

ECO-ACTIVE

ENERGY EFFICIENCY SERVICE

Annual Report-2013



States of Jersey


Jersey Electricity

energy saving trust
endorsed advice

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1. Introduction

This report covers the work of Energy Efficiency Service (EES) of the Department of Environment for 2013. In 2013, the EES's work was overseen by the Jersey Energy Trust, who provided oversight and guidance to the work of the EES in delivering energy efficiency interventions to the target group of vulnerable islanders. The work of the EES is funded by an annual budget of c.£1million from the States of Jersey as well as an initial 'seed' donation of £0.5m donation from Jersey Electricity plc.

1.1. Services Provided

The EES has, in 2013, provided two main operational schemes and a public advisory and support function. The operational schemes consist of the Home Energy Scheme and the Community Buildings programme. Both are aimed at socio-economically vulnerable groups in Jersey and are 100% funded grant schemes. A telephone support service is also available to all Islanders; the Energy Advice Line received requests for energy efficiency advice from 106 callers in 2013. In addition, the online Jersey Heat Loss Map shows the thermal losses from all the individual buildings in Jersey and has received over 12,000 visitors since its launch in 2011.

1.2. The Home Energy Scheme

The core scheme offered by the EES is the Home Energy Scheme which provides a wide range of energy efficiency improvements to eligible households. Over time, and with the agreement of the JET Board and the Minister, the eligibility criteria for this scheme have been extended so that more can benefit from the funds available. In 2013 this scheme provided a wide range of energy efficiency improvements to 282 qualifying private households.

The eligibility criteria of the scheme have expanded since the scheme was set up, to now include:

- Households registered on Income Support
- Recipients of the Westfield 65+ Health Plan
- Recipients of the GST Food Costs Bonus
- Individuals over 65 with limited savings

The EES operates a fully supported service from start to finish in order minimize the disturbance and disruption that is inevitable when carrying out works in a private home. This is particularly important given the client group. All works are coordinated by the EES through their team of approved contractors and applicants are kept up to date through regular written and telephone communications as well as on site visits.

Works that qualify for 100% grant funding through the scheme include:

- Home Energy Reviews (HER)
- Loft insulation
- Cavity wall insulation
- Draft proofing
- Hot water cylinders
- Heating controls
- Pipe lagging

- Low energy lamps
- Energy advice and information
- Boiler replacement
- Storage heater replacements

The heating system improvement programme was introduced in September 2010. The aim of this programme is to improve the efficiency of older heating systems by upgrading the system to achieve a minimum improvement in efficiency of 15% compared to the system that is replaced. The scheme is only open to owner occupiers with heating systems over 10 years old. This service has been offered to applicants who applied to the Home Energy Scheme prior to 2010 and is also offered to new applicants to the scheme.

The key statistics for the scheme are given in the table below:

WORK STREAMS	End 2013
Home Energy Scheme (HES)	
Pre-2013 applications	1,548
New applications received in 2013	247
<i>Owner-occupiers</i>	166
<i>Privately owned (landlord)</i>	77
<i>Unknown (incomplete application form)</i>	4
Home Energy Reviews –advice & basic measures (flats & houses built post-1996)	22
Home Energy Package- all other measures (typically houses & bungalows built pre-1996)	210
Not eligible for assistance or withdrew	15
Properties successfully completed within 2013	282
Projected number of eligible clients *	1,918
Community Buildings Programme	
New applications received in 2013 (Organisations)	1
Completed insulation works in 2013	0
Completed heating system works in 2013	0
Energy Advice Service	
Advice provided via Energy Advice Phone Line	106

**This figure comprises all those in receipt of Income Support, the Westfield Health Plan and GST Food Cost Bonus as of 2013 that are not in State's Housing and have not already been assisted by the EES. It excludes potential applicants falling within the 65+ with limited saving criteria.*

1.3. The Community Buildings Programme

The community buildings programme was introduced in 2010. This programme provides funding for energy efficiency improvements to charities and not-for-profit organisations that provide a service within the local community to the socio-economically vulnerable target

group. The measures received by qualifying organisations are similar to those provided in the home energy scheme. From the start of the programme in January 2010, to the end of 2013, 20 charities and not-for-profit organisations providing support and assistance to 300 individuals received energy efficiency support through the programme. During the year the EES prioritised the important evaluation of the work completed within the CBP so far. The EES commissioned the design and delivery of a computer based Energy Management Tool and worked in partnership with 14 organisations to provide quarterly updates on fuel consumption as well as an ongoing energy management plan. The consumption figures are inserted into the monitoring part of the tool, and various graphs and tables depict the savings which the new energy efficiency measures have achieved. These are compared to historic consumption and predictions of consumption without the improved measures. The EES will continue to monitor this consumption with the organisations and early indications of savings are in the order of 10 to 20%.

Alongside the Energy Management Tool work the EES has worked with several of the organisations to further promote the Community Buildings Programme and the Home Energy Scheme by island wide media coverage. This has led to further applications to the schemes which the EES will carry into 2014.

2. Outreach and Awareness

The EES runs a full programme of public awareness initiatives which are outlined in the sections below. The EES is actively promoted on-site at local events using the Greener Living Trailer where members of the public can ask questions about eligibility for the grants programme, energy efficiency in general and also check out their property's energy performance on the Heat Loss Map.

2.1. Advertising

- ½ page JEP colour advert in September
- ½ page colour advert in spring edition of Prime Time
- ½ page colour advert in September edition of Homelife
- 3x ¼ page colour Home Energy Scheme advert in JEP, 1x April & 2x September
- 12x ¼ page mono Home Energy Scheme advert in JEP between October-December
- Multiple features in JEP Trade Services Bulletin in March
- Article in the JEP in September regarding HES criteria expansion
- Article in JEP regarding trailer event for World Environment Day in May
- Article in the Autumn edition of St Clement's L'Amarrage magazine
- Article in the June edition, followed by another article and ½ page colour advert in the October edition of St Helier's Town Crier magazine
- Article and ½ page colour advert in the April edition of St Helier's Capital magazine
- Article and ¼ page colour advert in the April edition of St John's Star of the North magazine
- Article in the Autumn edition of St Martin's Les Nouvelles magazine
- Article in the winter edition of St Lawrence's Les Laurentins magazine
- Article in the November edition of St Saviour's La Cloche magazine
- Featured in a JEC article in edition one of CARE magazine
- ¼ page colour advert in volume 9 of 20/20 magazine
- ½ page colour advert in the March-April edition of Rural magazine
- HES banner advert in Jersey Cheshire Home Variety Show Programme in June

- Featured in a Jersey Consumer Council Newsletter article in November
- Internal bus poster in January
- Advert featured on ½ Litre blue milk carton in January
- Advert featured on St Helier Coop screens above check out tills in February
- Roadside HES banners positioned at:
 - La Route de Liberation in September
 - Steam Clock in September
 - St Brelade's Parish Hall in October
 - Jersey Bowls Club between June-September
- 2x HES and 2x Advice line banners positioned around Fort Regent Ice Rink in December
- Mail out in conjunction with Social Security to 2,609 potential applicants in October
- Channel 103 Radio interview for World Environment Day in June
- Channel Television news feature in September regarding energy efficiency and the HES
- Channel 103 news feature in September regarding energy efficiency and the HES
- BBC news feature in September regarding HES criteria expansion
- 17 tweets sent out via the SOJ Twitter feed between February & December
- Email about HES was sent out to all Jersey charities through the Association of Jersey Charities in June
- Email about HES was sent out to all 103x GPs in Jersey in September
- Featured on gov.je homepage, MyGov notification emails, MyStates intranet newsfeed and Le Messagi electronic newsletter within September
- Press Releases sent out in May, September, October & December
- Normans voucher competitions held in March, April, May, June a& July

2.2. Events

- Outreach Officers attended 30 events, such as Community Markets, talks for organisations such as the Hollies and Lunch & Learn sessions at The Bridge
- Trailer attended 8 public events throughout the year, such as school summer fairs and the St Helier Street Party
- Stall at Fort Regent Charity Boot Sale

2.3. Education

- Energy School Packs available to all schools on request.
- Attended 4 x Eco-Schools meetings with Eco-Team Leaders from a total of 16 schools
- Presented at 2x Eco-Schools meetings
- Launched a schools energy competition in conjunction with the Eco-Active Team for Switch Off Fortnight

3. Quality Assurance Programme

The EES delivers complex services into the homes of its clients supported by an after care service following the completion of the installation of the energy efficiency measures. In addition, random quality assurance checks are carried out at a sample of the properties we treat to ensure that all work meets the required standards.

All contractors have checks on their technical and security qualifications. Applicants are also invited to complete a feedback report and, if they wish, to allow EES to access and review their energy bills. Of those applicants who responded, 99.2% rated the EES process as either very good or good in 2013.

4. Future Work

During 2013 a review of the Energy Plan; Pathway 2050 was carried out by the Environment Scrutiny Panel. The Minister welcomed the Scrutiny Panel's report which wholeheartedly supported the aspirations for the Energy Efficiency Service to extend its mandate into the able-to-pay sector whilst retaining a core 100% grant service for the Island's most socially and economically vulnerable people. The Energy Plan was debated and adopted by the States Assembly in May 2014. However, in 2013 work continued to assess the types of programmes that incentivise the able-to-pay to install energy efficiency measures in order to reduce energy bills or improve comfort levels, as well as to reduce the islands carbon emissions. Continued development work was carried out on the 'Home Energy Audit' and an online tool to help home owners identify the actions they can take in their own homes to reduce their energy consumption. The aim is to launch these new initiatives later in 2014.

In 2015, the Energy Efficiency Service will complete a five year review. This will summarise all of the work undertaken that have been carried out since its inception in 2009.

5. Energy Efficiency Service- Budget 2013

	Spend	2013 Budget	Notes:
MANPOWER COSTS	155,365	145,403	
Tech Support Fees	34,083	30,000	<i>Energy consultancy fees for Community buildings initial surveys and QA leading to sign off.</i>
Education, Outreach & Other Supplies & Services	31,732	33,000	<i>Education, outreach events and materials and marketing of the scheme.</i>
Other Travel	1,455	2,500	<i>Continued professional development</i>
SUPPLIES, SERVICES & ADMINISTRATION	67,270	65,500	
Fruitless payments	0	0	
Other operating expenses	0	0	
Home Energy Scheme	665,904	625,000	<i>Overspend on HES to be taken from underspend on CBP, the remaining HEA budget and JEC drawdown.</i>
Community Buildings Programme	0	75,000	<i>No projects completed in 2013</i>
Home Energy Audit	600	67,500	<i>Phase 3 pilot completed May 2013- 3 x £200 vouchers redeemed. The underspend was for the launch of a home energy audit programme that was postponed until 2014 due to delays with the Energy Plan acceptance.</i>
GRANTS AND SUBSIDIES	666,504	777,500	
TOTAL	1,014,551	988,403	<i>This includes a drawdown from the JEC £0.5m seed donation of £125,412.</i>

6. Energy Efficiency Service Statistics- Energy, fuel cost and carbon savings delivered

Estimations of the energy, cost and carbon savings associated with the measures installed under the Home Energy Scheme and Heating System Improvement scheme are provided in this section. Note that the energy, cost and carbon dioxide savings for the Community Buildings Programme work are not incorporated in the figures below.

The Energy Saving Trust reviews its savings figures annually so as to incorporate the latest fuel prices and statistical evidence. Previously savings were based on Ofgem's CERT (Carbon Emissions Reduction Target) savings figures, modelled using BREDEM (the Building Research Establishment Domestic Energy Model). However with the end of CERT the new savings are now modelled using EST's Dynamic Engine, a SAP (Standard Assessment Procedure) 2009 based energy model, to be consistent with those estimates that would be produced by a Green Deal assessment. Therefore, the methodology used this year differs to that used for previous EES annual reports, which were prepared in accordance with previous methodology.

6.1. Annual energy, fuel cost and carbon dioxide savings for all measures installed

Home Energy Scheme	Average Annual savings per measure ¹				Total Annual savings per measure installed ²				
	Av cost per measure (£)	Energy saved (kWh /year)	Financial saving (£/year)	CO2 saved (kgCO2 /year)	Total cost (£)	Energy saved (kWh /year)	Total financial saving (£/year)	CO2 saved, (kgCO2 /year)	Payback period (years)
Home Energy Reviews	£83	-	-	-	£4,822	-	-	-	
Total loft insulation	£448	3207	£265	611	£104,861	750,450	£61,931	142,910	1.7
Cavity Wall Insulation	£588	3943	£322	765	£65,891	441589	£36,066	85,713	1.8
Draught proofing	£22	595	£53	105	£1,724	45,792	£4,111	8,104	0.4
Hot water cylinder jacket	£51	2081	£157	450	£205	8,323	£626	1,801	0.3
Replacement hot water cylinder	£367	1912	£101	346	£21,309	110,880	£5,834	20,065	3.7
Heating controls	£97	1969	£157	494	£10,958	214,667	£17,117	53,849	0.6
Pipework lagging	£20	222	£18	58	£2,680	25,036	£1,995	6,500	1.3
Low energy light bulbs (per property)	£1.71	204	£39	22	£482	57,502	£11,117	6,134	0.04
GRAND TOTAL					£385,500	2,012,037	£165,275	£414,770	

¹ These figures are all average figures according to the fuel type, housing mix and in some cases the type of measure installed. The average cost per measure has increased from previous years due to additional health and safety checks that are now obligatory e.g. asbestos surveys/removal costs. ²These figures are a sum of all of the individual property savings for each measure. Some measures will have different savings as they are determined by house type and fuel mix.

6.2. Lifetime energy, fuel cost and carbon dioxide savings for measures installed

Home Energy Scheme	Average lifetime saving per measure ¹				Total lifetime savings per measure installed ²				
	Av cost per measure (£)	Energy saved (kWh/Year)	Financial saving (£/year)	CO2 saved (kgCO2/Year)	Cost (£)	Total energy saved (kWh)	Total financial saving (£)	CO2 saved (kgCO2)	Lifetime
Home Energy Reviews	£83	-	-	-	£4,822	-	-	-	-
Total loft insulation	£448	134,696	£11,115.73	25,650	£104,861	31,518,892	£2,601,081.47	6,002,201	42
Cavity Wall Insulation	£588	165,596	£13,524.89	32,142	£65,891	18,546,717	£1,514,788.11	3,599,939	42
Draught proofing	£22	5,947	£533.89	1,052	£1,724	457,916	£41,109.15	81,037	10
Hot water cylinder jacket	£51	20,807	£1,565.18	4,503	£205	83,227	£6,260.73	18,010	10
replacement hot water cylinder	£367	19,117	£1,005.90	3,459	£21,309	1,108,796	£58,341.97	200,645	10
Heating controls	£97	23,633	£1,884.49	5,928	£10,958	2,576,000	£205,409.10	646,194	12
Pipework lagging	£20	3,323	£264.86	863	£2,680	375,533	£29,929.01	97,501	15
Low energy light bulbs (per property)	£1.7	3,609	£697.77	385	£482	1,017,788	£196,772.44	108,564	17.7
GRAND TOTAL					£385,500	57,675,380	4,801,145	11,2131,195	

¹ These figures are all average figures according to the fuel type, housing mix and in some cases the type of measure installed. The average cost per measure has increased from previous years due to additional health and safety checks that are now obligatory e.g. asbestos surveys/removal costs.

²These figures are a sum of all of the individual property savings for each measure. Some measures will have different savings as they are determined by house type and fuel mix.

6.3. Home Energy Scheme Savings

Home Energy Scheme	Average annual savings			Average lifetime savings		
	Energy saved (kWh/Year)	Financial saving (£/year)	CO2 saved (kgCO2/Year)	Total energy saved (kWh)	Total financial saving (£)	CO2 saved (kgCO2)
Loft insulation 0-270mm	4,590	£378	875	192,773	£15,872	36,761
Loft insulation 50-270mm (top up)	1,092	£92	204	45,851	£3,873	8,571
Loft insulation 150-270mm (top up)	217	£18	43	9,130	£754	1,818
Cavity wall insulation	3,943	£322	765	165,596	£13,525	32,142
Draught proofing	595	£53	105	5,947	£534	1,052
Hot water jacket and cylinder replacement	1,923	£104	353	19,226	£1041.98	3,527
Heating controls (per property)	1,969	£157	494	23,633	£1884.49	5,928
Pipework lagging	222	£18	58	3,323	£264.86	863
Low energy light bulbs (per property)	204	£39	22	3,609	£698	385
Boiler replacement	4,947	£366	1,294	59,370	£4,389	15,527
Electric storage heaters	521	£39	42	10,425	£784	834