimated £50

Disposal cost £5

13. Improvement Opportunity – LED lighting in stairwell**Total cost labour and materials £145****Annual Saving 136 kWh or £19 per annum****Simple payback period = 7.5 years****Boiler**

Staff leave office C by 5:30pm. Consider reducing switch off time of boiler from 5:30pm to 4:30pm.

Estimated 10% saving.

14. Improvement Opportunity – Boiler Running Time**Annual usage 22,781 kWh X 0.10 X £0.03 = 2,278 kWh or £68****9.3 Marks Sattin Elm Street**

Auditor	Jake Griffiths	Date	6/11/2019
Organisation Contact	Kate Conquest Operations Manager & Data Co-Ordinator	Site Address	Marks Sattin & GI Group Recruitment Ltd Elm Yard, 13-16 Elm Street, London WC1X 0BJ
Scope of assessment	Building Energy Consumption		

Overview:		
<p>Occupy 2 floors in multioccupancy office block in central London built in 2016. Used by both Marks Sattin, GI Broup, INTOO and Tack. 2 floors leased and energy management undertaken by United Facilities Management Ltd. Medium to high occupancy rates.</p> <p>Open planned offices with meeting rooms. Small area on one floor sublet (15% of floor space). All elements of the building fabric are under the control of the landlord. ESOS assessor spoke to Site Service Manager who provided overview of energy issues.</p> <p>Electricity but no gas. Office area occupied by Marks Sattin is not separately metered.</p>		
Energy use	Current situation	Opportunity
Lighting	LED lighting through out the building.	
Lighting Controls	Manual and sensor controls. Zoning of lighting. Movement activated sensors.	
Air Handling Unit (AHU)	AHU supply and extraction coming which has thermal wheel heat exchangers.	
Air Conditioning (AC)	Mitsubishi VRF AC system with wall mounted around outside of rooms on both floors. Plant operates 12 hours per day. Current setting of 22C. There are 2 data servers on the each floor. 1 unit viewed and no direct cooling provided being located in open plan office. Other unit located in secure room which could not be accessed at time of audit. Testimony that no A/C unit in the room.	
IT	Wyse Dell Thin Clients computing.	
Window	Double glazed windows with glazing making up approximately 45% of the building façade. Blinds on all windows.	
Staff working practices	Staff encourage to turn appliances off when not in use.	
Estimation of savings		
Little opportunity to improve energy efficiency within the building.		

9.4 Marks Sattin Reading Office

Auditor	Jake Griffiths	Date	6/11/2019
Organisation Contact	Kate Conquest Operations Manager & Data Co-Ordinator	Site Address	Marks Sattin The White Building, 33 King's Rd, Reading RG1 3AR
Scope of assessment	Building Energy Consumption		
Overview:			

Marks Sattin office in the centre of Reading on ground floor of 8 floor multioccupancy building. Occupy single room in modern office block with communal kitchen and toilet facilities. Up to 10 desk spaces with 8 members of staff operating from the office. All services relating building fabric, heating/cooling and lighting managed by the landlord working.life. Facilities have recently been upgraded. The building has gas and electricity however there is no metering of energy. Used as a base to undertake office work and to visit clients from.

The single room has air conditioning and IT for staff to operate hot desking. Occupancy medium.

Energy use	Current situation	Opportunity
Lighting	LED lighting.	
Lighting Controls	Manual and light sensors.	
Air Handling Unit (AHU)	AHU supply and extraction coming which has thermal wheel heat exchangers.	
Air Conditioning (AC)	Providing heating and cooling. Control panel within room. Set point 23-24C. Managed by landlord.	
IT	Wyse Dell Thin Clients computing.	
Window	Double glazed windows. Blinds on all windows.	
Staff working practices	Staff encourage to turn appliances off when not in use and at end of day.	
Estimation of savings		
Little opportunity to improve energy efficiency within the building.		

9.5 GI Group Bristol Office

Auditor	Jake Griffiths	Date	5/12/2019
Organisation Contact	Emma Goodall Compliance Administrator	Site Address	GI Group 1 Buckingham Court Bradley Stoke Beaufort Park, Woodlands Ln, Bradley Stoke, Bristol BS32 4NF
Scope of assessment	Building Energy Consumption		
<p>Overview:</p> <p>GI Group leased office space. Occupy ground floor room in 2 storey shared office building. Brick built with cavity walls circa 2010. Single room has secondary room for GI Staff with space for 4 desk which were occupied at the time of visit. Kitchen area with hot water. Desks for delivery of requirement services to clients however staff undertake visits to clients. Medium capacity.</p> <p>Electricity and gas consumption is not metered. Space heating provided by central wet gas system supplying radiators and additional a/c units with individual controls and not linked to heating system.</p>			

Energy use	Current situation	Opportunity
Lighting	LED lighting. 15 Luminaires with 2 40 watt bulbs.	Replace fluorescent lights with LED.
Lighting Controls	Manual and light sensors.	
Air Conditioning (AC)	4 split Hitachi AC at time of visit 24C cooling. Not linked to heating system.	Provide staff training to ensure cooling and radiators not operating at the same time.
ProComfort heating	Gas central heating managed by landlord. Individual radiators.	
IT	4 staff work stations.	Consider Thin Client work stations.
Window	Double glazed windows with windows that open. Blinds on windows.	
Staff working practices	Staff encourage to turn appliances off when not in use and at end of day.	

Estimation of savings

Lighting

Current

10 hrs X 0.04 kWh X 2 X 15 X 252 days X £0.14 = 3,024 kWh or £423 per annum

Proposed

Replace with 15 LED light panels 36 w @ 23.98 per panel.

= £359.7

Labour estimated £300

Disposal cost £30

Office and training area

10 hr X 0.036 kWh X 15 X 252 days X 0.14 = 1,360 kWh or £190 per annum

15. Improvement Opportunity – LED Lighting

Total cost labour and materials £690

Annual Saving 1,664 kWh or £233 per annum

Simple payback period = 3 years

LED lights estimated to last 5 times longer than fluorescents lights. Over 10 year life span replaced 5 times (disposal £0.50, labour £10, bulb cost £1 per change, 2.5 changes over life time), LED last 20 years.

9.6 GI Group Chesterfield Office

Auditor	Jake Griffiths	Date	18/12/2019
Organisation Contact	Emma Goodall Compliance Administrator	Site Address	GI Group

		12 Packers Row, Chesterfield S40 1RB
Scope of assessment	Building Energy Consumption	
<p>Overview:</p> <p>GI Group leased offices brick built circa 1990s. Converted retail unit located in the centre of Chesterfield. Ground and first floor brick built with open office on ground floor.</p> <p>Moved into building March 2019 and completed renovation upstairs including partitioning of up stairs area into 3 meeting rooms, communal seating area and kitchen area and installation of electric heaters. A/C units providing heating and cooling on ground floor. Local clients attend meeting up stairs in meeting rooms and attend meeting externally with clients. Medium capacity.</p> <p>Electricity metered data available. No gas.</p>		
Energy use	Current situation	Opportunity
Lighting	LED lighting panels upstairs. Downstairs fluorescent lighting luminaries 36 watts and 55 watts.	Replace fluorescent lights with LED.
Lighting Controls	Manual controls.	Install PIR sensors in upstairs rooms.
Air Conditioning (AC)	2 split A/C units operated manually providing heating and cooling. Set at 23C at time of assessment.	Consider 21C set point for A/C units.
Comfort heating	5 X Air Master 1250/1500 set at 22C degrees and 1 X Air Master 1650/2000. Some switched off however 3 were on at time of assessment, rooms were empty and set to come on at week end. Aging Newlec 3.4 kW storage heater in upstairs open space/hall.	Adjust settings on upstairs electric heaters to reflect daily usage. Replace Newlec storage heater with electric heater.
IT	9 aging Lonovo desk top computers.	Consider Thin Client work stations by GI Group. Currently undertaken at Marks Satting Offices.
Window	Double glazed windows at front of building. Single glazed at back with opening windows.	
Staff working practices	Staff encourage to turn appliances off when not in use and at end of day.	
Estimation of savings		
<p><u>Lighting on ground floor</u></p> <p><i>Current</i></p> <p>10hrs X 0.055 kWh X 2 X 9 X 252 X 0.14 = 2,245 kWh or £314 10hrs X 0.018 kWh X 4 X 12 X 252 X 0.14 = 2,177 kWh or £244</p> <p><i>Proposed</i></p>		

Replace with 18 LED light panels 36 w @ 23.98 per panel.
= £432
Labour estimated £300
Disposal cost £30

Office and training area
10 hr X 0.036 kWh X 15 X 252 days X 0.14 = 1,360 kWh or £191 per annum

16. Improvement Opportunity – LED Lighting

Total cost labour and materials £762

Annual Saving 3,062 kWh or £428.68 per annum

Simple payback period = 1.78 years

LED lights estimated to last 5 times longer than fluorescents lights. Over 10 year life span replaced 5 times (disposal £0.50, labour £10, bulb cost £1 per change, 2.5 changes over life time), LED last 20 years.

Storage Heater

Current

7hr X 3.4 kWh X 1 X 182 days X 0.05 = 4,331 kWh or £217 per annum.
Due to age of unit unclear whether thermostat working effectively.

Proposed

Replacing storage heater with Dimplex Quantum Room Heater 700w = £576
Labour estimated £80
Disposal cost £25

7hr X 1.5 kWh X 1 X 182 days X 0.75 (thermostat controlled) X 0.05 = 1,433 kWh or £72 per annum.

17. Improvement Opportunity – Storage Heater Replacement

Total cost labour and materials £681

Annual Saving 2,898 kWh or £145 per annum

Simple payback period = 4.7 years

Electric Heaters

Review timer settings on heaters and monitor whether rooms occupied.
Lower thermostat setting from 22/23C to 21C

Estimated saving of 20% however difficult to quantify savings.

Thin Client Computing

Current

7hr X 0.15 Watts (average PC consumption) X 5 (staff) X 252 (working days) X 0.14 p/kWh = 1,323 kWh or £35.
Noted that Marks Sattin staff have Thin Client Computing but GI Group do not.

Proposal

Replacing 150 watt desk top computer with Thin Client 7w WYSE 3040 units = £276 for 5 work stations.
Labour estimated - Unknown
Disposal cost - Unknown

7hr X 0.007 Watts (average PC consumption) X 5 (staff) X 252 (working days) X 0.14 p/kWh = 61 kWh or £9 per annum

18. Improvement Opportunity – Thin Client Computing

Total cost labour and materials £1,380

Annual Saving 1,262 kWh or £26 per annum

Simple payback period = 53 years

PIR (Passive Infra Red) sensors in kitchen area
Cost of unit = £25
Cost of installation = £0 (Installed at the same time as LED panels)
Estimate saving of 25%.

Energy consumption after installation of LED panels
 $8 \text{ hr} \times 0.036 \text{ kWh} \times 252 \text{ days} \times 0.14 \times 0.25 = 72 \text{ kWh}$ or £10 per annum

Total cost labour and materials £25

Annual Saving 72 kWh or £10 per annum

Simple payback period = 2.5 years

19. Improvement Opportunity – PIR

Across GI Group offices. PIR controls £25 with estimated savings of 25% of consumption in room.