



Supporting sustainable local economy in North-West Europe.

Climate Active Neighbourhoods: Final Conference,
March 1st 2023, Liège, Belgium

Energy Audits for SME – South East Ireland
South East Energy Agency
Alex Hamilton

Introductions

- Senior Energy Engineer, South East Energy Agency (Ireland)
- Certified Energy Manager
- Registered Energy Auditor
- Chairperson - Association of Irish Energy Agencies (AIEA)
- Specialise in Public Sector Energy Management & Energy Auditing



Alex Hamilton
BA BAI, MSc, MIEI, CEM-I

Introductions

- Regional Energy Agency: South East Ireland
- Not for Profit, Social Enterprise
- Product Independent
- Trusted Intermediary
- Partner with everyone – Public, private, commercial/SME, communities, homeowners
- Population in region - >450,000
- No. of SME's in region - **9800**





Auditing Overview

Energy audit

A systematic procedure with the purpose of obtaining adequate knowledge of the **existing energy consumption** profile of a building or group of buildings, an industrial or commercial operation or installation or a private or public service, **identifying and quantifying cost-effective energy savings opportunities**, and reporting the findings.

Source: Energy Efficiency Directive 2012/27/EU Article 1 (25)

Types of Audits

- **Type 1 – Basic / Walk-through Audit**
 - a brief assessment to identify low cost energy improvements and areas where more detailed future audits can focus
- **Type 2 – Detailed / General Audit**
 - a comprehensive evaluation of the building and potential energy conservation measures through detailed information collection, in-depth interviews with facilities or operations managers, and the analysis of energy profiles created through bill analysis
- **Type 3 – Financial / Investment grade Audit**
 - a comprehensive analysis of potentially high investment energy efficiency improvements with a distinct focus on financial concerns and return on investment, and the analysis of energy profiles created through interval metering
- **SI 426 Audit (EED)**
 - As per SI 426 compliance – ***to be signed off by Registered Energy Auditor***
 - A company that employs 250 people or more
 - A company with an annual turnover in excess of €50m and an annual balance sheet total in excess of €43m

The Challenges

- **WHO WILL PAY FOR AN AUDIT...!**
- Level of audits – What is needed?
- Increase in demand for audit
 - Climate Action Planning/ Community Energy Master Plans
 - Local Authority schemes – rates rebate for SME's with energy audits
 - All groups applying for energy works funding MUST have an energy audit
 - Increasing fuel prices – everyone is affected
- Shortage of Energy Auditors
 - 8 Registered Energy Auditors in the South East
- Time to deliver an audit...?
- Due to covid South East Energy Agency only delivered
 - 2020 – 17 audits
 - 2021 – 19 audits



Who will Pay?

- CAN SME
 - €1000 voucher energy audit for SME's and Communities
 - Type 1 or 2 depending on size of building
 - Office blocks, Food shops, convenience shops & supermarkets
 - Nursing homes, Manufacturing
 - Community centres, sports clubs, etc
 - **NOT Public Sector – no schools, LA's etc.**
- <https://3cea.ie/2021/09/14/free-energy-audits-offered-by-3cea-through-can-cap-programme/>



Who will Pay?

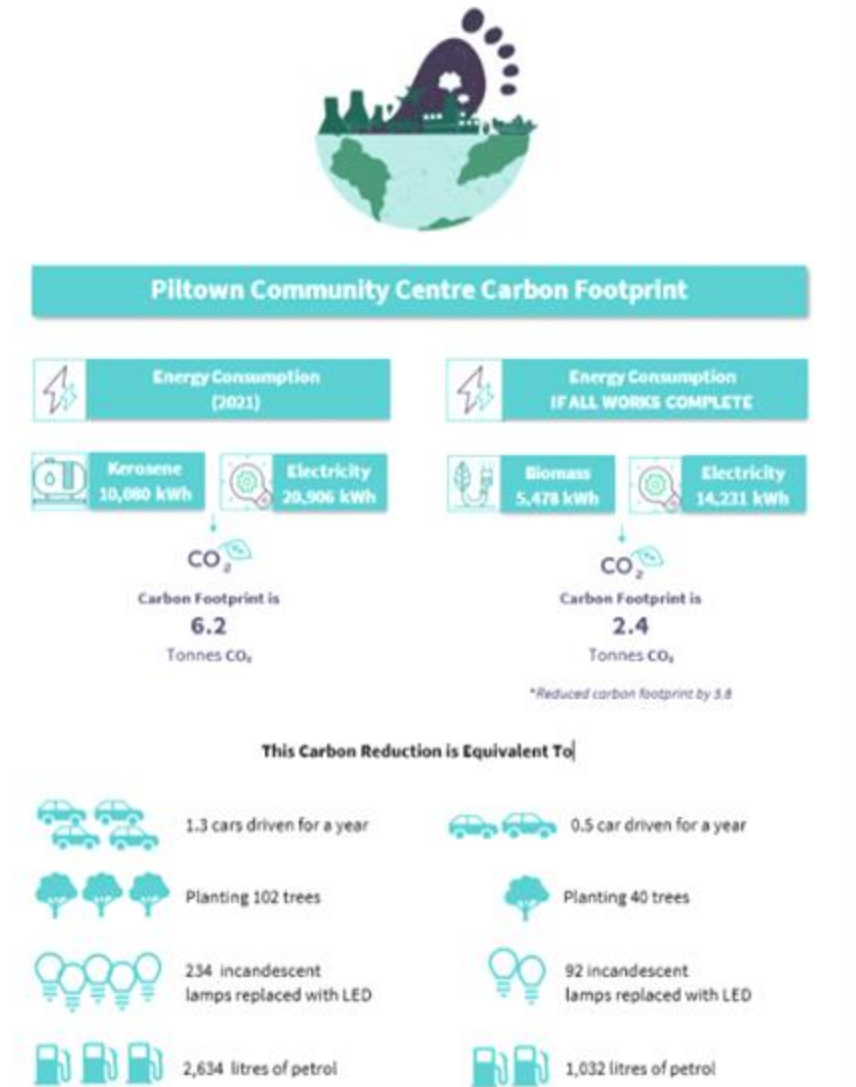
- SEAI SME Support Scheme for Energy Audits (SSEA)
 - €2000 voucher towards cost of audit
 - ***Has to be completed by a Registered Energy Auditor***
- Businesses applying to the scheme must be:
 - non-obligated entities
 - tax compliant
 - registered in the Republic of Ireland
 - spend ***at least €10,000*** on energy per year at the site being audited



<https://www.seai.ie/business-and-public-sector/small-and-medium-business/supports/energy-audits/>

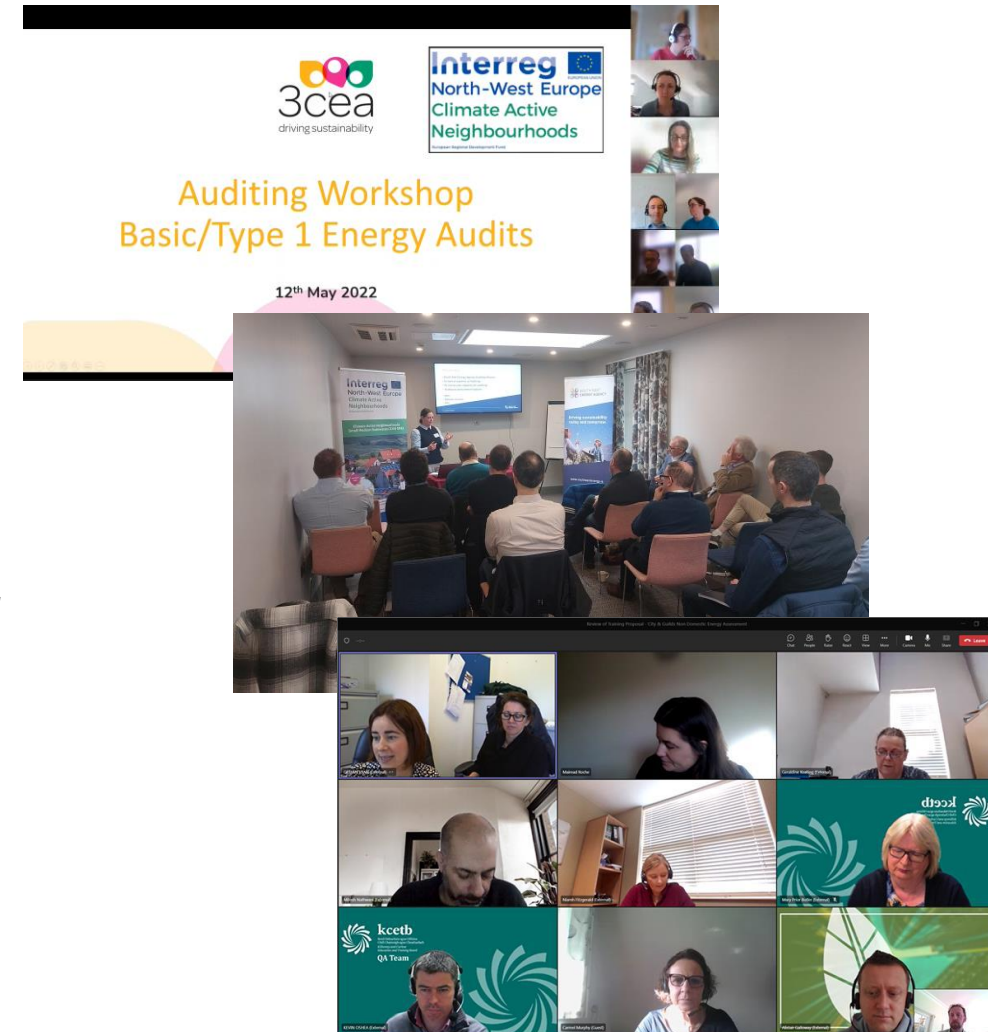
Level of Audit

- What do SME's need an audit for?
 - Identifying energy consumption
 - Identifying opportunities for reduction
 - ***Suitable for funding streams***
 - Easy to Understand!
 - Outline Next Steps
 - ***Follow up with the SME's***



Where are the Auditors?

- Do all audits need to be completed by a Registered Energy Auditor – **NO**
- How do we train new auditors for lower level audits that still meet the requirements?
 - In house training
 - Sub contractor training & workshops
 - Working with the Further Education Board (ETB) to deliver Level 4 course in energy auditing – pilot course to be delivered Q2 2023



Process for Auditing

- Expression of Interest
- South East Energy issue a proposal for works – Must sign & return
- Audit Data Request
- Site Visit
- Report Analysis
- Issue Report
- Present to the Client

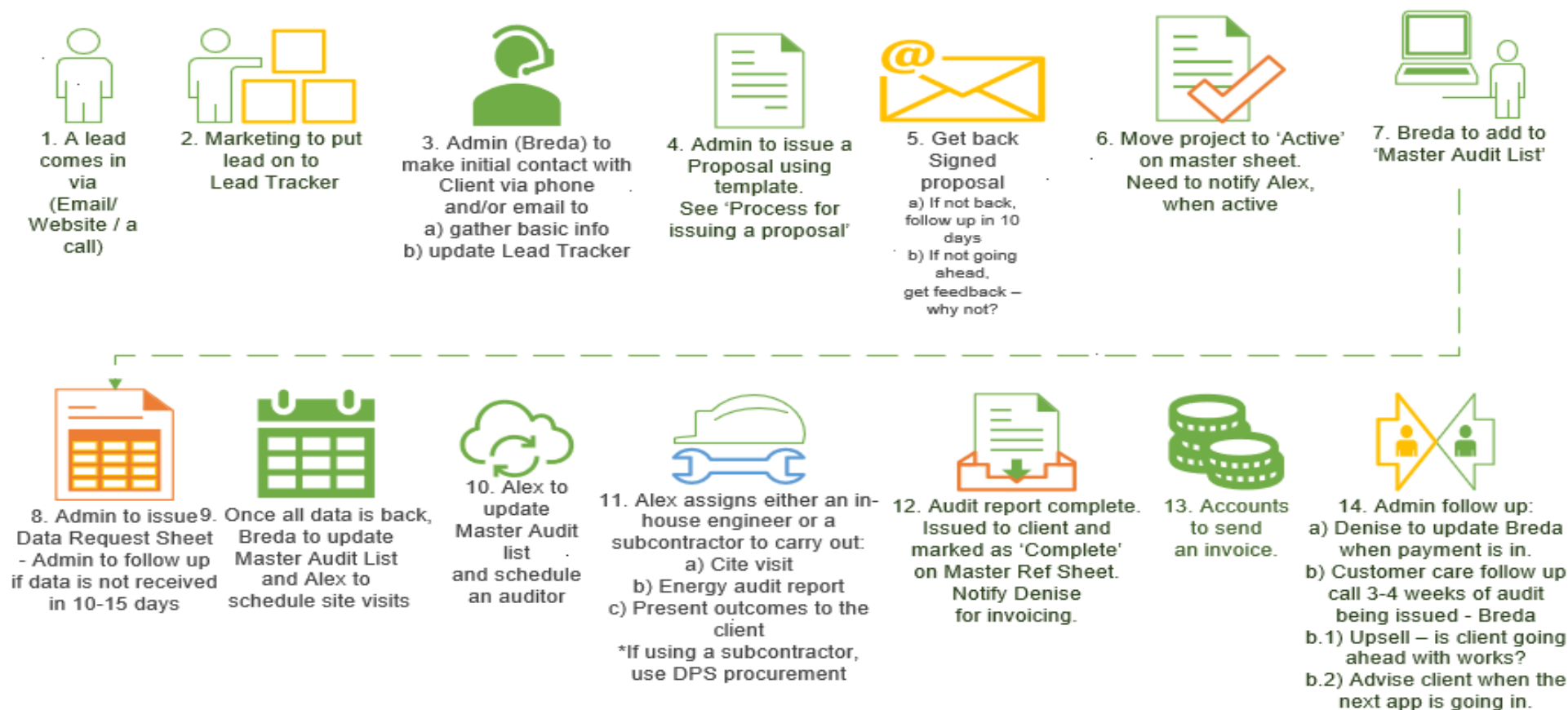
- [Data Request Sheet](#)

To facilitate preliminary analysis and completion of your energy audit, please provide the following information:

- | |
|---|
| <ul style="list-style-type: none"> • Electricity bills for the past three calendar years – include energy and cost information • Other fuel bills for the past three calendar years – include energy and cost information • MRSO data for the past 12 months • GPRN data for the past 12 months • Access to online billing data • Access to in house energy monitoring data • Mandatory monitoring and reporting (M&R) data • Large Industry Energy Network (LIEN) performance information, where this is relevant. • Process flow diagrams • Building layout drawings • Process and instrumentation drawings (P&IDs) for large energy users • Site plans • Asset or equipment lists for main energy-using equipment • Activity metrics data (such as production output, occupancy, weather data) - data for variables that may drive energy use • Historical energy performance information • Copies of any previous energy audits • Details of known opportunities for energy efficiency improvements or existing register of opportunities • Historical energy management programmes or initiatives • Details of personnel who have energy-related roles or responsibilities • Details of upcoming organisational changes or expansion plans that are expected to affect energy use • Previous energy audits. • Copy of previous Display Energy Cert (DEC) |
|---|

Non-Domestic Energy Audit Process

January 2022

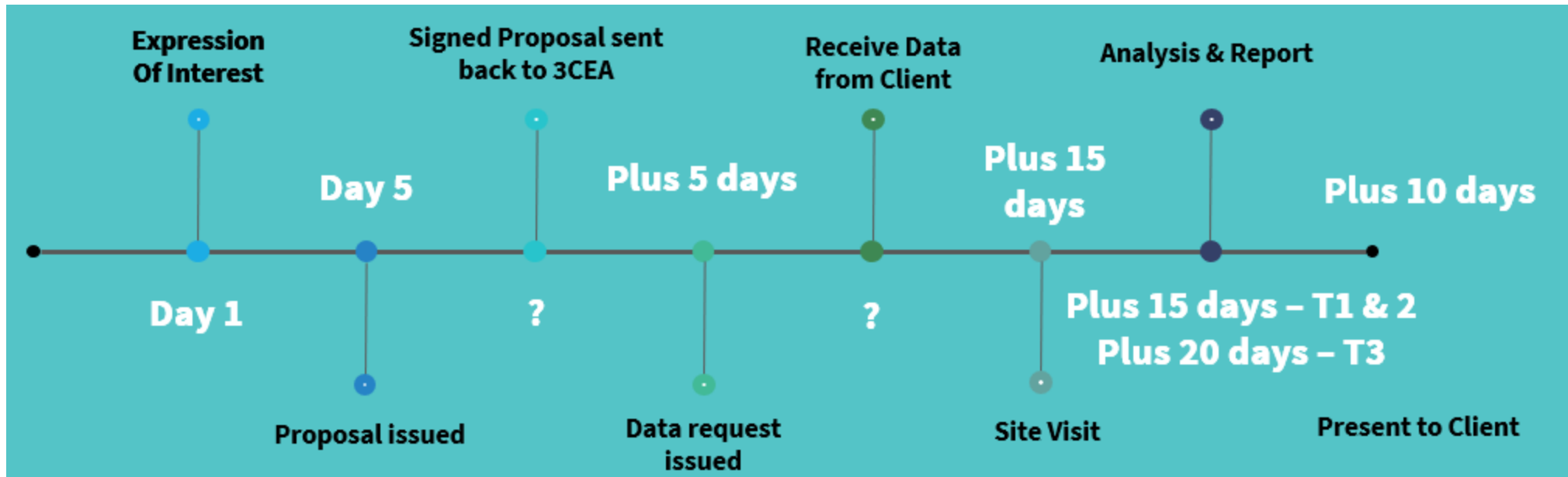


Master Audit List					BOP 105																			
					Issue Date: 01/05/2022																			
Sector	Date for Completion	Co-funding Stream if applicable	Date Proposal Sent	Signed Proposal received	Group Name	Auditor List	Data Request Sent	Yes	Status	Date Site Visit complete	Site Visit Complete	Date Site Visit complete	Audit report	Proof read	Date review complete	Final completed by Engineer	Final Issued to Client	Follow up with Client	kWh identified savings	Tonnes CO2 savings	Year of Issue	Comments		
Community	Q3 2022	CANCAP		27/07/2022	Bree Community Creche	Onyedikachi	Yes	Yes	Completed		Yes		Completed	Yes		Yes	Yes	Yes	62,121	13.3	2022			
Public	Q3 2022	Laois Co Co			Laois Co. Co.	Ketan	Yes	Yes	Completed		Yes		Completed	Yes		Yes	Yes	Yes			2022			
Commercial	Q3 2022	CANCAP		19/08/2022	Sean Cummins Farm	Onyedikachi	Yes	Yes	Completed		Yes		Completed	Yes		Yes	Yes	Yes	9,745	2.9	2022	Alex to review		
Community	Q1 2023	CANCAP		25/08/2022	Carlow Regional Youth Service	Mark	Yes	Yes	Active		Yes		Completed	No		No	No	No				issued to Sharon's ne		
Community	Q3 2022	High Park Energy Master Plan			Sli an Chroi	Onyedikachi	Yes	Yes	Completed		Yes		Completed	Yes		Yes	Yes	No	27,358	0.2	2022			
Community	Q3 2022	High Park Energy Master Plan			High Park Farm	Onyedikachi	Yes	Yes	Completed		Yes		Completed	Yes		Yes	Yes	No	16,692	5.6	2022	Alex to review		
Community	Q3 2022	High Park Energy Master Plan			Toole Memorial Hall	Onyedikachi	Yes	Yes	Completed		Yes		Completed	Yes		Yes	Yes	No	5,046	1.0	2022	Alex to review		
Commercial	Q1 2023	SEAI SME Voucher EA002092		07/09/2022	Kilkenny House Boutique Hotel	Mark	Yes	Yes	Active		Yes		Completed	No		No	No	No						
Community	Q3 2022	CANCAP		12/09/2022	SOS Kilkenny CLG	Onyedikachi	Yes	Yes	Completed		Yes		Completed	Yes		Yes	Yes	Yes	94,665	27.6	2022			
Community	2023	CANCAP		16/09/2022	Wytech	TBC	Yes	No	Not Started		No		Not Started	No		No	No	No						

Timelines for Auditing

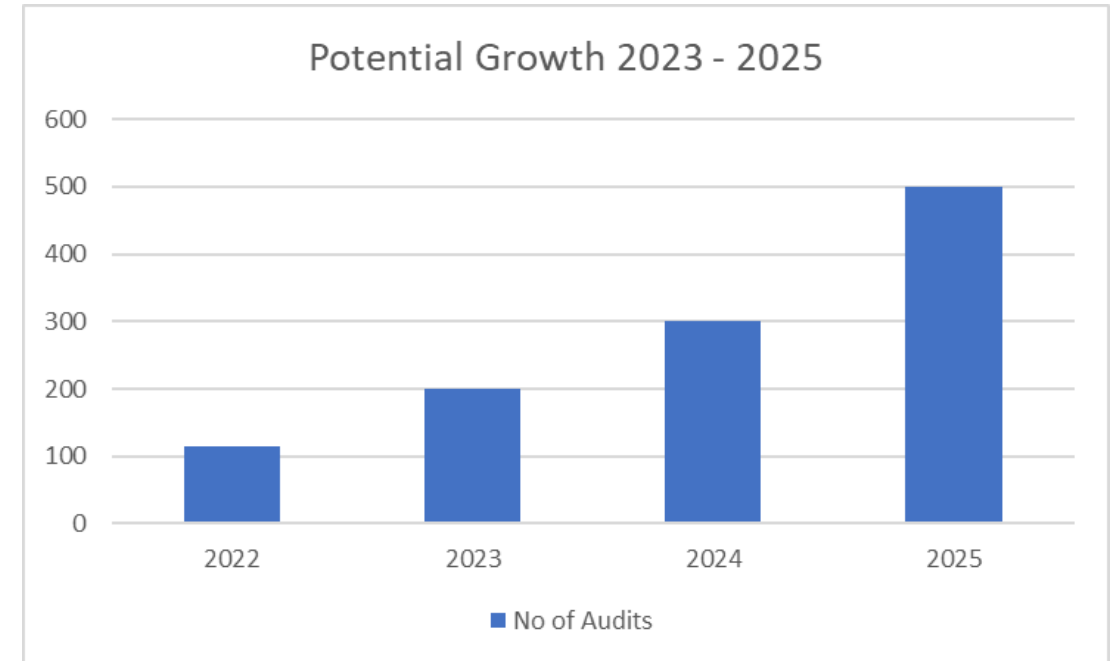
- Dependant on Type of Audit
- Dependant on when you sign & return the EoI
- Dependant on when you provide the data request information
- Dependent on access to site visit

**Total Time: 30 – 90
days**



Progress - 2022

- Delivered 115 audits in total in 2022
 - 56 CANSME audits
 - 59 others – include SEAI SME audits
- Trained 8 internal staff members
- Trained 5 external sub contractors
- Audit Process in place – Master Audit List
- **FOLLOW UP IS KEY**



Next Steps

- **How to get projects delivered...?**