

ESOS Lead Assessor Seminar

**Edinburgh
26 August 2015**

Agenda

- | | |
|----------------------|--|
| 10.00 - 10.05 | Welcome and introductions |
| 10.05 - 10.35 | ESOS background & Lead Assessor Register |
| 10.35 - 11.05 | Routes to becoming a Lead Assessor |
| 11.05 - 11.15 | Q&A |
| 11.15 - 11.30 | Break |
| 11.30 - 11.55 | Lead Auditor experiences |
| 11.55 - 12:00 | Financial support available to become a Lead Assessor |
| 12.00 - 12:10 | Support for businesses |
| 12:10 - 12.20 | ESOS enforcement |
| 12.20 - 12.30 | Q&A |
| 12.30 | Lunch |

Energy Savings Opportunity Scheme (ESOS)

Overview of ESOS and Lead Assessor Registers

Agenda

- ⇒ Overview
- ⇒ Our roles
- ⇒ Lead Assessors

What is ESOS?



- ➔ New UK regulation to comply with Article 8 (4) of the European Energy Efficiency Directive.
- ➔ Requires all large undertakings in the UK to do energy efficiency audits by 5 December 2015 and thereafter at least once every four years.

It is likely to cover over ~10,000 UK organisations
and
Save businesses at least £1.6bn by 2030



Key Dates

➔ Qualification Date **31/12/14**

➔ Don't need to register or tell us they qualify

➔ Compliance Date **05/12/2015**

➔ Just tell us they have complied online via webpage

And every 4 years thereafter

**Do they
qualify?**

250 employees or
£39m Turnover & £34m Balance Sheet
Total

**What assets do
they need to
audit ?**

Calculate total energy consumption and
select 90% to assess energy saving
opportunities

**What work
have they
already done
towards
compliance?**

Existing audits completed 6 Dec 2011 or
after
DECs, ISO50001, GDAs

**What new work
do they need to
do towards
compliance?**

New ESOS audits (analyse data from no
more than 24 months ago).

**Review by lead
assessor**

Internal or External approved lead
assessor reviews whether approach is
compliant

**Sign off by
director(s)**

1 or 2 Board Level Directors sign off that
they have reviewed the recommendations

**Submit
notification of
compliance**

Online submission to let us know they are
compliant

**Keep an
evidence pack**

Store the information that proves their
compliance for at least 8 years after the
compliance period has ended.

Who isn't in ESOS

- ⇒ Organisations which are in in solvency procedures
- ⇒ Organisations defined as governed by public law in Public Contracts Regulations 2015

Governed by public law

- E.g.
- Government Departments
- Councils
- Fire
- Police

Organisation not having an industrial or commercial character, and

- financed wholly or mainly by another contracting authority;
- subject to management supervision by another contracting authority; or
- more than half of the board of directors or members of which, or, in the case of a group of individuals, more than half of those individuals, are appointed by another contracting authority;

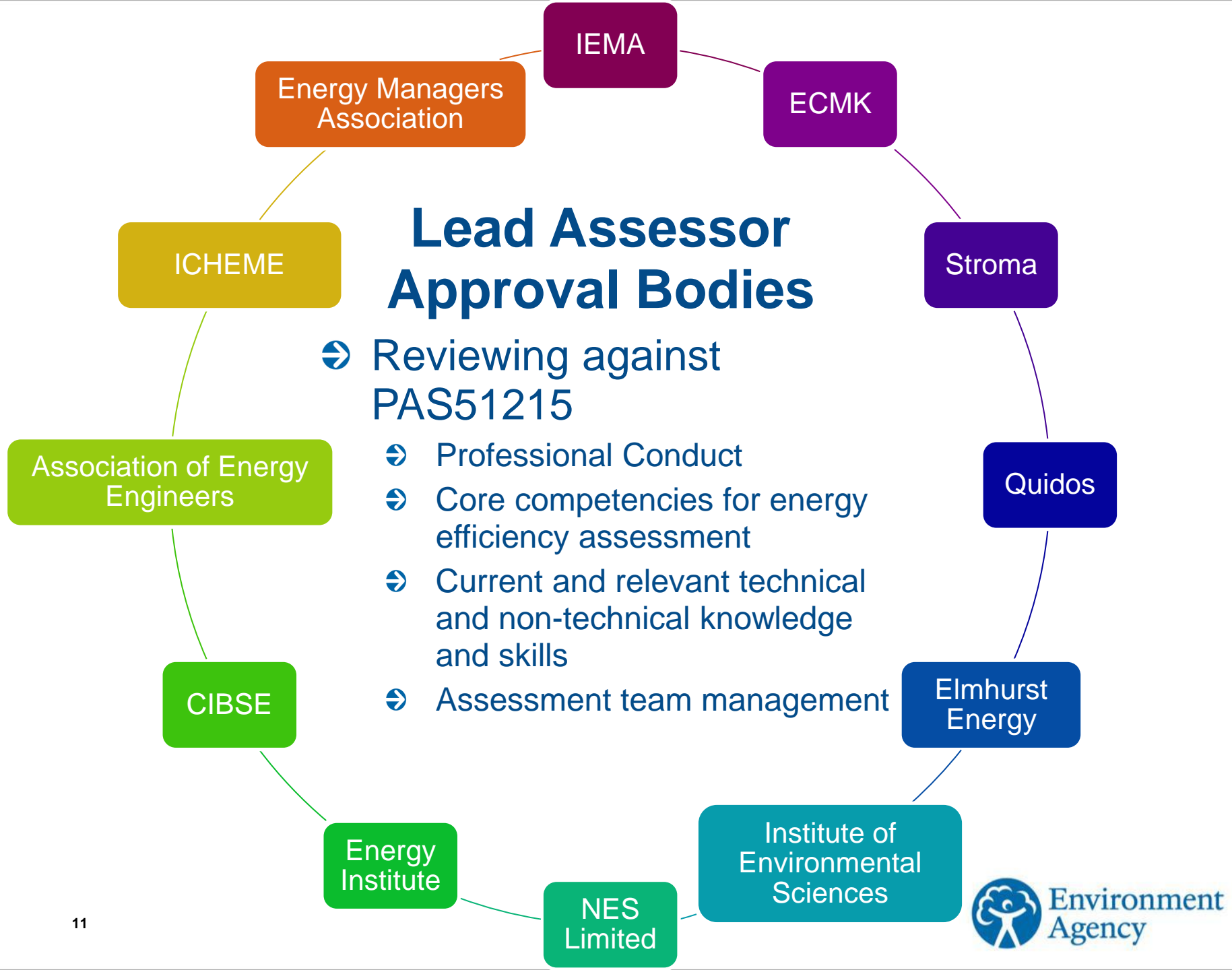
Our Roles

Regulators
(Compliance/Enforcement)

Scheme Administrator
(Comms/Helpdesk/
Guidance/Notifications/
Approve Lead
Assessor Bodies)
Environment
Agency



Offshore oil and gas industry
Department of Energy and Climate Change



Lead Assessor Responsibilities

- ➔ Use your professional judgement and experience to interpret the rules
- ➔ Provide advice and expertise to qualifying organisations to allow them to get the most out of participation
- ➔ As a minimum;
 - ➔ Review ESOS assessment and let participant know if you think they comply with the rules

Participant Responsibilities

- ➔ Compliance liability
- ➔ Understanding the rules
- ➔ Agreeing the approach and work their lead assessor does
- ➔ Keeping evidence pack



**Any Questions? Save them until
after the next presentation!**

<https://www.gov.uk/energy-savings-opportunity-scheme-esos>

Routes to becoming a Lead Assessor

Lead Assessor Organisations

energy
saving
trust





EMA Register of ESOS Lead Assessors

August 2015

Rupert Redesdale, CEO, EMA

rupert.redesdale@theema.org.uk



Energy Managers Association (EMA)

Who are we?

The EMA is the largest dedicated energy managers' professional body in the UK.

Membership profile

Membership represents both the Public and Private sectors, with an estimated energy spend of over £5 billion.

Objectives

Our aim is to raise the standing of energy managers, establish best practice in energy management and put energy management at heart of British business.



EMA Register of ESOS Lead Assessors

**Approved ESOS
Assessors to
Date**

80+

Typical roles

Energy Engineers/
Managers/Assessors/
Consultant; Environmental
Engineers/Managers/Assessors/
Consultant, Sustainability
Managers/ Consultant,
Building
Engineers/Managers/Assessors/
Consultants, Plant or
Manufacturing Engineers/
Managers, Process
Managers/ Engineers,
Utilities
Managers/Engineers; Facility
Managers

Representation

Across industries,
sectors and
organisations:
e.g. Whitbread, JLL,
Bourne Leisure,
UBM, Morrisons,
Cenex, Skanska,
Thames Water,
Welsh Water,
Veolia, Dr Reddy's
Laboratories and
many more



EMA ESOS Lead Assessor Process

Minimum requirements for admission on the Process

- Good undergraduate degree in a relevant subject or completed LEC Stage 3 course (or equivalent)
- Experience in carrying out energy management and energy auditing activities (typically no less than two years)

EMA ESOS Lead Assessor Process

- 4-step process in place
- Normally completed in 3-4 weeks (from attending the EMA Leading an Energy Assessment training course)
- Cost of the whole process, incl. 3-year registration as EMA ESOS Lead Assessor = £ 1,100+VAT



EMA ESOS Lead Assessor Process – 4 Steps

STEP 1

Application form, CV & previous qualification certificates

STEP 2

One day course – '*EMA Leading an Energy Assessment*'

STEP 3

Post-course written assessment

STEP 4

Peer Review and Technical Interview



Thank you.

For more information:

- visit the EMA website:

<http://www.theema.org.uk/becoming-an-emasos-lead-assessor/>

- contact Jana Skodlova at

jana.skodlova@theema.org.uk

- call EMA on 0203 176 2834



Energy Savings Opportunity Scheme (ESOS)

ESOS Training

Arthur Watt



Who are Elmhurst ?

- ◆ Established in 1993
- ◆ Leading Certification & Accreditation body within the UK
- ◆ Deliver energy training
- ◆ Consultancy service
- ◆ Over 6000 members
- ◆ Develop energy performance measurement software
- ◆ Liaise with DCLG , OFGEM , GEMSERVE, DECC, Scottish Government, Environment Agency & SEPA



ESOS Training

- An ESOS Lead Assessor can either be an external consultant or an in-house trained expert.
- Anyone undertaking the role of an ESOS Lead Assessor must be a member of a government approved Register of Lead Assessors with full training and knowledge to carry out the ESOS Audit.



ESOS Training

- In order to become a Lead Assessor candidates must document their involvement, for at least two years in the previous five, in a role/project in professional energy assessment and energy audit experience relevant to PAS51215 (This can be Purchased [here](#))
- Elmhurst will look at your application form and map your skills, experience and qualifications gained during your career as an Energy professional. The second part of our process will be to carry out a professional discussion, which will be conducted via telephone to review the information you have included in your application

Our ESOS Lead Assessor Training Guarantee

Our trainers all bring real experience of ESOS audits and a full understanding of all of the technical and non technical skills and knowledge required by ESOS Lead Assessors. This includes for example:



- Energy audits to BS EN 16247-1
- Understanding the organisational context of the organisation or undertaking being assessed
- Applying energy efficiency assessment principles processes and techniques
- Energy use and energy systems applicable to organisations being assessed
- Building a team to conduct an energy efficiency assessment
- Project planning and deployment
- Data analysis
- Managing the communication process and stakeholder engagement



Training Options

ESOS Lead Assessor – one day course

- This course is available to CIBSE LCCs and Energy Institute CEM and RPECs who can provide evidence of their accreditation and can demonstrate sufficient PAS aligned skills.

(Read more about this course [here](#))

ESOS Lead Assessor – three day course

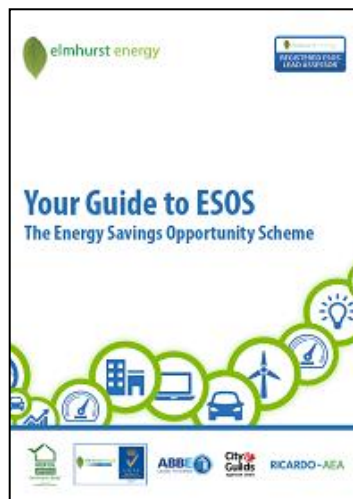
- This course is suitable for existing Display Energy Certificate Assessors, Non Domestic Energy Assessors, Non Domestic Green Deal Assessors and Energy Auditors with a minimum of two years' experience of professional energy assessment and relating energy auditing in accordance with PAS51215 standards.

(Read more about this course [here](#))

Thank you for your time

Any Questions?

Click the image below if you would like to download our ESOS Training Guide



You can also follow Elmhurst Energy on:





Professor Andrew Geens

CEng PhD PGCertEd BEng(Hons) FCIBSE MCM

Head of CIBSE Certification





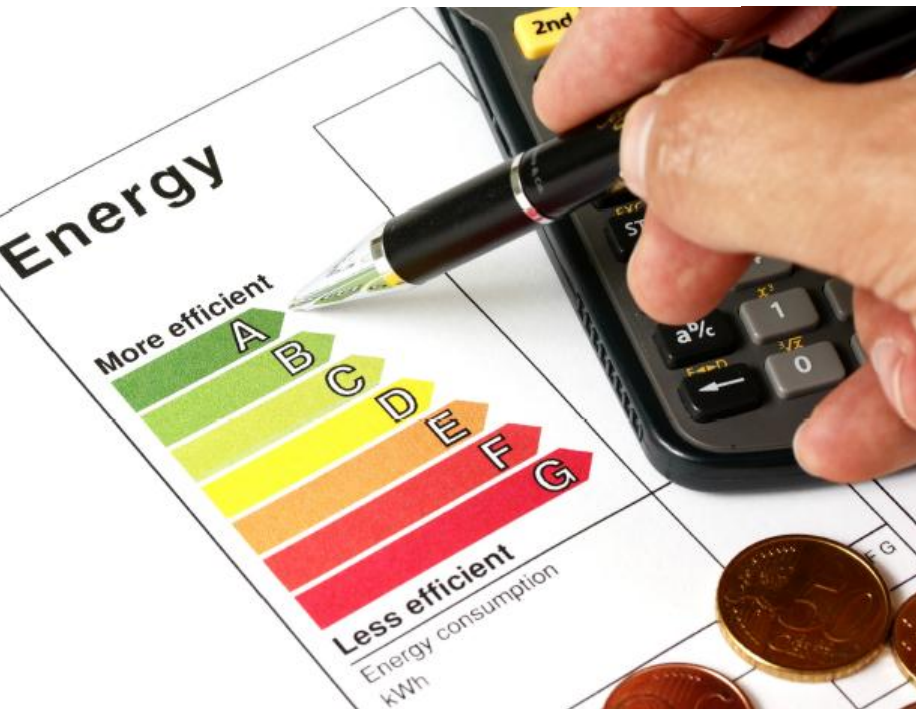
The home for high quality
certified energy assessors

CIBSE **CARBON**CONSULTANTS
LOW

CIBSE **CARBON**
LOW ENERGY
ASSESSORS

CIBSE **ESOS**
LEAD
ASSESSORS

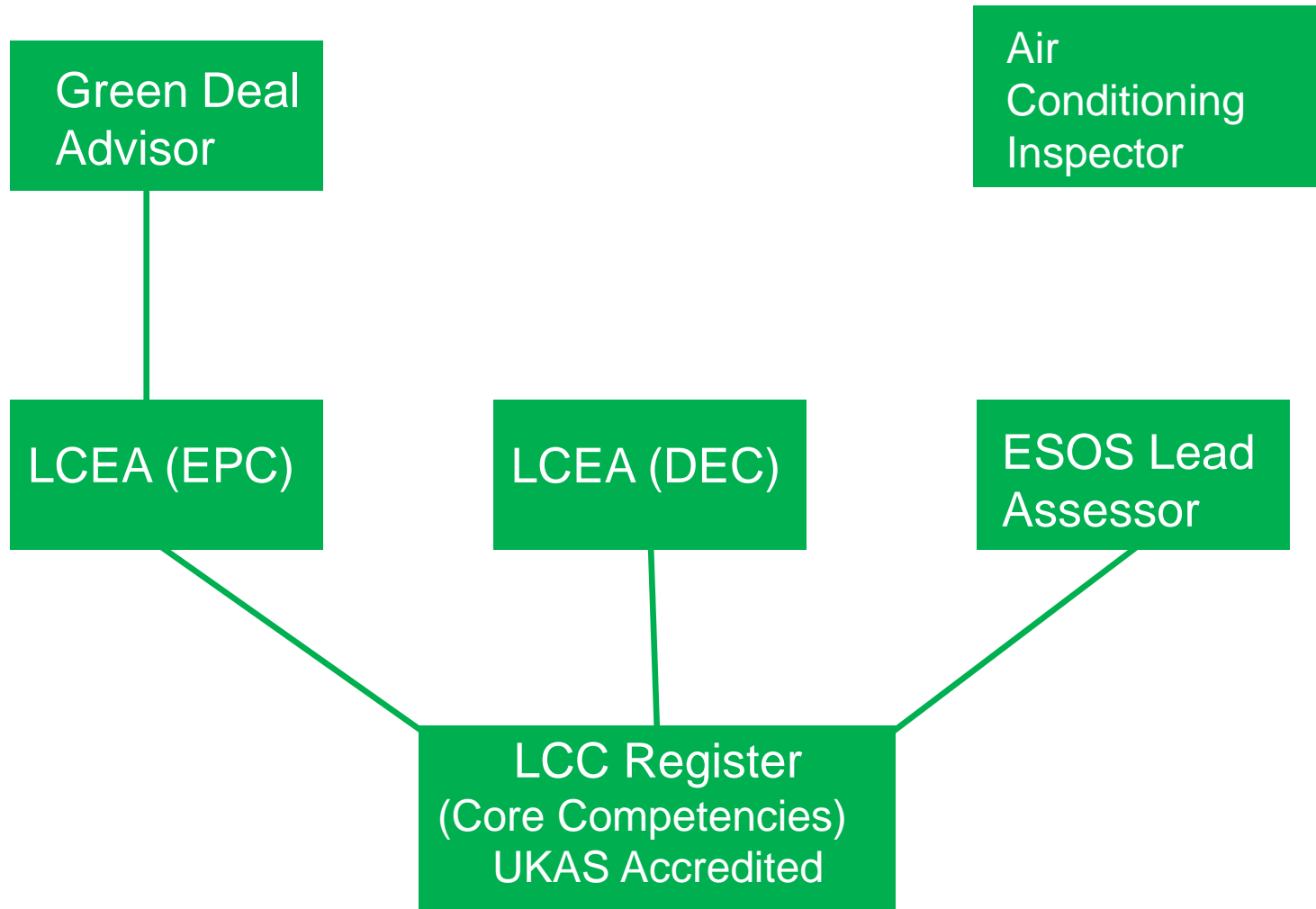
CIBSE **AIR**
CONDITIONING
INSPECTOR



Certified by CIBSE Certification
to produce DEC's, EPC's, Air
Conditioning Inspection Reports,
Green Deal Advice Reports, and
ESOS assessments.

www.cibseenergycentre.co.uk

Competence Certification to ISO 17024



- Bizarre as this may seem, there are plenty of organisations out there leaving £50 notes lying around on the floor. ESOS will give them the opportunity to see them and pick them up, so why wouldn't they want to do this?
- Will this be achieved using Green Deal Reports?
- Will this be achieved using DEC and Advisory Reports?
- Will this be achieved using ESOS audits?
- Will this be achieved using ISO 50001?

Finding the Right Assessor

- CIBSE Certification has 275 ESOS Lead Assessors from a wide range of backgrounds
- These are all drawn from the CIBSE Certification Low Carbon Consultants Register and were doing this sort of work before ESOS came along
- Many of them offer more than one route to compliance

Becoming an ESOS Lead Assessor with CIBSE Certification

- First you need to be a CIBSE LCC ([How to become a CIBSE LCC](#))
- Then you can apply for the CIBSE ESOS register ([How to become a CIBSE ESOS Assessor](#))
- What about Energy Management Systems (ISO 50001)?

25 of our ESOS Lead Assessors list
ISO 50001 as a specialism

What about Energy Management Systems - ISO 50001?

- No ESOS Lead Assessor required
 - Typically self funding (from energy savings)but has set up costs
 - Most likely to be suitable for large energy users
 - Very useful for ESOS compliance for organisations operating in more than one country
 - CIBSE Certification are certifying organisations for their Energy Management Systems (ISO 50001)
- (How to apply for ISO 50001 Certification)

CIBSE Certification expect to be
UKAS accredited to certify
Energy Management Systems to
ISO 50001 by Q4 2015

This is not necessarily for
December 2015 but for beyond

Q&A



Glyn Mountford
26th August 2015



EI/RPEC - Lead Assessor Training

- Chartered Engineer or related Chartered Professional Status –
- Relevant other accreditations, e.g. DEC / EPC / GDA / ISO50001 LA / IPMVP/ LCEA etc.
- Relevant skills in sectors, technologies, skills and concepts, (e.g. Carbon Management, M&V etc.)
- Each skill set is ranked by applicant prior to interview by peers
- Mandatory ESOS Legislation Training
- CPD annual reviews

The ESOS Compliance Process

Measure Significant Consumption

- Measure all energy from qualifying buildings, transport and processes
- Select significant consumption (90%)

Analyse Energy Profiles

- All energy in significant consumption included
- Can be time or activity based

Energy Audits

- Must cover all energy in significant consumption
- Site visits required of representative sample of properties

Evidence Pack

- Compliance must be documented
- Processes should be in place for its retention for the statutory period

Compliance Sign Off

- Lead Assessor
- Director

Lead Assessor Market Experience

- Primarily marketed to existing client base
- Some clients unable to define accurately ESOS boundary especially corporate groupings but also BS asset valuation and public funding
- Some clients still don't realise they 'qualify'
- Landlord / Tenant / Supplies arrangements causing confusion
- All above and more creating ESOS compliance delays

ESOS Compliance Challenges

- Availability of data – Gap analysis has helped
- Defining compliance routes specifically ESOS Audit sampling approach
- Agreeing audit detail, box tick vs added value
- Obtaining data to allow LCCA to be completed
- Energy profiling
- Client understanding of evidence pack requirements
- Sign off

Solutions – Gap Analysis Approach

- Gap analysis
 - Workshop
 - Review of existing data
 - Building data collection

TRANSPORT details							
Vehicle Type		Y/N	How many	Data Source: Fuel Card / Expense /	If estimated - how?	Data Gaps: High / Medium / Low	Comments / Notes
Vehicle Type	Owened Fleet						
	Trucks						
	Buses						
	Vans						
	Cars						
	Motorbikes						
	Other Transport						
	Boats/ships						
	Rail						
	Grey Fleet						
	Vans						
	Buses						
	Cars						
	Motorbikes						
	Grey Fleet data source						
Recorded Mileage							
Expense Claims							
Fuel Cards							
Previous transport audits	Please list all previous transport audits:	When	By whom	Details			

SITE details						
Building details	Building name					
	Address inc Post Code					
	Approx year of construction					
	Brief description of construction type (e.g brick, prefabricated, metal, glass, wood etc)					
	Usage type e.g. Office Warehouse, Distribution, Cold storage, Process Area, Workshop, Retail, Hospitality Leisure, Care home, Depot, Offshore Terminal, Stadium, Auditorium, Other (specify)					
	Area (square meters)					
	Number of floors					
	Number of incomers					
	HV/LV site					
	Incoming capacity MVA					
Energy Used	Energy type	Yes / No	kWh			
	Elec.					
	Gas					
	Kerosene					
	LPG					
	Other:					
	Other:					
Major Building Services Plant and Equipment including plant such as back up generators, UPS, Condensers, Power Factor Correction, Air Handling Plant and Pumps etc	Boilers	Description / Models	How many	Rating	Age	Comments
	Centralised Air Conditioning					
	Localised Air Conditioning					
	Other:					
	Other:					
	Other:					
	Other:					
	Other:					
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	Other:					

- Detailed gap analysis – with report (useful for evidence pack) saves time in long run
- Use gap analysis to confirm data gaps and estimation approach

ESOS Compliance Solutions Continued

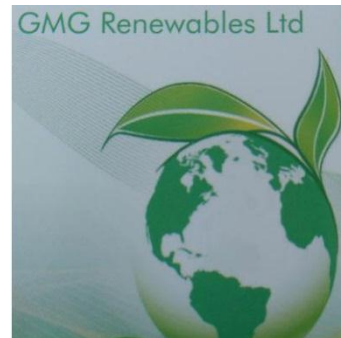
- Data gathering and statistical approach to agree audit sampling, high client input.
 - Agree financial presentation approach up front
 - Robust audit preparation
 - Energy profiling techniques
 - Evidence pack support including structured guidance for pack structure.
 - Review meeting with summary report combined with sign off.
-

The ESOS delivery process

Gerry McGinness, Nick Cushing

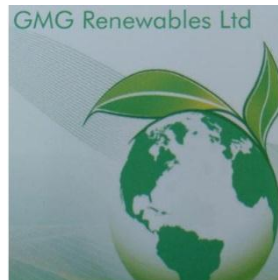
GMG Renewables

26th August 2015



What can we tell you?

- Our background
 - A typical client process
 - Client project Case Study
 - Things to consider
 - Questions
-



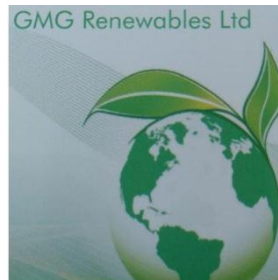
Background-Gerry McGinness

- 20 years in Power Distribution Industry
- Project Management-Clyde Wind Farm
- Project Management-Beaully Denny
- Working Well & Zero Harm Contractor
- NDEA 700+ Projects Delivered
- DEC Assessor 125+ Projects Delivered
- ESOS Lead Assessor



Background-Nick Cushing

- Former IT Account Manager
- Originally DEA from Day 1-6,000+ EPCs delivered
- NDEA from Day 1-2,000+ EPCs delivered
 - Specialist in industrial, care sector, food production
- DEC Assessor-500+ Public Sector projects delivered
- ESOS Lead Assessor



A typical client process

- Discuss requirement
 - Scoping: Collate data that will need auditing
 - Scoping: Understand scale of the organisation
 - Stakeholders: Understand who will drive this
 - Understand Objectives: Compliance, investment, perhaps a bit of both
- Quantify the scale of the work to produce a quote for the client
 - Understand the extent of buildings, fleet, process etc
 - Understand the level of data available and ease of collation
 - Develop a picture of how much resource you will need



A typical client process

- Develop a quote and present to client
 - Detail extent of the works involved
 - Explain the process to be undertaken
 - Manage expectations of the proposed result
 - Make it clear that senior management need to be engaged in this process for it to work
 - Plan a detailed timescale with milestones
- Implement an action plan
 - Manage your diary to fit in with key dates
 - Be relentless in chasing for data
 - Develop a robust evidence pack-you WILL be heavily audited on your submissions
 - Be thorough: the impact of lazy data or inaccurate statements have big implications to your client's business
- You MUST deliver on your promises!



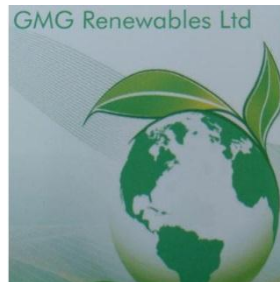
Client example

- Client in the transport and engineering sector
 - 50 sites
 - 69 buildings
 - Across England and Scotland
 - Workshop, office, storage, maintenance, sales
- 69 site audits-2 building assessors, 6 weeks
 - Fabric and behaviour assessment of energy efficiency and operational management
- Transport audits-Fleet specialists
 - Analysis of 300+ operational fleet vehicles plus company cars, grey fleet
 - Journey planning, fuel usage, vehicle type, fleet tracking, maintenance management



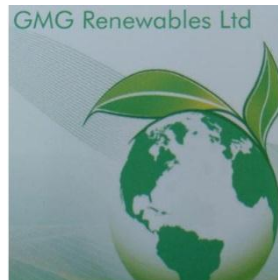
Project process from start to finish

- Scoping meeting
- Quotation
- Project action plan and kick-off meeting-advise client of project requirements and timescale
- 3,000 miles covering building audits
- Engage fleet audit experts for transport analysis
- Collate client billing data
- Assemble building reports
- Assemble fleet reports
- Prepare evidence pack for all of the components with comprehensive illustrations and analysis of fuel usage



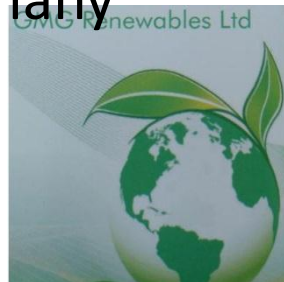
Project process from start to finish

- Meet with client to discuss findings and present to board directors
- Discuss recommendations and findings and propose ways forward
- Answer queries to findings and recommendations
- Collate energy usage declaration for final submission to Environment Agency/SEPA
- Have a strong drink



Things to consider

- This is not a quick turnaround job like EPCs-this is a managed, considered and long-term consultative solution as part of a potential long-term relationship with the client
- What you say has a big impact
- But so does getting it wrong-no passengers here!
- This is not a route to a fast buck! And it's not constant.
- Buildings experience is we believe the key attribute around which the other disciplines can be based, or resources acquired
- Be realistic-clients will often only want to do the minimum!
- This is a more solid grown-up process, but beware the many hours, many miles and many frustrations you will face!



And finally....

Questions?

GMG Renewables 01236 702002



Funding available

Ian Cuthbert

Edinburgh

26 August 2015

Sustainable Energy Supply Chain Programme

- Scottish Government funded (managed by EST)
- Key aim of programme is to ensure that: Scottish businesses involved with low carbon retrofit:
 - can offer high quality services to householders by having the appropriate skills and certifications
 - are able to benefit from the large amount of spend through Scottish and UK government schemes
- Programme helps businesses of all sizes across domestic and non-domestic sectors



This work is done through...

- Events and webinars
- Training and CPD courses (with Scottish Colleges)
- Working with key buyers (e.g. housing associations) in the sector to inform businesses of the contracting opportunities
- Newsletters and online forums
- Online resources including case studies
- Research to investigate barriers for Scottish businesses
- Working with trade bodies, manufacturers, distributors, certification bodies, and other key stakeholders



Low Carbon Skills Fund

- Available to businesses (up to 100 employees); can apply for up to £5,000 towards training costs
- 60% of training costs, up to a maximum of £1,000 per employee
- Eligible training includes:
 - Renewable energy, low carbon technologies and microgeneration
 - Energy efficiency, environmental and clean technologies
 - Waste management and re-use
 - Reducing carbon in supply and energy management.

Useful links

Low Carbon Skills Fund

Call 0800 783 6000

www.ourskillsforce.co.uk/funding-for-skills/low-carbon-skills-fund/

Please note –

- Applications can now be made online and
- Please apply first before completing training

Supply chain programme

www.energysavingtrust.org.uk/scotland

- Helping businesses
 - Sustainable Energy Supply Chain



26th August 2015

Rob Snaith, Implementation Adviser

Growth that doesn't cost the earth

A programme from 



Resource Efficient Scotland



Growth that doesn't cost the earth

Scottish Government

Zero Waste Scotland

Resource Efficient Scotland

Advice & Support
Service

Sector
Initiatives

A programme from



Resource Efficient Scotland



Growth that doesn't cost the earth

We help **organisations** across Scotland save money by using resources more efficiently.

£18k

Average savings
identified

We provide **free, specialist** advice and **on-site** support to help decision makers in business, public and third-sector organisations cut their **energy, water, waste** and **raw material** costs.

A programme from



Resource Efficient Scotland and ESOS



We **cannot** provide an ESOS compliance service:

Growth that doesn't cost the earth

- Collection and review of consumption data on cost or kWh basis for the qualifying period
- Decision on qualifying sites/fuels/de minimis
- Collection and review of kWh data
- Review of previous audits and reports which will be less than 4 years old on 5th Dec 2015
- Co-ordination of internal or external auditors to provide new audits as required
- Review of new audit work as needed
- Preparation of evidence pack

Resource Efficient Scotland and ESOS



We **can** work with ESOS qualifying organisations on a project or site basis to deliver our standard service.

Growth that doesn't cost the earth

We focus on identifying, quantifying and supporting the implementation of opportunities to reduce energy, waste, water and raw materials costs, which have a reasonable chance of implementation with 12 – 24 months.

Previously existing Resource Efficient Scotland reports **may** be used as part of ESOS auditing worked, if deemed suitable by the Lead Assessor.

Opportunities For You!



Growth that doesn't cost the earth

We're always interested to hear from people keen to join our Consultant Framework.

Experience of providing technical consultancy to businesses on energy, waste, water and raw materials efficiency.

Send a C.V. and example reports (evidencing work in relevant areas) to:

enquiries@resourceefficientscotland.com

Or chat to me!

Rob Snaith, 01235 753 029

Rob.Snaith@resourceefficeintscotland.com

Resource Efficient Scotland.
Helping you cut costs by
doing more with less.



Q&A

SEPA's Role in ESOS

Fiona Graham – Specialist II
National Carbon Reduction Unit



Objectives

- What is SEPA's role in the ESOS Regulations?
- What measures may be used to ensure the Regulations are fulfilled?
- Where can I get further advice relating to compliance?

What is SEPA's Role?

SEPA is the Compliance Body for participants registered in Scotland:

- Responsible for monitoring compliance in Scotland;

The Environment Agency is the UK Scheme Administrator:

- Responsible for the system for notification of compliance for all UK participants;
- For approving competence of lead assessor registers

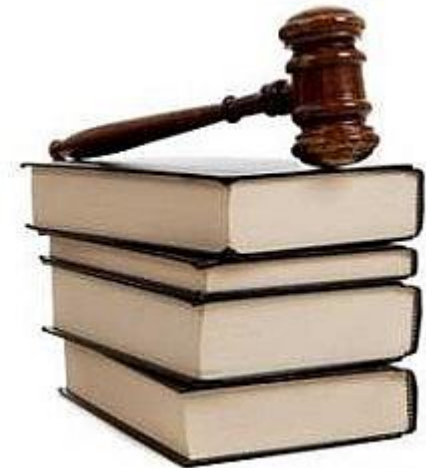
What tools can SEPA use?

- Use of letters & notices to seek information and compliance;
- Inspection of premises;
- SEPA intends to carry out a number of inspections over the compliance period



What tools can SEPA use?

- SEPA uses its Enforcement Policy when considering actions to secure compliance with any Regulations.
- There are a number of tools available:
 - Advice/Guidance
 - Warning Letters
 - Statutory Notices
 - Civil Penalties



What tools can SEPA use?

- **Serve Compliance Notices (Regulation 35)**
 - Requesting information from a Responsible Undertaking to check compliance;
- **Enforcement Notices (Regulation 38)**
 - Stipulating steps to be taken to comply
- **Penalty Notices (Regulation 39)**
 - Imposes civil penalties for breaches of ESOS Regulations.

Specific Non-Compliances

- Failure to notify the EA by deadline (5 Dec 2015)
- Failure to maintain records;
- Failure to undertake an ESOS assessment;
- Failure to comply with a notice;
- Giving false or misleading information;

Further Information

- SEPA ESOS team: ESOS@sepa.org.uk
<http://www.sepa.org.uk/regulations/climate-change/energy-saving-opportunities-scheme/>
- SEPA Enforcement Policy
<http://www.sepa.org.uk/regulations/how-we-regulate/policies/>
- Environment Agency Guidance on ESOS:
<https://www.gov.uk/guidance/energy-savings-opportunity-scheme-esos>
esos@environment-agency.gov.uk.

SEPA's consultation on new enforcement policy and guidance

Runs 23 July to 22 October 2015



THANKS!

Questions?

