



Northern Ireland Sustainable Energy Programme

Annual Report 2019-2020

Prepared by Energy Saving Trust

1. Executive Summary

This annual report reviews the performance of the 2019-20 Northern Ireland Sustainable Energy Programme (NISEP) schemes, outlining the measures installed, financial benefits to recipients and the energy (GWh) and carbon savings associated.

For 2019-20 the initial NISEP fund was £7,941,946 (as set out in the NISEP Framework Document) collected as an average of £8.95 per electricity customer across approximately 887,612 domestic and business customers. Additional funding was allocated to 19/20 during the year, following confirmation of underspend from 18/19 year. The total NISEP spend on schemes at year end was **£6,927,807** which is less than the funding allocated, due to the impact of COVID 19 which meant installations were cancelled across schemes in March 2020. At year end, therefore, there was approximately £1.1m of NISEP funding remaining unspent. Of this £1.1m, £691k was reallocated back to the Primary Bidder to allow Priority customers to avail of the NISEP installs which were cancelled due to COVID 19. The remainder of these funds was allocated to NISEP 20/21. A lower than expected uptake in the Non-Priority Category, mainly under commercial schemes, resulted in 93% of NISEP funding being spent in the Priority Category. This is a significant increase to the 80% ringfence for Priority schemes at the start of the year. Reasons for the above will be discussed in greater detail within this report.

In total, twenty-two schemes were approved, however, one scheme did not go ahead, and two schemes closed during the year due to no uptake. The funds from these schemes were redistributed to other, more successful schemes to try to maximise in-year spend and associated energy savings. There was also one scheme that despite having no measure uptake, still incurred a small amount of indirect costs as following a quality inspection, the NISEP grant (direct costs) was withdrawn and returned to the NISEP pot. Following the rebranding of the Energia Group (previously known as Viridian Group) and as part of a

corporate restructuring, all five Energia commercial NISEP schemes were transferred to Power NI, Energia's sister company on 1st October 2019.

Table 1 – Comparative Summary of Outturn Savings

	2019-20	2018-19
Total lifetime energy savings (GWh)	368.632	482.814
Total lifetime carbon saved (tC)	46,015	64,708
Gross lifetime customer benefits (£)	30,153,911	43,814,973
Total incentives earned (£)	28,160	13,666

2. NISEP background

NISEP is funded from a sum of money collected from all electricity customers through a Public Service Obligation (PSO), and it is used to provide funding for energy efficiency schemes.

The strategic objectives of the NISEP are to contribute to the achievement of:

- Efficiency in the use of energy;
- Socially and environmentally sustainable long-term energy supplies; and
- The above at best value to customers whilst also having due regard to vulnerable customers.

The majority of the funding (80%) is ring-fenced for spend for vulnerable customers in Northern Ireland. Previous consultations have substantiated the view that this level of funding for vulnerable customers should remain.

In 2019-20 the NISEP continued to focus on vulnerable customers (known internally as the Priority Sector) who are domestic customers on lower incomes who may be vulnerable to fuel poverty. £6,231,251 was made available at the start of the year for this sector. The remaining £1,557,813 was split between non-priority domestic and commercial schemes and the non-priority innovative schemes category. Any additional underspend from 2018-19 was made available for all Primary Bidders across all categories to utilise.

NISEP funding for schemes aimed at Priority Sector customers typically provided a package of measures including;

- Fabric (cavity wall or loft) insulation
- Heating system replacement including fuel switching and heating controls
- Low energy lighting
- Hot water cylinder jackets
- Smart Controls
- Endotherm Heating Additive

The explicit aim of NISEP funding in the Priority Sector is, to reduce energy consumption in the least energy efficient housing stock, and to improve energy efficiency levels.

In the Non-Priority domestic and commercial category, measures included;

- Insulation ‘cash-back’ offers for cavity wall, and loft insulation in the domestic sector
- Variable speed drives and variable speed compressors
- Energy efficient and LED lighting systems
- Intelligent Heating controls

3. Types of schemes in 2019-20

In 2019-20, twenty-two schemes were approved, however, one scheme did not go ahead, and two schemes closed during the year due to no uptake. There was also one scheme that despite having no measure uptake, still incurred a small amount of indirect costs as following a quality inspection, the NISEP grant (direct costs) was withdrawn and returned to the NISEP pot. Following the rebranding of the Energia Group (previously known as Viridian Group) and as part of a corporate restructuring, all five Energia commercial NISEP schemes were transferred to Power NI, Energia's sister company on 1st October 2019. The following tables summarise the number of schemes per Primary Bidder and schemes per category.

Table 3.1 - Summary of approved schemes by Primary Bidder

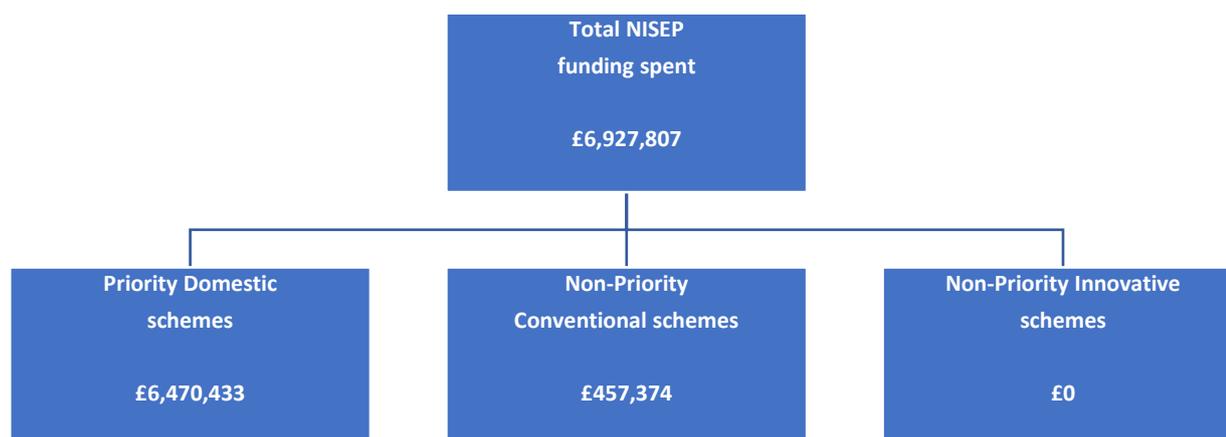
Energystore	2
firmus energy	2
Fusion Heating	4
Power NI (includes Energia schemes)	9
SGN Natural Gas	2
Warmfill	2
Workspace	1

Table 3.2 – Breakdown of schemes by category

Priority schemes	12
Non-Priority conventional	10
Non-Priority innovative	0

Table 3.3 below shows how the NISEP funds spent were split between each funding category in 2019-20.

Table 3.3 - NISEP Breakdown of Funding Spent



4. Priority Domestic Schemes

Of the **£6,927,807** spent, **£6,470,433** was utilised on Priority Domestic schemes (those targeted at vulnerable/lower income), representing 93% of the total funding spent. This is significantly higher than the 80% ring-fenced for priority schemes at the start of the year and is mainly due to underspend from the previous year being utilised where demand was greatest.

In total, Priority funding contributed to **18,902** energy efficiency interventions being installed. This is 5,687 less measures than in the previous year with the main reason being related to COVID 19 restrictions where installations were cancelled in March 2020. Quarter 4 usually has the highest uptake of measures, so COVID 19 had a significant impact to the number of installs completed and level of funding claimed. At year end there was an underspend of approx. £822k within the Priority category with £691k of this reallocated back to the Primary Bidders to allow Priority customers to avail of the NISEP installs which were cancelled due to COVID 19. In comparison to the previous year, there was also approximately £801k less NISEP funding spent on Priority schemes, which will explain the reduction to the number of measures installed.

In comparing the fuel switch conversions to the previous year, oil to gas remains the highest proportion of fuel switch installs completed under NISEP, at 76%. There has been a significant reduction in electric (E7) to gas conversions, from 34% in 2018/19 to 8% and a reduction in solid fuel to gas conversions, from 4% to 2%. There has been a small increase

in oil boiler replacements, from 5% to 9% and a reduction in gas boiler replacements from 8% to 4% in 19/20.

Four of the eleven Priority schemes that did go ahead, provided a fully funded 'whole house solution' package whilst four other Priority schemes provided different levels of funding towards similar measures. This varied from a 50% grant towards heating measures and fully funded insulation for owner occupier / private tenants, to a standard £1,000 / £150 grant towards heating and insulation installs, respectively, in Housing Association properties. Of the remaining three schemes, these provided fully funded individual measures offering cavity wall and loft insulation. Table 4.1 shows a breakdown of priority measures and Table 4.2 shows the breakdown of heating system installations.

Energy Saving Trust continue to encourage the uptake of properties availing of a full package of 'whole house solution' measures and have issued guidance and further requirements to encourage uptake. Primary Bidders were reminded that 'whole house solution' schemes should be designed to ensure maximum uptake of measures offered per household, i.e., unless there are exceptional circumstances, when a heating system is being installed, all insulation measures should be offered, and if required and suitable should be installed. Customers should always be made aware of the benefits of insulation measures.

Energy savings of **219.350 GWh** in the Priority Category represents approximately 60% of the overall energy savings. Total energy savings are slightly lower than in 18/19, which is expected due to the reduction in the number of measures installed, a change in fuel switch conversions, and less spend, as a result of COVID 19. There was a reduction in the installation of heating (by approx. 12%), cavity wall insulation (by approx. 18%), loft insulation (by approx. 16%), hot water tank jackets (by approx. 19%) and LEDs (by approx. 23%). However, energy savings from the Priority schemes account for a higher proportion of overall savings to Non Priority, at 60%, in comparison to 18/19 which was 53%. This can be attributed to a lower uptake of measures in the Non-Priority Category in 19/20 as a result of the rebranding of the Energia Group and schemes not being advertised and promoted as initially intended. A higher proportion of funding was also spent in the Priority category where demand was greatest. With the predominant fuel switch being oil to gas conversions at 76%, in comparison to 46% in 18/19, this also impacted on outturn energy savings. As expected, there were fewer full electric central heating (E7) to gas conversions than in 18/19 as electricity generation becomes greener and therefore less energy savings are attributed to this conversion type.

There continues to be a high proportion of partial fill cavity wall insulation as opposed to full fill, which also impacts on energy savings. There continues to be an increase in ventilation requirements for both loft insulation and cavity wall insulation, which has increased average measure cost.

Measures installed equate to a lifetime gross customer benefit (GCB) of **£12,129,849** for the most vulnerable households in Northern Ireland. The reduction in GCB to the previous NISEP year, is largely attributed to a reduction in NISEP spend, fewer insulation and heating measures installed and the type of fuel switches being made. A reduction in properties with 'No Central Heating' (reliant on electric room heaters)' or solid fuel conversions which would have yielded a significantly higher GCB, has had a significant impact, with the predominant fuel switch in 19/20 being oil to gas at 76%.

Table 4.1 – Summary of Priority Measures Installed 19/20

Loft insulation (LI)	2,212
Cavity wall insulation (CWI)	1,868
LEDs	11,926
Hot water cylinder jackets	236
Heating replacements	1,201
Smart Heating Controls	258
Endotherm	1,201
TOTAL	18,902

Table 4.2 – Summary of Heating Replacements 19/20

Electric to gas	102
Electric to oil	2
Oil to gas	914
Oil to oil (replacement)	105
No heat (electric) to gas	1
Solid fuel to gas	25
Solid fuel to oil	3
Gas to gas (replacement)	48
LPG to LPG (replacement)	1
TOTAL	1,201

Below is a sample of customer feedback from some Priority scheme recipients, provided by the Primary Bidder. (For a full list and detailed descriptions of the NISEP schemes, see Appendix 1).

Warm at Home Plus customer, "From my first visit by Samantha, to the final inspection of the work done, I was thoroughly delighted and impressed with everything. Samantha was knowledgeable, helpful and explained each process and kept me up to date with everything, and I always knew she was at the end of the phone should I have any questions. All the work men involved with the preparations and installation of the gas and the insulation inside were prompt, hardworking and efficient and came when they said they would. There was

minimal disruption. I did appreciate the energy saving bulbs, which I received. I would give this scheme 10 out of 10, because from start to finish everyone and everything was perfect”.

Energy Plus Customer, *“My home is noticeably warmer than before. Overall, the energy saving scheme was excellent. Very impressed with workmanship and help with Phoenix connection”.*

East Down Natural Gas Energy Saver Customer, *“Attitude of the engineers was 100%. My property was left cleaner and tidier than before the guys started. The overall standard of work was excellent. No problems at all”.*

Housing Association Energy Saver Customer, *“Very happy with the heating installation”*

Energy Saving Home Assist Customer, *“Excellent standard of work. I am very satisfied with the scheme”*

Thermal Comfort Customer, *“Just like to say a massive thank you on an outstanding job you guys have done. With a baby due in March and a cold house we needed to do something. However, it was working out very expensive. With the help of yourself and your colleagues we are very grateful for what you have done. We purchased a groegg a few months back which prior to the cavity walls and loft insulation being done was showing at 16.1 degrees which was borderline too cold for the baby as per the recommendations. Since you have completed your work the groegg is now showing 21.8 degrees which is a huge difference to us. Not only that prior to the work being done I would have had the heating on maybe 4 or 5 hours per night and there wouldn't have been a massive difference in the house. Now I only need to put the heat on for an hour or two in the evenings and the house is a lot warmer than it was prior. Again I cannot thank you guys enough for the work you have done for me it will make a huge difference going forward for me.”*

Keep Warm Scheme Customer, *“Excellent work by a very efficient team”*

Homewarmer Plus Customer, *“Glad it was done as house is now warm & cosy”*

5. Non-Priority schemes (commercial and domestic)

Of the **£6,927,807** spent, **£457,374** was utilised on Non-Priority schemes, representing 7% of the total funding spent. Non-Priority schemes provide part-funding, usually in the region of 20%, towards the cost of energy efficiency measures. These schemes tend to be more cost effective than those in the priority sector due to commercial energy efficiency measures yielding good energy savings in comparison to the spend. Funding was returned by one Primary Bidder at the start of Q4 with a significant proportion reallocated to the Priority Category to support demand. Although, at the end of the year, there still remained a significant underspend of approx. £320k in this category. The majority of this, approx. £318k is from underspend in commercial schemes. Following the rebranding of the Energia Group

(previously known as Viridian Group) and as part of a corporate restructuring, all five Energia commercial NISEP schemes were transferred to Power NI, Energia's sister company on 1st October 2019. As a result, schemes were not advertised and promoted as initially intended and the uptake was lower than anticipated. Also, COVID 19 did have an impact in Q4, particularly as projects within the commercial category take a longer period to plan and complete, and the current NISEP financial year timeframe continues to provide challenges for the commercial sector. As a result, applications do not progress as swiftly as domestic applications, which then leads to low uptake in this category and underspend at year end.

Overall, there has been a reduction in the proportion of NISEP funding spent in the Non-Priority Category, from 9% in 2018/19 to 7% in 19/20.

In total, Non-Priority schemes delivered **11,863** energy efficiency interventions. The number of measures in the Non-Priority Category has reduced by over 16,905 this year, compared to 18/19, and this is mainly related to the reduction of LED installs (which make up 16,874 of this reduction). LEDs have reduced from 28,050 in 18/19 to 11,176 in 19/20. Although, LEDs continue to be widely adopted by businesses each year, the timeframe for projects to complete continues to be challenging for many businesses. There were also several other factors that contributed to the reduction in measures in this category, including the schemes not being advertised due to the corporate restructure of Power NI and also the impact of COVID 19.

In reviewing other trends in the commercial sector, the uptake of Variable Speed Drives (VSDs) was reduced from 27 installs in 18/19 to 10 installs in 19-20. However, there has been an increase in the uptake of Variable Speed Compressors (VSCs), from 6 in 18/19 to 15 in 19-20.

The number of Non-Priority domestic insulation measures installed has remained relatively the same, with 679 CWI/LI measures installed in 18/19 and 653 CWI/LI measures installed in 19/20. As a result, there has been a similar level of NISEP funding spent on insulation schemes targeting non priority customers.

There were no innovative non-priority schemes approved in 19/20. However, Energy Saving Trust will continue to encourage innovative schemes to be submitted which would help bring forward emerging but proven domestic or commercial technologies that provide a better energy efficiency performance than 'standard' measures.

Overall, with a reduced number of installs in the Non-Priority category, energy savings have been impacted as a result. Energy savings of **149.282 GWh** in the Non-Priority sector represents approximately 40% of the overall energy savings. This trend continues from 18/19 with a lower proportion of energy savings in the Non-Priority Category. This can be explained by the increased spend where demand is greatest, and therefore more measures installed in the Priority Category overall attributing to high energy savings. In the Non-Priority Category, there were notably fewer LEDs and VSDs installed to previous years, which will have

impacted energy savings and will explain a lower lifetime gross customer benefit of **£18,024,062**, compared to the previous NISEP year at £30,134,628. However, this figure overall still illustrates the significant gross customer benefit that can be achieved largely from the commercial sector grants offered under NISEP. LED lighting continues to become more cost effective, with the associated high energy savings and gross customer benefit.

Table 5.1 – Summary of Non-Priority Measures Installed 19/20

Loft insulation	131
Cavity wall insulation	522
Variable speed drives	10
Variable speed compressors	15
Energy efficient lighting	11,176
Heating controls	9
TOTAL	11,863

Below is a sample of customer feedback from some Non-Priority scheme recipients, provided by the Primary Bidder. (For a full list and detailed descriptions of the NISEP schemes, see Appendix 1).

Variable Speed Compressors Customer, *“The VSC grant funding project has worked very well for us. The grant process was very straight forward and was of a great benefit when investing in a new compressor. Also, the energy savings have been better than we thought and the payback on this will definitely meet its target”*

LED Lighting Customer, *“Really happy with the lights-- much better quality and less maintenance. Almost like daylight.”*

£250 Insulation Grant Customer, *“Great job, can feel the difference already”*

Keeping You Warmer Customer, *“If grant had not been available we would have needed to wait 6 months to gather up funds...so grant was very welcome.”*

6. Utilisation of NISEP Funding 2019/20

Table 6.1 below shows a summary of the approved schemes this year along with NISEP contribution spent, GWh lifetime energy savings, lifetime carbon tonnes and the gross customer financial benefit of each scheme. The graphs provide a breakdown of GWh savings by category and the overall cost effectiveness of each scheme in pence spent per kilowatt of energy saving generated (where the lower the pence per kilowatt figure, the more cost-effective the scheme).

Table 6.1 - Scheme Summary

Scheme Ref	Scheme Title	NISEP Funding Spent £	Accredited Lifetime Energy Savings GWh	Lifetime Carbon Saved Tonnes	Gross Customer Lifetime Benefit £
ESL 19 01 IP	Thermal Comfort	£1,798,623	80.782	9,741	£5,075,826
ESL 19 02 NP	£250 Insulation Grant	£163,611	34.757	3,975	£2,119,012
FIR 19 01 MP	Home Comfort Plus	£644,500	10.615	2,132	£335,000
FIR 19 02 MP	Home Comfort 50/50	£708,340	25.225	4,897	£866,737
FUS 19 01 MP	Energy Plus	£1,143,374	12.938	1,699	£668,910
FUS 19 02 MP	East Down Natural Gas Energy Saver	£50,060	0.669	128	£22,875
FUS 19 03 MP	Energy Saving Home Assist	£40,252	1.324	173	£63,185
FUS 19 04 MP	Housing Association Energy Saver	£141,556	6.749	811	£275,145
PNI 19 03 IP *	Cosy Homes Insulation	£0	0	0	£0
PNI 19 05 O NP	Variable Speed Drives	£20,244	16.011	1,816	£2,344,037
PNI-ENA 19 01 L NP	LED Lighting	£179,033	56.611	6,952	£8,287,864
PNI-ENA 19 02 O NP	Intelligent Heating Controls	£17,736	6.384	737	£395,328
PNI-ENA 19 03 O NP	Variable Speed Compressors	£52,628	29.115	3,262	£4,262,480
PNI-ENA 19 04 O NP **	Voltage Optimisation	£0	0	0	£0
PNI-ENA 19 05 O NP	Heat Recovery	£476	0	0	£0
PNI-ENA 19 06 O NP ***	Energy Screw Air Blowers	£0	0	0	£0
PNI-ENA 19 07 O NP	Variable Speed Drives	£3,167	2.625	288	£384,238
SGN 19 01 MP	Warm at Home Plus	£57,951	0.95	189	£33,565
SGN 19 02 MP	Warm at Home Cashback	£1,686	0.06	13	£2,187
WFL 19 01 I NP	Keeping You Warmer	£20,481	3.778	427	£231,104
WFL 19 02 IP	Homewarmer Plus	£986,169	32.481	3,576	£1,989,565
WORK 19 01 IP	Keep Warm Scheme	£897,924	47.558	5,199	£2,796,853
TOTALS ***		£6,927,807	368.632	46,015	£30,153,911

* *scheme did not go ahead; funds were returned to the NISEP pot for reallocation*

** *scheme proceeded but had no uptake; funds were returned to the NISEP pot for reallocation*

*** *where relevant, total figures have been rounded*

There were three schemes allocated funding at the start of the NISEP year, one of which did not go ahead, Cosy Homes Insulation PNI 19 03 IP, with the remaining two schemes, Voltage Optimisation PNI-ENA 19 04 ONP, and Energy Screw Air Blowers PNI-ENA 19 06 ONP, closing during the year due to no uptake. One scheme, Heat Recovery PNI-ENA 19 05 ONP, that despite having no measure uptake, still incurred a small amount of indirect costs as following a quality inspection, the NISEP grant (direct costs) was withdrawn and returned to the NISEP pot.

Figure 6.2 - Lifetime energy savings by category (GWh)

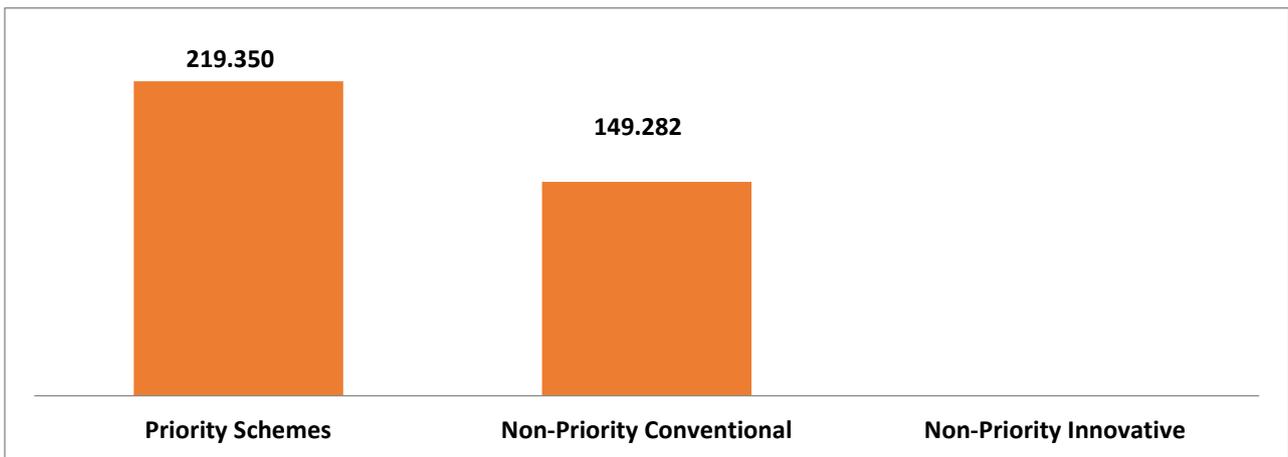


Figure 6.3 - Priority Scheme Cost Effectiveness (cost in pence per kWh of energy saved, p/kWh) (the lower the value, the more cost effective the scheme)

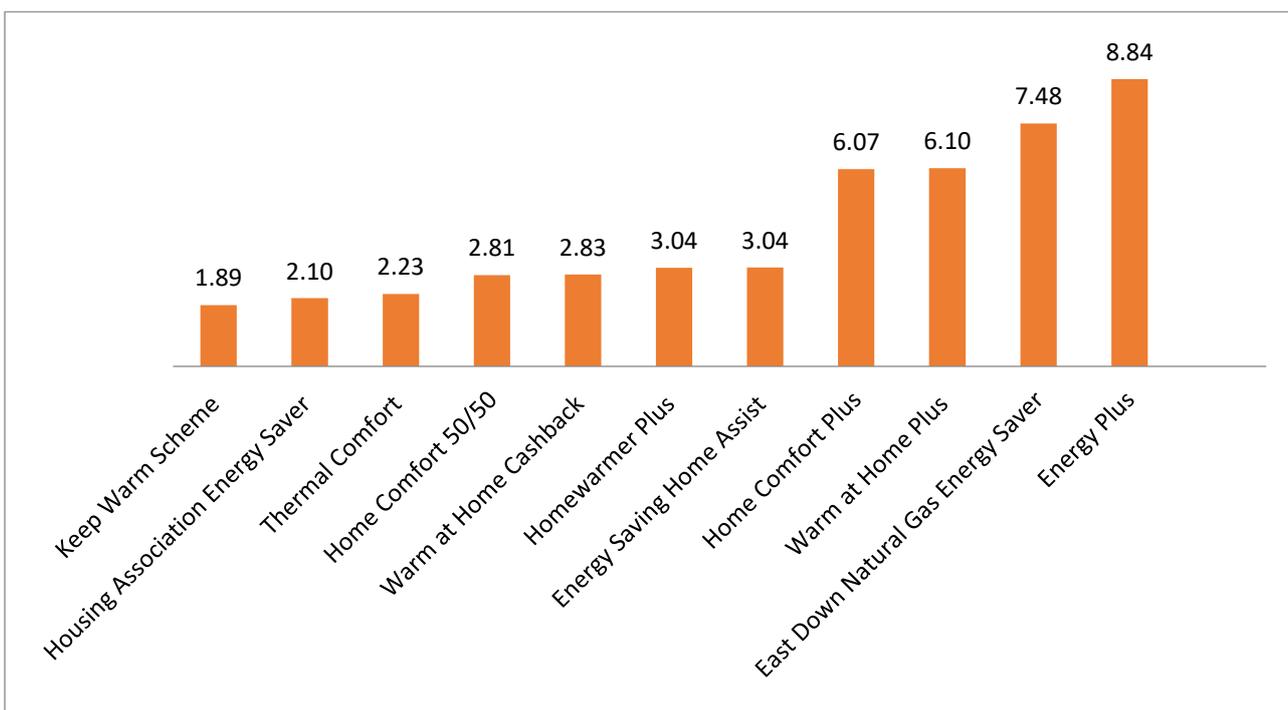
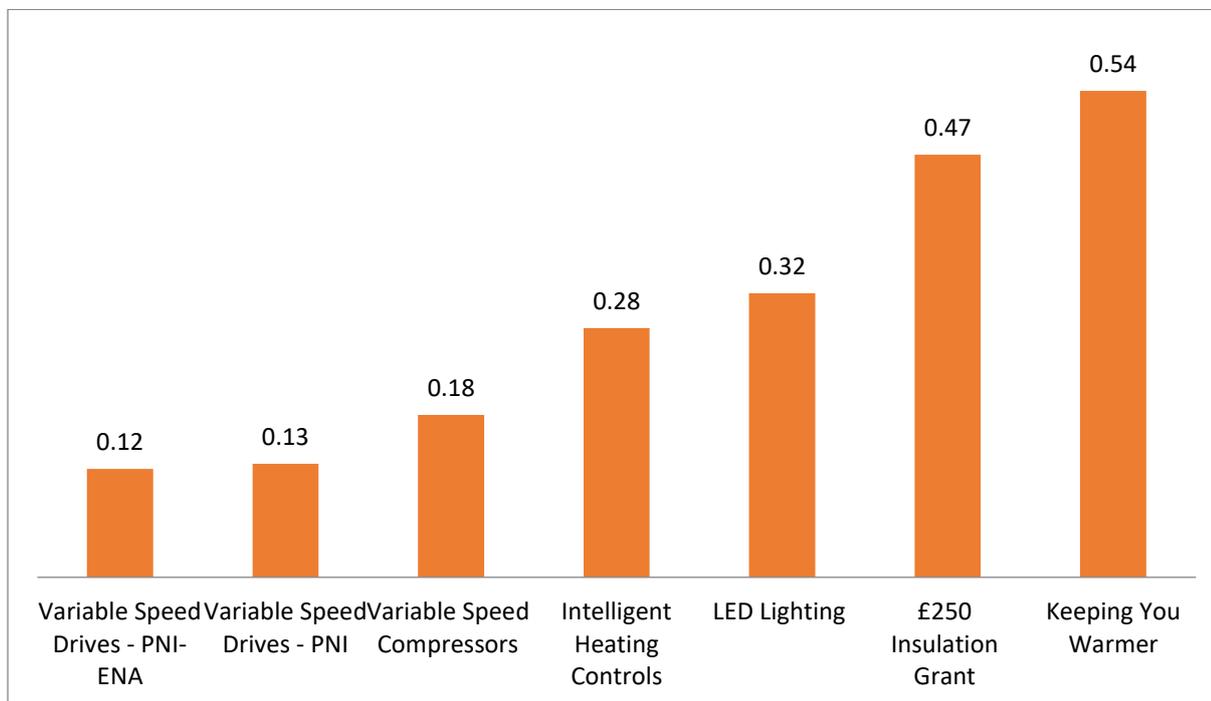


Figure 6.4 - Non-Priority Scheme Cost Effectiveness (p/kWh) (the lower the value, the more cost effective the scheme)



7. Target Achievement and Incentive Payments

In order to encourage Primary Bidders to bring forward cost-effective schemes and ensure that the objectives of the NISEP are met, the Utility Regulator awards an incentive payment to Primary Bidders that exceed the energy saving target set for each scheme. There is no incentive paid for simply meeting the target.

As a result of exceeding the GWh targets, incentive payments were awarded to each of the Primary Bidders. The total incentive payments were **£28,160**, as summarised in table 7.1 below.

7.1 - Summary of Incentive Payments 2019-20

Primary Bidder	Amount NISEP spent (£)	Savings achieved (GWh)	Incentive earned (£)
Energystore	1,962,233	115.539	2,035
firmus energy	1,352,840	35.840	334
Fusion Heating	1,375,241	21.680	763
Power NI	273,283	110.746	11,542
Workspace	897,924	47.558	13,486

TOTAL 28,160

8. Geographical Spread of Measures

Bar Chart 8.1 below shows the percentage of NISEP interventions per council area in red, and the percentage of NI households within each council area in blue. For NISEP to demonstrate good geographical spread across all council areas, the blue and the red columns should be of similar height. Both columns illustrate the data as a percentage of the national total.

Overall, there continues to be a reasonable spread of measures across many of the council areas. Although Belfast continues to have the highest proportion of measures installed, this has reduced by 2% (at 20%), in comparison to 18/19. In councils, for both Antrim and Newtownabbey, and Causeway Coast and Glens, the spread of measures remains the same at 9%. In terms of an increase in the proportion of measures installed, Armagh City, Banbridge and Craigavon, and Newry Mourne and Down, have both shown a 3% increase. Mid Ulster is also up by 2% with Fermanagh and Omagh and Lisburn and Castlereagh, both up by 1%. In terms of a reduction in spread of measure installs, Ards and North Down have seen the greatest reduction at 4%, followed by Derry City and Strabane at 3%, Belfast at 2%, and Mid and East Antrim at 1%.

In terms of council areas showing as a higher-than-average proportion of installed measures when compared to population size, and indicating a reasonable spread of measures, this remains the case in Antrim and Newtownabbey, Belfast, Causeway Coast and Glens and the Derry City and Strabane council areas. There has also been an increase from 18/19 in the average proportion of measures, when compared to population size in the Armagh City, Banbridge and Craigavon and Lisburn and Castlereagh council areas, by 30% and 11% respectively.

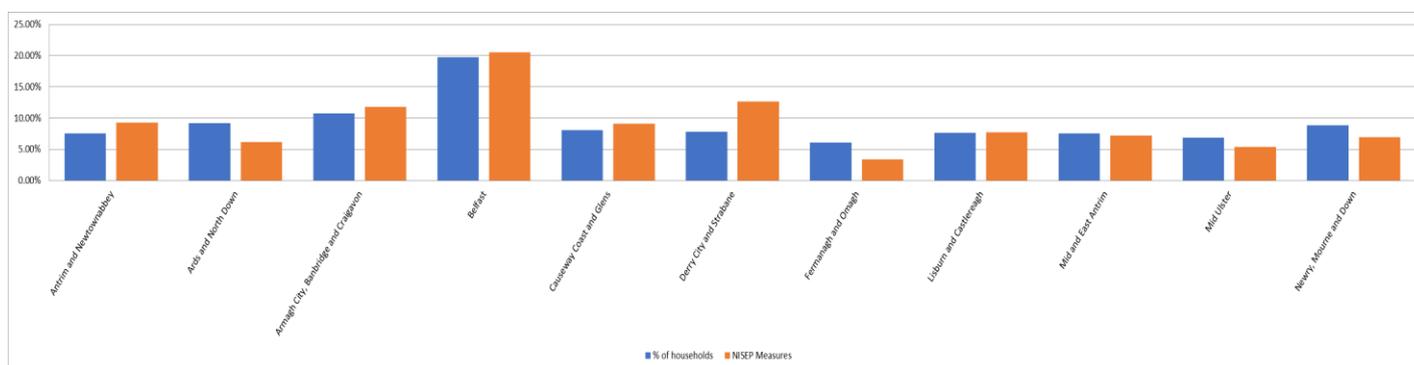
Where we continue to see a lower-than-average proportion of measures to population size, is in the Fermanagh and Omagh, Mid-Ulster and Newry and Mourne council areas. In terms of significant changes to 18/19, for Ards and North Down and Mid and East Antrim council areas, you will see that there has been a reduction in numbers of NISEP measures installed in proportion to population. Although Belfast and Derry City and Strabane council areas have seen a reduction in the proportion of measures, there is still a reasonable spread of measures in terms of population size. Although Mid Ulster has shown the greatest increase in comparison to 18/19, the proportion of measures when compared to population size is still low, this is a similar trend to the Newry Mourne and Down council area.

In 19/20, in contrast to the previous year, Armagh, Banbridge and Craigavon council area received the highest proportion of NISEP heating installs and had the highest increase in % heating installs, increasing from 12% to 24%. There was also an increase in % heating installs in both Causeway Coast and Glens and Mid and East Antrim, council areas, by 4%. The most notable reduction in proportion of heating installs was in Belfast council area, reducing from 32% to 13%. There was only a small reduction in two other council areas,

Antrim and Newtownabbey and Ards and North Down, by 1%, with all other council areas remaining the same or with a small increase.

In reference to insulation, there were less significant variations in 19/20 to the proportion of measures across council areas. Belfast council area continues to have the highest proportion of NISEP insulation measures, with the same proportion as in 18/19, at 22%. There has been an increase in insulation installs in Newry Mourne and Down, from 4% to 7%. In terms of a reduction however, this was mainly in Ards and North Down and Derry City and Strabane council areas. There was only a small reduction in one other council areas, Mid and East Antrim, by 2%, with all other council areas remaining the same or with a small increase.

8.1 – Geographic Spread of Measures by Council Area



9. Comparison with previous year

The table below provides a comparison with last year's NISEP.

Table 9.1 – Comparison with previous year's figures

	2019-20	2018-19
NISEP funding spent (£)	6,927,807	8,034,183
Total lifetime energy savings (GW)	368.632	482.814
Lifetime Carbon savings (t)	46,015	64,708
Gross customer benefit (£)	30,153,911	43,814,973
Total incentives earned (£)	28,160	13,666

Overall, the total NISEP spend on schemes at the end of the year was **£6,927,807**, which is lower than the initial pot of funding, and is mainly as a result of COVID 19 restrictions where installations were cancelled in March 2020. Additional funding was allocated to 19/20 during the year, following confirmation of underspend from 18/19, and overall at year end, there was approximately £1.1m of NISEP funding remaining unspent. As evidenced in the table above,

there is a difference of approx. £1.1m in NISEP funding spent between the two years. There was also a reduction in spend in the Non-Priority Category and fewer measures installed. Measures in this category, are known to yield the highest energy savings, carbon savings and gross customer benefit overall, i.e. LED lighting, and so this has had a significant impact. It is also important to highlight that gross customer benefit was impacted by a change in fuel mix in the Priority Category, where there was a significant increase in oil to gas conversions and a reduction in electric and solid fuel conversions, when compared to the previous NISEP year.

10. Conclusions

In 2019-20, there were twenty-two schemes approved initially, one of which did not go ahead, and three schemes which had no measures installed. The funds from these schemes were redistributed during the NISEP year to other, more successful schemes to try to maximise in-year spend and associated energy savings.

The overall NISEP spend was **£6,927,807** which was £1,106,376 less than in 18/19, mainly as a result of COVID 19.

The Programme Administrator periodically reviews spend and committed funds via the 5 and 8 month interim reporting process. This process facilitates the opportunity for funds to be reallocated between schemes, if deemed appropriate. Due to several varying factors, there was an underspend of approximately £1.1m at year end, significantly more than in the previous year.

Overall, there were **30,765** measures installed, which equates to **22,592** fewer measures when in comparison to the previous year mainly due to the merger between Power NI and Energia and because of the impact of COVID 19.

The gross customer benefit total translates as one pound of NISEP funding provided this year, providing £4.35 of Net Present Value lifetime benefits.

Priority Schemes

Priority funding contributed to **18,902** energy efficiency interventions. This amounts to a decrease of 5,687 measures to the previous year. The main reason for this was the impact of COVID 19 and the postponement of installations into the 20/21 NISEP year.

The Priority Category represented approximately 60% of the overall energy savings. This is a higher proportion than in 18/19 and is primarily due to a lower uptake of measures in the Non-Priority Category in 19/20 as a result of the merger between Power NI and Energia. A higher proportion of funding was also spent in the Priority category where demand was greatest. Total energy savings are slightly lower than in 18/19 due to the following factors; a reduction in the number of measures installed with less spend as a result of COVID 19; a

change in fuel mix, with an increase in the number of oil fired central heating to gas conversions, and less electric central heating and solid fuel replacements.

The importance of the 'whole house solution' approach continues to be re-emphasised to all Primary Bidders for priority schemes. It can achieve much greater efficiency, addressing many elements of a home's energy use at once. To maximise thermal comfort and customer satisfaction, to offer best value for money, to ensure maximum energy savings and to reduce bills for the householder, Energy Saving Trust will continue to highlight the importance of the 'whole house solution' approach to all Primary Bidders.

Energy Saving Trust have since updated the Framework Document and issued guidance and further requirements, to encourage customers to avail of the 'whole house solution' (WHS). Customers should always be made aware of the benefits of insulation measures. Energy Saving Trust request that Primary Bidders report on the levels of WHS packages installed, through the interim reporting schedule, and that monthly WHS claims are encouraged where possible, and will be closely monitored.

The Framework Document has also been amended to state that when a heating system is being installed, all insulation measures included in the scheme submission should also be installed (where suitable for the property type and if required). Where a number of subcontractors are used, Primary Bidders must also carry out a coordinating role to ensure that the maximum number of measures are installed as efficiently as possible to the maximum benefit of the property, including adequate ventilation given the range of measures installed. For whole house solution installations, 100% quality monitoring checks for both heating and insulation must be completed and signed off before a claim is submitted.

It is expected that higher numbers will avail of the maximum number of measures required, in future NISEP years, as a result of the above.

Non-Priority Schemes

The Non-Priority Category had a significantly lower spend and gross customer benefit to the previous year. There were **11,863** measures installed (mainly LEDs) which was 16,905 less than in 19/20 with only 7% of the total NISEP funding spent in this category (down from 9% in 2018/19). There was also an underspend of approx. £320k, which is higher to the previous year and remains significant. Most of this underspend is from within the commercial schemes. Although LEDs continue to be widely adopted by businesses each year, the timeframe for commercial projects to complete is challenging for many businesses (longer to domestic offerings) and as a result many applications do not come to fruition. Energy savings, as a result, have been impacted overall, and a similar trend is evident in 19/20, where the Priority Category had the higher proportion of energy savings compared to the Non-Priority.

In relation to domestic measures within the Non-Priority Category, there has been a similar level of NISEP funding spent on insulation schemes targeting non-priority customers, with a similar number of measures installed as in 18/19.

The innovative category continues to remain undersubscribed, with low numbers of innovative schemes submitted in 19/20 and no schemes were approved. Energy Saving Trust will continue to encourage innovative schemes to be submitted, which would help bring forward emerging but proven domestic or commercial technologies that provide a better energy efficiency performance than 'standard' measures. An amendment to the Framework Document now includes High Heat Retention Storage heaters, under the innovative category, to cater for households that are off gas and to encourage electrification of heat.

Geographical Spread

Overall, there continues to be a reasonable spread of measures across many of the council areas. Although Belfast continues to have the highest proportion of measures installed, this has reduced in comparison to 18/19. In terms of the highest increase in the proportion of measures installed, this was evident in Armagh City, Banbridge and Craigavon, and Newry Mourne and Down council areas. In terms of a reduction in spread of measure installs, Ards and North Down have seen the greatest reduction.

In terms of council areas showing as a higher-than-average proportion of measures when compared to population size, and indicating a reasonable spread of measures, Derry City and Strabane remains the highest. The greatest increase in comparison to 18/19 is in the Mid Ulster council area, however, the proportion of measures when compared to population size is still low, this is a similar trend to Newry Mourne and Down council area. The greatest reduction to 18/19, is evident in the Ards and North Down council area.

In 19/20, in contrast to the previous year, Armagh, Banbridge and Craigavon council area received the highest proportion of NISEP heating installs and had the highest increase in % heating installs. The most notable reduction in proportion of heating installs was in Belfast council area.

In reference to insulation, there were less significant variations in 19/20 to the proportion of measures across council areas. Belfast council area continues to have the highest proportion of NISEP insulation measures, with a similar proportion as in 18/19. The greatest increase in insulation installs was in Newry Mourne and Down council area and in terms of a reduction, this was mainly in the Ards and North Down council area.

Appendix 1: Summary of participating NISEP schemes

PRIORITY SCHEMES

FUS 19 01 MP Energy Plus

This was a Priority Whole House Solution Scheme aimed at households which met set vulnerability criteria. The scheme provided a new energy efficient heating system plus loft and/or cavity wall insulation measures to households whose properties had no heating (i.e. no heating system in place or a heating system which upon survey, with documented evidence, was deemed to be beyond viable economic repair), Economy 7 heating or solid fuel heating. Eligible customers were offered a new gas energy efficient heating system if on the natural gas network, or an oil energy efficient heating system where gas was not available. A fully funded grant was available for a heating system upgrade/replacement, cavity wall insulation and/or loft insulation. Each heating system was also treated with the endotherm additive and each customer was offered up to 4 LEDs, a water widget and a smart heating control.

In total 235 properties received measures through this scheme. Of these 235 properties, there were 4 properties that availed of a 'whole house solution' package of heating, loft insulation and cavity wall insulation measures. There were 48 other properties that received heating and either cavity wall insulation or loft insulation.

Measures Summary

Loft insulation	48
Cavity wall insulation	8
Heating System with endotherm	235
LEDs	271
Smart Heating Control	4

FUS 19 02 MP East Down Natural Gas Energy Saver

This was a Priority Whole House Solution Scheme aimed at households which met set vulnerability criteria and were located within the area of the new East Down Natural Gas License Extension. The scheme provided a new energy efficient heating system, plus loft and/or cavity wall insulation measures to households whose properties had no heating (i.e. no heating system in place or a heating system which upon survey, with documented evidence, was deemed to be beyond viable economic repair), Economy 7 heating or solid fuel heating. Eligible customers were offered a fully funded new gas energy efficient heating system upgrade/replacement, cavity wall insulation and/or loft insulation. Each heating system was also treated with the endotherm additive and each customer was offered up to 4 LEDs, a water widget and a smart heating control.

In total 12 properties received a replacement heating system through this scheme. Of these 12 properties, there were no properties that availed of a 'whole house solution' package of both heating and both insulation measures; there was 1 property which had heating and loft insulation installed.

Measures Summary

Loft insulation	1
Heating System with endotherm	12
LEDs	16

FUS 19 03 MP Energy Saving Homes Assist

This was a Part-Funded Priority Whole House Solution Scheme, aimed at households which met set vulnerability criteria. The scheme provided a new energy efficient heating system and loft insulation and / or cavity wall insulation measures to households which had electric or solid fuel central heating, no central heating or an old inefficient or broken oil, natural gas or LPG boiler. To qualify the existing had to be at least 15 years old or broken beyond viable economic repair. Eligible customers were offered a new gas energy efficient heating system if on the natural gas network, or an oil energy efficient heating system where gas was not available. Under the Energy Saving Home Assist Scheme, NISEP funded a grant of 50% of the total cost of a heating system upgrade/replacement, and fully funded the cost of cavity wall insulation and/or loft insulation. Each heating system was also treated with the endotherm additive and each customer was offered up to 4 LEDs, a water widget and a smart heating control.

Of these 20 properties, there was 1 property that received: a 'whole house solution' package of heating, cavity wall insulation and loft insulation measures. There were 5 other properties that received heating and either cavity wall insulation or loft insulation.

Measures Summary

Loft insulation	5
Cavity Wall Insulation	2
Heating System with endotherm	20
Smart Heating Control	6

FUS 19 04 MP Housing Association Energy Saver

This was a Priority Whole House Solution Scheme that installed energy efficient heating and insulation measures in Housing Association (HA) properties with Economy 7 or, upon survey with documented evidence, with an old and inefficient heating system (15 years or older). This scheme also improved the thermal quality of homes in the Housing Association stock by

upgrading or installing insulation where necessary. A maximum grant of £1,000 was offered for heating and £150 towards both cavity wall and loft insulation. The HA met the remaining costs in excess of the grant value for each installation. Each heating system was also treated with the endotherm additive and each customer was offered up to 4 LEDs, a water widget and a climote (smart heating control). In total 139 properties received measures through this scheme.

Of these 139 properties, there were no properties that received a 'whole house solution' package of heating and both insulation measures as insulation was not required in the properties. There were 139 heating systems installed.

Measures Summary

Heating System with endotherm	139
LEDs	8

SGN 19 01 MP Warm at Home Plus

This was a Priority Whole House Solution Scheme offering a fully funded natural gas heating system and insulation measures, including cavity wall and loft insulation. Customer were offered LED light bulbs and a hot water tank jacket. To qualify for the scheme, customers were required to meet set eligibility criteria, which included being a homeowner or private tenant within prescribed income brackets. Low-income households within SGN Natural Gas network area with Economy 7, Solid Fuel heating, no central heating or an old (over 15 years) or broken beyond viable economic repair oil boiler were targeted.

There were no properties that received the 'whole house solution' package of heating and both insulation measures. However, of the 20 properties, there were 11 properties that received heating and loft insulation, cavity wall insulation was not required.

Measures Summary

Loft Insulation	11
Heating system with endotherm	20
LEDs	55

SGN 19 02 MP Warm at Home Cashback

This was a Part-Funded Priority Whole House Solution Scheme aimed at homeowners or private tenants who met set income eligibility criteria. The scheme offered customers a grant of 50% of the total cost of a natural gas heating system and fully funded insulation measures, including cavity wall and loft insulation. Customers were also offered LED light bulbs and a hot water tank jacket. The scheme targeted households within SGN Natural Gas network area with Economy 7, solid fuel heating, no central heating or an old (over 15 years) or broken beyond viable economic repair oil boiler.

There were no properties that received the 'whole house solution' package of heating and both insulation measures. Only 1 heating system was installed as no insulation was required.

Measures Summary

Heating system with endotherm	1
LEDs	4

FIR 19 01 MP Home Comfort Plus

This was a Priority Whole House Solution scheme that targeted owner occupied householders that met set vulnerability criteria. To be eligible customers had to be within the firmus energy gas network area and have Economy 7, Solid Fuel, LPG (boilers over 15 years old), Oil (boilers over 15years old) or no heating, including oil boilers broken beyond viable economic repair. This was a fully funded scheme. The measures offered were a fully controlled natural gas heating system, loft/cavity wall insulation, a remote smart thermostat controller and up to 4 LED lightbulbs.

In total 242 properties received measures through this scheme. Of these 242 properties, there were no properties that received a 'whole house solution' package of heating and both insulation measures. However, of the 242 properties, there were 45 properties that received heating and either loft insulation or cavity wall insulation.

Measures Summary

Loft insulation	41
Cavity Wall Insulation	4
Heating System with endotherm	242
LEDs	172
Smart Heating Controls	74

FIR 19 02 MP Home Comfort 50/50

This was a Priority Whole House Solution Scheme aimed at homeowners and private tenants who met set income criteria. The scheme offered a grant of 50% of the total cost of a natural gas central heating system and fully funded insulation measures including cavity wall and loft insulation. Customers were also offered LED light bulbs and a remote smart thermostat. Low-income households within the firmus energy gas network area with no central heating, Economy 7, Solid Fuel heating or an old Oil or LPG heating system (where the boiler must be over 15 years or broken beyond viable economic repair) were targeted.

Of these 532 properties that received a new heating system, there were no properties that received a 'whole house solution' package of heating and both insulation measures. However, 125 properties received loft insulation and 23 received cavity wall insulation.

Measures Summary

Loft Insulation	125
Cavity Wall Insulation	23
Heating system with endotherm	532
LEDs	532
Smart Thermostat	174

ESL 19 01 IP Thermal Comfort

This was a Priority Individual Measures scheme that offered fully funded Cavity Wall and Loft Insulation measures. It targeted the private tenants or owner-occupied households that met the scheme criteria.

A fully funded package of measures was available including cavity wall and/or loft insulation measures, a hot water cylinder jacket and up to 4 LEDs, if required.

Overall, 709 loft insulation and 1,174 cavity wall insulation measures were installed.

Measures Summary

Loft insulation	709
Cavity wall insulation	1,174
LEDs	5,832
Hot Water Cylinder jackets	62

WFL 19 02 IP Homewarmer Plus

This was a Priority Individual Measures scheme that offered fully funded Cavity Wall and Loft Insulation measures. It targeted the private tenants or owner-occupied households that met the scheme criteria.

A fully funded package of measures was available including cavity wall and/or loft insulation measures, a hot water cylinder jacket and up to 4 LEDs, if required.

Overall, 580 loft insulation and 375 cavity wall insulation measures were installed.

Measures Summary

Loft Insulation	580
Cavity Wall Insulation	375
Hot Water Cylinder Jackets	63
LEDs	2,044

Work 19 01 IP Keep Warm Scheme

This was a priority Individual Measures scheme, where applicants were required to meet set eligibility criteria. The overall aim of the scheme was to provide loft or cavity insulation to those households which qualified for the scheme. Up to 4 LEDs and a hot water cylinder jacket were also offered to every customer. The scheme was aimed at priority customers; no customer contribution was sought from customers.

Overall, 692 loft insulation and 282 cavity wall insulation measures were installed.

Measures Summary

Loft insulation	692
Cavity wall insulation	282
Hot Water Cylinder jackets	111
LEDs	2,992

PNI 19 03 IP Cosy Homes Insulation

Scheme did not proceed.

NON-PRIORITY SCHEMES

ESL 19 02 NP £250 Insulation Grant

This Non-Priority domestic scheme was designed to give grant assistance to insulate the cavity wall and the loft of a home. Homeowners or private tenants were offered an up-front discount on both cavity wall and loft insulation. A minimum installation value of £300 applied for either loft or cavity wall installation work to qualify for the grant. The customer received a maximum cashback of £250 on the installed costs for each type of insulation. The maximum grant available, where both loft and cavity wall insulation were installed, was £500.

There were 586 cashbacks provided.

Measures Summary

Loft insulation	105
Cavity wall insulation	481

WFL 19 01 I NP Keeping You Warmer

This Non-Priority domestic scheme was designed to give grant assistance to insulate the cavity wall and the loft of a home. Homeowners or private tenants were offered an up-front discount on both cavity wall and loft insulation. A minimum installation value of £300 applied for either loft or cavity wall installation work to qualify for the grant. The customer received a

maximum cashback of £250 on the installed costs for each type of insulation. The maximum grant available, where both loft and cavity wall insulation were installed, was £500. Hot Water Tank Jackets were also offered to customers.

There were 67 cashbacks provided.

Measures Summary

Loft insulation	26
Cavity wall insulation	41

PNI 19 05 O NP Variable Speed Drives

This was a Non-Priority commercial scheme and offered a grant of a minimum 20% (maximum 35% or £10,000 whichever is less) towards the cost of installation of a variable speed drive for those who use motors for ventilation, water circulation and air compressors. Farm and Commercial premises were targeted.

There was one participant, with a total of 9 VSDs installed.

Measures Summary

Variable speed drives	9
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PNI-ENA LED 19 01 LNP LED Lighting

This was a Non-Priority commercial lighting scheme that offered a grant of up to twenty per cent towards the cost of replacing High Bay metal halide/ fluorescent installations with LED luminaries to reduce lighting load. Dimming and movement detection options were also on offer.

In total 11,176 measures were installed.

Measures Summary

LEDs	11,176
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PNI-ENA 19 02 O NP Intelligent heating controls

This was a Non-Priority scheme that offered a grant of around 20% towards cost of design and installation of an intuitive heating management system retrofitted to provide individual control of heating times and temperatures within each room. Commercial premises were targeted.

In total 9 measures were installed.

Measures Summary

Intelligent heating controls	9
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PNI-ENA 19 03 O NP Variable Speed Compressors

This was a Non-Priority Commercial scheme, targeting commercial premises that offered a grant of around 20% towards cost of replacing a single speed compressor with a new variable speed model. An Air leak detection/repair survey was also offered.

In total 15 VSCs were installed.

Measures Summary

Variable speed compressors	15
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PNI-ENA 19 04 O NP Voltage Optimisation

Commercial premises were targeted for this scheme. A grant of around 20% towards cost of the installation of Powerstar's voltage optimisation technology; a transformer-based system used to optimise the characteristics of the current supplied at the source according to current characteristics required at the load, was offered.

This scheme was closed during the 2019-20 year, no measures were installed.

PNI-ENA 19 05 O NP Heat Recovery

This scheme targeted commercial premises. A grant of up to 50% towards the installation of heat exchangers to existing compressed air systems/air conditioning/refrigeration, which recycle heat to save energy and reduce costs, was offered.

There was no uptake for this scheme and no measures were installed.

PNI-ENA 19 06 O NP Energy Screw Air Blowers

This was a Non-Priority Commercial Innovative scheme, that offered a thirty per cent grant for replacing rotary lobe blowers with new screw blowers which combine a screw compressor, a permanent magnetic motor, and an integrated frequency convertor which enable them to perform at high efficiency, even when operating at lower speeds. Commercial premises were targeted.

This scheme was closed during the 2019-20 year, no measures were installed.

PNI-ENA 19 07 O NP Variable Speed Drives

This Non-Priority commercial scheme offered customers a grant of around 30% towards installing inverter technology on electric motors to achieve substantial energy savings by reducing motor speed. VSDs were offered to commercial customers.

Measures Summary

Variable speed drives	1
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