



Alick Barlow Ltd

Draft Report

ESOS SUMMARY REPORT – S. NORTON & CO. LTD

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Prepared For

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<p>Report prepared and checked by: Alick Barlow</p> <p>Date: October 2019</p>
<p>Version 1.1</p> <p>Comments: FINAL</p>

1 BACKGROUND

This document outlines the findings of an energy and transport audit at S. Norton & Co. Ltd UK operations, conducted in order to comply with ESOS phase 2.

1.1 Summary of Findings

- 15 cost effective energy savings opportunities identified.
- 2 further studies/investigations identified
- 3,584,427 kWh potential energy savings identified
- £343,615 potential cost savings identified.
- £479,140 investment required
- Average payback 1.39 years

1.2 Acceptance of Findings

The energy audit conducted by Alick Barlow (Principle Consultant, Alick Barlow Limited) has been deemed to fully meet the requirements of Phase 2 of the Energy Savings Opportunities Scheme (ESOS) by the Lead Assessor, Alick Barlow.

Please see Appendix B of this document for acceptance of the audit outcomes.

2 COMPLIANCE

2.1 ESOS Participation

S. Norton & Co. Ltd. (S. Norton) is required to participate in ESOS as they have energy supply responsibilities in the UK and meet the Environment Agency's definition of a "Large Organisation" in that they have 210 UK employees and a turnover of £270M at the qualification date of 31st December 2018.

S. Norton & Co. Ltd is the highest UK Parent Organisation and is participating on behalf of the Group in its entirety.

2.2 Routes to ESOS Compliance

S. Norton & Co. Ltd has elected to comply with ESOS solely by ESOS compliant energy (and transport) audits of their significant energy uses.

Your Organisation is not compliant with ESOS until you have submitted your notification via the Environment Agency's ESOS portal, located at <https://www.smartsurvey.co.uk/s/OYNAR/>

Appendix A contains further guidance on submitting notification of compliance.

2.3 Governance and Confidentiality

Our auditors are members of the Energy Institute (EI) and governed by their code of practice. Alick Barlow Ltd (ABL) have our own internal complaints and feedback procedure and will be providing a questionnaire at the end of the audit to enable you to provide feedback (positive or negative) about the whole audit procedure, from preliminary meeting to report production and presentation.

While ABL will not disclose any data or information about the audit without permission, our audits are liable to be reviewed by the EI, the Environment Agency and their agents.

2.4 Accuracy

Unless otherwise stated, the accuracy of the opportunities identified is +/-25%. The energy audit requirements, as detailed in the preliminary and pre-start meetings, have been fully met and evidenced in the body of the reports.

3 REFERENCE PERIOD

3.1 Total Energy Use

The total energy consumption for S. Norton & Co. Ltd. During the Reference Period (1st April 2018 to 31st March 2019) is detailed in the table below.

Table 1 - Total energy consumption by source

Site Totals	Energy Consumption		Energy Cost		CO ₂ Emissions	
	2018/19	kWh/annum	%	£/annum	%	tCO ₂ /annum
Electricity	12,607,833	29.2%	1,521,053	43.4%	3,873.5	32.2%
Gas	418,146	1.0%	14,774	0.42%	76.9	0.64%
Gas Oil/ Red Diesel	21,421,307	49.6%	1,115,421	31.8%	5,922.9	49.3%
Propane/LPG	96,310	0.22%	-	0%	-	0%
Acetylene	872	0.002%	-	0%	-	0%
Road Transport (White Diesel)	8,662,835	20.0%	852,555	24.3%	2,146.4	17.9%
Total	43,207,306	100%	3,503,803	100%	12,019.7	100%

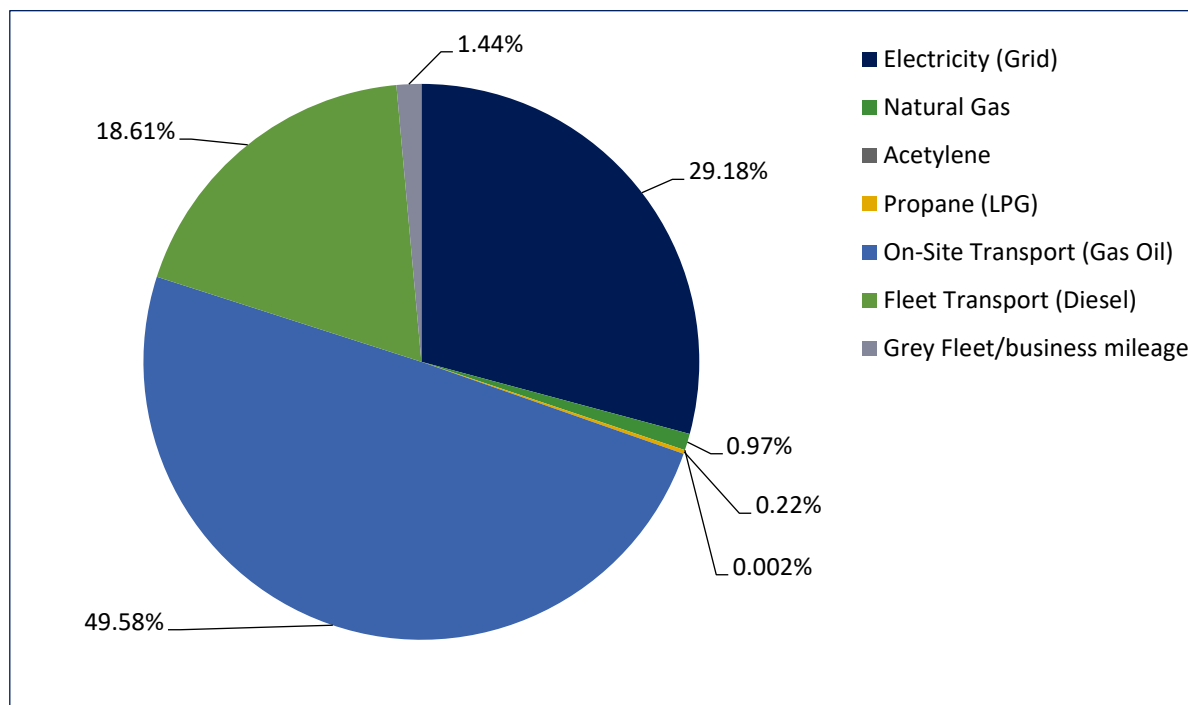


Figure 1 - Energy Supplies by kWh

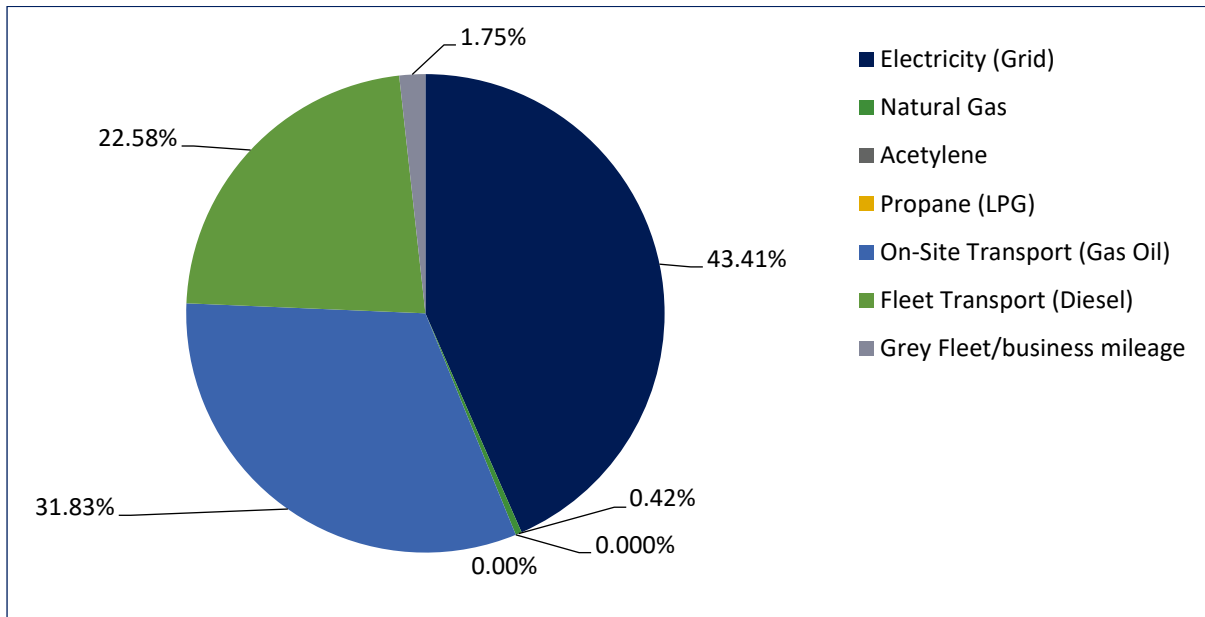


Figure 2 - Energy Supplies by Cost (£)

Site Name – 2018/19	Consumption (kWh)							Site Total by Site, Excluding Road Transport (kWh)	Percentage of Total
	Electricity (Grid)	Natural Gas	Acetylene*	Propane* (LPG)	On-Site Transport (Gas Oil)	Fleet Transport (Diesel)	Grey Fleet/business mileage		
Manchester - Tenax Road	3,630,014	30,058		33,115	3,239,603	8,042,107	620,729	6,932,789.67	16.05%
Manchester - Office	25,220							25,220.30	0.06%
Liverpool - Bankfield	6,721,031	388,088	874	58,101	2,823,089			9,991,182.93	23.12%
Liverpool - West Canada Dock	662,655			5,095	9,578,463			10,246,212.60	23.71%
Liverpool - Transport Yard	4,576	0						4,576.00	0.01%
Southampton	460,541				4,931,441			5,391,981.85	12.48%
Barking	1,103,796				848,712			1,952,507.43	4.52%
Total Consumption (by utility) (kWh)	12,607,833	418,146	874	96,310	21,421,307	8,042,107	620,729		
Percentage Total	29.18%	0.97%	0.002%	0.22%	49.58%	18.61%	1.44%		
Total Road Transport	8,662,835							8,662,835	20.05%
Total Energy Consumption:	43,207,306							kWh	

* Acetylene & Propane (LPG) figures which are circa 0.002% & 0.2% respectively – can be excluded under the 90/10 de-minimis rules.

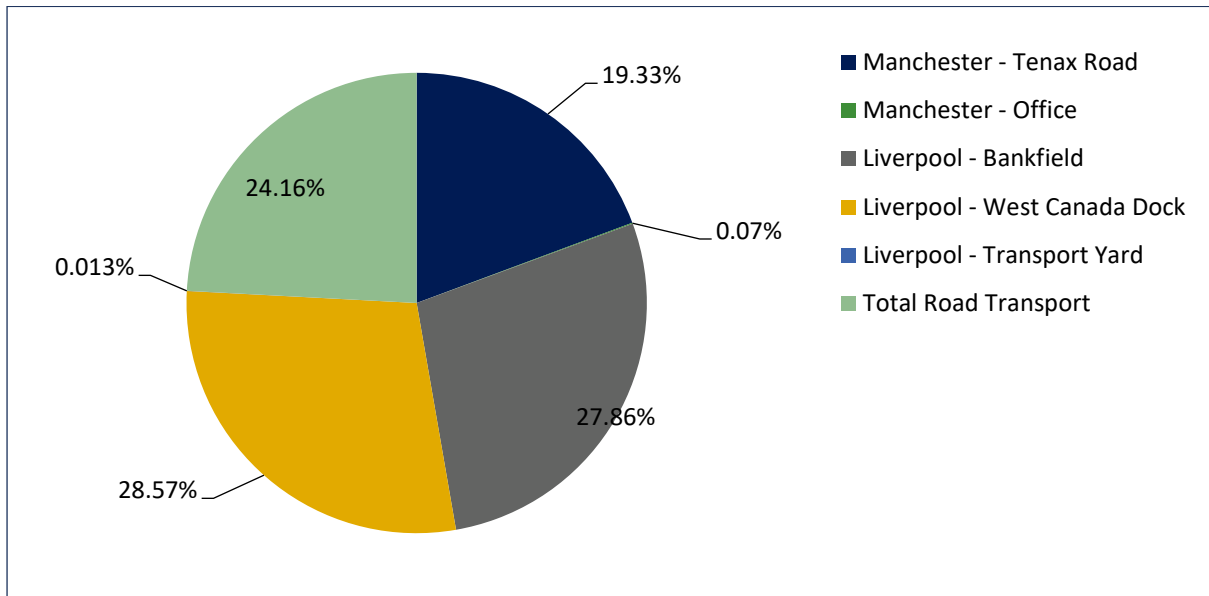


Figure 3 - Energy Supplies by Site

3.2 Assessed Energy Consumption

In total, energy uses accounting for 41,642,970 kWh (in excess of 96.3%) of energy consumption is covered within this report.

As grid electricity, natural gas, gas oil (on-site grabs & shovels) and road transport (lorries, vans & cars) use accounts for 96.38% of the total, with the electricity use at Southampton & Barking (being 3.62%) falling outside of the scope, the focus of the audit activity has been here.

The energy savings identified at the larger sites will also be applicable to the two southern sites as all sites carry out very similar operations.

3.3 Summary of Operations

S. Norton & Co. Ltd is a family owned metal recycling business formed 45 years ago, with its 4 main UK sites located at Manchester, Liverpool (Bankfield & West Canada Dock), Southampton and Barking. S Norton & Co Ltd recycles iron and steel from factory off-cuts, girders from demolition sites, end of life consumer durables like cars and cookers and non-ferrous scrap (such as aluminium, copper, brass, lead, zinc, etc.). These recycled materials are sold to refiners and other metals producers.

Full details of operations at each site are given in each of the associated audit reports required for ESOS compliance.

3.4 Sampling Approach/Exclusions

The two largest sites were visited as part of the ESOS energy audit process, with a desktop review of total energy consumption being carried out. S. Norton & Co. Ltd also operate at sites in Barking and Southampton (AB Ports is the landlord) which has significant similarities to the West Canada Dock, Liverpool site. The grid electricity use (3.62%) at these two southern sites have not been included in the assessed energy consumption, however the on-site transport (Gas Oil/Red diesel for Grabs and Shovels) usage has been included in the 96.3% covered as the similarities have been deemed significant enough for the Barking and Southampton sites to be covered by the recommendations made for the on-site vehicles based at the Liverpool and Manchester sites.

Subsequently, no site audit was performed at the Barking or Southampton sites, however their Gas Oil/Red diesel consumption has been included within the scope of significant energy usage.

3.5 Estimates & Exceptions

All instances where it was necessary to exclude or estimate consumption data are detailed within ESOS Data Collection Sheet; Tab 9. "Data Anomalies". This catalogue is replete with the time periods estimated and total energy estimated along with rationale and method of estimation.

The ESOS Data Collection Sheet can be found within the Data Analysis folder of the Evidence Pack.

4 SAVINGS SUMMARY

The below table highlights the energy and transport related saving opportunities identified during the site energy/transport audit carried out in July '19. The opportunities have been ranked by payback years for both energy and transport recommendations.

Table 2 – Energy saving opportunities

No.	Energy Saving Recommendation	Applicability	Energy Saving	Total Cost Saving	Implementation Cost	CO2 Saving	Simple Payback	% of Total Energy Use
			kWh	£	£	tCO ₂	Years	
1	Roll out 'Energy Awareness' training to all key staff	Manc & Liverpool	272,000	20,932	2,500	78.0	0.12	0.63%
2	Introduce Stop-start management (SWEEP) Sheets	Manc & Liverpool	543,999	41,863	5,000	155.9	0.12	1.26%
3	Implement Effective automatic Monitoring & Targeting (aM&T)	Manc & Liverpool	346,765	38,315	30,000	104.2	0.78	0.80%
4	Compressed Air Optimisation/Reduce Leakage	Manc & Liverpool	29,250	3,079	2,750	9.1	0.89	0.07%
5	Lighting Control Improvements	Liverpool	40,000	4,136	7,500	12.4	1.81	0.09%
6	Consider Variable speed drive (VSD) Opportunities	Manc & Liverpool	1,958,587	205,221	425,000	607.2	2.07	4.53%
7	Schedule the LGV driver CPC module to include fuel efficient driving	All	160,806	16,687	2,280	39.9	0.14	0.37%
8	Encourage the Grab & Shovel plant drivers to switch the engines off to reduce Idle times	All	211,587	11,158	500	52.4	0.05	0.49%
9	Implement an Eco driver training programme for company car drivers	All	15,306	1,588	3,360	3.8	2.11	0.04%
10	Issue all company car drivers with specific Eco driving guidelines as part of Corporate Social Responsibility.	All	6,127	636	250	1.5	0.39	0.01%
	TOTAL	-	3,584,427	343,615	479,140	1,064.4	1.39	8.3%

5 SUPPORTING DOCUMENTS

Document Title	Contractor	Route/Scope	Date	Document Ref.
<i>S. Norton, Liverpool ESOS Phase 2 Energy Audit Report</i>	<i>Alick Barlow Ltd</i>	<i>ESOS Compliant Energy Audit</i>	<i>October 2019</i>	<i>P19/1094 – S. Norton, Liverpool ESOS Ph.2</i>
<i>S. Norton, Manchester ESOS Phase 2 Energy Audit Report</i>	<i>Alick Barlow Ltd</i>	<i>ESOS Compliant Energy Audit</i>	<i>October 2019</i>	<i>P19/1094 – S. Norton, Manchester ESOS Ph.2</i>
<i>S. Norton, ESOS Phase 2 Transport Report</i>	<i>Alick Barlow Ltd</i>	<i>ESOS Compliant Energy Audit</i>	<i>October 2019</i>	<i>P19/1094 – S. Norton, Transport Report</i>
<i>Energy Summary Report</i>	<i>Alick Barlow Ltd</i>	<i>n/a</i>	<i>October 2019</i>	<i>Energy Report</i>

6 NEXT STEPS

Based on our knowledge of S. Norton & Co Ltd.'s aims and objectives, and discussions with site management, we recommend that the next steps should be as follows;

1. Notify Environment Agency of compliance with ESOS via the portal;
2. Installation of smart sub-metering with efficient data collection, helping to reduce energy consumption with efficient energy data monitoring and analysis;
3. Implement a site wide energy awareness programme, linked to a draft energy policy, that will help improve employee energy awareness, making energy consumption transparent and within employee control;
4. Review space heating and comfort cooling controls and adjust to the standards suggested;
5. Put in place a project management team to support the implementation of recommendations made in this report.

APPENDIX A. ESOS COMPLIANCE NOTIFICATION PROCESS

Notification of compliance is carried out via the Environment Agency's web portal, located at <https://www.smartsurvey.co.uk/s/OYNAR/>

The following provides a summary of the notification questions and appropriate responses for S. Norton & Co. Ltd

Question		Response	Notes
Organisation Details			
1	Registered Name of Organisation	S. Norton & Co. Ltd	
2	Trading Name or other name by which the UK Organisation is commonly known	<input checked="" type="checkbox"/> Same as UK Organisation name <input type="checkbox"/> Trading Name is different	
2a	Alternative Name	N/A	<i>Only appears if "Trading Name is different" is checked on Q2</i>
3	Is your UK Organisation registered at Companies House?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
3a	Company Registration Number	01859428	<i>Only appears if "yes" is checked on Q3</i>
4	Tick the appropriate response	<input checked="" type="checkbox"/> Our Organisation is required to comply with ESOS <input type="checkbox"/> Our Organisation is not required to comply with ESOS but chooses to	
5	Industry sector		<i>Select from list</i>
6	Is this ESOS Notification on behalf of Franchise Group?	<input checked="" type="checkbox"/> No, we are not a franchisor, or franchisee <input type="checkbox"/> Yes, we are a franchisor/franchisee and participating separately <input type="checkbox"/> Yes, we are a franchisor/franchisee and although we are not part of the same Corporate Group are participating together	
6a	Franchise Group Name		<i>Only appears if "yes" is checked on Q6</i>
7	Is this ESOS Notification on behalf of a Trust for which your Organisation is responsible?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
7a	Trust Name		<i>Only appears if "yes" is checked on Q7</i>
Registered Address or Principal Place of Activity			
8	Full UK address	Bankfield House, Regent Road, Liverpool L20 8RQ	
9	Location of Registered Office or Principal Place of Activity	England	<i>Select from list</i>

Question		Response		Notes
10	Do you have an overseas Global Parent Company?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<i>If no, form jumps to Question 13</i>
11	Overseas Parent Company Name			<i>Only appears if "yes" is checked on Q10</i>
12	Overseas Trading Name	<input type="checkbox"/> Same as Overseas Parent Company Name <input type="checkbox"/> Overseas Trading Name is different		<i>Only appears if "yes" is checked on Q10</i>
12a	Alternate Name			<i>Only appears if "different" is checked on Q12</i>
Contact Details for Individuals Related to this ESOS Notification				
13	Primary contact details	Name	Jon Tomkins	
		Job title	Environment Manager	
		Email address	Jon.tomkins@s-norton.com	
		Telephone no.	0151 955 3300	
14	Primary contact address	<input checked="" type="checkbox"/> Same as Principal Office/Registered Address <input type="checkbox"/> Different address		
14a	Alternate address			<i>Only appears if "different" is checked on Q14</i>
15	Secondary contact details	Name		
		Job title		
		Email address		
		Telephone no.		
16	Secondary contact address	<input type="checkbox"/> Same as the primary contact <input type="checkbox"/> Same as Principal Office/Registered Address <input type="checkbox"/> Different address		
16a	Alternate address			<i>Only appears if "different" is checked on Q15</i>
17	Contact details (for general information queries to your organisation)	<input type="checkbox"/> Same email and telephone as the primary contact <input type="checkbox"/> Same email and telephone as the secondary contact <input type="checkbox"/> Different email and telephone number		
17a	Alternate contact details	Name		<i>Only appears if "different" is checked on Q17</i>
		Job title		
		Email address		
		Telephone no.		
Groups of Undertakings				
18	Number of UK Organisations (legal entities) that this Notification covers	<input checked="" type="checkbox"/> Just one Organisation <input type="checkbox"/> More than one Organisation		

Question	Response	Notes
18a How many Organisations does the Notification cover (including the Legal Entity making this Notification)		<i>Only appears if "more than one" is checked on Q18</i>
19 Have any Organisations ceased to be part of your Group since the Qualification Date (31 st December 2018)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<i>If yes, then list below</i>
19a List of Organisations that have ceased to be part of the Group		
20 Are you including any Organisations that have left the Group in this notification?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<i>If yes, then list below</i>
20a List of Organisations that have ceased to be part of the Group in this Notification		
21 Are you the highest UK Parent Organisation?	<input checked="" type="checkbox"/> Yes, this Notification covers the highest UK Parent in the Group <input type="checkbox"/> No, the highest UK Parent has submitted a separate Notification	
22 Are there any Organisations in your Group that have decided to make separate Notifications?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<i>If yes, then list below</i>
22a List of Organisations that have decided to submit separate Notifications		
23 How many highest UK Parent Companies in the Group are covered by this Notification	<input checked="" type="checkbox"/> Just one highest UK Company in the Group <input type="checkbox"/> More than one highest UK Company in the Group	
24 Level to which the highest UK Parent Companies have agreed to participate together for this Notification	<input type="checkbox"/> All of the highest UK Parent Companies in the Group have agreed in writing to participate together <input type="checkbox"/> Some, but not all, of the highest UK Parent Companies in the Group have agreed in writing to participate together <input type="checkbox"/> None of the highest UK Parent Companies in the Group have agreed in writing to participate together	<i>Only appears if "more than one" is checked on Q23</i>
Compliance		
25 Do you have any energy supply responsibility?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No, we have no energy supply responsibility and our total energy consumption is therefore zero	<i>If yes, form jumps to Q30</i>
26	<i>This section is skipped under normal circumstances (i.e. Organisation is responsible for energy supplies). Questions are as Q41-44, below.</i>	
27		
28		
29		

Question		Response		Notes
30	To what extent are the UK Organisations/sites/energy supplies in this Notification covered by ISO50001?	<input type="checkbox"/> All of the UK Organisations/sites/energy supplies in this Notification are fully covered by ISO50001 <input type="checkbox"/> Some, but not all, of the UK Organisations/sites/energy supplies in this Notification covered by ISO50001 <input checked="" type="checkbox"/> None of the UK Organisations/sites/energy supplies in this Notification covered by ISO50001		If "all" is checked, form jumps to the "Confirmation Page"
31	Details of the Lead Assessor who has reviewed your ESOS assessment	Lead Assessor	Alick Barlow	
		Email address	info@alickbarlow.co.uk	
32	Professional body	Body	Energy Institute (EI)	
		Membership No.	0031723	
33	Has your Lead Assessor determined that you meet the requirements of ESOS?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
34	Enter the percentage of your total energy consumption that is covered by each of the following ESOS compliance routes or included as de minimis	ISO50001	%	Total must equal 100%
		Display Energy Certificates	%	
		Green Deal Assessments	%	
		Energy audits compliant with ESOS	96.38 %	
		Not audited (de minimis)	3.62 %	
Total		100.0 %		
35	Did you have to estimate any of the data to calculate your total energy consumption?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
36	Confirmation that the following information is recorded in your evidence pack – details of the method(s) used, the extent to which, and the reasons why, verifiable data was not used	<input checked="" type="checkbox"/> I confirm that all these are recorded in our evidence pack <input type="checkbox"/> I confirm that these are not recorded in our evidence pack and recognise that is not in compliance with our obligations		
37	Did you use 12 months verifiable data for the purpose of all your ESOS energy audits?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable (i.e. covered by ISO50001, DECs, etc.)		Answering "no" shows question 38
38	Confirmation that the following information is recorded in your evidence pack – details of the extent and the reasons why 12 months verifiable data was not used	<input checked="" type="checkbox"/> I confirm that all these are recorded in our evidence pack <input type="checkbox"/> I confirm that these are not recorded in our evidence pack and recognise that is not in compliance with our obligations		

Question		Response		Notes	
39	Did you use energy consumption profiling for the purpose of analysing your energy consumption for all of your ESOS energy audits?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable (i.e. covered by ISO50001, DECs, etc.)		Answering "no" shows question 40	
40	Confirmation that the following information is recorded in your evidence pack – details of the alternative method of analysis used and the extent to which, and the reasons why, the energy audit does not include energy consumption profiles	<input checked="" type="checkbox"/> I confirm that all these are recorded in our evidence pack <input type="checkbox"/> I confirm that these are not recorded in our evidence pack and recognise that is not in compliance with our obligations			
Confirmation					
41	Confirm that a Board Director (or, in the absence of a Board Director, an individual with management control)	<input checked="" type="checkbox"/> has reviewed the recommendations of your Organisation’s ESOS assessment or alternative routes to compliance <input checked="" type="checkbox"/> is satisfied, to the best of their knowledge, that the organisation is within the scope of Compliance <input checked="" type="checkbox"/> is satisfied, to the best of their knowledge, that the organisation is compliant with ESOS <input checked="" type="checkbox"/> is satisfied, to the best of their knowledge, that the information provided in this Notification is correct.			
42	Contact details for the Board Director or (or, in the absence of a Board Director, an individual with management control) who has confirmed the above	Name	Matt Norton (Harry)		
		Job title	Technical Director		
		Email address	matt.norton@s-norton.com		
		Telephone no.	0151 955 3300		
43	Director contact address	<input checked="" type="checkbox"/> Same as the primary contact <input checked="" type="checkbox"/> Same as the secondary contact <input checked="" type="checkbox"/> Same as Principal Office/Registered Address <input type="checkbox"/> Different address			
43a	Alternate address			Only appears if "different" is checked on Q15	
44	ESOS Recommendations were reviewed by the Board Director named above	Date	21/10/2019		Or individual with management responsibility where there is no Board Director
45	Was your Lead Assessor internal or external to your Organisational Group?	<input type="checkbox"/> Internal <input checked="" type="checkbox"/> External <input type="checkbox"/> Not Applicable (ie covered by ISO50001, or has no energy supply responsibility)		If "Internal", details of a second Director are required	

A series of 12 voluntary questions relating to your Organisation's experience with ESOS and the Notification portal follow before the final submission page.

A copy of your responses will be emailed to the Primary Contact, although alternate email addresses can be provided at the confirmation page.


If you later discover that you submitted inaccurate data, it is recommended that you contact the Environment Agency directly as soon as possible, quoting the date of the original submission, your Organisation Name and Companies House registration number.

APPENDIX B. ACCEPTANCE OF FINDINGS

Lead Assessor Sign-off

The Lead Assessor has reviewed all supporting evidence and determined that S. Norton & Co. Ltd. has met the requirements of ESOS, subject to submission of Notification via the Environment Agency's ESOS compliance portal.

The review has been undertaken by:

Lead Assessor name (Organisation)	Alick Barlow, Principle Consultant
Accrediting Body & Number	The Energy Institute (EI) EI No. 0031723 (Alick Barlow Limited)
Signature	
Date	17/10/2019

Participant Sign-off

As a nominated representative of S. Norton & Co. Ltd., I can confirm that I have reviewed the recommendations and opportunities, and accept the findings summarised in this report.

I understand that S. Norton & Co. Ltd. is not fully compliant with the requirements of ESOS until notification is submitted via the compliance portal.

Director/Senior Manager	Mr Matt Norton <i>Technical Director</i>
Signature	
Date	21/10/2019