



Pathway 2050: An Energy Plan for Jersey

Action Statement 8: Energy efficiency improvements in the Private Sector

End of Project Report: February 2015 – July 2016



1 Executive Summary

The Energy Plan identifies possible emissions savings from the Private Sector of approximately 13kT by 2020, and 17.9kT by 2050. It outlines that support will be provided to the sector through implementation of a programme of action described in Action Statement 8 (AS8), to deliver the majority of the 13kT target. The AS8 pilot project was carried out to develop and evaluate a range of approaches for delivering emissions reduction in the private sector. AS8 of the Energy Plan identified eco active business as a programme that could help deliver energy efficiency improvements, with an indicative target of 500 participants by 2020. The pilot has worked towards two key metrics; increased eco active business membership and sector wide emissions reduction. The pilot project provides an independent assessment as to whether the eco active business programme, with additional support for energy reduction activities, is the most effective way to deliver the emissions reductions required.

The project delivery consisted of four elements;

Energy support trial

The energy support trial was an initial 3 month period of direct engagement and research with eco active business members. This research helped to shape the AS8 support and eco active business developments that followed.

Eco active business development

A comprehensive review of eco active business was undertaken in order to make the scheme more engaging and effective. The improvements were designed to help improve uptake as well as focus the participants' actions towards emissions reduction.

Emissions monitoring

Emissions data was gathered and analysed in order to build an evidence base to guide the development of support initiatives. The analysis highlighted the importance of high emitting target sectors.

Marketing and engagement

A range of support initiatives were developed and trialled as part of the eco active network approach. New communication tools were introduced, focus group research was undertaken and over 320 attendances were recorded through the events programme.

The pilot project identified a lack of reliable energy use and emissions data as a fundamental issue. This lack of data will continue to present difficulties at both the delivery and policy level. Data was captured at the individual business level throughout the pilot project. However, this approach proved ineffective as only a small sample of data was secured. A top-down analysis of private sector emissions data is recommended utilising fuel import data, standard assumptions and company registrations.

This analysis will assist with the identification of high emitting target sectors. If observed trends were to continue a large proportion of the 500 eco active business member target are likely to be low emitters. The small sample of emissions data has been used to identify that an untargeted approach would not deliver 13kT of emissions savings through 500 businesses reducing emissions by 15%. Businesses would need to deliver emissions reductions closer to 80% per business if a targeted



approach is not adopted. Emissions reduction support should therefore be restricted to high emitting businesses with emissions data used to identify key sectors.

Eco active business has been trialled as the delivery mechanism for emissions reduction support. However, only 25% of participant businesses use gas or oil – the primary target for the AS8 emissions reductions. Efforts made to increase the number of oil and gas users participating in the scheme have not resulted in a significant increase. As a result only a small proportion of actions set by eco active members target gas or oil, and in general these actions are not expected to have a significant emissions impact.

Eco active business brings many benefits but has not proved efficient at delivering emissions reduction. It is therefore recommended that eco active business continues to deliver a programme of broad environmental engagement including raising awareness of the Energy Plan. Specific emissions reduction support should be provided independently from eco active business.

This emissions reduction support is essential as the project demonstrates that many businesses lack the expertise to deliver emissions reduction effectively. Initially, a clear and simple step by step model could be developed that business who are not familiar with emissions reduction can follow towards a low carbon status. This tool could then be supported by contracted technical support as required.

The pilot project indicates that energy saving and emissions reduction are not high on the business agenda. A wide range of engagement activities have been tested and a range of different services have been trialled; a consistently well received approach has not been identified. The provision of more technically focused support, as well as targeting the opportunities presented by decision or break points, are identified as opportunities for increasing emissions reduction impact.



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2 Introduction

Action Statement 8 (AS8) of the Energy Plan is summarised as follows:

“The Minister for Planning and Environment will assist the private sector to make energy efficiency improvements through the Eco-Active Business programme which will adopt the following GHG reduction targets for participating organisations:

- i. A 15% reduction against a ‘business as usual’ scenario by 2020;*
- ii. A further 10% per decade thereafter.*

Investigate the potential for energy efficiency savings within the sector and identify whether appropriate fiscal measures are required to incentivise expenditure on energy saving and energy efficiency measures.”

The eco active business (EAB)¹ scheme is identified as the delivery mechanism for AS8 with a target of 500 participants by 2020. The Energy Plan states that in progressing businesses through EAB to recognised environmental standards, local businesses will demonstrate their environmental commitment and responsibility as additional benefits to emissions reduction.

AS8 is not the only action statement intended to reduce emissions beyond the business as usual scenario within the commercial sector. Action Statement 2, ‘Introducing a ‘low-carbon’ standard through Building Bye-Laws’ will also deliver savings within the private sector. Cumulatively these two Action Statements are expected to generate 13,156 tonnes (13kt) of annual emissions reduction in addition to the expected business as usual reductions by 2020.

The Energy Plan uses Kyoto standard reporting meaning that carbon emissions are accounted for in the country of generation. It is therefore important to note that a carbon factor of zero is assigned to imported electricity and so reductions in electricity use do not deliver carbon savings. There are of course other benefits to reducing electricity demand such as increase in security of supply, peak load reductions, financial savings etc. However, in order to deliver the 13kt emission reduction per annum by 2020, the target areas for AS8 are reducing oil and gas consumption

The Energy Plan recognises that, ‘*Not enough is known about emissions from the industrial and commercial sector*’. As explained within this report, efforts have been made to address this issue, but it remains a fundamental challenge. Without improving the emissions evidence base, ongoing policy development and measurement of impacts will be difficult. It should also be noted that reducing emissions from transport fuels is considered in other action statements. However, a pragmatic decision was taken mid-way through the AS8 project to support the business community to reduce their transport emissions given the established business relationships provided by AS8.

¹ www.gov.je/ecoactivebusiness



3 Project Aims and Objectives

The AS8 project was delivered on a Contract for Services that commenced in February 2015 and concluded in July 2016. This pilot project has been carried out to develop and evaluate a range of approaches for achieving emissions reduction in the private industrial and commercial sector. There are two key metrics which the project has worked towards, increased eco active business membership and sector-wide emissions reduction. The pilot project was framed against the following aim and objectives:

Aim

Recognising the Energy Plan target of 500 eco active business members and an emissions reduction target of 13kt by 2020, trial and assess whether an enhanced eco active business programme is an effective way to deliver the emissions reductions.

Objectives

Develop a pilot emissions reduction programme for the private sector that includes the following deliverables:

- **Trial energy support programme** with a selection (20) of industrial and commercial organisations
- Develop and test a reporting spreadsheet for **carbon emissions monitoring** to enable monitoring and reporting of progress
- Recommend **incentives / support** packages for industrial and commercial organisations
- Support **CRM development** to provide basic client relationship data management
- Develop a comprehensive **marketing and engagement** programme in partnership with Jersey Business.



4 Project Delivery

The AS8 project is the first government led private sector support programme focusing purely on emissions to be trialled in Jersey. The broader eco active business programme which has been used as the foundation for the AS8 project has a much wider environmental remit. The AS8 project has therefore provided new learning over the course of the project delivery and has had to adapt and evolve accordingly.

Box 1 provides an overview of the pilot as delivered over the near 18 month duration. In summary, the first months of the project were spent running an energy trial and gathering emissions data to more broadly understand energy use within the private sector. It was quickly identified that the next priority was to update the eco active business scheme in order to increase the focus on emissions reduction. Over the remaining period, marketing, engagement and support tools were developed to encourage uptake of eco active business and support emissions reduction. The following sub-sections provide further details around each of the four main work areas identified in Box 1.

		F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J
Energy Trial	Deliver trial with 35 x business	[Red bar from Feb to Jun]																	
Eco active business	Lean review	[Blue bar from Mar to Sep]																	
	CRM developments	[Blue bar from Feb to Jun]																	
	Actions review and analysis	[Blue bar from Nov to Dec]																	
Emissions Monitoring	Initial data capture	[Yellow bar from Feb to Jun]																	
	Ongoing capture and target sectors	[Yellow bar from Jul to Dec]																	
	Carbon calculator and seminars	[Yellow bar from Jan to Apr]																	
Marketing & Engagement	Jersey Business / Industry bodies	[Light green bar from Feb to Jun]																	
	Events programme	[Light green bar from Feb to Jun]																	
	4Insight research	[Light green bar from Jul to Dec]																	
	Quicktips development	[Light green bar from Jan to Apr]																	
	Eco active newsletter & case studies	[Light green bar from Jan to Apr]																	

Box 1: Project delivery overview

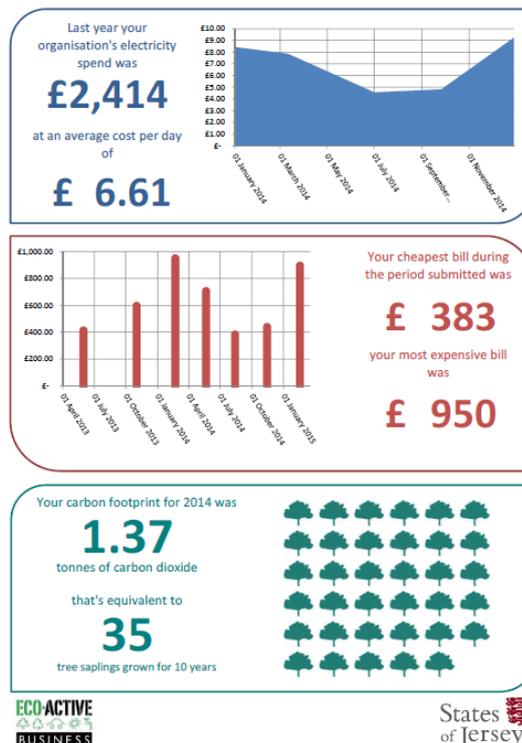
4.1 Energy Trial

Overview

The Energy Trial was an initial period of direct engagement with eco active business members. The purpose of the trial was to build a foundation understanding of emissions reduction potential given that emissions focused support had not been previously been provided to the private industrial and commercial sector. This initial research helped to shape the AS8 support and eco active business developments that followed.

Delivery

- Invitations were sent to all existing eco active business members to take part in a ‘business energy reduction project trial’
- Meetings, site visits and follow ups, if required, were conducted with 35 businesses
- Participants were offered advice on energy saving opportunities and template energy survey documents were developed
- Participants were consulted on the support they needed in order to deliver energy and emissions reductions
- All participants were asked to submit energy consumption data, despite follow up and support only 12 of the participants did so
- ‘Energy Snapshot’ dashboards were produced (see Box 2), a first step towards the carbon calculator that was later developed



Box 2: Extract from Energy Snapshot dashboard. The dashboards provided contextual energy information to support the trial meetings and several businesses indicated that they would share the dashboards with their staff as an awareness tool. The simple design of the dashboards was well-received, however they were relatively time-consuming to produce.



Discussion

The trial was positioned as generic energy support and this meant that the vast majority of recommendations focussed on cost reductions rather than emissions; it was recognised that this was the main driver for businesses. Carbon emissions were recognised as a secondary benefit for the more engaged businesses but there appeared to be little awareness of the Energy Plan or the sector's emissions reduction target prior to the meetings.

The 35 participants of the trial equated to 23% of EAB members at the time. It might reasonably be expected that existing EAB members would be relatively pro-active in pursuing energy reduction opportunities compared to non-EAB members. The relatively low level of interest in the trial was therefore a potential warning indicator in respect of the 500 member target.

The businesses participating in the trial ranged from multinational finance companies to local trades operating out of a home office with a single van. Given the differing nature of businesses, an important lesson was the need for flexibility in the eco active business and AS8 approaches moving forward.

Most businesses understood the basics of their energy use but were unsure how their actions compared to others or how they could improve. In contrast, a small number of pro-active businesses, identified as leaders within the eco active business programme, were knowledgeable and willing to share their experiences with others. This helped to shape the knowledge sharing tools that were developed. These included lunch and learn events and the production of a series of good practise case studies.

The best performing local businesses, in energy management terms, were those that are part of a larger or multinational group, this was particularly evident in the financial services sector. It was clear that corporate policies and working practices from the parent group operations, plus requirements to demonstrate compliance with corporate social responsibility commitments, are cascaded and implemented in the Jersey operations. In contrast, locally owned independent organisations did not have a support network available to learn about energy and environmental matters.

Key Lessons

- The offer of free generic energy support received very low uptake; this is of concern given the accessible target market of eco active business members
- Businesses taking part were primarily interested in cost savings, rather than emissions reduction
- There was little awareness of the energy plan or emissions targets
- Flexibility is important given the range of business types/sizes engaged
- Peer based knowledge sharing of good practice was identified as a potential opportunity

Recommendations

- Eco active to facilitate the sharing of good practice environmental and emissions knowledge



4.2 Eco active business development

Overview

The eco active business scheme is an environmental management programme based on ISO14001, with a broad environmental remit. The Energy Plan targets require members to contribute towards the overall 15% reduction in carbon emissions from the sector by 2020. The Energy Plan does not expect that the sector wide emissions target will be met through each business individually contributing a 15% reduction. Rather, businesses will deliver varying reductions dependent on their circumstances, which cumulatively will deliver 15% across the sector. In addition, to achieve the 500 member target by 2020 a significant increase in uptake of the scheme was required from the starting point of 130 members in February 2015. In order to increase the likelihood of meeting these two targets a comprehensive review of eco active business was undertaken with the key objective of both increasing the numbers of businesses engaged and increasing the impact of their actions.

Delivery

- An improvement project, using Lean methodology, was carried out from 1st April – 14th October 2015
- Key improvements made through the project include:
 - Simplification of the application form and process, legal compliance check and pollution prevention plan
 - Reduction in the number of actions required per year to two, emphasising quality and relevance rather than quantity.
 - One business action to be energy or emissions focused
 - Redesign of web content, relocating content and clarifying application process
 - Transition from a 3 tier scheme to 2 tier (Member and Leader only)
 - The introduction of an electronic mailing list to increase awareness of EAB and effectively distribute information to multiple employees from the same organisation
- The Microsoft Dynamics CRM (Client Relationship Management system) was comprehensively upgraded to allow ongoing management and reporting of eco active business through a centralised system

Discussion

In order to deliver emissions reductions, the eco active business process supports members to set and deliver meaningful actions. The previous membership process was centred on completion of a spreadsheet form. This form provided basic advice, which, according to the information submitted, enabled the business to identify actions. The advice provided by the form was supplemented by ad-hoc support as well as the business' own research. Each member level business was required to submit an action plan but the process did not include robust reporting or accountability. This meant that, in theory, a business could resubmit the same action plan without reporting progress or improvement. Following the project review, the improved membership process requires a business to set two actions per year. At the end of the year each business must report on the delivery of their actions as well as setting two new actions for the next year.

There are several reasons for adopting this approach that tie in to the AS8 targets. The system requires that one of the two actions is to be focused on carbon emissions or energy management. This enables comprehensive monitoring and reporting on the type and number of emissions and energy management actions that businesses are actively working towards. Analysis can then be



conducted to assess the specific areas businesses are focusing on as well as the magnitude of the actions taken as presented in the Results (Section 5.2).

The second action can be focused on other environmental areas relevant to the business. This gives the flexibility to choose an action which is particularly relevant to their operations. This is important given the range of size and type of business as highlighted in the previous section. The previous forms required two actions across five environmental areas. This meant that businesses may not have been focusing their efforts on the most significant aspects of their activities. In order to secure the target of 500 members by 2020 the scheme needs to be sufficiently flexible to be relevant to all types of participant business; the revised process is an important step which will need to be monitored in order to assess effectiveness.

Initial experiences from the energy trial suggested that a 15% reduction in emissions would require significant changes to operations. The original application forms provided useful 'tips' but could not be expected to provide the breadth of specific advice that businesses require in order to make significant changes. A range of support and engagement initiatives were developed as part of the AS8 project which operated alongside the new forms and are discussed in the following sections.

The changes to the scheme were supported by the existing EAB membership. There has been a slight increase in new applications to EAB since the changes have been introduced, although whether this is due to the new process or other factors cannot be verified. A number of challenges remain, with around one fifth of the 2015 membership not having upgraded to the new forms. The first round of annual reporting will occur at the end of 2016 and businesses will be asked to confirm if their actions have been delivered. As this is a new system it is unclear what level of delivery can be expected. The decision as to whether to keep those businesses on the scheme that do not respond to the annual return requirement has not yet been finalised.

Using the Lean process, it was identified that there was limited scope for reporting the efficacy of the eco active business programme. There was no centralised database for eco active business content and the CRM had limited capacity to capture data or track the completion of forms. A key improvement has been the increased level of reporting and accountability as a result of the new forms and CRM process. As shown in Boxes 3 and 4, data from the new forms has been centralised allowing reporting on the details of membership applications that were not easily accessible previously. The ability to monitor and report at the individual action level will be particularly useful to assess the impact of engagement efforts. For example, to assess whether specific campaigns or support programmes which focus on a certain topic area result in an increase in business actions in that area.

An area that has proved challenging for businesses is the development of Pollution Prevention Plans (PPP). The plan requires a site self-assessment with limited support available to help businesses complete this aspect of the application correctly. The development of a plan ensures the business is compliant with environmental legislation and has specific management controls in place to reduce environmental risk or to mitigate impacts of an incident. High emissions businesses, such as users of heating oil or operators of commercial kitchens (cooking oil), are required to complete a plan as part of their application. This is of particular relevance to AS8 as it provides additional information and also the targeting of support and advice. It is a concern that high emitters may find this aspect of the application process challenging and it may deter them from joining eco active business. This is illustrated by two large businesses that have been long term participants of the programme and have not completed their 2016 submission. The Environmental Protection team will continue to



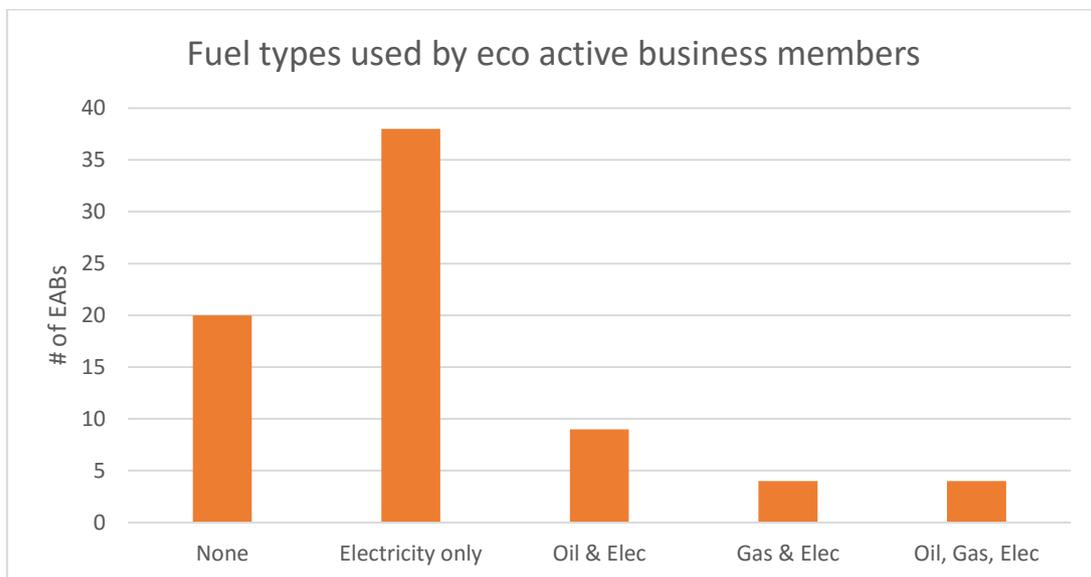
work with the eco active programme to identify ways to assist businesses with developing pollution prevention plans.

Key Lessons

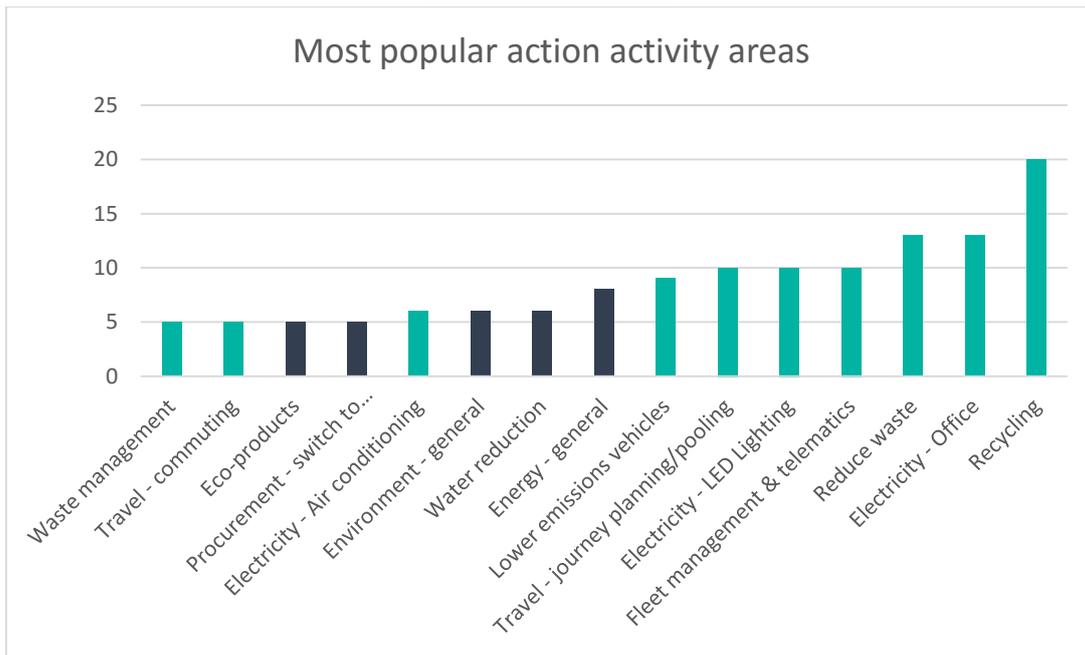
- A revised eco active business scheme with fewer actions required but with greater flexibility for businesses to set relevant, high impact actions is a step forward

Recommendations

- Monitor and report on the actions set/delivered to assess the impact of eco active business as a vehicle for delivering emissions reduction (see Results, Section 5.2)
- Monitor and report on the actions set/delivered to assess the impact of awareness and engagement efforts on individual topics



Box 3: Basic information such as fuel type is now centralised within the CRM. Queries can be used to interrogate the membership data stored allowing more in-depth analysis than was previously possible.



Box 4: Each action set by an EAB member is allocated an activity area. This data can be used to understand the priorities of the EAB members and in turn inform the provision of relevant support from eco active. In this graph all activity areas identified by 5 or more businesses are shown. Waste, transport and electricity actions are highlighted in teal; it is clear that these are priority areas for eco active member businesses.



4.3 Emissions Monitoring

Overview

The Energy Plan targets were developed using emissions data based on estimated annual quantities of fuel used by the commercial sector as reported by the Island's fuel suppliers. Data on the fuel use of individual businesses was not available except for a small number of historic EAB submissions. Emissions data was analysed in order to build an evidence base to guide the development of support initiatives as well as assist with future policy development.

Delivery

- Emissions monitoring spreadsheet developed allowing energy consumption data to be centralised, converted to carbon emissions and analysed
- Emissions data analysed for 57 businesses from various sources
- Analysis of data in June 2015 identified that large businesses should be the initial focus area for one to one direct support. Small businesses were recognised as having significant cumulative impact and would therefore be assisted via generic /indirect support.
- Following further data capture, additional analysis in January 2016 enabling the development of a list of target sectors to be developed (see Box 5)
- A carbon calculator spreadsheet was developed and tutorial seminars were provided to help capture more data and assist businesses in understanding their emissions data. 24 businesses requested the tool.
- A sample of agricultural emissions data was analysed

Discussion

It has proved difficult to secure energy data from businesses in order to calculate emissions profiles. It appears that relatively few organisations monitor their energy use, this means that the retrospective capture and provision of data can become a time consuming (and therefore expensive) exercise for the business. Businesses that have submitted historic data have generally done so in raw form as copies of bills, which has been time consuming to input and analyse.

To work around this problem existing sources of data were sought. These included information from a range of Department activities including historic eco active business returns data, Rural Initiative Scheme energy surveys and Energy Efficiency Service data. This approach also provided only a limited number of emissions profiles and therefore a carbon calculator tool was developed to allow businesses to accurately capture data. Despite publicising the tool's availability and running a number of seminars there has only been limited uptake of the tool (24 users). Given the lack of uptake of the basic carbon calculator, the development of a more sophisticated online tool is not recommended at this stage.

Emissions data for 18 of the 50 commercial scale agricultural producers was obtained by accessing energy surveys completed for the Rural Initiative Scheme. This data was analysed in order to calculate the average emissions for the three main categories of farm; dairy, potato and mixed. By comparing these averages to the Island-wide agricultural statistics, it has been possible to scale up the survey data to calculate emissions indicators for the sector. However, even with this relatively large sample size questions still remain over the validity of the data which cannot be conclusively answered. The difficulties experienced capturing data, and uncertainties that remain (even when a



significant sample size has been secured) have resulted in an alternative approach to emissions capture being recommended (see Conclusion 1, Section 6).

Although the emissions data analysis is based on a small sample of data it has helped identify target sectors, and the specific fuels to focus on within those sectors, as shown in Box 5. This evidence base guided the development of the support services and a similar approach is recommended. The table clearly identifies a number of sectors with very low emissions as they principally use electricity with very few hydrocarbons. Although founded on a small sample size this finding is of importance to the Energy Plan target. The Energy Plan assumes a 15% emissions reduction across 500 eco active business participants. Unless a targeted approach is adopted a large proportion of the 500 businesses will be unable to deliver any savings as they are already very low carbon.

Key Lessons

- The majority of local businesses engaged were not actively monitoring energy or emissions
- A carbon calculator developed to help businesses capture data has had little uptake
- Capturing energy or emissions data from businesses was difficult meaning only a small sample was available despite additional efforts to gather data from several sources

Recommendations

- The development of an online carbon calculator tool is not recommended as uptake cannot be assured
- Even where a significant sample has been secured (i.e. agriculture), questions remain over the validity of the data as it cannot be verified (for example against fuel import data). An alternative approach to data capture should therefore be pursued
- The target sector approach has helped identify high emitting sectors and specific target fuels within sectors and this approach should be continued



Organisation Type	Sample size	All Fuels Average Footprint	Average On-Island stationary fuels Footprint (Oil, Gas, Elec)	Average of AS8 Kyoto Footprint (Oil & Gas only)	Average of Transport Footprint (excludes air travel)
Hotel	2	916	916	344	0
Parish	1	604	399	326	206
Large / multi site	3	383	359	13	24
Care Home	4	152	152	148	0
Agriculture	18	111	15	2	96
Finance	2	101	101	37	1
Construction	2	34	1	0	33
Transport, Logistics & Facilities	1	34	3	0	31
Leisure & Tourism	4	33	33	16	0
Property Manager	1	18	16	0	3
Trade	8	11	2	1	9
Micro Business (1-5 employees)	2	3	3	3	0
Small Business (5-20 employees)	6	3	1	0	2
Supplier	1	2	0	0	2
Influencer	2	1	1	0	0
Average	57	118	80	32	38

Box 5: The table shows emissions data broken down by business sector as well as emissions source. Average per business emissions of >100t/annum are indicated in descending order from red → yellow. Emissions values of 10-100t/annum are highlighted in blue. Values less than 10t/annum are highlighted in green.

The breakdown makes a distinction between the 'On-Island footprint' and the 'AS8 Kyoto footprint' to allow for differences in emissions reporting. For the purpose of calculating an organisation's on-Island carbon footprint, emissions from electricity are calculated at the Building Bye Law emission factor of 0.092kg CO₂/kWh. However, for the Kyoto reporting principles adopted in the Energy Plan these emissions are effectively zero as indicated within the 'AS8 Footprint column'.

The red/orange/blue areas in the AS8 Kyoto Footprint and Transport footprint columns highlight priority areas for AS8 support.



4.4 Marketing and Engagement

Overview

In order to encourage more businesses to join eco active business an engaging support programme has been developed. The emissions monitoring work identified high emission target sectors and specific support initiatives were trialled for these sectors. The large number of low emission small businesses required an alternate approach as resources were not sufficient to enable direct engagement with all of them. Following focus group research an approach focused primarily on providing small businesses with access to electronic materials and information was developed.

Delivery

- Eco active network approach developed prioritising regular communication and sharing of local good practice within the local business community
- Development and delivery of eco active business e-newsletter
- Development and preparation of eco active case studies
- Partnership development with Jersey Business
- 4Insight small business focus group research
- 7 eco active business topic Lunch & Learns and 11 target sector events were delivered as shown in Box 6. A total of 322 attendances were recorded at these events.
- Energy Saving Quick Tips package developed aimed at supporting small businesses

Discussion

In order to increase eco active business participation and inspire businesses to reduce emissions, an engaging support programme was developed. The AS8 project provided additional time and resource capacity to develop materials, deliver a programme of events and ensure regular communications with eco active business members. This network approach provided businesses with opportunities to share experiences, meet each other and participate more regularly.

Regular communication has been introduced through the eco active e-newsletter. Previously email communication was irregular and limited to eco active business recipients. The newsletter provides information about events and other activities for the coming month. Any individual or organisation can register to receive the newsletter helping to extend the reach of eco active. By July 2016, the newsletter had 330 subscribers and averages over 100 opens per month. Eco active case studies feature in each newsletter to provide a local example of good practice, the use of case studies was identified as important through the focus group work as highlighted in Box 7.

Eco active business members shared their best practice lessons with the wider network through the Lunch & Learn sessions. There is some evidence that the topics discussed are translating into actions. For example six of the thirteen fleet management or driver efficiency actions were set by attendees at the fleet Lunch & Learns. Longer term data and analysis will be required to show if there is a significant trend between the actions delivered and engagement activities.



Sector	Lunch & Learn	Emissions Monitoring	Hotels	Care Homes	Transport	Other
March-15	Waste 47 / 43					
April-15					Fleet 30 / 26	
May-15	Water 27 / 19					
June-15						
July-15						
August-15						
September-15		Monitoring 24 / 22				
October-15			Green Tourism 15 / 12			Large site forum 4 / 4
November-15	Legislation 17 / 11			Operation TLC 20 / 12	Fleet 20 / 13	Farming conference & visits
December-15						
January-16						
February-16	ISO 14001 30 / 17					
March-16	Paper 23 / 18	Seminars 17 / 17				
April-16						Finance Forum 5 / 5
May-16				Cheshire Home 3 / 3		
June-16					Electric drive 10 participants	EfW Tour 15
July-16			Pools 15 / 13			
Suggested further initiatives			Sustainable Restaurants		Professional driver training	Farm vehicle efficiency

Box 6: Timetable of engagement events delivered. The subject is indicated with green events being led by the eco active business programme manager and blue by the AS8 project. Attendee numbers are highlighted as 'Total number of attendees / Number of businesses represented'.

As identified in the previous section, engaging the high-emitting target sectors is key to achieving emissions reductions. Given good attendances and positive feedback from the Lunch & Learns a number of sector-focused events were trialled. These events varied in purpose and design in order to test a number of approaches including presentations, training sessions, small group seminars, open days and discussion forums. The level of participation at these events has varied despite considerable efforts to engage relevant organisations directly by phone, email, letter and attendance at industry networking sessions. As well as the delivery of information, it was expected that these



events would draw new businesses to join eco active; unfortunately only a small number of event attendees have converted to full membership (further discussed in Results, Sections 5.1 and 5.3).

Direct engagement with target sectors has also been trialled with a package aimed at the hotel and care sector piloted. An invitation to receive free energy advice support, including free tester energy saving products such as LED lights and a low flow shower head, was sent to all hotels and care homes. An initial meeting and quick review process took place with nine hotels and five care homes taking part. The expectation was that these organisations would follow up with an eco active business application based on the actions identified during the session. Two of these visits have translated into memberships.

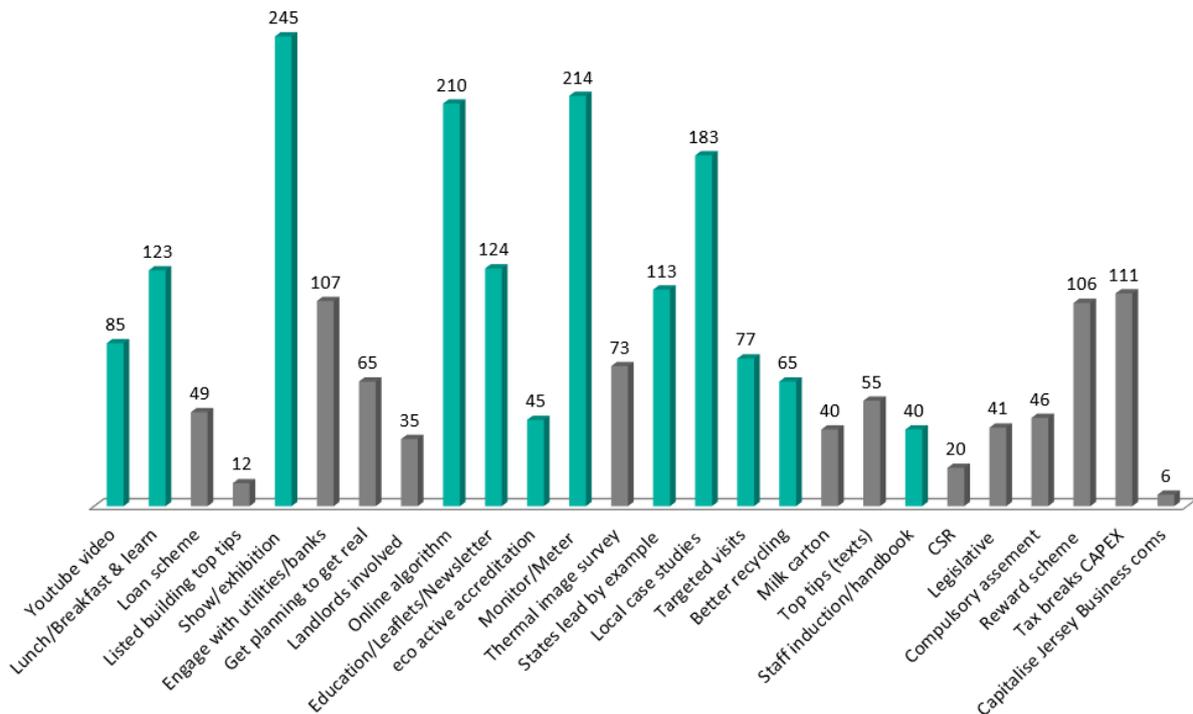
Industry bodies have been generally supportive of eco active business and helped to distribute information. Firstly a strong working relationship has been developed with Jersey Business who host eco active materials on their website, help to publicise and administer events and refer businesses to eco active. Maintaining this working relationship is recommended given their respected position in the business community. Secondly industry bodies such as Visit Jersey, Jersey Hospitality, Digital Jersey and the Jersey Care Federation have been engaged and co-hosted or help publicise events when requested.

There are 6000+ small businesses on the Island and although their per-business emissions are low their cumulative impact is expected to be significant. The large number of small businesses means that the direct engagement/events focused approached highlighted above is not possible. To better understand how to engage this sector a local market research organisation, 4Insight, were commissioned to undertake focus group research.

The research informed the development of the engagement tools produced in late 2015/early 2016. Although the focus of the research was small businesses, a number of the ideas raised were also relevant to the larger business community. Box 7 summarises one aspect of the research, a consultation into ideas the participants suggested would help them save energy. As would be expected from the breadth of the private sector there is no 'one-size-fits-all' solution. The overarching conclusion of the research was that businesses require consistent messages, in a variety of different ways, in a variety of different formats.

The suggestions identified by the focus groups were progressed as indicated by the teal bars in Box 7. The suggestions progressed were those that were considered to be achievable and have the greatest potential impact. Areas not yet progressed could be reviewed to identify the next set of actions once the review of the impact of the initial round of activity has been analysed.

The first major area of action resulting from the focus group research is the development of a package of mixed media information materials. The 'Energy Saving Quick Tips' document has been developed and launched and consists of a printed booklet, PDF, standalone social media images and YouTube videos. The concept is that it can be viewed in its entirety or in snippets given that focus group participants wanted consistent messaging in various formats.



Box 7: Focus group participants took part in an exercise and were then asked to allocate points to each of the ideas discussed. Grey bars indicate ideas that have not been prioritised/developed to date, teal ideas have been progressed.

The suggestion which received the highest points allocation was a show/exhibition. This was taken forward in the format of a series of events and activities which ran over a full week, rather than a one off show and was branded as an invitation to take action through ‘Get eco active week’. The eco active programme has historically participated in a number of on-Island exhibitions that have had limited impact and required considerable financial and staffing resources. This coordinated week of smaller events focused around World Environment Day was therefore an alternative approach. The week included two energy focused events; a tour of the Energy from Waste plant and an ‘Electric drive’ promotion. Significant profile value was obtained by the inclusion of media personalities from BBC Radio and Channel 103 who in turn provided free publicity about the eco active programme.

Key Lessons

- The network approach with regular communication, engagement opportunities and sharing of best practice has been positively received by participating eco active businesses
- Securing engagement with target sector businesses outside the eco active membership has been difficult despite various approaches
- Small business research suggests the use of consistent messages in a variety of formats – materials have been developed to support this

Recommendations

- The focus group research should continue to be used as the basis for emissions focused engagement with small business
- Relationships with industry bodies have been developed and should be maintained



How do we reduce energy?
How can we reduce energy?

The two most common questions we hear are: "What are the most effective ways to reduce energy use?" and "How do we measure our energy use?"

Here are some tips to help you get started:

making the headlines this month

- Less paper in your office, how you can save money and resources
- Monitoring energy saved the #1 business goal?
- How to monitor energy and calculate your carbon footprint
- Earth Hour 2016

Eco active actions
Energy saving case study

Focus
Energy - Monitoring & staff culture

Member
Buckhorn Bay (Marine) Hotel, Jersey

The Business
> Hotel
> 185 Rooms
> 105 employees

Action in a nutshell:

- > **17.7%** reduction in energy use since 2011
- > **Daily** monitoring of electricity, gas and water meters
- > Records stretch back to **2008**

Staff energy saving culture Targeted projects drive ongoing improvements

“a reduction of 25% of energy usage may seem ambitious, but with the ongoing business developments certainly not impossible. However setting targets can only be done by accurate monitoring.”



Safer to save

- Sensible, safe driving is best in all regards. From an energy point of view smooth driving, avoiding harsh acceleration or braking, is the most economical
- Provide training to regular drivers to help improve fuel efficiency and safety on the road

Max your MPG

- Ensure vehicles are regularly maintained in line with the manufacturer's recommendations
- If you are covering a large mileage, or are looking to reduce your carbon footprint, electric and hybrid vehicles are way cheap to run and produce minimal emissions

□ If you have a fleet of vehicles, choose the right vehicle for the job

The business case for LED is getting stronger and stronger. Immediate energy savings can be up to 75%, production downtime is 0, your return is fast and payback on investment is typically between 1-2 years.

Energy saving quick tips

Eco Active Jersey
Written by Freedom Media [?]-30 June 2016 at 16:30

Ever wondered what an electric car is like to drive? Find out what Dorothy from 4Insight thought of her week long test drive. Keep watching to find out about the CO2 and £££ savings! #ecoactivedrive

0:41

Remember to adjust timers for daylight savings and time patterns.

Energy saving quick tips

Box 8: Examples from the range of eco active branded marketing and engagement materials developed. Clockwise from left, e-newsletter, case study, PDF resources, standalone social media images, video case study/YouTube video, topic focused seminars.

5 Results

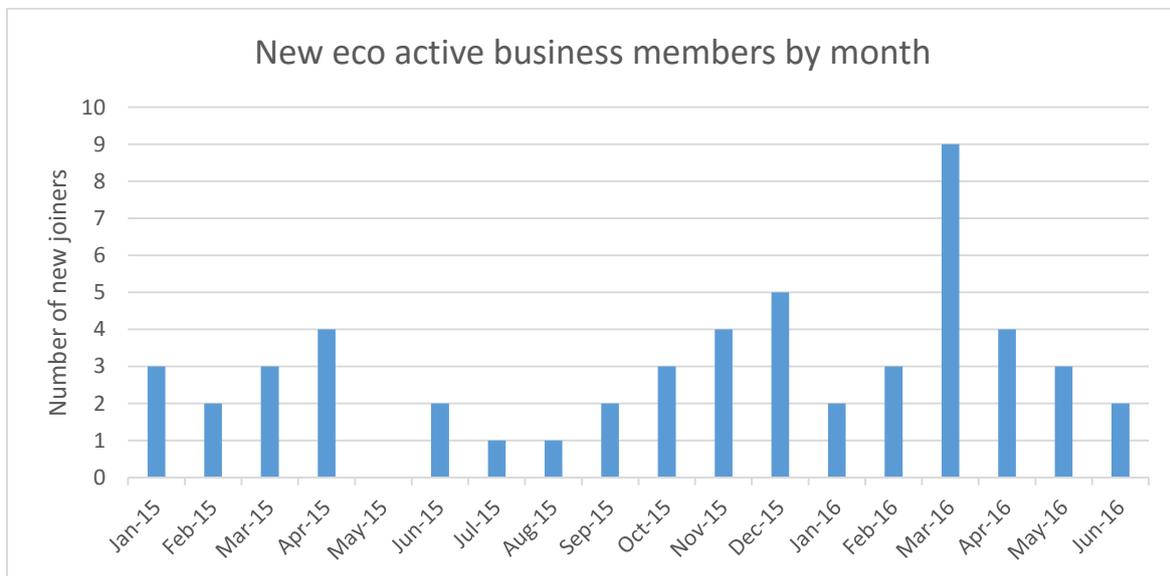
The two key metrics which the AS8 pilot project is assessed against are:

- Increased eco active business membership, working towards 500 members by 2020.
- Emissions reduction, with an aim of a 13kt reduction by 2020.

The following three sub-sections identify the progress made towards delivering each of these targets through the various initiatives developed and implemented over the course of the project.

5.1 Eco active business membership

At the end of June 2016 there were 181 eco active business members and leaders. In 2014 and early 2015 inactive and non-respondent memberships were removed from the scheme, which significantly reduced the total number of memberships that had previously been recorded. It is possible to refer to early 2015 when the most recent audit of records took place, this shows that there have been 53 new membership applications (or deactivated members re-joining) since January 2015 as presented in Box 9.



Box 9: New eco active business membership applications by month, 53 new applications since January 2015.

The updated eco active business membership process was launched in October 2015. In the 9 months prior the average number of new members was 2 joiners per month, since the new process has been introduced this has increased to 3.9 joiners per month. Whether this improvement can be attributed to the new process, the network approach or other changes cannot be conclusively verified, but anecdotal evidence is that the new scheme design has had a positive impact. The high level of applications in March 2016 was due to a States of Jersey tender requiring eco active business membership as a scored criteria, this has clearly impacted the results and highlights the value of including eco active within procurement policies.

If the 3.9 joiners per month were to continue until January 2020 it would be expected that around 160 new members would join eco active business during the intervening period. To meet the 500 business target the new joiner rate needs to be doubled to 7.8 businesses per month.

To identify businesses that have interacted with eco active without a completed membership application being received, a prospective membership category was created in the CRM. This allows



communications to be managed with businesses that have not made the progression to membership. This category may be used following an engagement event to ensure participants are kept up to date with similar opportunities in the future or to offer a follow up visit. In June 2016, there are 54 prospective businesses recorded on the CRM, although these may seem like potential members it is not clear if this is the case. In the most part efforts have been made to engage these businesses and an application has not materialised, so although an application may be in process, it could also be that the business is engaged with eco active ideas but isn't interested in becoming a member.

Emissions Reduction

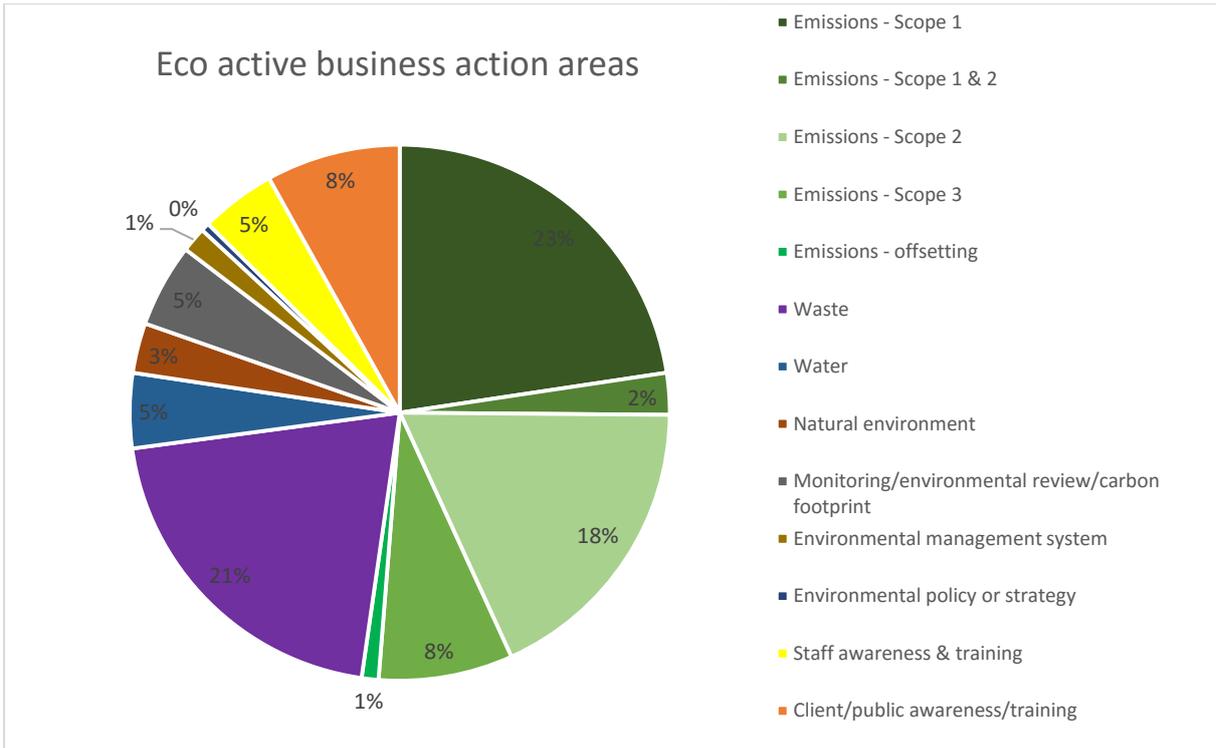
As discussed in the emissions monitoring section, individual business emissions data is not available for a significant sample of businesses. Therefore it is not possible to provide a before and after assessment of individual business or sector wide emissions. The following sections discuss the two areas of interest from the AS8 project directly relevant to emissions reduction, eco active business actions and the engagement with high carbon emitting target sector businesses.

5.2 Emissions reduction - eco active business actions

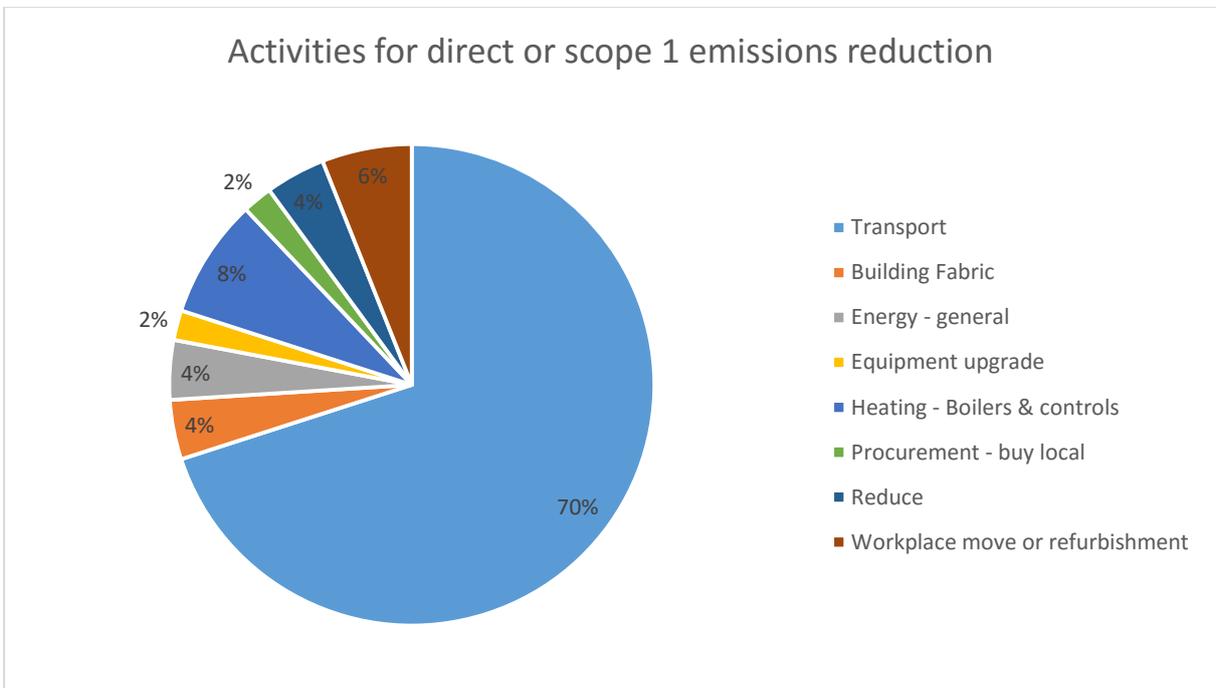
Actions have been set by 99 eco active businesses, the remaining 82 eco active members businesses are made up of Leaders (17), Level 1 businesses within their 2 year grace period (20) and the remainder have not yet transitioned to the new forms. The updated eco active business membership process put increased emphasis on emissions reduction by requiring one of the two annual actions set to be energy or emissions focused. Box 10 shows the breakdown of action areas highlighting that only 25% of actions are focused on direct or scope 1² emissions. The eco active business membership process for 2016 has delivered 50 emissions commitments to date – at this point the action can only be considered a commitment as the business will not report on delivery against the actions until the end of the year.

Further analysis of these actions reveals the focus areas for emissions reduction, these are listed in Box 11. This highlights that the majority (70%) of direct or scope 1 actions set are focused on transport emissions, not the oil and gas emissions that are the targets for AS8. However, this is not altogether surprising as only 25% of eco active businesses are users of gas or oil. By carrying out a review of the actions it is also possible to categorise and estimate the emissions reduction potential of the action. This accounts for the difference in benefit between actions, like committing to run a turn it down campaign compared to those committing to invest in new capital plant. As highlighted in Box 12, 60% of actions are classified as having emissions reduction potential of 10% or less.

² Greenhouse gas emissions are categorised into three groups or 'scopes' by the most widely-used international accounting tool, the Greenhouse Gas (GHG) Protocol. While scope 1 and 2 cover direct emissions sources (e.g., fuel used in company vehicles and purchased electricity), scope 3 emissions cover all indirect emissions due to the activities of an organization. These include emissions from both suppliers and consumers. Source: [Carbon Trust](#)

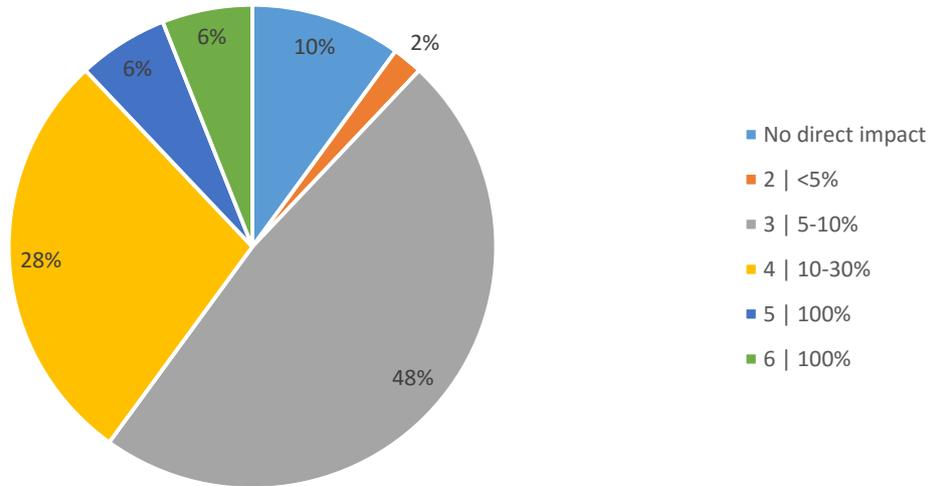


Box 10: The split of member’s action areas by environmental topic. Scope 1 = Fuel combustion, Company vehicles, Fugitive emissions; Scope 2 = Purchased electricity, heat and steam; Scope 3 = Purchased goods and services, Business travel, Employee commuting, waste disposal, use of sold products, transportation and distribution (up- and downstream), investments, leased assets and franchises



Box 11: Distribution of activities that will deliver emissions reduction, only direct or scope 1 (hydrocarbon) actions are presented. The majority of these actions are specifically targeting transport.

Potential emissions reduction from direct or scope 1 actions



Box 12: The impact of the actions, in terms of emissions reduction has been estimated. The categorisation of actions is in accordance with the proposed simple model for emissions reduction presented in Appendix A.

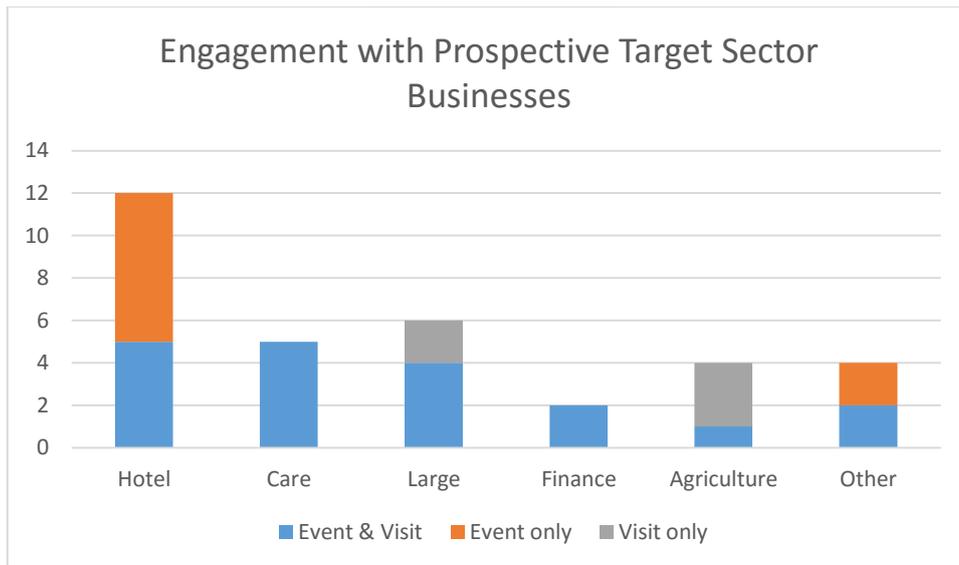
5.3 Emissions reduction – target sector support and engagement

If the eco active business scheme is to deliver more emissions reductions there needs to be a significant increase in the number of hydrocarbon businesses participating in the scheme. In order to engage the businesses that will yield the biggest reductions, emissions monitoring was used to identify high emitting target sectors. The marketing and engagement efforts focused on these sectors had a dual purpose: to increase the number of eco active business applications and to provide information to assist businesses in reducing their emissions. The membership levels within the target sectors have not significantly increased as a result of the engagement efforts. As shown in Box 13 there have been only 7 new joiners within the target sectors assessed.

	Pre Feb 2015	Post Feb 2015
Finance	11	3
Care	0	2
Hotel	2	2
Agriculture	1	0

Box 13: Table showing the number of eco active business members in each target sector before and after February 2015.

The evidence from the pilot programme demonstrates a failure to secure new eco active business members within the target sectors despite numerous efforts to do so. This is exemplified by reviewing the prospective members and considering the engagement that has taken place as is shown in Box 14. 29 target sector businesses have either attended events (sometimes on more than one occasion), received an AS8 visit or both. These potentially high carbon businesses have therefore been extensively engaged and informed about emissions reduction opportunities. However they have not become eco active members.



Box 14: *Target sector businesses have engaged with eco active but have remained prospective members. Any lessons learnt or action taken following these engagements will not deliver measurable eco active business actions.*

The aim of events and visits is that they introduce new members by demonstrating the benefits of the scheme. Rather than presenting a business with a form to complete in the first instance, it was expected that a more engaging approach would result in an increase in applications in due course. The high-emitting hotel and care home sectors were trialled using this approach. On-site assessments with free energy saving products were offered and four specific events were coordinated; a Green Tourism/Visit Jersey hotel event, a swimming pool focused event and two Care Home events. Despite these opportunities there are only 4 members and 12 prospective from the 60 strong hotel industry sector. Similarly there are around 18 privately operated care homes identified, of which only 2 are eco active members and 5 are prospective. These low numbers are a disappointing result, given the range of engagement opportunities offered to the businesses, including emails, calls, letters/invitations and approaches via social media to all of the businesses identified as well as direct engagement efforts through industry bodies.

The remaining target sectors have been engaged slightly differently. The complex and diverse nature of large sites means they are less able to benefit from shared lessons. Having visited a number of sites as part of the initial energy trial, they were not revisited during the second half of the project. A forum for large sites was coordinated in summer 2015; this was attended by 4 participants out of the 10 attendees registered to attend. The Parish portfolios, which are defined as large sites, are a recommended target group which merit further investigation. To date, there has been insufficient resource to support the parish organisations as a separate sector within either the eco active business or eco active States initiatives. The Parish of St Helier joined eco active business in early 2016 and has reported details of energy and emissions data. Engaging the Parishes and using the shared best practice approach is an area worthy of further investigation.

The agricultural sector was approached sensitively to avoid duplicating efforts already undertaken by the Rural Economy section of the Department. The Rural Economy team has existing relationships with the agricultural community and has provided support for energy efficiency through the Rural Initiative Scheme (RIS) grant funding since 2013. An on-farm carbon reduction specialist was engaged and presented at the 2015 Jersey Farming Conference. This was followed by several site



visits to local farms. Using the evidence base from the target sector list, a priority area for emission reduction in the agricultural sector is emissions reduction from transport fuels.

The finance sector has been engaged through direct meetings and an open discussion forum which was established for eco active members from this sector. Although representatives from this sector are regular attendees at the topic focused Lunch & Learns, the industry has not been a high priority for two reasons. Firstly, the emissions monitoring and engagement with the sector suggest that the majority of offices use electricity for heating. Secondly, the buildings that do use hydrocarbons are generally managed by well-resourced and trained facilities teams who are pro-actively aware and engaged with environmental responsibility. In addition, the growth of the finance industry and demand for high quality office space inevitably leads to the movement or redevelopment of offices. At these breakpoints the application of Building Bye-Laws to new buildings or extensive refurbishments will require significant improvements to energy efficiency.

The target sector analysis clearly identified transport fuels as a high impact area that could be influenced by AS8 engagement. Eco active business records suggest that there are well over 700 vehicles operated by participant businesses, in addition to the 4,700 employees that travel to and from work. Two fleet management seminars took place in 2015 and 50 individuals attended the sessions. Feedback from these sessions was positive with particular interest in the business efficiency potential of vehicle telematics, as well as fuel saving potential from improved driver behaviours. The potential for transport carbon emission reduction of up to 95% were demonstrated through the electric drive initiative that involved 10 local celebrities test driving electric transport for one week. Video case studies with savings statistics have been produced to share the findings.

A complete review of support and engagement with target sector businesses is included in Appendix B.

6 Conclusions and Recommendations

Drawing upon the findings of the previous sections the following conclusions can be drawn. Each conclusion is followed by a recommendation.

Conclusion 1

Lack of reliable energy use and emissions data is a fundamental issue

Recommendation 1

Carry out a top-down analysis of private sector emissions based upon fuel import data, standard assumptions and company registrations.

The small sample of emissions data available at both the sectoral and individual business level creates significant uncertainty with regards to the AS8 emissions reduction target. The pilot project has trialled a bottom-up approach to data capture but this has not provided an effective solution. This is because many businesses themselves do not record their energy use. The lack of data has created uncertainty in terms of delivery, as without definitive evidence it isn't possible to fully justify proposed support or interventions. Similarly, at the policy level it will not be possible to establish if interventions are delivering emissions reduction within the target sectors.

The first recommendation for the implementation of AS8 is to capture more robust data in order to secure a stronger evidence base for interventions and policy decisions. This could be delivered through assessment of fuel imports alongside standard assumptions and company registration data.

There are synergies with the capture of data for the reporting of the Island's energy balance. The fuel importers are asked to record the sectors to which they sell their products. Currently this is not reported consistently. Work could be carried out with the importers and distributors to better enable them to make high level assumptions on the destination sectors of their products.

Conclusion 2

Targeting hydrocarbon businesses is necessary to deliver the magnitude of emissions required

Recommendation 2

To meet the emissions target, restrict support to high carbon emitting businesses

The target sector analysis revealed that the average emissions of the 57 business sample is 0.032kT tonnes per business. The sample is not specifically targeted at high emitting sectors, although it does include organisations that would be expected to have significant emissions such as the commercial swimming pools, large residential care homes, large hotels, a large horticultural growing and retail enterprise and the Parish of St Helier portfolio. If we assume that the 57 business untargeted sample is representative of the 500 eco active businesses due to be participating in 2020, the expected total emissions from the 500 businesses would be (0.032kT x 500 businesses) 16kT. To deliver 13kT of emissions savings from 16kT would require an 81% reduction across the businesses.

One reason the sample's emissions are so low is because 35 of the businesses do not use oil and gas at all, with a further seven businesses having emissions of less than 10t per year. These low emitters reduce the overall average of the sample. If the AS8 emissions target is to be met through 500 businesses delivering a 15% saving it is essential that high emitting businesses are targeted. The alternative approach of requiring businesses to over-deliver against the 15% target is not recommended in consideration of Conclusions 4 and 5.



With limited resources for AS8 support and a significant emissions target to work towards, prioritisation of high carbon businesses is recommended. Energy reduction and specifically reduced electricity use has additional benefits of reducing costs and dependence on imported energy. This is recognised in the Energy Plan as contributing to the joint goals of security and affordability but the challenge is to better quantify these benefits at the business and island wide scale.

Conclusion 3

Despite improvements to the eco active business scheme, it is inefficient at delivering carbon reduction

Recommendation 3

Separate emissions reduction support from the eco active business process

75% of current eco active businesses do not use oil or gas. As a result only 25% of actions set are focused on direct or scope 1 emissions, with the majority of these actions focussed on transport fuel reduction. Therefore delivering oil and gas reductions in line with the targets in the Energy Plan will be very difficult through eco active business. Significant engagement efforts have been undertaken to encourage target sectors (i.e. hydrocarbon users) to join eco active business through direct approaches, visits and events. Despite this, the number of eco active business members from target sectors has only increased slightly with the majority of engaged businesses remaining 'prospective'. Follow up work is recommended to establish why these prospective businesses do not progress to full membership of eco active despite participating in aspects of the scheme.

The eco active business network has an important role in sharing best practice environmental and emissions knowledge. From an Energy Plan perspective this could include raising awareness of the AS8 emissions target, provision of basic advice and signposting towards a simple guide to emission reduction (see Recommendation 4). However, this could be complemented by a technical emissions support function, perhaps provided externally on behalf of eco active.

It is recommended that emissions support is focused or restricted to high emissions recipients as per Recommendation 2. It is also suggested that the support is delivered by an external party, this will avoid the provider being drawn into eco active/environmental/States of Jersey topics which are not emissions focused. The support could be provided on an individual business basis (i.e. business specific surveys or training) or on a group basis (i.e. sector focused events) with case studies and evidence from the programme feeding back into the wider publicity and awareness raising delivered through the eco active network.

Conclusion 4

Businesses lack the expertise to deliver emissions reduction effectively

Recommendation 4

Provide a clear, simple progression model recognising the high impact of fuel switching

The majority of businesses are not familiar with emissions or energy reduction. Reducing fuel bills and utility costs are easily understandable but in comparison emissions are relatively abstract and differ among fuel types. The carbon calculator was developed to help businesses understand this connection however it has had relatively limited uptake. As a result the emissions reduction actions set by businesses are likely to be established from a position of uncertainty, i.e. an individual setting



their eco active action is unlikely to fully understand the emissions potential, even if they understand the impact from an energy cost saving perspective.

To support businesses in setting high impact actions, a simple guide or tool could be developed that clearly explains the impact of emissions reduction in the context of local fuel types. A suggested model for emissions reduction is provided in Appendix A. What this guide/tool should make clear is that from an emissions perspective fuel switching is a high impact action. Businesses are unlikely to make decisions purely on environmental grounds but a model that illustrates progress along a journey of emission reduction could help inform their decision making and commitment. This model could also inform the emissions reduction support service (Recommendation 3) by providing a clear journey along which to progress businesses with their agreed emissions reduction pathway.

Conclusion 5

Energy saving and emissions reductions are not high on the business agenda

Recommendation 5

Provide focused support, continue to raise the emission's agenda and identify 'break point' opportunities

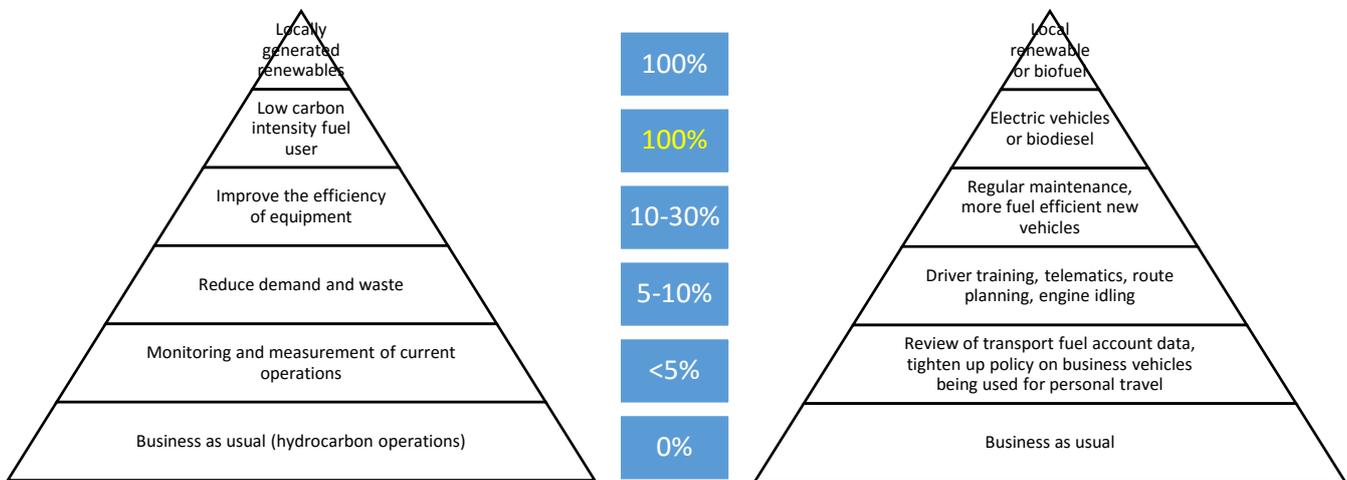
Numerous engagement angles have been pursued and different services trialled without yet identifying a consistently well received approach. The opportunities presented inevitably involve time commitment from the participant business (although attempts have been made to keep this to a minimum). Given the limited uptake it appears that the free support offered has not been sufficiently valued by businesses. Over the course of the project support has become increasingly specialised, for example moving from Hotel and Care Home events to the swimming pool focused session. Further initiatives focused on farm vehicles, professional drivers and commercial kitchens also fit this more specialist approach and are being researched and planned for delivery beyond the scope of this project. The impact of these very specific events can then be measured to see whether this approach has a more significant impact.

Awareness of the emissions agenda should continue to be built through the eco active business network in order to encourage uptake from a corporate social responsibility perspective. Continuing to work with sector representatives to promote these opportunities is recommended as these organisations can act as trusted messengers. A further area of interest is the exploitation of decision or break points, such as moving premises, building works and replacement of capital plant. For example, a boiler is only replaced on a 10-15 year time frame, at the point it is replaced the emissions reduction can be maximised through supporting the business to consider low carbon fuels rather than replace like-with-like.

7 Appendix A

Simplified model for emissions reduction

In businesses, hydrocarbons principally power specific pieces of equipment or operations. E.g. boilers/heating equipment, generators, catering equipment and vehicles. Opportunities for emissions reduction can be grouped into low cost emissions reduction (<5% - 10%) requiring better control and management of equipment to improve efficiency; to high emissions reduction (25%) requiring replacement or improvement of the equipment. For example a 15 year old oil boiler could be improved by 15% - 30% through replacement with a modern, high efficiency model - it would be exception to achieve more than a 30% saving from current technology, without a change of fuel type. However, businesses can make 100% emissions reduction through fuel switching to low carbon or renewable fuels. Emissions reduction potential can therefore be represented in stages as shown in the below graphic.



Stages of emission reduction. A simplification of the potential for carbon emissions reduction within a single operation i.e. heating system, catering equipment, vehicle. Starting at the lowest tier a hydrocarbon operation can continue as normal. The first tier of improvement is to monitor and measure the energy use and carbon emissions of the operation which may allow minor improvements to be made. More advanced behaviour change and training may allow demand and waste to be reduced delivering savings in the region of 5-10%. This could include investigations leading to resetting of timers, adjustments to temperature settings or refinements to a Building Management System. The next tier would be expected to require a level of investment to improve equipment efficiency, this may be through entirely replacing aged plant (e.g. boilers, generators) or significantly improving controls (e.g. heating controls, BMS, VSDs). The top two tiers deliver 100% emissions reduction through switching from a hydrocarbon based fuel to a low-carbon or zero emission fuel type.



8 Appendix B

Detailed review of target sector engagement.

8.1.1 Hotel Sector

There are 60 hotels operating in Jersey that have been initially targeted, self-catering businesses were not approached but would be an obvious extension in this sector. EAB had two existing members from the sector and both provided emissions data for analysis. However, caution has to be exercised as both these organisations will have relatively high emissions given their size and as they are open all year (not just for the summer high season). Despite this bias within the sample, the high heating and hot water requirements of hotels, as well as energy intensive supporting services such as swimming pools, laundries and restaurants, indicate that the hotel industry is a priority sector.

Progress to date in this sector includes:

- Relationship developed with Green Tourism UK, an industry leading hotel and tourism business environmental accreditation scheme.
- Coordination of 'Green opportunity for Jersey hotels' event run in conjunction with Green Tourism and Visit Jersey. Nine hotels and two industry supporting businesses attended the event.
- Seven of the nine hotels that attended the event have since had follow up visits completed. Only two of these organisations have progressed to making an EAB member application.
- The experience gained to date has led to the development of a hotel/care home support package that was offered to all hotels on the Island. The support consists of an introduction to EAB membership, a walk-around survey to identify energy and environmental opportunities as well as a pack of energy and water saving measures for a single room.

With 'eco-tourism' an established industry target market, and significant energy saving opportunities available, it was expected that the hotel industry would be receptive to EAB and AS8 support. However, the reality has been that hotel management appear to be unwilling or unable to make the time for generic eco active engagement with only seven hotels taking up the offer of free on-site support. Efforts have been made to better understand the industry's challenges and the issue of staff licensing appears to be the overarching problem consuming the management's attention.

During the site visits it has been possible to identify the key targets for AS8 support (i.e. hydrocarbon operations) as heating/boilers, catering/restaurants and swimming pools. The focus for 2016 was to provide more specific, focused support for these high carbon areas. This approach is showing some success with seven hotels attending the Swimming Pool event in July 2016, including three hotels that have not previously engaged with EAB. By focusing on a specific topic the level of presentations and discussion was far more technical than events previously held by eco active. The event attendees were also more specialist, generally being the pool operators who had the potential to implement change with regards to the equipment that they manage.

8.1.2 Large/multi-site including Parishes

Several large/multi-site organisations were visited as part of the initial energy reduction trial. High energy consumption and bills were the main reason given by participants for taking an interest in the trial. The challenge with this sector is the complex and diverse nature of each site meaning there is less potential for shared good practice through the EAB network approach. The following list of organisations has been visited and provide an indication of the difference in operations between each site:

- Aquasplash
- Durrell
- Jersey Field Squadron
- Jersey Opera House
- Jersey Post
- Jersey Water
- Jersey Dairy
- Liberation Group brewery
- Normans
- Ports of Jersey (Harbours and Airport)

The level of engagement and progress with energy saving varied from business to business. The support of AS8 in the first instance appeared to act as a reminder to take the energy saving agenda forward – perhaps an indication that organisations are aware of potential but lack the expertise or time to progress it.

A forum event for the large sites took place in October 2015 with those organisations listed above invited to attend. Of the invited participants ten businesses confirmed however only four attended. Those in attendance took part in an open discussion of the challenges facing large organisations.

The first application from a Parish for EAB membership was received in early March 2016 from the Parish of St Helier (POSH). The application included fuel use information showing a high level of hydro carbon energy use. However, given that St Helier is the largest Parish it is expected that its emissions profile is larger than the others. The parish had actively participated in eco active lunch and learn events to help with preparation of their application for membership. To date, there has been insufficient resource to support the parish organisations as a separate sector within either the eco active business or eco active States initiatives. Based on the POSH application, the Parishes are an area worthy of further investigation.

8.1.3 Care Home

The care home sector shares many similarities with the hotel sector. Both types of organisation provide residential-type facilities with high energy demand for heating and hot water as well as catering and laundry facilities. Although the size of the care home sector is smaller, with just 32 registered care homes on the Island, the per occupant energy use is expected to be greater due to lack of mobility of residents and year round operation. The progress made to date within this sector is summarised below:

- The EAB programme manager had an existing relationship with Global Action Plan, a UK based organisation, who provided training to hospital staff in 2014 on their experiences

implementing the 'Operation TLC'³ behaviour change energy saving initiative. Given positive feedback from the 2014 event Global Action Plan were asked to adapt the Operation TLC approach to suit the Care Home Sector. A two day training session took place. The first day was offered as a training day for the General Hospital and the second day as an introductory event for the care home sector. Unfortunately, due to circumstances beyond control, the Hospital event was cancelled. The Care Home event went ahead with 8 attendees.

- Of the 8 Operation TLC event attendees 5 organisations have since had an energy follow up visit completed. One organisation has signed up to eco active business.
- The Energy Efficiency Service (EES) has carried out a significant amount of work with not-for-profit care homes through the Community Buildings Programme grant scheme. The EES commissioned a report (completed in January 2016), to review the effectiveness of the grant programme. The report provides useful information for the AS8 project such as verified savings figures, payback periods for typical works and prioritisation of most effective measures for the residential care sector.
- An open afternoon was coordinated at The Jersey Cheshire Home in May 2016 with invitations sent to the 18 privately run care homes as well as a further 15 charitable or not-for-profit homes. The Cheshire Home has received significant funding from the EES to deliver a comprehensive package of insulation and boiler improvement works. It was therefore possible to showcase works completed as an example of good practice and a case study was prepared in advance to give potential attendees an insight into the works carried out. Unfortunately, despite extensive efforts to secure engagement only 3 out of the 10 confirmed participating organisations attended the event.

Alongside hotels, the care home sector could be confidently identified within the limited sample data as having significant emissions when compared to other business types. However, despite extensive efforts to engage this sector, the level of interest in energy or emissions support was poor. Prior to the Cheshire Home event all of the private care homes on the Island were contacted by phone, in several cases all offers of support were turned down. With significant emissions and a likely increase in provision of care homes resulting from an increasing size of the aging population, the care sector is a priority sector; an effective way of engaging the sector was not identified during the AS8 project.

8.1.4 Agriculture

The agricultural sector was approached sensitively to avoid duplicating effort undertaken by the Rural Economy section of the Department. The Rural Economy team has existing relationships with the farming community and has provided support for energy efficiency through the Rural Initiative Scheme (RIS) grant funding since 2013. The RIS energy grant opportunity firstly provided for a 100% funded technical energy survey of the farm. Measures that were identified within the survey were then eligible for part grant funding. Eighteen farms of the approximately 40 commercial scale organisations had energy surveys carried out, a further 7 farms have then had works part funded through the RIS.

Budget cuts mean that the RIS grant funding is no longer available meaning there is a gap in energy/emissions support for the industry. However, it should be appreciated that the level of technical and grant support offered through the RIS was far more specialist than could be offered through the AS8 project. As all agricultural businesses were offered the RIS package it was not

³ <https://www.globalactionplan.org.uk/award-winning-behaviour-change>



sensible to try to replicate past efforts with a smaller budget and less technical expertise. The support for the sector through AS8 therefore focused on the provision of training and knowledge.

This approach began through an invitation to provide a speaker for the annual Jersey Farming Conference in November 2015. Following a desktop research process Becky Wilson, an on-farm carbon reduction specialist from the Duchy College in Cornwall, was identified and asked to present. The speaker delivered a presentation focusing on farm carbon reduction covering numerous topics relevant to the local industry such as soil and fertilizer management as well as energy use. In addition, four farm visits were carried out to begin to understand the voice of customer within the industry.

In early 2016, following resolution of data protection concerns, the farm energy surveys completed through the RIS were made available to the AS8 project. Each farm had submitted fuel use data and a clear target area of transport fuel use was identified through the Box 5 target sectors analysis. Becky Wilson highlighted the emissions and efficiency success achieved through delivery of a course focusing on farm vehicles efficiency. Using the evidence base from the target sector list, a priority area for emission reduction in the agricultural sector is emissions reduction from transport fuels.

8.1.5 Finance

The finance industry was not prioritised in 2015 as the limited evidence suggested that the majority of office buildings use electricity for heating. The analysis shown in Box 5 supports this assumption with a significant 'All Fuels' Footprint (i.e. oil, gas & electricity) but relatively low use of oil and gas or transport fuels. Due to the small sample size more data is required to verify this assumption, however of the four financial services organisations that have submitted their 2016 EAB annual returns only one is an oil user.

Energy Trial meetings with a number of finance sector organisations, as well as engagement with finance firms at Lunch & Learn events, suggest the industry demonstrate basic good environmental practices. The most likely driver for this effort appears to be a combination of cost-efficiency, well-resourced facilities teams and the parent group's corporate social responsibility commitments. The finance firms engaged generally appear to operate with an internal operations/facilities team supported by a contracted amalgamated facilities or cleaning service. The expertise and resources available in these teams appear to be more advanced than those in the typical hotel or care home with consequential improved levels of environmental performance.

A second advantage for financial services, in comparison to other industries is the growth experienced in recent decades and the value placed on high quality office space. With increasing staff numbers and adequate resources, many financial firms have benefitted from moving into new offices. Obvious examples of this include the range of new developments concentrated on the Esplanade, all which are of high energy efficiency specification as required by planning regulation and building bye law standards. Retrofits to existing offices are also brought up to good energy efficiency specification through the planning and building-by-law standards.

This combination of relatively high usage of electricity, strong existing levels of expertise, and modern standard buildings means that the quick-wins that might be available in an aged hotel or care home are not so obvious within the finance sector. Despite this, there is clearly a strong level of engagement and willingness to improve that has been demonstrated by consistent levels of attendance by representatives from finance sector firms at Lunch & Learns. A forum meeting for the finance sector was held in April 2016 and confirmed this view point and suggested that a relatively 'hands off' approach is possible with regards to emissions reduction in the finance industry.



8.1.6 Transport fuels

The analysis in Box 5 highlights significant use of transport fuels within the Parish and Agricultural sector. Emissions in the region of 24 – 31 tonnes per annum are also recorded in the large/multi-site, construction, and transport/logistics sectors. Data from 97 EAB annual returns identifies 707 fleet or business vehicles across the EAB network.

In 2015, two fleet management seminars were coordinated which were well attended, especially by the construction, facilities management and cleaning sectors. A focus area for these sessions, and one that EAB actions data suggests has been well-received, is the use of telematics/vehicle tracking technology. The combination of driver behaviour improvements, idling minimisation, route planning/journey avoidance and maintenance benefits are suggested to have emissions reduction potential in the region of 10-15%.

The second 2015 fleet management session was held in conjunction with the Police Road Safety Officer. The attendance and feedback from this session was good and led to a meeting in early 2016 to consider how to build upon the success of the event. The Department for Infrastructure and Driver and Vehicle Standards were also invited to attend the meeting. The meeting identified the high mileage professional driver as a target. The vast majority of these drivers are considered unlikely to have received specialist training in eco-friendly or safe driving practices giving potential room for improvement. A training event has been proposed for Road Safety week in 2016 in order to drive carbon emissions reduction through improved driver behaviour.

Although not categorised as a commercial sector activity, the second area where businesses indirectly contribute to the Island's transport emissions is through commuting. Historically, shared initiatives between eco active and the Department for Infrastructure have focused on reducing congestion through alternative means of travel such as cycling, walking and public transport. Whilst these efforts will deliver emissions reductions there has been no concerted effort to deliver emissions reduction through vehicle choice. Action Statements 11, 12 and 13 identify the potential for emissions reduction through increasing the uptake of high efficiency vehicles.

In this case the annual returns reveal 4,709 employees that are part of the EAB network who all commute to work in one way or another. An initiative to target these commuters, as well as the wider public, was held in June 2016 to increase awareness of electric vehicles, supported by local car dealers. Local celebrities and media representatives were invited to exchange their petrol/diesel vehicle for an electric car for a week. Through social media, blog posts and video case studies the participants' experiences have been publicised to increase awareness of the emissions reductions possible through use of electric and hybrid cars and electric bikes, compared to fuel use and emissions from petrol or diesel vehicles.