

JIGSAW24

Energy monitoring strategy

September 2021



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1. Introduction

This Energy Monitoring Strategy (EMS) seeks to build upon Jigsaw24's previous energy initiatives while outlining an approach to energy management moving forward.

The purpose of this document is to support Jigsaw24 to become an environmentally sustainable organisation. The approach to energy management within the organisation is possibly the most important in this regard, as the vast majority of energy usage and carbon emissions result from the use of electricity in our properties and travel.

This strategy specifically serves to provide an approach to how energy use will be captured, measured and presented for review.

2. Our approach

Jigsaw24 has implemented a clear and strong energy policy which provides the means to engage with stakeholders from all aspects of the business.

As the global environmental crisis requires more effort from all areas of society, Jigsaw24 will be increasing its efforts for reporting and offsetting our carbon emissions from 2021 onwards, therefore the energy management reporting will directly contribute to our carbon reporting requirements. As a result, most of the elements of this document can be directly transferred to our carbon management initiatives and carbon reduction plan.

3. Scope

This strategy is applicable to Jigsaw24's Nottingham HQ (HQ) and Golden Square (GSQ) offices and will also cover a new service centre office building known as Resource House which will be operational from November 2021. It will also cover Jigsaw24's data centre electricity usage, and all employees with regards to the supply and distribution of products and peripherals including the provision of associated services. Wardour Mews has been included in records for 2017 through to 2019 but will be excluded from future measurements as it closed in December 2019. The strategy monitors consumption reported against the energy usage that results from the running and operation of these properties or energy resulting from travel between these properties and to customer locations.

4. Baseline

Jigsaw24 have chosen 2017 as its baseline year because of several factors. Firstly, this is the best reflection of the current structure of the organisation following the purchase of Square Group in 2013 and the subsequent acquisition of root6 in 2016.

Due to the age of the Nottingham head office and subsequently the organic nature of the electrics, Jigsaw24, at this time, are only able to measure electricity usage at the single half-hourly reading smart meter housed in reception. GSQ has four separate meters covering the floors it currently inhabits. At the time of writing, the landlord is investigating the prospect of upgrading these meters to smart meters. No gas is used in HQ or GSQ. Resource House has both gas and electricity smart meters, with the gas limited to heating water and a small number of radiators in communal areas.

Due to the inadequacy of the reports that can be provided by Node4 at this time for the data centre, Jigsaw24 has taken the report it has based its consumption on an extrapolation of previous usage, aggregated against a reduction in power leased down to 16A in 2020.

For vehicle usage Jigsaw24 have chosen to measure both their company car fleet and private business mileage using what they shall refer to as the grey fleet (these are the vehicles owned by employees and used on company business). Historically, the record-keeping on grey fleet was not of a level to accurately define a set of cars so average diesel and average petrol factors from the governmental publications have been used to calculate energy usage for those vehicles where not enough information is captured.

In the calendar years 2017 -2020, the actual energy consumption by those locations which are within the scope, plus fleet at that time are as follows:

Year	Nottingham	GSQ	Wardour Mews	Data Centre	Company Fleet	Total Energy Usage	Annual Diff %
2017	209797	44825	81449	100000	134099	570169.8	Baseline
2018	185366	51761	95020	100000	125000	557147.0	-2.8
2019	176978	53537	78271	67082	84348	460216.0	17.40
2020	164084	65527	28702	34164	41753	334229.7	-27.38

The reading for Wardour Mews covers up to August 2020 when the lease was finally terminated, staff had relocated to GSQ between December 2019 and early in 2020. All records have been gathered from the actual invoices from the utility providers.

5. Energy data capture moving forward

Jigsaw24 has committed additional resources to the facilities team in order to improve the reporting accuracy for 2021. This is in line with our ISO 50001 commitments which require robust reporting and analysis of energy consumption.

From November 2021 Jigsaw24 will include the consumption data from Resource House.

Jigsaw24 continue to appraise the benefits of investing in options for more specific monitoring of significant energy uses in its buildings such as individual ring main reporting but as the number of SEUs is relatively small, this is still under consideration.

Jigsaw24 is also committed to achieving net zero carbon emissions by 2025 and have a long-term goal to be as close to producing zero carbon as possible, as far as technology and regulations allow. We are therefore also using our energy consumption records to record our carbon footprint using a software tool 'Sustrax' provided by Carbonfootprint.com.

We are also aware of our Scope 3 indirect carbon emissions, primarily from the use of third-party couriers and will work with them on a better solution for reporting and calculating Scope 3 upstream and downstream logistics.

Other Scope 3 factors that we have reported on in 2020 are home working, which has been a significant factor during the Covid-19 pandemic, and staff commuting, which was estimated based on a staff survey.

6. How is the energy usage calculated?

Jigsaw24 has used the following methodology for capturing its energy usage:

Utilities

Jigsaw24 analyses monthly electricity consumption from verifiable data (energy supplier invoices) by building. This includes trend analysis, year on year variations and forecasting. Note that the Cardiff and Glasgow offices are small, fully managed sites, and the electricity cost forms part of the rent, so Jigsaw24 have no visibility on the electricity usage for these sites.

The Jigsaw24 HQ uses 100% renewable electricity provided by Good Energy. Jigsaw24 are opening a new building, Resource House in November 2021 that will also be 100% renewable. That site has a gas boiler to power a few radiators and hot water, the gas purchased will use Good Energy and be a mix of renewable and offset supply. Our Golden Square site has four separate meters for different floors. One floor is currently supplied with renewable energy, the other three will be moving to renewables from July 2022 when the current British Gas contracts end.

HQ has a half-hourly smart meter, as does Resource House, our London office currently has old non-smart meters, and we are in discussion with the landlords to upgrade to smart meters at the time of writing. Good Energy only provides HH data on request.

Vehicle fleet energy

Jigsaw24 also monitor business fuel consumption for company-owned fleet vehicles, vehicles driven by employees who have a car allowance as part of their salary and 'grey fleet', business mileage claimed back as expenses by all staff using their personal transport. The business owns one company van used for local deliveries in the Nottingham area.

To calculate energy usage (kWh/driver) for our company fleet, we have used data from our annual mileage allowance reports.

All driver mileage is accumulated to give total mileage data.

The monthly total (£) has then been divided by £0.12 (the amount Jigsaw24 pays in expenses for each mile travelled) to give us total mileage for the month. The 12p rate applies to company car and car allowance staff. Grey fleet is paid at 45p per mile but that is out of the scope of this reporting, however as we are now reporting this for carbon emissions reporting, grey fleet will be included in future energy consumption reports.

Example: An employee claimed £100 this month for fuel. As Jigsaw24 pays £0.12 for each mile travelled: $\text{£}100/\text{£}0.12 = 83.33$ (miles)

The users record their registration plate from which Jigsaw24 then identify the average combined MPG.

Litres of fuel used is calculated by dividing total mileage by vehicle's combined MPG figure (miles per gallon average from our company cars is 44.7 MPG) and then multiplied by 4.5 to convert gallons to litres.

Each litre of fuel (petrol/diesel) is equivalent on average to 10.3 kWh (based on 2021 published data).

Total litres of fuel are multiplied by 10.96 kWh for diesel vehicles and 9.61 kWh for petrol vehicles to give us total energy used.

Total kWh is then divided by the number of drivers, giving us the average kWh/driver per month.

Individual driver data is also available in the data worksheet. Note that we can also capture the carbon emissions for all travel using our Sustrax software tool, however, this tool does not convert fuel to Kw of energy consumed.

Data centre

Node4 records the Amp-hours taken at the PDU's on their racks on an hourly basis this is totalled up monthly and converted from Amp-hours to kWh however, for now, this data has been questioned and so we are working with estimates based on the maximum 16Amp supply that we lease.

EnPI(s)

Jigsaw24 shall initially calculate 2 EnPI(s) they are for:

1. Energy usage within its buildings (kWh) per square meter.
2. Energy usage per driver within its fleet average (kWh) will be a primary factor when reporting energy usage.

7. Initiatives for continuous improvement

Jigsaw24 have invested in more environmentally friendly and less energy-consuming projects for several years. Key projects directly relating to energy reduction that have already taken place, or are in progress include:

- ISO50001 certification was gained in 2019.
- A program of upgrading air conditioning units to more efficient, cleaner R32 units has been in place since 2018. There are currently five units that are approaching the ten-year replacement target at HQ. Other sites have had recent air conditioning upgrades via those property landlords.
- Full LED lighting in all areas of all buildings, including emergency and external lighting.
- Improved energy-efficient glazing at HQ.
- Improving insulation at HQ.
- A move to 100% renewable energy for all sites. We are currently partnering with Good Energy and are approximately 70% green, 100% at HQ, 25% at GSQ and will be 100% green at Resource House at the time of opening. The remaining floors at GSQ will go green when the current British Gas tariff ends in July 2022.
- A policy that no longer renews company cars. Staff move to company car allowance schemes instead and are encouraged to move to electric vehicles.
- Installing 2 x EV charge points at HQ in August 2021.
- The salary sacrifice scheme for electric vehicles was put in the pilot stage in August 2021.

- Improved staff engagement and involvement through better information, signage, top management engagement and use of staff surveys.
- Ensured environmental factors were considered at all stages for Resource House. Considerations included heat mapping initial location based on staff commuting requirements and choosing a site close to the motorway, tram terminus and park and ride site (with an EV charger). Choosing a refurbished property with full LED lighting, modern appliances, and recently installed air-con; in addition to picking a 100% renewable energy provider and new electrics and networking equipment for the office workspaces.
- All staff were issued with low energy consuming Apple MacBook notebook computers.
- A cycle to work scheme and facilities for walkers and cyclists.
- Offsetting our carbon footprint with The Woodland Trust.

Future considerations will include, but are not limited to:

- Achieve verified carbon neutral Scope 1 and 2 emissions by 2022.
- Be a net zero entity including all Scope 3 emissions by 2025.
- ISO14001 certification to move to UKAS accredited body in 2022.
- Consider ISO14064-1, carbon management and PAS 2060 carbon neutrality verification standards in 2022.
- An EV charging is to be considered for Resource House but not relevant for GSQ due to its Soho location.
- A wider roll-out of EV salary sacrifice scheme.
- Replace the company van with a fully electric vehicle.
- Working with courier partners to reduce our Scope 3 emissions from business logistics.
- Introduce further incentives and initiatives to encourage the use of public transport such as subsidised travel through salary sacrifice schemes.
- Explore heat pump heating and cooling solutions.
- Investigate energy storage solutions such as Tesla wall batteries as technology improves and becomes more cost-effective.
- Revisit solar panels if the technology and terms improve. They were considered in 2021, but it was deemed that the long-term investment would be better spent on other incentives as mentioned above.
- Further improve staff engagement.
- Ensure that all buildings maintain a schedule of energy consumption review and analysis.
- Improve internal governance to ensure compliance with customer and tender requirements.
- Commit to meeting or exceeding all future regulatory requirements on environmental matters.
- Ensure that all reporting is verified and is not considered as 'greenwashing'.

8. Reporting

Monthly

Monthly electricity consumption is recorded in Sustrax and spreadsheets are updated monthly.

Quarterly

Energy consumption will be reported to the energy team and senior management on a bi-annual basis.

Annual

Annual updates from 2021 will be produced within the first quarter of the new financial year (which is June to August), this will include an overview of the energy used and performance against targets, as well as the targets for the next calendar year. This will also align with Jigsaw24's SECR carbon reporting requirements.

Declaration

This document has been prepared in good faith as a fair and truthful analysis of Jigsaw24's energy management strategy in line with ISO50001 by Roland Boyer-Blanchard (Head of Operations), September 2021.

Signed by Director

John Hughes

A handwritten signature in black ink, appearing to read 'John Hughes', written in a cursive style.

Date: 14th September 2021