

Annual Report for the Energy Efficiency Levy Programme 2009-10
Prepared by the Energy Saving Trust

Executive Summary

This Annual Report examines the performance under the Energy Efficiency Levy Programme (EEL) of schemes undertaken during 2009 -10, outlining the financial benefits to customers and the benefits to the environment, in terms of carbon savings.

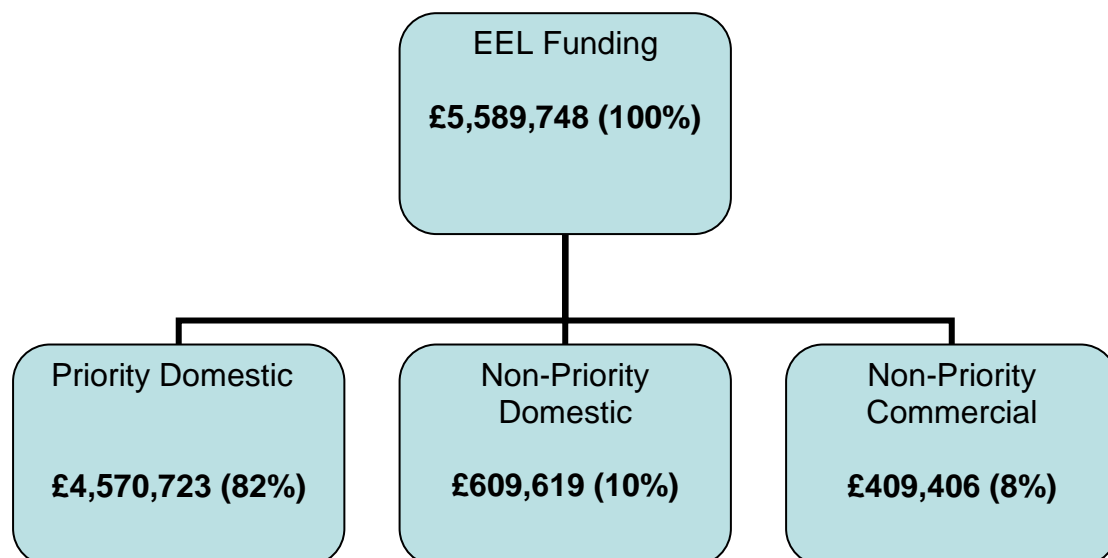
The EEL for 2009-10 was set at an average level of £7.354 per electricity customer and with approximately 840,800 domestic and business customers, this equates to overall funding of £6,183,559.

Nineteen schemes were successfully submitted, run and subsequently completed, 13 of which were managed by NIE Energy, four by Energia, one by ESB Independent Energy (ESBIE) and the remaining one by firmus energy. Total lifetime energy savings were a substantial 708.919 GWh, with 142,765 tonnes of carbon savings and £61,760,474 gross customer benefit savings, over the lifetime of the measures.

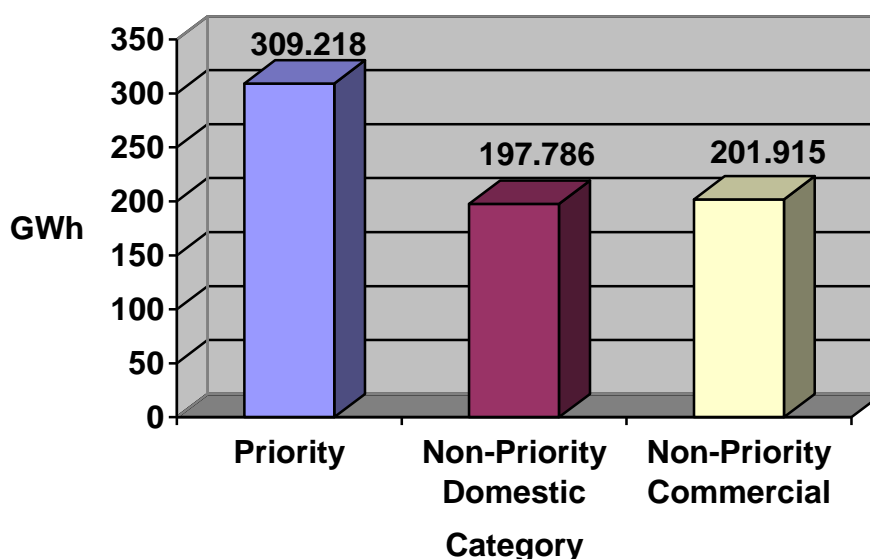
In 2009-10 there were seven Priority schemes, three Non-Priority Domestic and nine Non-Priority Commercial schemes.

Total incentives earned were £1,722,277 of which £937,722 (54%) will be recycled into energy efficiency and/or fuel poverty initiatives that are additional to work already planned.

EEL 2009-10 Breakdown of Funding Spent



Lifetime energy savings for each scheme category:



1.0 Introduction

The 2009-10 EEL continued to focus on vulnerable customers with approximately 80% of funding directed towards schemes for customers who may be at risk of fuel poverty (Priority) and the remaining 20% of funding directed to Non-Priority domestic and Non-Priority commercial schemes.

EEL funding set aside for schemes aimed at Priority group customers i.e. households at risk of fuel poverty, provided a package of measures that included; hot water cylinder and fabric (walls and roof) insulation, as well as heating system replacement (fuel switching) including controls. This was to improve the least efficient properties in the housing stock. Seven Priority schemes were undertaken in 09/10, six by NIE Energy and one by newcomer to the programme: firmus energy.

As in previous years, a portion of the Priority funding was directed to Warm Homes Plus to supplement the Department for Social Development (DSD) funding. The amount provided to Warm Homes was reduced to £500,000 in 2009-10, following an incremental reduction as approved by the Utility Regulator in 2007. However, £297,108 of this funding was returned unspent at the end of the year, the reason cited was the delay in the new Warm Homes Scheme being implemented. This was the last year that the programme will support the Warm Homes scheme.

The remaining Priority funding provided packages to improve the energy efficiency of dwellings. Priority Schemes were defined in one of three categories; Whole House Solutions (packages for properties with solid fuel or electric systems or with no central heating), Whole House Solutions

(packages for properties with old oil or LPG systems), and Individual Measures (e.g. insulation or heating controls).

Apportionment of savings is applied to schemes which receive funding from other public bodies and which the relevant supplier has not instigated themselves. Warm Homes Plus is an example of such a scheme, for which only the savings attributable to the EEL funding were allowed to be claimed. For other schemes receiving public funding full savings can be claimed, provided that the scheme did not exist prior to EEL involvement or that the supplier had been instrumental in instigating the scheme, the scheme was unlikely to have proceeded without the EEL funding and that the other body is not counting the savings themselves.

Twelve Non-Priority schemes accounted for the further 20% of the EEL fund. These schemes were further categorised as domestic and commercial, with 3 domestic schemes running and 9 commercial. The Non-Priority domestic schemes included the popular NIE Energy 'Insulation Cashback' scheme offering consumers £150 cashback on home insulation upgrades. Other Non-priority domestic schemes included 'Energy Saving lighting offers' and 'Energy Saving Light Bulb Giveaway' offering discounted energy efficient lighting to homeowners.

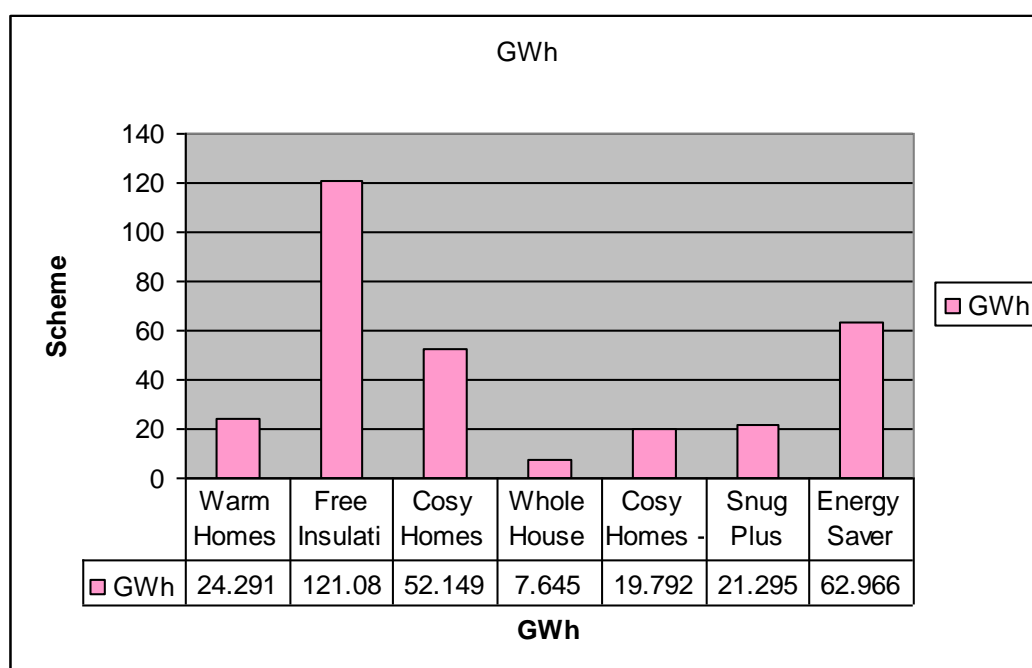
NIE Energy and Energia each undertook four commercial schemes and a ninth commercial scheme was undertaken by ESBIE in their first year of full participation in the EEL. Technologies being installed included energy efficient lighting, variable speed drives and liquid refrigerant pumping. There was, however, a notable decline in the uptake of commercial schemes in 2009-10. This was largely due to the economic crisis which led to financial constraints on companies resulting in a freeze in capital expenditure.

Overall nineteen schemes were successfully submitted and subsequently completed during the year, 13 of which were managed by NIE Energy, four managed by Energia, one by ESBIE and one by firmus energy. A further two schemes were approved at the start of the year but were subsequently withdrawn. Although all the 2009/10 funding was allocated to approved schemes, approximately £540,000 was returned unspent due to the uptake of schemes not being as high as anticipated. This money will be added to the funds available for the 2011-12 NISEP Programme. A brief summary of each of the individual schemes is given in Appendix 1.

2.0 Utilisation of EEL Funding 2009-10

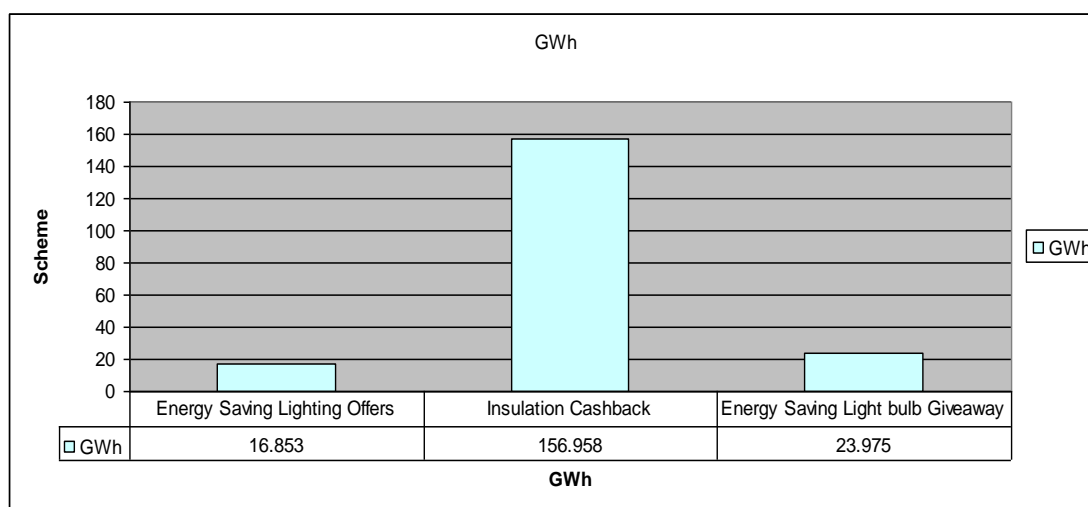
Ref	Scheme Title	EEL Funding £	Lifetime Savings		
			GWh	Carbon (Tonnes)	Gross Customer Benefits (£)
NIEE 09 06 M P	Warm Homes *	195,889	24.291	4,890	1,680,025
NIEE 09 05 I P	Free Insulation	1,003,284	121.080	24,030	10,751,363
NIEE 09 01 M P	Cosy Homes	601,557	52.149	10,872	2,933,617
FIR 09 01 M P	Whole House Solution	149,960	7.645	1,555	396,363
NIEE 09 04 I P	Cosy Homes - Insulation Only	162,812	19.792	3,254	1,665,748
NIEE 09 03 M P	Snug Plus	322,204	21.295	4,533	917,289
NIEE 09 02 M P	Energy Saver Homes	2,135,017	62.966	13,312	2,874,005
NIEE 09 09 L NPD	Energy Saving Lighting Offers	56,245	16.853	3,303	1,926,316
NIEE 09 07 I NPD	Insulation Cashback	454,214	156.958	33,040	14,069,796
NIEE 09 08 L NPD	Energy Saving Light bulb Giveaway	99,160	23.975	4,917	2,740,327
NIEE 09 10 O NPC	Variable Speed Drives	111,018	61.197	4,382	6,994,806
NIEE 09 14 O NPC	Fuelstretcher	111,860	60.404	9,157	5,630,887
ENA 09 06 O NPC	Hysave Liquid Refrigerant Pumping	8,838	3.024	626	345,641
NIEE 09 13 L NPC	FEC Lighting	3,751	1.398	342	159,841
ENA 09 05 O NPC	Sonic Leak Detection	17,241	15.194	2,759	1,736,651
NIEE 09 12 L NPC	Farm Agricultural Lighting	47,605	15.229	3,716	1,740,627
ENA 09 09 O NPC	Variable Speed Drives (Inverter)	56,381	21.175	13,071	2,420,308
ENA 09 02 L NPC	High Bay Lighting - 16 to 24 hr operation	29,985	16.140	3,340	1,844,852
ESBIE 09 03 L NPC	Energy Efficient Lighting	22,727	8.154	1,756	932,012
TOTAL		5,589,748	708.919	142,855	61,760,474

Priority Scheme Energy Performance:



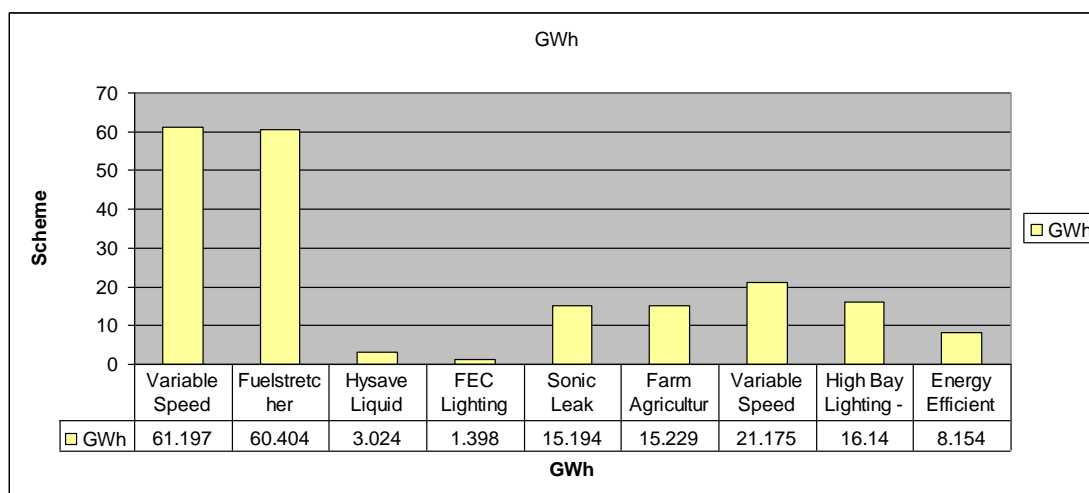
Priority (P)	Funding (£)	GWh
Warm Homes *	195,889	24.291
Free Insulation	1,003,284	121.08
Cosy Homes	601,557	52.149
Whole House Solution	149,960	7.645
Cosy Homes - Insulation Only	162,812	19.792
Snug Plus	322,204	21.295
Energy Saver Homes	2,135,017	62.966

Non-Priority Scheme Energy Saving Performance:



Priority (P)	Funding (£)	GWh
Energy Saving Lighting Offers	56,245	16.853
Insulation Cashback	454,214	156.958
Energy Saving Light bulb Giveaway	99,160	23.975

Non-Priority Commercial Scheme Energy Saving Performance:



Non-Priority Commercial (NPC)	Funding (£)	GWh
Variable Speed Drives	111,018	61.197
Fuelstretcher	111,860	60.404
Hysave Liquid Refrigerant Pumping	8,838	3.024
FEC Lighting	3,751	1.398
Sonic Leak Detection	17,241	15.194
Farm Agricultural Lighting	47,605	15.229
Variable Speed Drives (Inverter)	56,381	21.175
High Bay Lighting - 16 to 24 hr operation	29,985	16.14
Energy Efficient Lighting	22,727	8.154

3.0 Target Achievement and Incentive Payments

The overall energy saving target was 380.734 GWh. The actual savings achieved were 708.919 GWh.

The extent of over achievement in the target energy savings was 328.185 GWh. The incentive payments were calculated at a rate of £4,995 x 2 years' inflation per GWh, as outlined in the Framework Document, and this yielded overall incentive payments of £1,722,277 to the four participating suppliers.

Incentive payments once again exceeded expected levels. The reasons for a larger than expected rate of incentive included differences in the quantities of fuels being displaced from those originally anticipated. This had the affect of increasing the energy savings above those forecast.

Income generated from incentive payments is limited. Any incentive payments earned in excess of 8% of total project costs have to be recycled into energy efficiency and/or fuel poverty initiatives additional to work already planned.

Total incentives earned were £1,722,277. NIE Energy will be required to recycle £854,235 and Energia £83,487 whilst firmus energy and ESBIE did not earn incentives above the 8% threshold.

4.0 Extent of Priority Funding

Of the £5,589,748 spent on schemes, £4,570,723 was accounted for by Priority schemes, representing almost 82% of funding. This figure is marginally above the ring fenced 80% due to under-spend in the other ring fenced funding categories. Energy savings of 309.218 GWh for the Priority category represents 43.6% of the total energy savings. Thus it may be seen that energy savings were not commensurate with spend for this sector. This was expected given that heating measures, required for whole house solutions, are not as cost effective as certain other measures such as insulation and lighting.

96.7% of the EEL Priority funding allocation (excluding Warm Homes) was spent and used to provide whole house solutions and insulation measures to dwellings with occupants that met the relevant vulnerability criteria.

5.0 Case Studies

Firmus Toasty Homes FIR 09 01 M P



Pictured at the Guild Hall in Derry/Londonderry are Paula Simpson of firmus energy and Patrick Thompson of the Energy Saving Trust launching the firmus energy Toasty Homes scheme.

Customer testimonials

“We are really happy with our new heating. It’s saving our family money on both gas and electric as we don’t have an immersion heater any more. I would highly recommend it to anyone. Also, the payment card means no monthly bills, Great Job.”

“The heating system is a great product and very easy to use. Quality of work carried out was excellent. A job well done.”

ESBIE Energy Efficient Lighting ESB 09 07 L NPC



Pictured at the Corus Steel plant in Lisburn following the installation of its energy efficient lighting is Patrick McCarney of ESBIE, Kevin O'Hare of Corus Steel and Sean O'Kane of AJ Hurst.

6.0 Conclusions

EEL scheme submissions in 2009-10 were received from four electricity suppliers: NIE Energy, Energia and EEL newcomers firmus energy and ESBIE. NIE Energy managed 13 schemes which achieved significant savings, four Energia schemes progressed to completion and ESBIE and firmus energy successfully completing one scheme each.

The economic climate had a noticeable impact on the performance of commercial schemes in 2009-10 with many schemes under performing as a result of a reduction in capital expenditure by the commercial sector.

Appendix 1

Summary of participating EEL schemes:

Warm Homes Plus NIEE 09 06 O P

The EEL Framework Document required that £500,000 was directed to supplement the Warm Homes Plus scheme. This was provided from the EEL in the form of 'top up' funding to enable a full package of measures to be installed in dwellings. Of the £500,000 made available £195,889 was spent. In Feb 2010 DSD indicated to NIE Energy that not all funding would be spent. This was largely due to delays in the Warm Homes Plus scheme being implemented.

Free Insulation NIEE 09 05 I P

This Priority scheme benefited 1857 individual properties with installed insulation measures. Referrals for this scheme were generated through a range of referral partners including the Energy Saving Trust advice centre, Warmer Ways to Better Health, NEA etc. Eaga was appointed as scheme manager.

Cosy Homes NIEE 09 01 M P

This Priority scheme provided assistance to Housing Associations to provide whole house packages of measures to dwellings with no central heating, or Economy 7 electric or solid fuel central heating systems, where occupants met the vulnerability criteria outlined by the scheme. The scheme offered a maximum of £1,000 towards a heating system and £150 towards insulation. The scheme provided 500 heating upgrades and 400 insulation upgrades. 79% of installations replaced Economy 7 heating and 21% replaced solid fuel.

Firmus Energy Toasty Homes FIR 09 01 M P

This Priority scheme aimed to provide whole house packages of measures to dwellings that had no central heating, LPG, Economy 7, Oil or Solid Fuel central heating. The scheme delivered 118 whole house solutions including the installation of a new heating system using gas condensing boilers, cavity wall insulation, and loft insulation upgraded to 270mm.

Cosy Homes Insulation NIEE 09 04 I P

This Priority scheme provided support for Housing Associations to install loft and cavity wall insulation measures in their properties. The Cosy Homes scheme has operated for several years as a partnership between NIE Energy and the NI Energy Agency. The scheme provided over 1000 insulation grants, 970 of which were loft insulation and the remaining 30 cavity wall insulation.

[Snug Plus NIEE 09 03 M P](#)

This Priority scheme targeted vulnerable customers who had Economy 7 electric, Solid Fuel or no heating. The scheme was primarily directed at the 'working fuel poor' who could afford a modest contribution towards the cost. The scheme offered a £1,500 grant towards installing a new energy efficient gas heating system and up to £800 towards the cost of insulation. In total 173 heating systems were installed with 148 insulation measures, as not all homes required insulation.

[Energy Saver Homes NIEE 09 02 M P](#)

This Priority scheme provided whole house packages of measures to dwellings that had no central heating, Economy 7 electric, or Solid Fuel heating system, where the occupants met one or more of the outlined vulnerability criteria. Each property received a new, well controlled gas or oil high efficiency heating system, with cavity wall insulation also being installed and the loft insulation upgraded to 270mm. The scheme provided 514 whole house solution packages.

[Energy Saving Lighting Offers NIEE 09 09 L NPD](#)

This scheme was a Non-Priority scheme aimed at encouraging customers to purchase a range of energy saving light bulbs at discounted prices through a variety of retailer offers. A total of 44,946 bulbs were sold during the scheme. The Philips branded bulbs were offered online at 99p,

[Insulation Cashback NIEE 09 07 I NPD](#)

This scheme was a Non-Priority scheme aimed at encouraging owner occupiers and private landlords to install cavity wall insulation and loft insulation in their properties. A cashback of £150 was made available for cavity wall insulation and £75/£150 cashback for loft insulation depending on the cost of the installation. The scheme also acquired £60,000 of additional funding from the NIHE; this enabled more customers to avail of the cashback scheme, with the anticipated energy savings being exceeded.

[Energy Saving Light Bulb Giveaway NIEE 09 08 L NPD](#)

This scheme was a Non-Priority scheme involving the provision of free CFL's to not-for-profit organisations for distribution within communities, at events etc, in order to raise awareness of the benefits of low energy lighting and encourage the use of CFL's. 37,450 lamps were distributed throughout the duration of the scheme.

[Variable Speed Drives NIEE 09 10 O NPC](#)

This scheme was a Commercial scheme aimed at encouraging the uptake of Variable Speed Drives (VSD's) on suitable applications such as air compressors, swimming pool circulation pumps and ventilation fans.

Conventional control of fans, for example, reduces output while not reducing energy consumption. VSD's allow the motor energy consumption to be proportional to the system output, where the output can be reduced, savings can be realised. A total of 54 grants were offered to a range of farms and businesses.

[Fuelstretcher NIEE 09 14 O NPC](#)

This was a commercial scheme installing intelligent boiler controls in small businesses and other premises throughout NI. Fuelstretcher is based on the efficient operation and sequencing of gas or oil fired boilers through prediction of the heating demand for the building they serve. In total 83 installations of Fuelstretcher were undertaken. Grant levels were calibrated according to the predicted energy savings for each installation to ensure that the scheme achieved the cost effectiveness level forecast.

[Hy-save Liquid Refrigerant Pumping ENA 09 06 O NPC](#)

This Commercial scheme was aimed at promoting the use of Liquid Refrigerant Pumping Technology for refrigeration units in business premises throughout NI. Liquid Refrigerant Pumping Technology is used to reduce the compressor energy consumption on refrigeration plants and is used in premises where there is no requirement for heat recovery. Although five companies met the eligibility criteria for grant entitlement, only one was able to avail of the grant.

[FEC Lighting NIEE 09 13 L NPC](#)

This scheme was aimed at Commercial customers encouraging the uptake of energy efficient lighting. The grant funding was aimed at stimulating the energy efficient lighting market within the business community. The uptake for this scheme was considerably lower than anticipated. A total of 534 measures were installed.

[Sonic Leak Detection ENA 09 05 O NPC](#)

This Commercial scheme was aimed at promoting the use of Sonic Leak Detection in industrial/commercial premises throughout NI. Customers received a report containing detailed findings and recommendations, including estimated savings and payback periods. A total of 56 companies met the eligibility criteria and availed of a grant of £200 per half day survey. There were 65 half day surveys carried out in total, equating to £12,975 in grant allocations. The grant payments were only made if the recommendations in the report were acted upon.

[Farm Agricultural Lighting NIEE 09 12 L NPC](#)

This Commercial scheme aimed to offer a range of subsidised lighting to the agricultural sector in NI. Customers were able to avail of a range of low energy lighting options. The scheme was developed by Low Carbon

Solutions in conjunction with NIE Energy and has been successful in the past two years. The scheme was promoted through the NIE 'Your Energy' website and events throughout the year including the Balmoral Show.

[Variable Speed Drives ENA 09 09 O NPC](#)

This Commercial scheme aimed to promote the use of energy efficient VSDs in industrial/commercial premises throughout NI. VSDs enable motor energy consumption to be directly related to output and enable the output to be reduced in response to required load. A total of 14 companies applied for 17 schemes and met the criteria set.

[High Bay Lighting ENA 09 02 L NPC](#)

This Commercial scheme was aimed at promoting the replacement of existing light fittings (mainly metal halide) with high frequency CFL's in industrial/warehouse business premises throughout NI. The scheme promotes and encourages the use of dimming and presence detection with all users to maximise energy savings. Nine companies in NI met the criteria set and a total of 539 fittings were installed, availing of a grant of £65 per fitting towards the installation of the new lights. The 539 fittings installed equated to £26,985 in grant allocations.

[Energy Efficient Lighting ESBIE 09 03 L NPC](#)

This Commercial scheme aimed to assist large industrial and commercial customers with energy efficient lighting projects. The scheme assisted three industrial customers in replacing hi-bay and low bay lighting with 4 X 55W compact fluorescent lamps.



Noel Williams
Head of Energy Saving Trust (NI)

Appendix 2

Geographical Spread of Measures:

Warm Homes Plus NIEE 09 06 O P

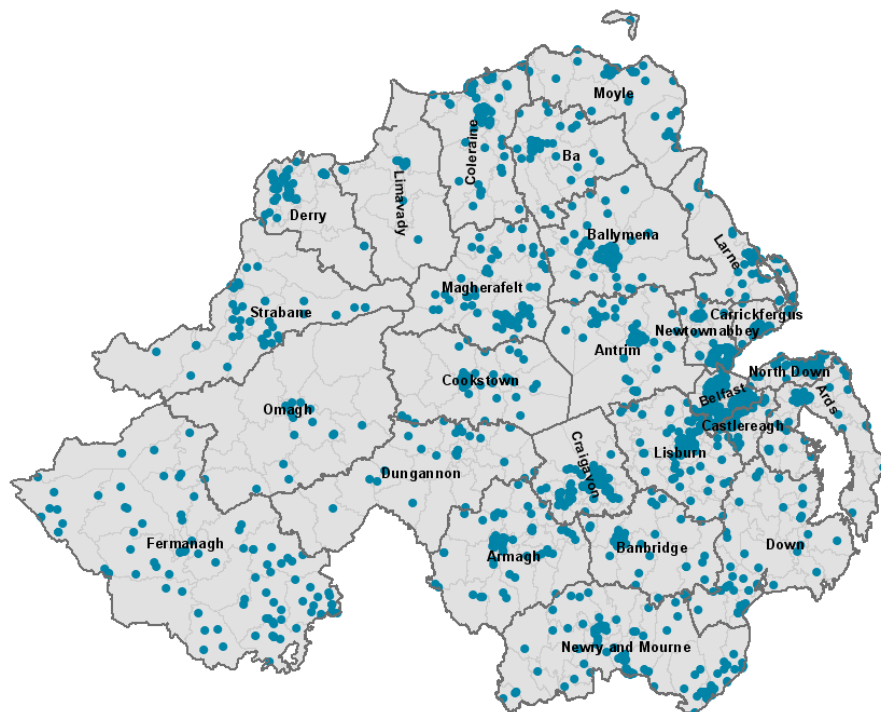
Supplier Name:	NIE Energy	Scheme Reference:
Scheme Names:	Warm Homes	NIEE 09 06 O P
Key indicators:	Final accreditation	
Accredited supplier savings (GWh)	24.291	
Supplier direct costs (£)	195,889	
Supplier indirect costs (£)	0	
Total supplier cost (£)	195,889	
Total scheme costs (£)	195,889	
Cost effectiveness (p/kWh)	0.81	
Total carbon saved (tonnes)	4,890	
Gross customer benefits (£)	1,680,025	



A geographical representation of measures installed in the EEL funded Warm Homes Plus scheme in 2009/10.

Free Insulation NIEE 09 05 I P

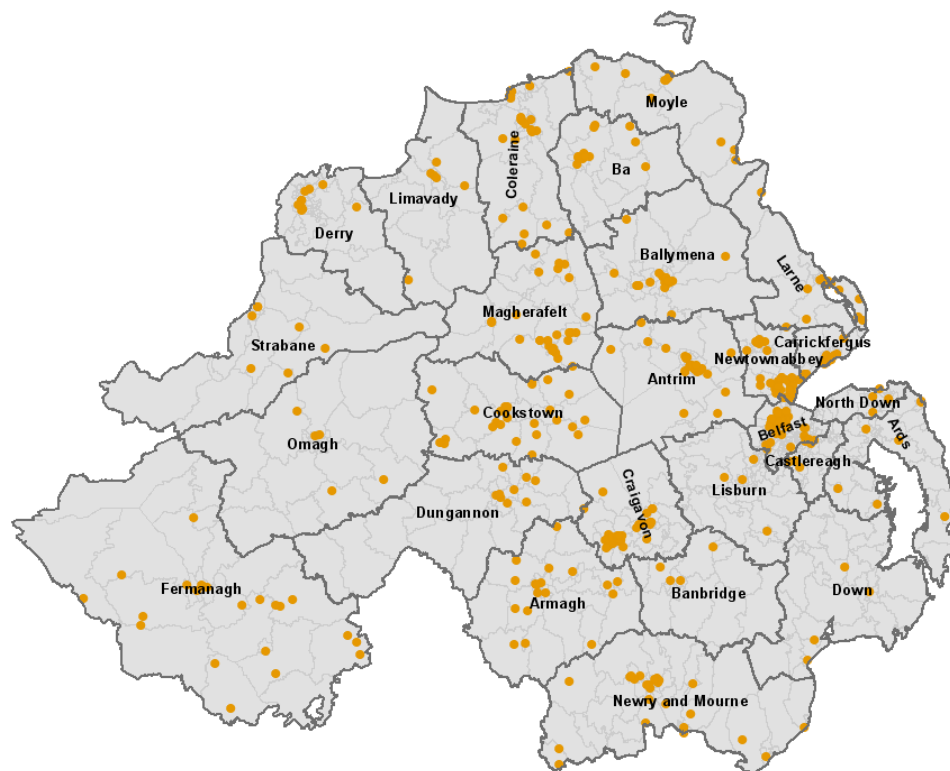
Supplier Name:	NIE Energy	Scheme Reference:
Scheme Names:	Free Insulation	NIE E 09 05 I P
Key indicators:	Final accreditation	
Accredited supplier savings (GWh)		121.080
Supplier direct costs (£)		894,036
Supplier indirect costs (£)		109,248
Total supplier cost (£)		1,003,284
Total scheme costs (£)		1,217,614
Cost effectiveness (p/kWh)		0.83
Total carbon saved (tonnes)		24,030
Gross customer benefits (£)		10,751,363



A geographical representation of the measures installed in the EEL funded Free Insulation scheme in 2009/10.

Energy Saver Homes NIEE 09 02 M P

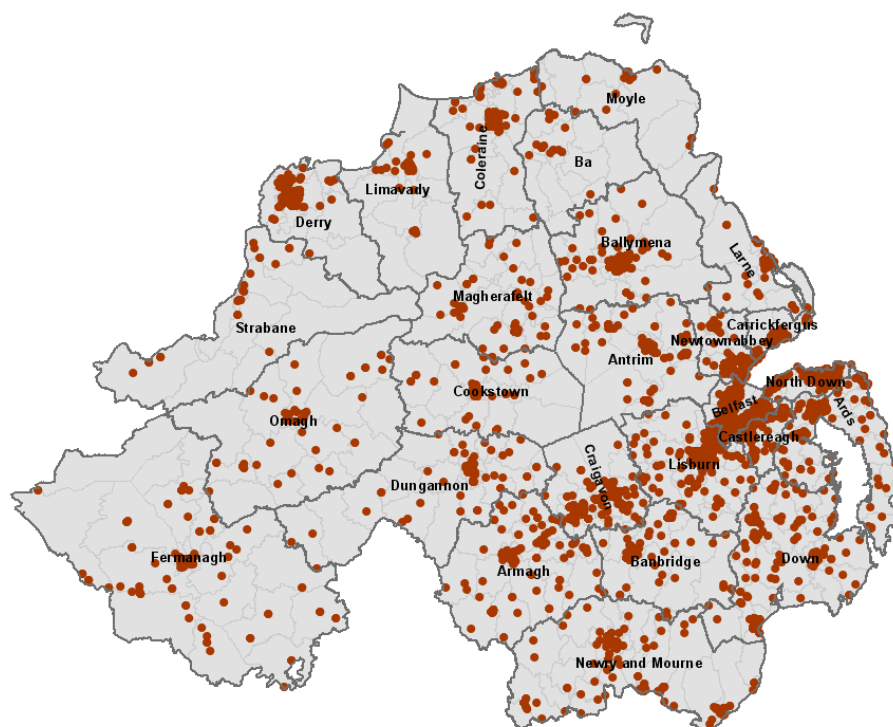
Supplier Name:	NIE Energy	Scheme Reference:
Scheme Names:	Energy Saver Homes	NIEE 09 02 M P
Key indicators:	Final accreditation	
Accredited supplier savings (GWh)	62,966	
Supplier direct costs (£)	2,035,908	
Supplier indirect costs (£)	99,109	
Total supplier cost (£)	2,135,017	
Total scheme costs (£)	2,135,017	
Cost effectiveness (p/kWh)	3.39	
Total carbon saved (tonnes)	13,312	
Gross customer benefits (£)	2,874,005	



A geographical representation of the measures installed in the EEL funded Energy Saver Homes scheme in 2009/10.

Insulation Cashback NIEE 09 07 I NPD

Supplier Name:	NIE Energy	Scheme Reference:
Scheme Names:	Energy Saver Homes	NIEE 09 02 M P
Key indicators:		Final accreditation
Accredited supplier savings (GWh)	62,966	
Supplier direct costs (£)	2,035,908	
Supplier indirect costs (£)	99,109	
Total supplier cost (£)	2,135,017	
Total scheme costs (£)	2,135,017	
Cost effectiveness (p/kWh)	3.39	
Total carbon saved (tonnes)	13,312	
Gross customer benefits (£)	2,874,005	



A geographical representation of the measures installed in the EEL funded Insulation Cashback scheme in 2009/10.