ESOS Phase 3 Compliance Summary Report
International Workplace LTD

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1.0 Executive Summary

International Workplace LTD has been identified as qualifying under ESOS legislation. As such, they have appointed Briar Consulting Engineers to act as their Lead Assessor and to conduct an ESOS Assessment and Audits of their activities. This is in order to identify energy saving opportunities and ensure legislative compliance.

This Summary Report presents the headline findings of the ESOS compliance process completed for International Workplace LTD. Full details are contained within the Evidence Pack supplied with this report.

The tables below provide a summary for potential savings categorised by the type of opportunity.

Table 1.1 Energy Saving Opportunities by Category

Opportunity Category	Saving (kWh)	Saving (£)	Capital Cost (£)	Payback (yrs)
Energy management practices	388,755	44,317	22,234	0.5
Behaviour change interventions	172,347	34,058	2,500	0.1
Long term capital investments	371,740	78,065	556,380	7.1
Total	**932,842**	**156,440**	**581,114**	**3.7**

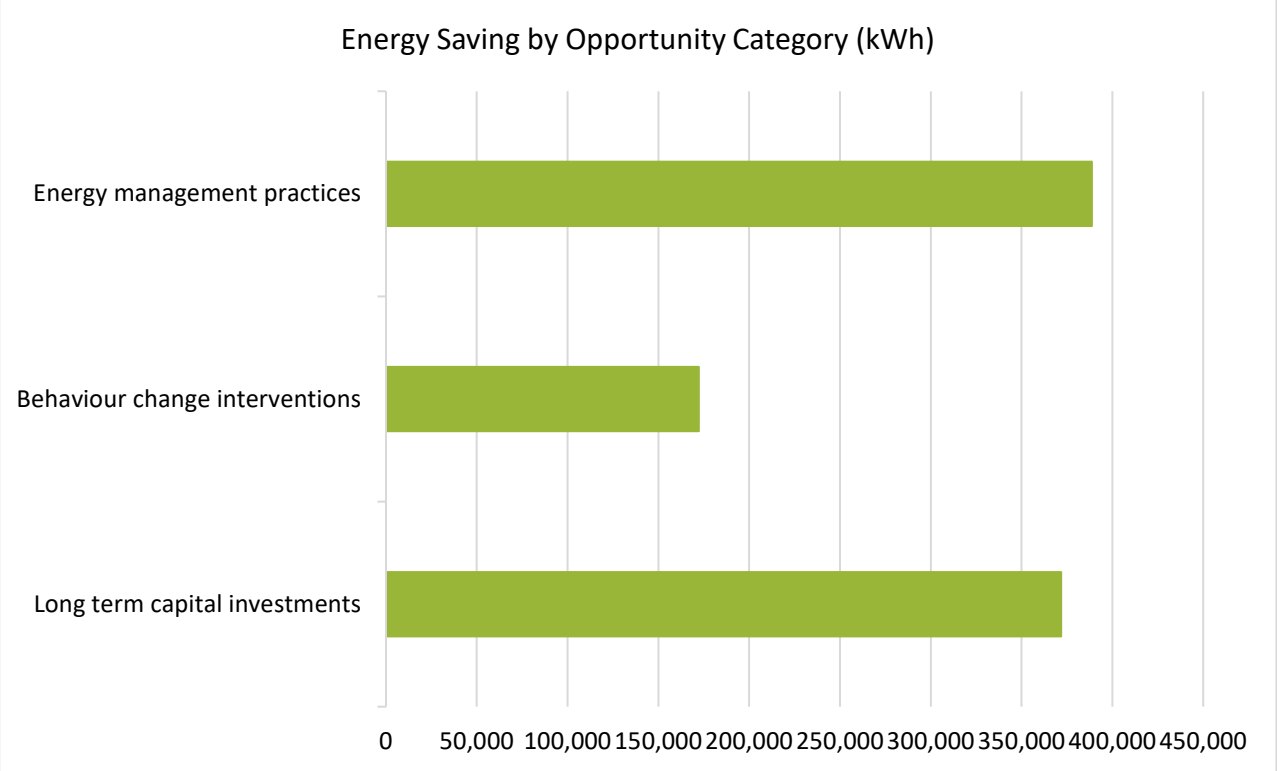
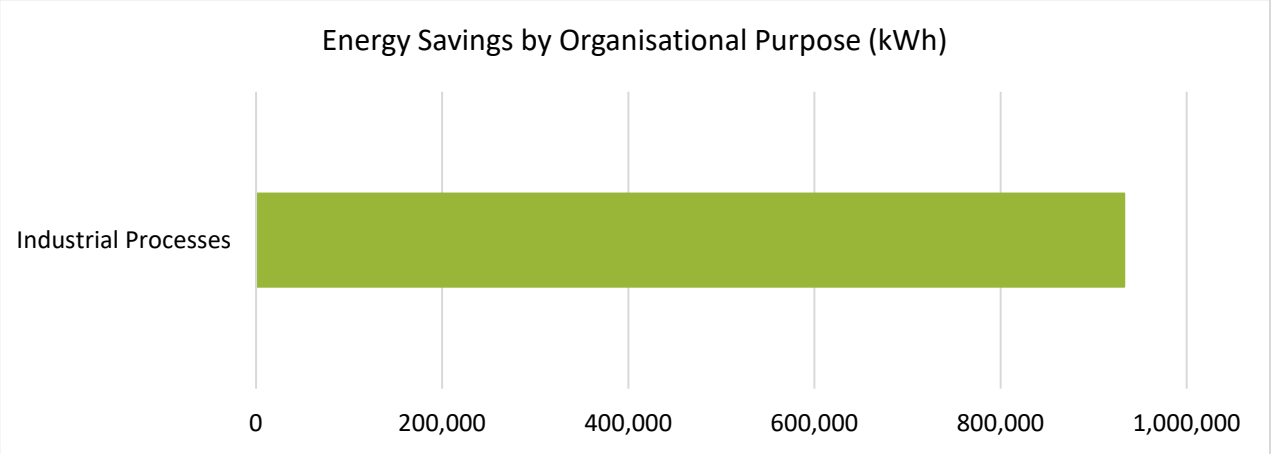


Table 1.2 Energy Saving Opportunities by Organisational Purpose

Organisational Purpose	Saving (kWh)	Saving (£)	Capital Cost (£)	Payback (yrs)
Industrial Processes	932,842	156,440	581,114	3.7
Total	**932,842**	**156,440**	**581,114**	**3.7**



No energy saving measures have been recorded as implemented by Briar during the third compliance period.

The table below shows the energy intensity ratios calculated for each organisational purpose. Energy intensity ratios are a measurement which relates an organisation's energy consumption to an appropriate indicator of activity.

Table 1.3 Energy Intensity Ratios

Organisational Purpose	Total KPI	KPI Units	Total Energy	Ratio	Ratio Units
Industrial Processes	170	£m	4,360,343	25,649.1	kWh/£m

2.0 Introduction

Article 8 of the European Union's Energy Efficiency Directive requires all large enterprises to undertake Energy Efficiency Audits which are to be repeated at least once every four years and must include the energy used by the organisation's buildings, processes and transport.

The UK's response to this requirement has been the introduction of the Energy Saving Opportunities Scheme (ESOS), which is administered by the Environment Agency.

Participation in ESOS is mandatory for International Workplace LTD, as a qualifying organisation, and requires the appointment of a registered ESOS Lead Assessor in order to direct the audit process and subsequently certify ESOS compliance.

The ESOS process has three key stages once applicability has been established. These stages are:

- Assessment Stage = The identification of Areas of Significant Energy Consumption (AoSEC) and the development of an audit compliance strategy.

- Implementation Stage = The auditing of each AoSEC and the identification of energy saving opportunities.

- Compliance Stage = The preparation of an Evidence Pack and the submission of a Statement of ESOS Compliance to the Environment Agency

International Workplace LTD have appointed Briar Consulting Engineers as their Lead Assessor and this report provides a summary of their ESOS process and identified energy saving opportunities.

3.0 Assessment Stage – Strategy and Design

The following table summarises the annual energy consumptions and costs for the compliance period 01/01/2022 to 31/12/2022.

Table 3.1 Total Energy Consumption

Fuel	kWh/yr	kWh/yr (%)	£/yr	£/yr (%)	tCO2e/yr	tCO2e/yr (%)
Electricity	3,224,682	72.2	675,426	94.6	623.6	72.9
Natural Gas	1,141,756	25.6	26,519	3.7	208.4	24.4
Petrol	45,626	1.0	7,154	1.0	10.4	1.2
Diesel	52,143	1.2	4,675	0.7	12.6	1.5
Totals	**4,464,208**	**100.0**	**713,774**	**100.0**	**854.9**	**100.0**

The main energy consumption within International Workplace LTD is electricity, accounting for 72.2% of total energy. When looking at annual cost, the majority results from electricity again consumption, likely due to higher unit rates compared to gas. The carbon footprint mostly originates from electricity consumption, accounting for 72.9% of total carbon emissions.

3.1 Areas of Significant Energy Consumption

Within the ESOS legislation there is a requirement that qualifying organisations must identify their "Areas of Significant Energy Consumption" (AoSEC) and conduct energy audits of these. Together, these AoSECs must account for at least 95% of the organisation's total energy use.

In this case, the following AoSEC's have been defined:

Table 3.2 Sites by AoSEC

Site/Activity Name	Area of Energy Consumption	Organisational Purpose
Phase 1, 2, 2.5 and 6/ Phase 3, 4, 5, 7/ Unit 7	Manufacturing	Industrial Processes
Carpark	Carpark	Other
Transport	Transport	Transport

Table 3.3 Energy consumption by Organisational Purpose

Organisational Purpose	kWh/yr	kWh/yr (%)	£/yr	£/yr (%)	tCO2e/yr	tCO2e/yr (%)
Transport	97,770	2.2	11,829	1.7	22.9	2.7
Industrial Processes	4,360,343	97.7	700,440	98.1	830.8	97.2
Other	6,095	0.1	1,505	0.2	1.2	0.1
Totals	**4,464,208**	**100.0**	**713,774.0**	**100.0**	**854.9**	**100.0**

Outside of the AoSECs, up to 5% of an organisation's total energy consumption can be excluded from ESOS audit under a de-minimis allowance. In this case, the following areas of energy consumption have been classed as de-minimis, together accounting for 2.33% of the total energy use.

Table 3.4 Use of De Minimis

AoSEC	kWh/yr	% of Total Energy	Comments
Carpark	6,095	0.1%	Less than 5% total fuel use
Transport	97,770	2.2%	Less than 5% total fuel use
Totals	**103,865**	**2.3%**	

3.2 Audit Strategy

Where appropriate, organisations with multiple sites/assets within any single AoSEC can employ a representative sampling approach in choosing sites for audit. The energy saving opportunities identified by these audits can then be used to indicate the potential scope for energy saving opportunities across the other sites within same AoSEC. The audits conducted covered a total of 98% of the organisation's total energy consumption.

The following table shows the list of sites selected for audit, the AoSEC to which they belong and the type of audit conducted:

Table 3.5 Sites Selected for Audit

Site Name	Area of SEC	% of AoSEC kWh
Phase 1, 2, 2.5 and 6/ Phase 3, 4, 5, 7/ Unit 7	Manufacturing	100.0%

The objective of each audit is to identify energy saving opportunities which are both realistic and economically viable. The engineer will undertake a progress status review of ESOS 2 opportunities to assess whether they are implemented, still open or abandoned. The approach is then to identify "quick win" projects which are relatively easy to implement and offer reasonable payback periods. We also aim to identify more complex opportunities which may require more detailed feasibility assessments.

The following table shows the composition of the AoSECs and their agreed compliance routes:

Table 3.6 Route to Compliance

AoSEC	Definition	Composition	Compliance Route	Site(s) Selected for Survey	Reasoning
Manufacturing	Manufacturing of electronic components	Phase 1, 2, 2.5 and 6 all share the same building. Phase 3, Phase 4, Phase 5, Phase 7 and unit 7.	ESOS Energy Audits	Phase 1, 2, 2.5 and 6/ Phase 3, 4, 5, 7/ Unit 7	Audited
Carpark	Staff and visitor parking	Carpark for Phase 1, 2, 2.5 and 6	De Minimis	N/A	Less than 5% energy recorded for calendar year 2022
Transport	Fleet and Grey Fleet vehicles	5 vans, 1 pool car and staff mileage claims	De Minimis	N/A	Less than 5% energy recorded for calendar year 2022

4.0 Implementation Phase, Part 1 - Site Audits

The full findings of the ESOS site audits can be found in the individual 'Site Audit Reports' which are contained within the Evidence Pack. These are summarised in tab 8.1 of each audit report. The table below shows the potential savings identified at each site:

Table 4.1 Identified Energy Saving Opportunities at Each Site Audited

Site Name	AoSEC	Saving (kWh)	Saving (£)	Saving (tCO_2e)	Cost (£)	Payback Period (Yrs)
Phase 1, 2, 2.5 and 6/ Phase 3, 4, 5, 7/ Unit 7	Manufacturing	933,452	156,568	178.2	581,114	3.7
Totals		**933,452**	**156,568**	**178.2**	**581,114**	**3.7**

N.B. The energy savings and capital costs are for budget purposes only and may be subject to change once the implementation methodology is established and detailed design is carried out.

5.0 Implementation Phase, Part 2 - Group Business Case

Due to the site audits covering 100% of their respective AOSEC's energy consumption, no savings have been extrapolated.

Table 5.1 Savings by Opportunity Category

Category	Saving (kWh)	Saving (£)	Capital Cost (£)	Payback (yrs)
Energy management practices	388,755	44,317	22,234	0.5
Behaviour change interventions	172,347	34,058	2,500	0.1
Long term capital investments	371,740	78,065	556,380	7.1
Totals	**932,842**	**156,440**	**581,114**	**3.7**

Details of savings resulting from opportunities divided into sub-categories can be seen in Appendix 1.

Table 5.2 Savings by AoSEC

AoSEC	Organisational Purpose	Saving (kWh)	Saving (£)	Capital Cost (£)	Payback (yrs)
Manufacturing	Industrial Processes	932,842	156,440	581,114	3.7
Totals		**932,842**	**156,440**	**581,114**	**3.7**

These opportunities need to be advanced to realise the savings by:

- Continuous energy procurement & tariff analyses
- The implementation of the identified measures at each audited site and the roll out of key findings across the rest of the organisation including:
    - Metering, Monitoring and Targeting
    - Setpoint adjustments
    - Solar PV
    - Minor works
- The proactive use of Smart Metering/AMR to drive staff led efficiency savings.
- The implementation of a continuous programme of audits to develop further savings, with a regular review of implementation to drive and recognise achievements.

6.0 Sign Off

The contents of this ESOS report summarise the findings from the initial assessment stage and subsequent audit reports. Savings from these audits are then extrapolated to represent potential energy savings across all sites and activities. Reports have been compiled in consultation between the ESOS Participant, International Workplace LTD, and the Lead Assessor.

The ESOS lead assessor signature below confirms that:

1) The contents of this report present a complete and accurate picture of the Company's composition and energy consumption.

2) The strategy for ESOS Compliance has been mutually agreed and representative audits have been carried out as required.

3) This report represents an extrapolation of selected site audit savings to represent the potential savings from all company activities.

4) The ESOS Phase 3 Assessment meets the requirements of ESOS

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Date:15/07/24

Disclaimer:

The estimates of energy and cost savings, as well as the costs associated with implementing energy-saving measures presented in this report, have been derived through a method of extrapolation based on several underlying assumptions. While every effort has been made to ensure the accuracy and reliability of these estimates, it is important to recognize that not all information is available which necessitated certain assumptions to be made, which introduces a degree of variability.

As such, the figures provided should be considered as indicative rather than definitive. Actual savings and costs may differ due to a range of factors, including but not limited to changes in energy prices, variations in operational practices, and unforeseen technical challenges.

The methodology employed represents the most accurate approach given the constraints and aims to provide a reasonable approximation for compliance purposes under the third phase of the Energy Saving Opportunity Scheme. However, it is advisable for clients to consider these estimates as part of a broader decision-making process and to conduct further detailed analysis where necessary.

We appreciate your understanding and recommend that you use these estimates as a guide while acknowledging the potential for variation.

Appendix 1 Savings by Opportunity Sub-Category

Category	Sub-Category	Saving (kWh)	Saving (£)	Capital Cost (£)	Payback (yrs)
Behaviour change interventions	Staff Awareness	172,347	34,058	2,500	0.1
Energy management practices	Metering, Monitoring and Targeting	195,182	34,583	20,000	0.6
Energy management practices	Setpoint Adjustments	136,851	3,148	1,000	0.3
Energy management practices	Maintenance/Minor Works	56,722	6,587	1,234	0.2
Long term capital investments	Solar PV	371,740	78,065	556,380	7.1
Total		**932,842**	**156,440**	**581,114**	**3.7**