WIRRAL COUNCIL

HOME ENERGY CONSERVATION ACT 1995 – BIENNIAL PROGRESS REPORT

MARCH 2017

1. INTRODUCTION

Wirral Council published its first Home Energy Conservation Act (HECA) 1995 Report in 1996 and provided annual reports to Government as required until reporting was suspended in 2009. Wirral Council however continued to collate data and calculate carbon dioxide (CO_2) emissions and energy consumption reductions until the original 15-year timeframe for HECA had ended in 2011, as it provided information for other reporting purposes. By 2011, energy efficiency activity in Wirral had reduced energy consumption by the equivalent of 30.15% of the 1996 baseline, with the target being 30%.

In 2012, the Secretary of State for Energy & Climate Change issued guidance to local authorities in preparing "further" reports under HECA for 31st March 2013 and for subsequent biennial progress reports. These were published by Wirral Council and can be found on the Council's website.

This is the second biennial progress report. The report updates the context for improving energy efficiency in the Borough, taking account of deprivation and fuel poverty levels and the impact upon health of cold homes locally. The indicators used within the "further" report of 2013 are updated. Finally, the report provides an update on current activity by the Council in reducing CO_2 emissions from housing and reducing fuel poverty.

2. SETTING THE SCENE

2.1 THE HOUSING STOCK IN WIRRAL

Wirral Council is a metropolitan unitary authority with a population of 320,914[1] and approximately 145,000 households[2]. It is situated within the county of Merseyside and the Liverpool City Region. The Borough is located on the Wirral peninsula and has the Irish Sea to its north, the River Dee to the west, the River Mersey to the east and it shares a land border to the south with Cheshire West & Chester Council. Principal towns within the Borough include Birkenhead, Wallasey, Moreton, West Kirby, Hoylake and Heswall.

The split of housing tenure in the Borough is as follows[3]:

Tenure	Percentage
Owner occupied	67.46%
Private rented	15.84%
Social rented	15.17%
Shared ownership	0.51%
Rent free	1.02%

The Council transferred its remaining housing stock to Wirral Partnership Homes (now trading as Magenta Living) and Beechwood & Ballantyne Community Housing Association in 2005.

2.2 DEPRIVATION AND FUEL POVERTY IN WIRRAL

Wirral has extremes of income levels; one particular lower super output area (LSOA) within Bidston & St James Ward is the 36th most deprived in the country whilst others are amongst the 10% most affluent[4]. The rate of child poverty in Wirral in 2013 was 21.5%, above the English average of 18.0%[5].

Of Wirral's 207 LSOAs, 62 fall within the 20% most deprived areas nationally. This equates to around 30% (43,500) of all Wirral households.

In 2014, Fuel Poverty affected an estimated 15,568 Wirral households (Low Income High Costs indicator). This is equivalent to 10.9% of all Wirral households, less than both the Liverpool City Region (LCR) average (11.8%)

[1] 2014SNPP Projected Population, 2014-based Subnational Population Projections, August 2016, ONS
[2] Table 406, 2014-based household projections to 2039 for England, July 2016, Department for Communities & Local Government
[3] Table KS402EW, Census 2011, ONS
[4] File 1: index of multiple deprivation, English indices of deprivation 2015, September 2015, Department for Communities & Local Government
[5] Wirral Compendium of Statistics 2016, Wirral Council.

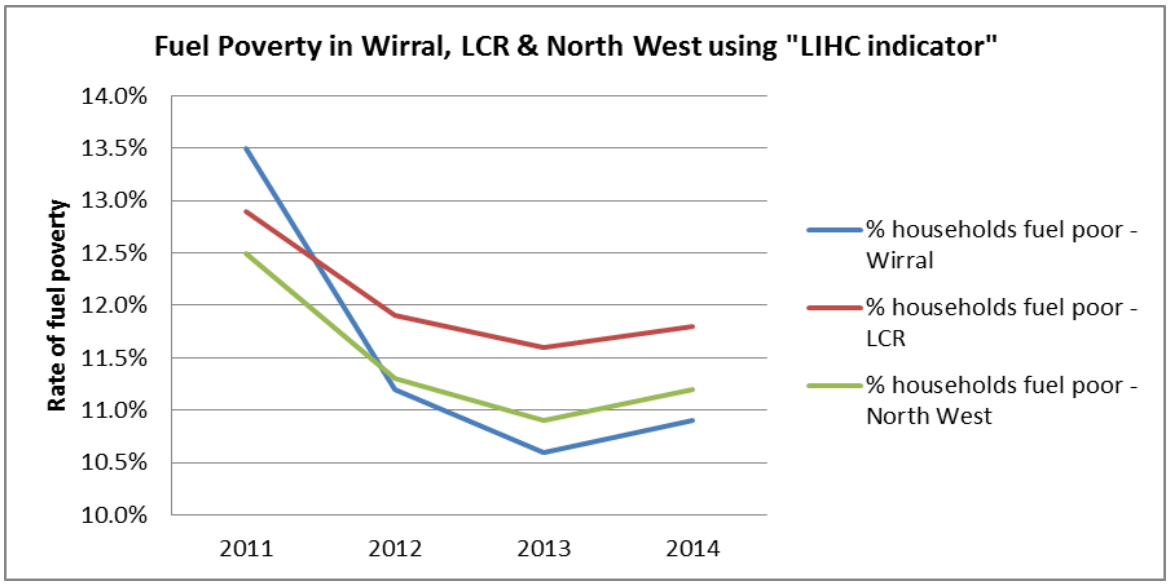
and North West (NW) average (11.2%) and slightly higher than the English average (10.6%)[6].

The Government adopted the Low Income High Cost (LIHC) indicator in 2013 as the official measure of fuel poverty. Previous HECA reports referenced statistics that are no longer available regarding the old "10% indicator".

Four years' data is however available for the LIHC indicator and the trend over the four years is shown in Figure 2.1. After a downward trend in recent years, a slight increase in fuel poverty is shown locally as well as across the City Region and North West between 2013 and 2014. The Government has stated that it is difficult to isolate the reasons for this[7], however:

- some households close to the fuel poverty threshold have seen a lower than average increase in disposable income and, therefore, have been pushed into fuel poverty; and
- fuel prices have increased more than energy efficiency gains, leaving households with higher energy costs in 2014 compared to 2013.

Figure 2.1

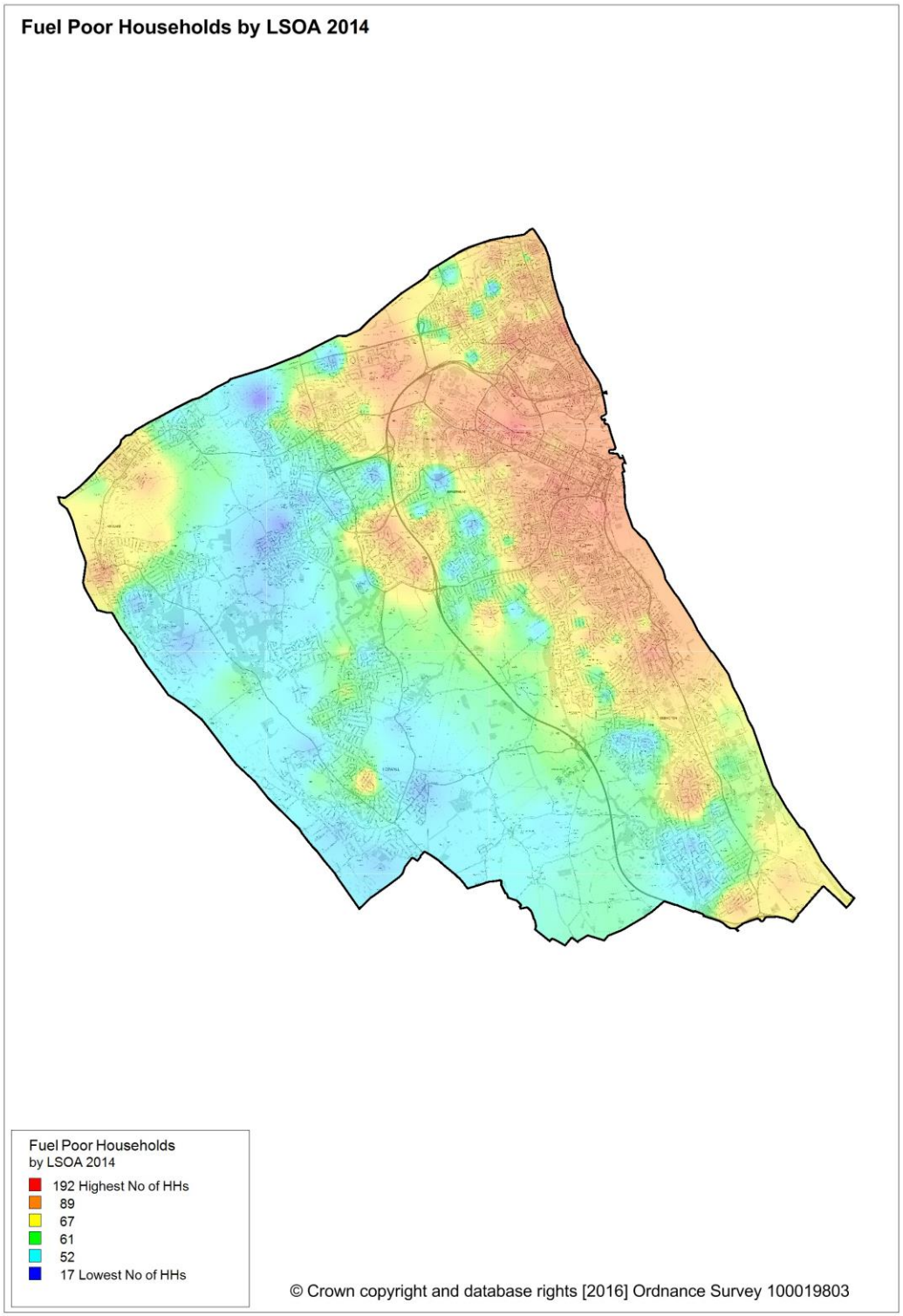


Within Wirral in 2014, fuel poverty ranged from a high of 21.4% in Birkenhead West LSOA within Birkenhead & Tranmere Ward, to 3.0% in Millhouse Lane North LSOA in Moreton West & Saughall Massie Ward. There are less than four miles between these LSOAs, demonstrating the contrast between different parts of the Borough within small geographical areas. Levels of fuel poverty by LSOA can be seen in the map in Figure 2.2, which shows similar

[6] Sub-regional Fuel Poverty, England, 2014, Department of Energy & Climate Change, June 2016
[7] Annual Fuel Poverty Statistics Report, Department of Energy & Climate Change, June 2016

trends to those of deprivation and child poverty, with high levels concentrated within the Birkenhead and Wallasey Parliamentary Constituencies.

Figure 2.2



Fuel Poverty in Private Housing

In 2013, the Council commissioned a Private Sector House Condition Survey. One of the requirements of the survey was to report on fuel poverty levels using the LIHC indicator. The average rate of fuel poverty amongst households living in private housing in the Borough was found to be 14.2%.

The survey used actual sample data on household income, housing costs and energy efficiency levels, in contrast to the proxy indicators used by the Government in their statistics.

The survey highlighted geographic areas which hadn't previously been considered as having high rates of fuel poverty. The highest rates were found:

- in the Birkenhead and Wirral South Parliamentary Constituencies (17.9% and 16.1% respectively);
- inside the former Housing Market Renewal Initiative area (18.8%); and
- in the Heswall, Rural and Birkenhead settlement areas (23.6%, 18.7% and 18.1% respectively).

High housing costs in Heswall settlement area and Wirral South Constituency are the main reasons behind high rates of fuel poverty in these areas. Poor energy efficiency levels impacted on the high rates in the Rural settlement area including properties being off the gas network.

Other findings showed that fuel poverty was:

- Affecting 47.3% of low income households;
- Higher in the private rented sector (18.9%) than in the owner occupied sector (13.2%);
- Highest in homes built before 1919 (24.9%);
- Highest where:
    - the head of household was aged under 25 and where they were 65 and over (27.1% and 26.7% respectively);
    - the head of household was retired (24%); and
    - there were two or more persons in the household aged over 60 (32.5%).

2.3 THE IMPACT UPON HEALTH OF COLD HOMES

The impact of cold homes on the health of their occupants is well documented. Illnesses such as Chronic Obstructive Pulmonary Disease and Heart Disease can be exacerbated by cold and damp homes, resulting in increased GP visits and hospital admissions.

Wirral's Joint Strategic Needs Assessment (JSNA) clearly presents these links and the potential harms to health as a direct result of the Borough's poorer quality housing. The JSNA states that in Wirral, non-decent dwellings and Category 1 Hazards are most associated with pre 1919 properties, the private rented sector and both converted and low rise purpose built flats. Category 1 Hazards are also strongly associated with properties occupied by those under 25 and households on lower incomes or in receipt of benefits. Wirral's 2013 Private Sector House Condition Survey confirmed a statistically significant correlation between housing conditions, household health and health service contact and suggests a relationship between the factors.

Older housing stock contains higher levels of poor quality, deteriorating stock, which is often home to some of the most vulnerable people and in Wirral strongly correlates with areas of lower life expectancy. Figures 2.3 and 2.4 on the forthcoming page demonstrate the stark changes in life expectancy between the stations along Wirral's railway lines.[8]

It is thought that 10% of Excess Winter Deaths (the number of deaths occurring in the winter months compared to the rest of the year) could be attributable to fuel poverty[9]. Wirral had a 5-year average of 212 Excess Winter Deaths per year between 2010/11 and 2014/15, meaning around 21 deaths could be attributable to fuel poverty. Wirral's 5-year average has been on a downward trajectory since 2012/13 and was at its lowest in 2009/10 when it was 178[10].

Area-based fuel poverty schemes in areas of high deprivation, through initiatives such as Warmer Wirral, will therefore have a beneficial effect on reducing health inequalities and potentially on life expectancy. The Wirral Healthy Homes scheme also assists by providing a referral pathway for front-line health workers who identify a link between their patients and the poor quality of their homes.

[8] http://info.wirral.nhs.uk/
[9] Ch 3.3, Para 37, "Fuel Poverty – the problem and its measurement", Prof. John Hills, October 2011
[10] Excess Winter Mortality in England and Wales, 2015/16 (Provisional) and 2014/15 (Final), ONS, November 2016.

Figure 2.3

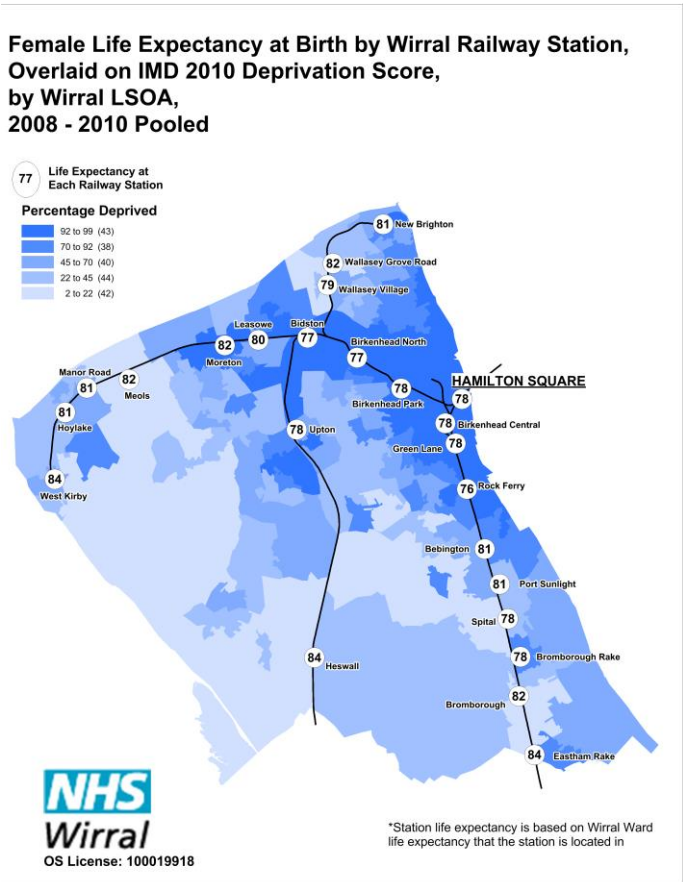
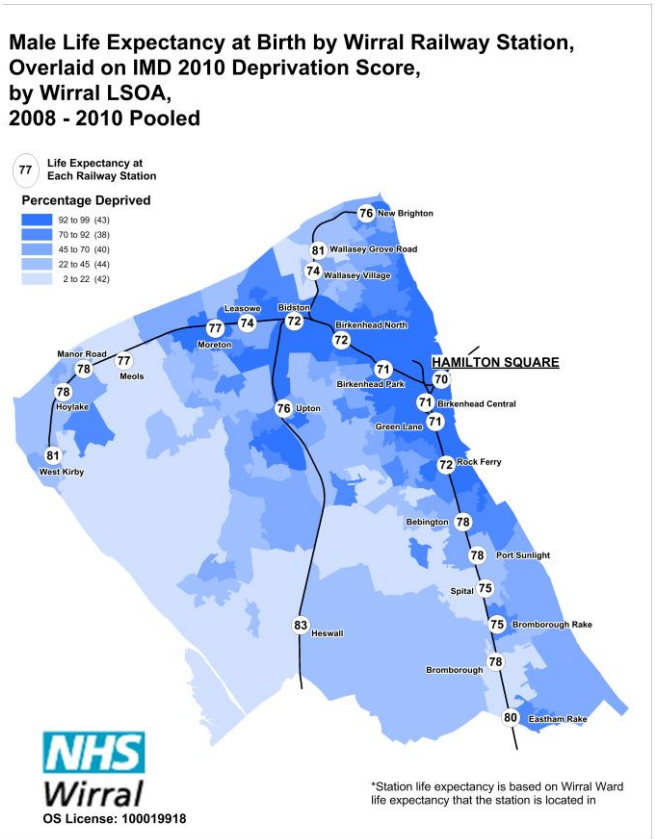


Figure 2.4



3. ENERGY USE AND CARBON EMISSIONS

3.1 Electricity and gas consumption in the domestic sector

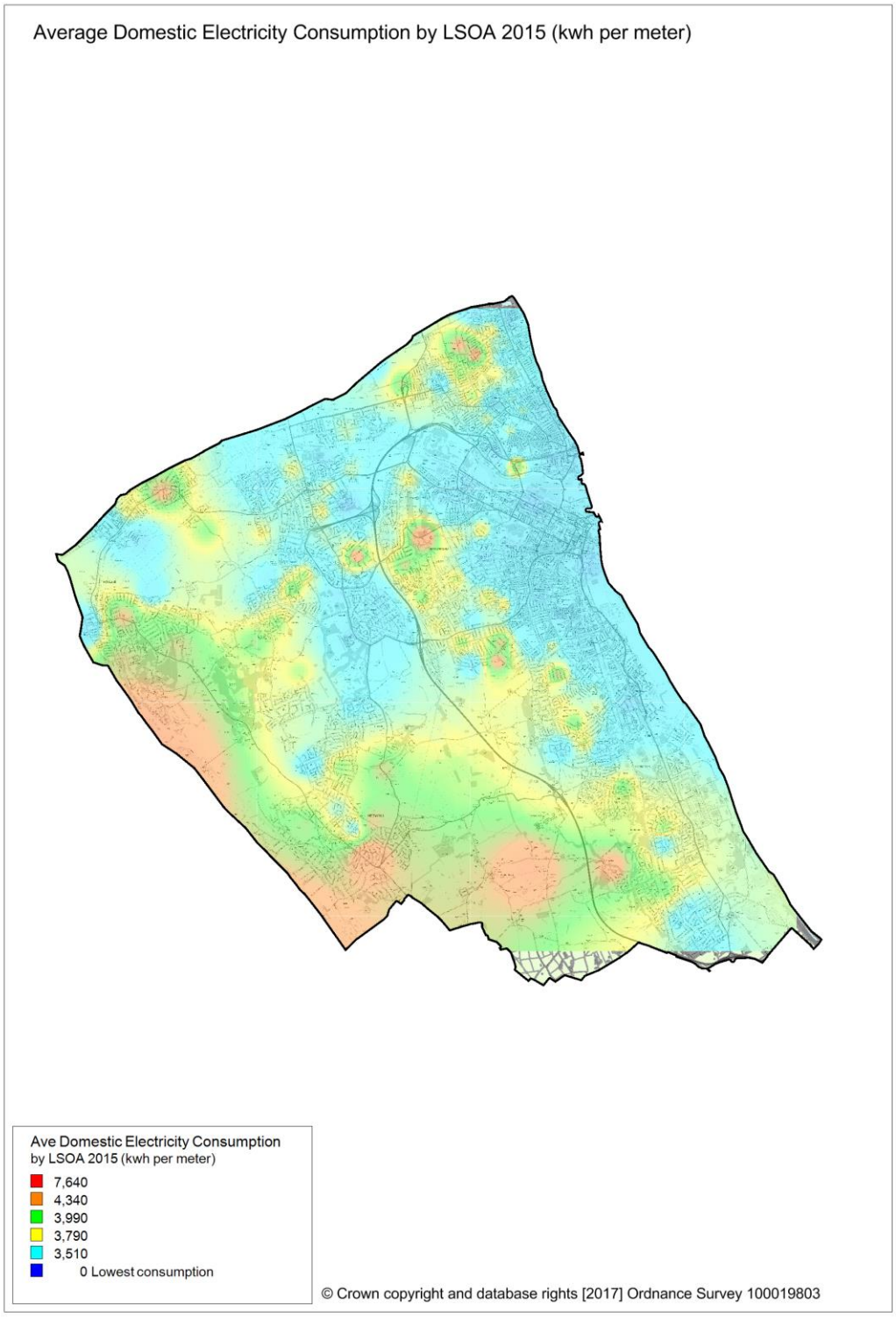
Figures 3.1 and 3.2 show the estimated distribution of electricity and gas consumption in the domestic sector in Wirral in 2015, in kilowatt hours (kWh) per Lower Super Output Area (SOA). On the whole, areas of higher consumption mirror more affluent areas and areas of lower consumption mirror those of lower income. This happens for a range of reasons such as:

- The Borough's older housing stock is generally smaller and requires less energy to heat and mainly lies in areas of low income;
- Those with lower incomes and in fuel poverty may under-heat their homes; and
- Those with lower incomes may be more aware of their consumption, in part due to a greater prevalence of pre-payment meters and therefore reduce their energy use.

A greater potential to reduce energy consumption therefore lies in the west and south of the Borough as well as parts of mid-Wirral and Wallasey.

Figure 3.1

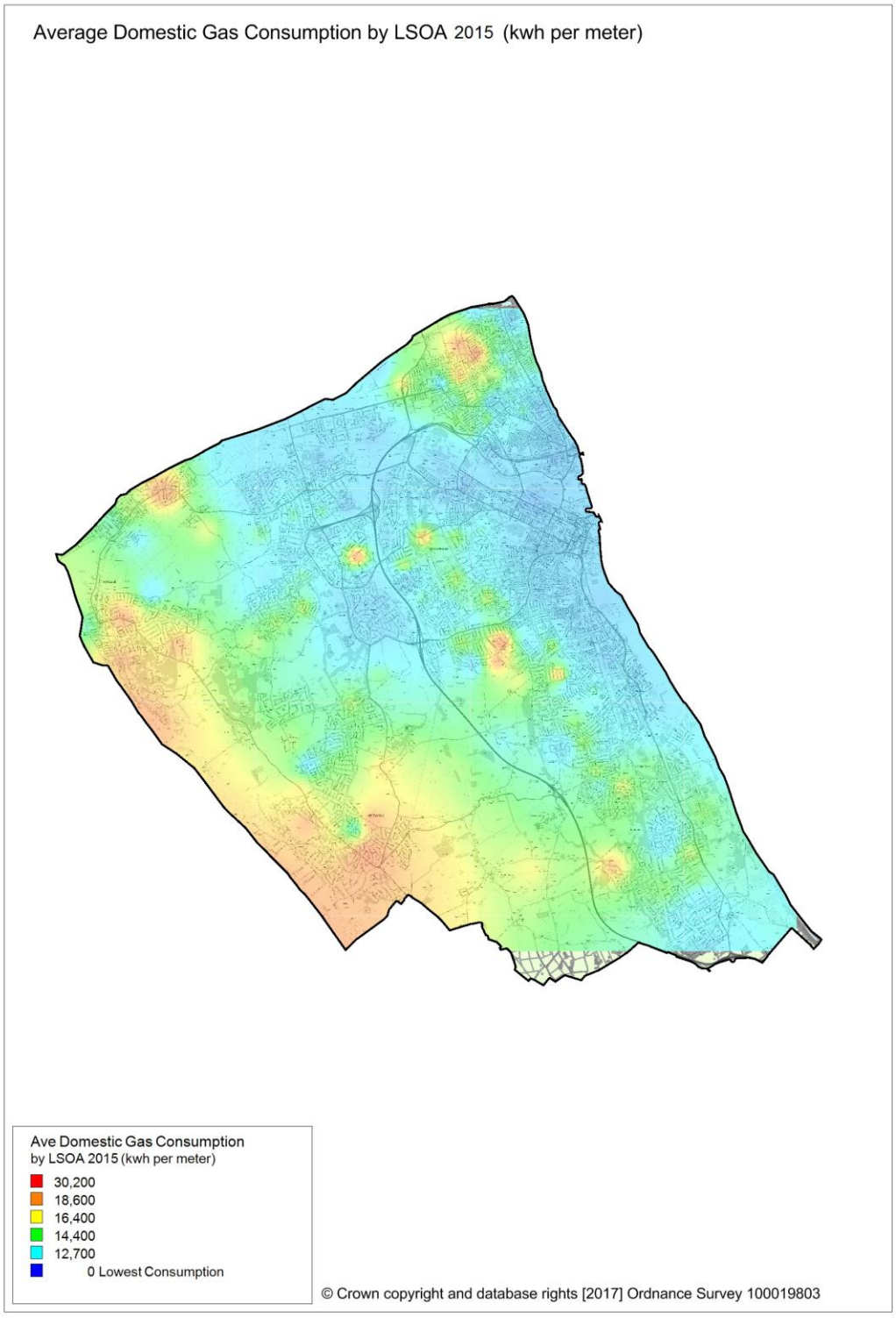
Map of average standard electricity consumption per LSOA[11]



[11] Lower Layer Super Output Area (LSOA) domestic electricity consumption 2015, BEIS, January 2017

Figure 3.2

Map of average gas consumption per LSOA[12]

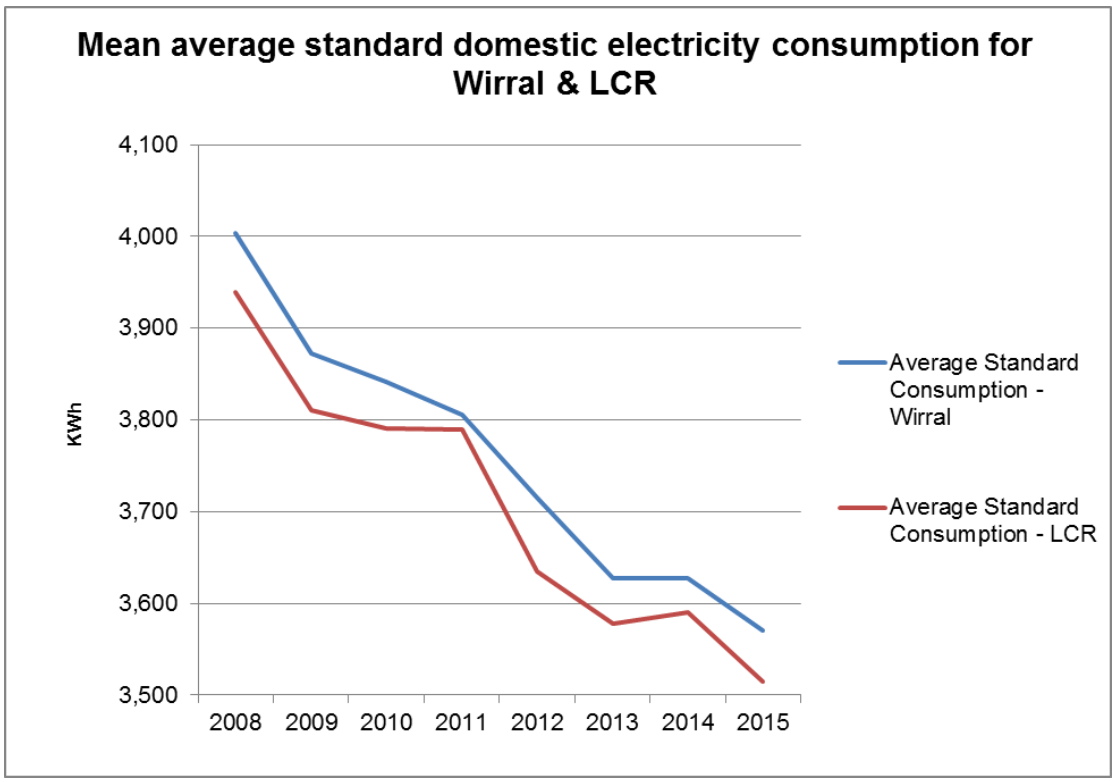


[12] Lower Layer Super Output Area (LSOA) domestic gas consumption 2015, BEIS, January 2017

The graph in figure 3.3 below shows estimated standard domestic electricity consumption in Wirral compared to the Liverpool City Region (LCR) from 2008 to 2015. Average standard electricity consumption is slightly (1.6%) higher in Wirral than in the LCR[13]. Wirral's average consumption compared to the English average is 9.6% lower. Reasons for differences in consumption between local authority areas include income levels (higher consumption is generally found in more affluent areas) and the amount of electricity used for space heating (areas where there are less connections to the gas grid generally have higher electricity use).

The overall trend has been one of a decrease in consumption in Wirral and the LCR (and nationally); consumption decreased by around 10.8% between 2008 and 2015 in both Wirral and the LCR.

Figure 3.3

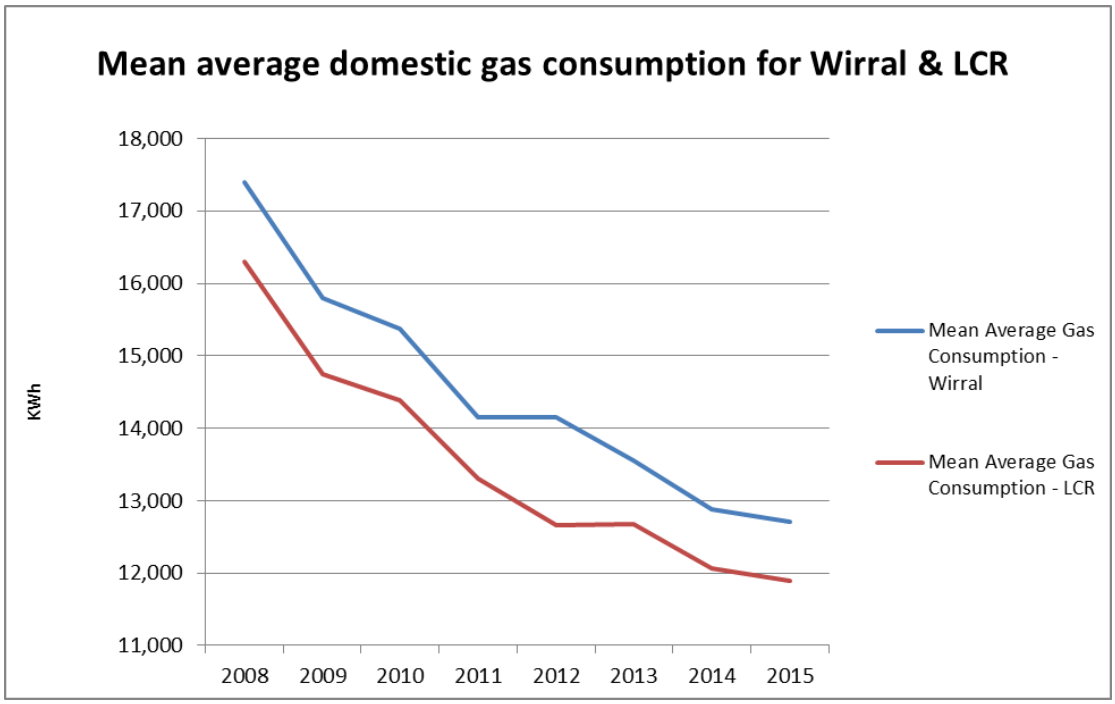


[13] Sub-national gas sales and numbers of customers 2005 – 2015, BEIS, January 2017

Average gas consumption in the domestic sector is also higher (6.8%) in Wirral than the LCR[14], as can be seen in figure 3.4 below. However the downward trend in consumption in Wirral is mirrored in the LCR; consumption in Wirral has reduced by 26.9% and in the LCR by 27.0%.

Wirral's average consumption compared to the English average is 3.97% lower. Reasons for differences in consumption between local authority areas include income levels (higher consumption is generally found in more affluent areas) as well as weather and energy efficiency levels.

Figure 3.4



There are a number of factors which may have contributed to the reductions in average electricity and gas consumption[15], including:

- weather conditions;
- energy efficiency improvements;
- increased prices;
- the recession;
- changes in building stock; and
- household composition.

3.2 Carbon dioxide emissions

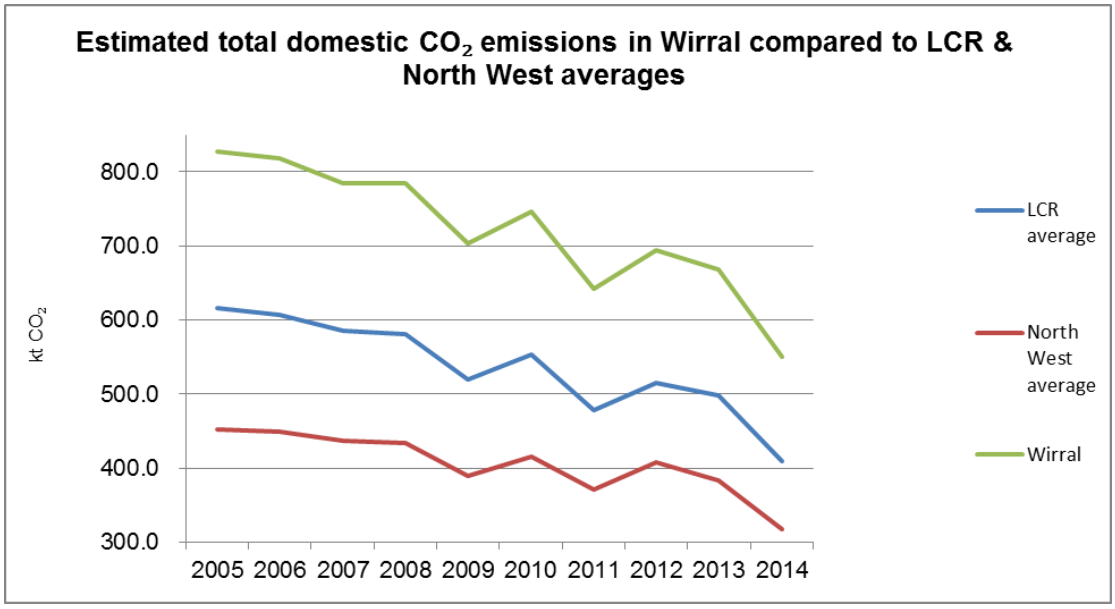
Carbon dioxide (CO_2) is the main greenhouse gas pollutant. Government energy efficiency programmes are aimed at reducing CO_2 emissions. In the UK, 27.7% of CO_2 emissions are attributed to the domestic sector; in Wirral it

[14] Sub-national electricity sales and numbers of customers 2005 – 2015, BEIS, January 2017
[15] Sub-national electricity and gas consumption summary report 2015, BEIS, December 2016

is 41.1%. Local variations occur mainly because of the economy and geography however Wirral's figure demonstrates how vital it is to reduce domestic energy use to reduce Wirral's overall emissions.

As can be seen in Figure 3.5, Wirral has significantly higher estimated domestic CO_2 emissions when compared to the LCR and North West averages,[16] due to its population size. When ranked with other local authorities in the North West, Wirral is 5th highest for CO_2 pollution from the domestic sector which is reflective of it having the 5th biggest population of all local authorities in the North West. When comparing CO_2 emissions per capita however, Wirral has slightly below average emissions.

Figure 3.5



The overall trend in emissions between 2005 and 2014 has been downwards, showing a 33.5% decrease in both Wirral and LCR emissions over the period compared to an average 29.7% decrease in the North West. The decrease across England was 28.0%. The uneven pattern is due to several factors; for example one of the reasons for the increase in emissions between 2011 and 2012 is due to an increase in residential gas use as 2012 was colder than 2011. Another reason is that there was an increased use of coal for electricity generation.

[16] UK local authority and regional carbon dioxide emissions national statistics: 2005-2014, BEIS, June 2016

4. THE CURRENT ENERGY EFFICIENCY LEVEL OF WIRRAL'S HOUSING STOCK

4.1 Energy efficiency rating of homes

The energy efficiency of housing is measured using the Standard Assessment Procedure (SAP) on a scale of 1 – 100, with 100 being the most energy efficient. SAP can be related to the Energy Performance Certificate (EPC) of dwellings as follows:

SAP	EPC band
92 +	A
81 to 91	B
69 to 80	C
55 to 68	D
39 to 54	E
21 to 38	F
1 to 20	G

In 2013 when the last Wirral Private Sector House Condition Survey was carried out, private sector dwellings had an average SAP of 63[17], better than the 2014 national average for the private sector of 59.7[18]. The average energy efficiency of Wirral's social housing stock is unknown however the average SAP ratings of Wirral's largest social housing stock holders Magenta Living, Regenda and Riverside, which between them own 71% of Wirral's social housing, are shown in figure 4.1.

Figure 4.1 – Average SAP by housing tenure

Housing Tenure	Wirral average SAP	English average SAP 2014
Owner occupied	62 (2013)	59.7
Private rented	64 (2013)	59.7
Social rented: Magenta Living Regenda Riverside	 72 (2017) 70 (2017) 67 (2017)	66.4

Figure 4.1 above shows SAP broken down by tenure. SAP levels are highest in the social rented sector, mainly due to the success of the Decent Homes Programme and energy companies part-funding much of the energy efficiency improvement work through their obligations.

SAP levels in the private sector have increased significantly in the past 10 years, also mainly due to obligations placed on the energy companies.

[17] The Private Sector House Condition Survey used the SAP 2009 version as the current SAP 2012 version didn't come into force until early 2014.

[18] English housing survey 2014 to 2015: headline report, Department for Communities and Local Government, March 2017

Locally, the average energy efficiency of the private rented sector is now better than that of the owner occupied sector. This could be partially due to there now being almost twice the proportion of private rented dwellings built post-1980 than in the owner occupied sector.

Figure 4.2 below shows the difference in the average SAP of privately owned dwellings between Wirral's Settlement Areas. It is noticeable that the Commercial Core, which is centred on the Wallasey and Birkenhead docks, has a high average SAP. This is likely to be due to the higher number of dwellings in this area being located in new-build or refurbished apartment blocks. The lowest average SAP is seen in the Rural settlement area. The dates of construction of dwellings in this area are similar to the Borough average and so the reason for this lower SAP rating could be due to a higher number of properties not on the gas supply network, therefore reliant on more expensive forms of heating.

Figure 4.2 – Average Private Sector SAP by Settlement Area

Settlement Area	Average SAP
Commercial Core	70
Bromborough & Eastham	65
Mid Wirral	64
Birkenhead	62
Hoylake & West Kirby	62
Heswall	62
Wallasey	61
Rural	58

4.2 Current and potential insulation and heating

4.2.1 Insulation

Loft and cavity wall insulation levels in social housing are good and so this report focuses on the private sector stock.

The 2013 Private Sector House Condition Survey provides information on the main energy efficiency measures installed. The information substantiates the improvement in the average SAP over the last 10 years. There are very few dwellings without loft insulation, two thirds are insulated to above 200mm thickness and the number of uninsulated cavity walls has reduced significantly. The numbers are as follows:

Empty cavities = 26,207 (36.1% of private stock)
Lofts with no insulation = 353 (0.3%)
Lofts with less than 100mm thickness of insulation = 4,386 (3.6%)
Lofts more than 200mm thickness of insulation = 75,546 (61.4%)

Due to the success of energy company programmes to 2013, in conjunction with the Council's Warmer Wirral Insulation Programme from 2010 to 2013, the potential for installing loft and cavity wall insulation has decreased

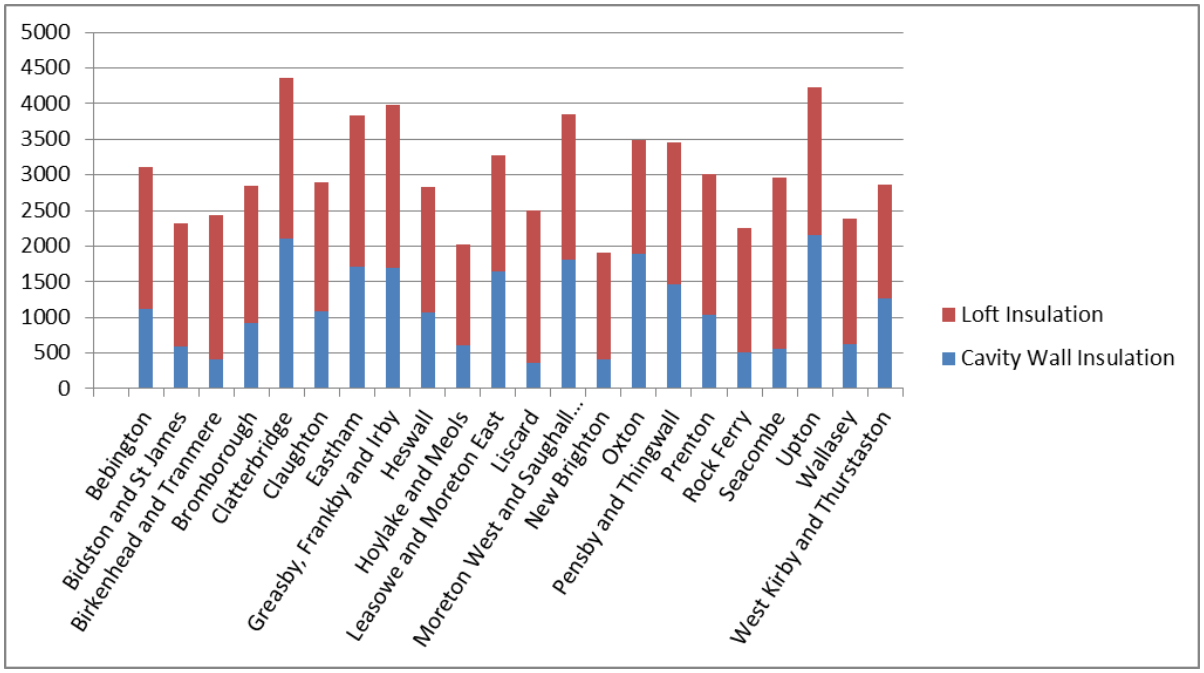
significantly. 51,692 loft and cavity wall insulation measures were installed in Wirral from April 2008 until December 2012[19]. It appears from the figures above that there remains potential for cavity wall insulation however it is unknown how many of these are "hard-to-treat" which have been excluded from assistance under previous schemes. In England, it is estimated that 52.2% of dwellings with cavity walls remain uninsulated[20].

Figure 4.3 demonstrates the extent to which the Council Wards benefited from previous energy company schemes (the Energy Efficiency Commitment and the Carbon Emissions Reduction Target). The Government does not publish ward-level data on the current scheme, the Energy Company Obligation (ECO), however activity significantly decreased when ECO was introduced and so data on the old schemes remains relevant.

Based on the activity already undertaken, some Wards show greater remaining potential for loft insulation, for example Hoylake & Meols and New Brighton. However, the Council's Warmer Wirral Free Insulation Programme found wards such as New Brighton had large numbers of dwellings with no lofts. It should be noted that wards where cavity wall insulation installations are lower, for example Liscard, could reflect the higher number of solid walled properties within that Ward.

Figure 4.3

Number of insulation measures installed using energy company funding 2002 – 2012 by Council Ward



[19] Energy Saving Trust, Homes Energy Efficiency Database, May 2013
[20] English housing survey 2014 to 2015: headline report, Department for Communities and Local Government, March 2017

There are estimated to be around 50,410 un-insulated privately owned solid walled properties in Wirral[21]. The majority are pre-1919 terraced housing located in the east of the Borough where there is a concentration of deprived LSOAs and where fuel poverty levels are highest. These areas will therefore be the focus of any future opportunities to set up initiatives where the primary insulation measure would be solid wall insulation. The Council will work with the energy companies and RPs to direct activity to those areas most in need of energy efficiency improvement.

4.2.2 Heating

The majority of homes in Wirral have some form of central heating. 86.8% of Wirral households had central heating in 2001[22]; by 2011 this had increased to 96.7%[23]. In England in 2014 the figure was 92%[24].

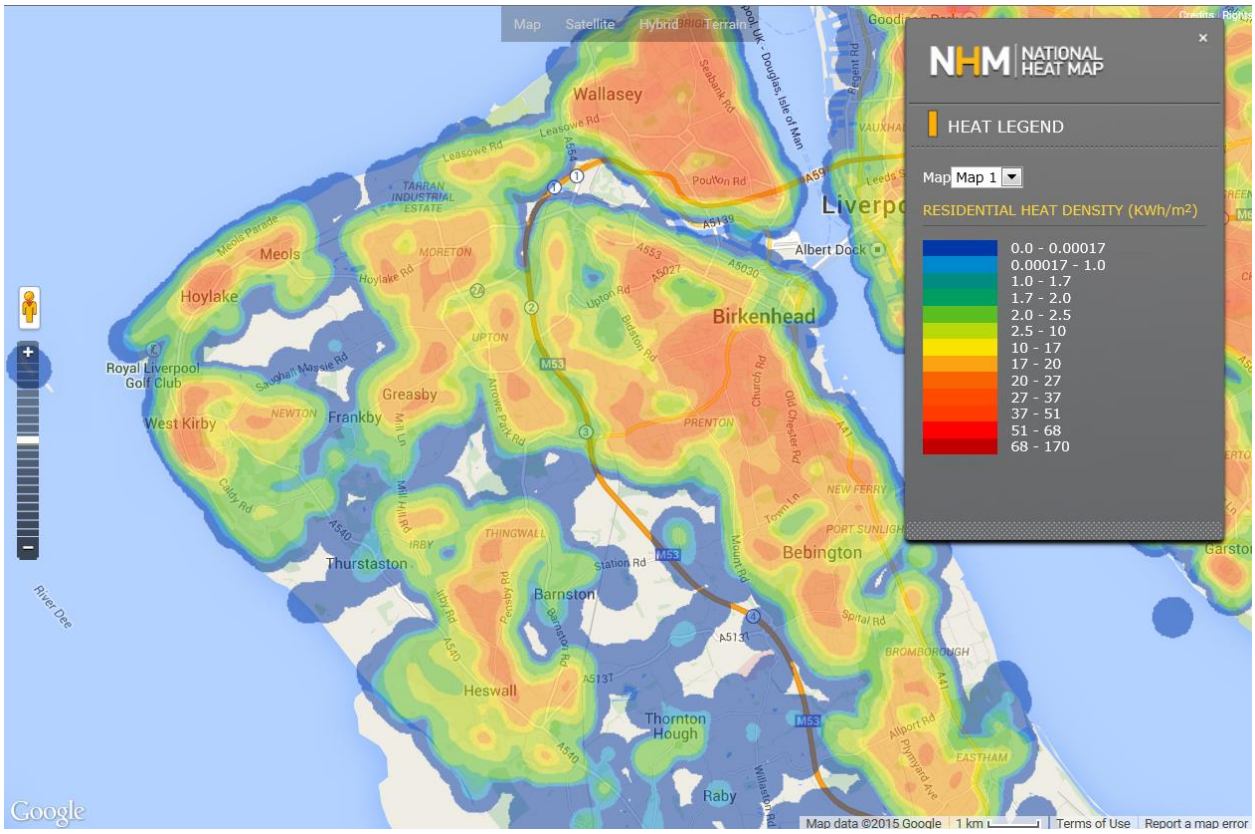
Most dwellings in Wirral are connected to the gas main and there are few "off-gas" properties. It is estimated that approximately 5,000 Wirral households are not connected to the gas network. The LSOAs with the largest concentrations of properties not connected to the gas network are Bromborough Rake (25%), New Brighton North (22%), Wallasey Harrison Park (21%) and Birkenhead Park East (20%)[25]. These LSOAs contain high concentrations of high and low-rise flats with electric heating and will be targeted for ECO-funded electric storage heating replacement in 2017-18.

The social sector has benefited from the Decent Homes Programme and the majority of properties have modern boilers. There is potential however within this sector for some small scale district heating where in the past there's been communal heating.

Larger scale district heating is possible and can be centred on areas of greatest heat demand. Figure 4.4 shows the demand for domestic heat in the Borough and unsurprisingly shows concentrations of demand in the urban areas, especially within Wallasey and Birkenhead[26]. As identified in the Liverpool City Region Renewable Energy Capacity Study 2009, the Wirral Waters development offers an opportunity to integrate district heating into a large new commercial and domestic development, which is surrounded by areas of high residential heat density that could benefit from connecting into a heat network and where there are higher than average levels of fuel poverty.

[21] Wirral Private Sector House Condition Survey 2013
[22] ONS, 2001 Census
[23] ONS, 2011 Census
[24] English housing survey 2014 to 2015: headline report, Department for Communities and Local Government, March 2017
[25] LSOA estimates of households not connected to the gas network (2012 data), DECC, March 2014
[26] http://ceo.decc.gov.uk/nationalheatmap/

Figure 4.4 – Residential heat density in Wirral



4.2.3 Energy Company Obligation 2013 to 2016

The Energy Company Obligation (ECO) has been the main source of funding for energy efficiency improvements in Wirral since it began in January 2013. The three components of ECO are the Carbon Saving Target (CERO), the Carbon Saving Community Obligation (CSCO) and the Home Heat Carbon Reduction Obligation (HHCRO – commonly known as "Affordable Warmth"), all of which are explained in further detail in the Glossary. To date, CSO and CSCO have concentrated on insulation improvements, with CSCO focussing on solid wall insulation in deprived areas. HHCRO is only available to households in receipt of certain benefits and has mainly funded boiler replacements.

Figure 4.5 below shows the number of measures installed with ECO funding in Wirral and its Parliamentary Constituencies.[27] The benchmark figure is "ECO measures installed per 1,000 households"; the Liverpool City Region average is 127.5 with Wirral's slightly less at 121.0. The North West and English averages are 124.6 and 73.7 respectively. Within Wirral, the high rate in Wallasey Parliamentary Constituency reflects the British Gas ECO programme which operated in parts of the Constituency until July 2014.

[27] Department of Business, Energy & Industrial Strategy, Green Deal and ECO Statistics, March 2017.

Figure 4.5 – ECO measures installed January 2013 to December 2016

Area	No. of CSO measures	No. of CSCO measures	No. of HHCRO measures	Total no. of ECO measures	ECO measures per 1,000 households
Birkenhead	642	1,367	2,622	4,631	111.2
Wallasey	1,780	2,728	2,941	7,449	184.1
Wirral South	628	267	1,102	1,997	62.3
Wirral West	1,094	965	1,188	3,247	106.7
Wirral	**4,144**	**5,327**	**7,853**	**17,324**	**121.0**

4.2.4 Green Deal

The Green Deal began in early 2013 but on 23 July 2015 the then Department of Energy & Climate Change (DECC) announced there would be no further public funding for the Green Deal Finance Company (GDFC). The decision had no impact on existing Green Deal Plans in the system but concerned the financing of the GDFC only. The wider market framework remained in place, and in January 2017, Greenstone Finance and Aurium Capital Markets announced the acquisition of the business and assets of the GDFC, as well as its existing loan book. It is intending to commence the offer of Green Deal loans in "early 2017".

In Wirral during the time period when Green Deal was operational, 42 households agreed Green Deal Plans for energy efficiency improvements.

4.2.5 Renewable Energy

The installation of renewable energy generation in Wirral homes has focussed in recent years on photovoltaic (PV) panels. This was due to the Feed-in Tariff (FIT) with its high rates of return on people's investment as well as the ease of installation. Installation rates slowed after the FIT was substantially reduced in 2016. In Wirral, other than PV, two Micro-CHP and two wind turbine installations have been installed that receive FIT payments. The table in figure 4.6 shows the number of commissioned PV installations in Wirral from 2010/11 to 2016/17. The total declared net capacity for all PV installations in Wirral as at 31st December 2016 was 7,344 kW.[28]

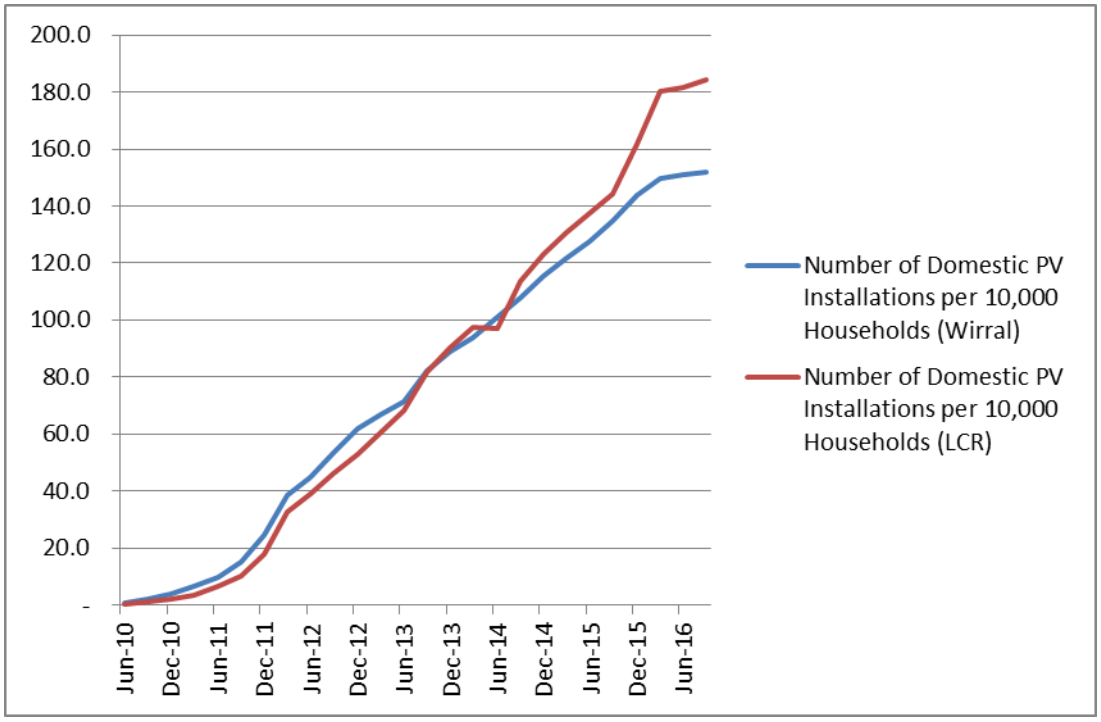
[28] Department of Business, Energy & Industrial Strategy, Sub-national Feed-in Tariff Statistics, January 2017.

Figure 4.6 – Number and capacity of Wirral PV installations under the FIT

Year	Number
2010/11	99
2011/12	566
2012/13	348
2013/14	400
2014/15	388
2015/16	397
2016/17 to Dec 16	53
TOTAL	**2,251**

Figure 4.7 below shows a steady increase in installation of PV in Wirral's homes, almost mirroring the rate in the Liverpool City Region as a whole. Despite reductions in the rate paid per kWh from early 2013 onwards under the FIT scheme, the installation rate remained relatively constant until 2016, when the bigger reduction in the FIT slowed installation rates substantially.

Figure 4.7 – Domestic PV installations per 10,000 households



In April 2014, the Renewable Heat Incentive (RHI) began in the domestic sector. The domestic RHI is an incentive scheme where participants receive tariff payments for the heat generated from an eligible renewable heating system which is heating a single dwelling. Payments are made over a 7-year period and tariff levels for each eligible technology have been calculated to bridge the financial gap between the cost of renewable and off-gas heating systems.

In contrast to applications under the FIT scheme, applications for RHI payments have been low. To the end of February 2017, 49 successful applications were made for Wirral installations and 131 across the Liverpool City Region.[29]

[29] Department of Business, Energy & Industrial Strategy, RHI deployment data: January 2017.

5. LOCAL ENERGY EFFICIENCY AMBITIONS AND PRIORITIES

The Council has been engaged in operating and commissioning energy efficiency improvement programmes as well as awareness-raising activity since HECA began in 1996. Specific ambitions and priorities have been clearly set out in a range of strategic documents and action plans recognising both the importance and alignment of energy efficiency programmes and other local priorities including Wirral's Housing Strategy, the Improving Life Chances Strategy and the Climate Change Strategy. Specific work undertaken through these priorities includes:

- **Installing 25,000 insulation measures** and reducing CO_2 emissions by 9,000 tonnes annually through funding the Warmer Wirral Free Insulation Programme from 2010 until 2013. Around £2.8m was provided from the Council's budget, which generated around £5m CERT funding from British Gas;
- Forming an association with Scottish Power to **increase take-up of ECO Affordable Warmth-funded improvements for low income households.** 4,000 private households on Affordable Warmth eligible welfare benefits received letters from the Council between January and March 2017 to promote the availability of funding for replacement gas and oil boilers;
- Continuing to fund Warmer Wirral, **ensuring Wirral residents can access energy efficiency advice**, benefit entitlement checks, fuel tariff advice and water saving packs;
- **Supporting local charity Energy Projects Plus in their applications for project funding** such as British Gas Energy Trust's successful Warm & Healthy Homes project.
- Operating an **interest-free Cosy Loans scheme** for energy efficiency measures which assists around 70 households per year;
- Funding a **Cosy Homes Heating upgrade programme** for householders on benefits that are ineligible for ECO Affordable Warmth;
- Partnering with Liverpool City Region local authorities to access BEIS's **Central Heating Fund for first-time central heating** for residents;
- Using Selective Licensing of private rented properties to **improve property standards across all tenures**;
- Delivering an annual **Winter Warmth campaign** and supporting the City Region-wide campaign;
- Partnering with all six City Region local authorities and Energy Projects Plus to deliver eight **Collective Energy Switching** rounds, saving a total of £320,000 annually on 1,377 Wirral residents' energy bills;
- Driving forward a new **Climate Change Strategy for Wirral** which was launched in December 2014; and
- **Supporting area-based energy efficiency improvement activity**, particularly based around solid wall insulation, by Registered Providers of social housing;
- Promoting the **Warm Home Discount** through letter-drops to households on relevant welfare benefits within the Selective Licensing areas.

On a strategic partnership level, Wirral Council has joined with Liverpool City Region local authorities in producing a Sustainable Energy Action Plan (SEAP) which provides a joined-up approach in reducing carbon emissions across the region and is helping to expand the low carbon economy locally. The SEAP also provides a link to the Liverpool City Region Local Devolution Deal with Government on Energy and will help deliver the energy efficiency and fuel poverty priorities of the Combined Authority and, post-May 2017, its new Mayor.

The Liverpool City Region low carbon housing agenda is co-ordinated through Project Viridis, a partnership of the six City Region local authorities and Registered Providers of social housing with the greatest stock in the area. In Wirral, this includes Magenta Living, Regenda, One Vision Housing, Plus Dane, Your Housing Group and LHT. Through this partnership, Viridis has co-ordinated a successful European Regional Development Fund (ERDF) Stage 1 application on behalf of local authorities and Registered Providers and is currently developing the next stage application. Viridis has also co-ordinated two Winter Warmth Campaigns.

Going forward over the next 10 years, it is envisaged the Council will continue its role in facilitating activity in the following ways:

1. Information, advice and signposting;
2. Ensuring the Borough accesses its fair share of ECO;
3. Directing activity to areas of high fuel poverty which will benefit most from energy efficiency improvements;
4. Promoting energy efficiency improvements in areas where energy consumption is above average;
5. Working collectively as part of the Liverpool City Region, to align improvements in the energy efficiency of residential accommodation with the low carbon agenda and local economy.

In its Guidance to English Conservation Authorities on HECA in January 2017, the Department for Business, Energy & Industrial Strategy (BEIS) directly requested specific information from local authorities to aid understanding of the current impacts of policies and to consider the future direction of travel. The information required and Wirral Council's response is set out below.

Fuel Poverty

1. <u>Does the Authority have dedicated resource to tackle fuel poverty?</u>

   The authority does not have a dedicated resource to tackle fuel poverty however the Strategic Housing & Investment Team provides strategic direction for initiatives and the Authority has ensured that other teams, such as the Healthy Homes Team and Selective Licensing Team, have incorporated fuel poverty prevention into their everyday contact with households. It has also provided capital and revenue funding towards fuel poverty projects, setting aside a minimum of £150,000 of capital funding

per annum over recent years for heating improvements for households likely to be living in fuel poverty and who are ineligible for ECO Affordable Warmth. During 2015-17, around £500,000 of public health funding has been accessed to fund solid wall insulation and focussed fuel poverty support in the Selective Licensing areas. The Council also has a contract with local fuel poverty charity Energy Projects Plus to provide fuel poverty support (including home visits, training to front-line workers and telephone advice) from up to 2018.

2. Does the Authority have a dedicated fuel poverty strategy (or are they part of a broader county wide fuel poverty strategy)?

   Wirral Council had a series of fuel poverty strategies from 2004 until 2014. Since the launch of the Wirral Plan in 2015, fuel poverty has been incorporated into a number of supporting strategies including the Housing Strategy and the Improving Life Chances Strategy which ensures it is a key focus across a wider range of services.

3. Does the Authority have any fuel poverty or energy efficiency schemes, or does the Authority engage with national schemes such as ECO?

   The Authority's fuel poverty and energy efficiency schemes are detailed in point 1 above as well as earlier on in Section 5 and in the action plan at the end of this document.

4. Please provide details - including how fuel poor households are targeted under these schemes and plans for evaluation.

   The Council has many methods for identifying those in fuel poverty. Examples include:

   a. Data-sharing between the Council's Benefits Section and Housing Services to ensure households on eligible benefits are targeted for letter-drops to promote ECO Affordable Warmth and the Warm Home Discount;
   b. The Healthy Homes Team working intensively with vulnerable households to ensure they access the fuel poverty support available to them;
   c. Trialling the "UNO" system for calculating whether or not a household is fuel poor (Government definition) in order to release funds via the Central Heating Fund.

   Schemes are continuously monitored and evaluated based on outputs and outcomes and "lessons learnt".

5. What partnerships are established in the area to deliver support to low income and vulnerable households, including with the health sector, social care services, energy suppliers and charities.

   Wirral Council has many partnerships across all sectors to support low income and vulnerable households:

a. Health sector – Public Health have provided funding for energy efficiency and fuel poverty advice and support and solid wall insulation grants from 2015 to 2017. The Council has had some success in partnerships with front-line health services, for example with a specific GP practice, however without sustained engagement and promotion with NHS services of the positive health outcomes associated with tackling fuel poverty, inward referrals of clients tend to be low;
b. Social care services – referrals to our contracted charity Energy Projects Plus from social care organisations are relatively low, however training and briefing sessions have continued to take place to address this. The Council's Healthy Homes Team does however receive around one fifth of their referrals from social care services and screen for energy efficiency and fuel poverty issues on each referral;
c. Energy Suppliers – Wirral Council has worked with energy suppliers on many projects, the latest being the association with Scottish Power on ECO Affordable Warmth;
d. Charities – The Council has a contract for energy efficiency and fuel poverty advice provision with one of the leading charities in the sector, Energy Projects Plus. In addition, there are strong referral pathways between Energy Projects Plus and Wirral Council's Healthy Homes Team and charities such as Age UK Wirral and Wirral Women and Children's Aid. By far the biggest source of referrals is Wirral Food Bank, which has referred 267 clients to Energy Projects Plus over the past two years.

Boilers and Heat Pumps

1. Any information on boiler replacements / first time installation, including things that are not linked to existing government schemes.

   Wirral Council has provided a minimum of £150,000 of capital funding annually towards heating improvements in private households, including boiler replacements and first time installations. The eligibility criteria include a list of welfare benefits which mirrors the ECO Affordable Warmth eligible benefits list. If help is available via Affordable Warmth, the Council does expect the householder to apply for Affordable Warmth in the first instance. Other applicants can apply if they are in receipt of Council Tax Support plus State Pension or one of a number of other benefits. These extended criteria allow the Council to assist those households rejected by Affordable Warmth, perhaps due to the Energy Performance Rating of their property, and to assist a wider range of potentially fuel poor households.

2. How are Authorities ensuring Building Control is fit for purpose and how are they ensuring boiler installations meet building regulations?

   Wirral Council's Building Control Team forms part of the Department of Delivery Services. The Team is staffed by experienced Chartered Building Engineers, experts in the field of Building Regulations and allied

legislation with the resources available to enforce the Building Regulations 2010. Wirral's Building Control Team:

- Investigate all reports of unauthorised boiler installations;
- Initiate enforcement action under the Building Act 1984 when required in order to ensure compliance with the Building Regulations 2010 is achieved;
- Facilitate the submission of Regularisation applications in the case of unauthorised boiler installations;
- Engage private consultants to provide detailed reports on unauthorised installations if required; and
- Facilitate electronic access to the Competent Persons database to identify the accreditation status of past installations.

3. Where Authorities are working on projects with more novel technologies, e.g. heat pumps, how are they ensuring the right technology for the right property and assuring the quality of those installations?

   Wirral Council is not currently working on any projects with more novel technologies.

Smart Meters

1. How Authorities are or are planning to engage and support their residents (including the most vulnerable and those with pre-payment metering) and work with local/ community groups, Smart Energy GB under their Partnership Programme and energy suppliers to promote the take up of smart metering and achieve associated benefits (e.g. ability to control energy use and the identification of more appropriate tariffs to save money).

   Wirral Council officers along with staff from the Council's contractor Energy Projects Plus attended a community briefing on the smart meter rollout delivered by NEA in January 2017. The majority of these officers and staff deliver "front-line" advice and advocacy in vulnerable residents' homes and so are now well-equipped to promote the positive messages on smart meters and talk through any concerns or questions from residents. Following the training, Energy Projects Plus and Wirral Council co-branded one of the Smart Energy GB leaflets which are offered to residents when home visits are undertaken. The Council's next steps to support the smart meter roll-out are to develop a web page on Smart Meters and to include an article in the Council's publication "Wirral View", both of which will direct local households to the Smart Energy GB website.

2. How Authorities are planning to integrate their approaches to delivering energy efficiency improvements in residential accommodation with the opportunities presented by the installation of smart meters, drawing upon materials from the Smart Meter Energy Efficiency Materials Project.

It is hoped that due to the requirement for energy companies to provide energy efficiency advice at the time of the smart meter installation, households will take action not only to change their energy-use behaviours but to also seek to improve the energy efficiency of their property. Wirral Council will target appropriate publicity on energy efficiency regarding the smart meter installation programme, particularly where there is financial assistance available for measures. Regarding utilisation of the materials provided through the "Best practice guidance for the delivery of energy efficiency advice to households during smart meter installation visits", it would be beneficial if these could be customisable locally so that that local advice services and financial assistance can be included in the information. The Council's contractor Energy Projects Plus currently produces its own equivalent energy efficiency advice materials which are given out to Wirral residents.

3. Any plans Authorities have or plan to develop to make use of smart metering data from residents of wider communities (subject to appropriate consent) to:
    a. increase the uptake of energy efficiency measures;
    b. make energy efficiency interventions designed to change household behaviours (e.g. through the use of normative feedback);
    c. deliver energy services (e.g. identifying residents under heating/ not heating their homes and addressing this upstream prior to the onset of health problems that lead to more expensive NHS care downstream), including through the use of additional sensors or in-home devices.

The Council's plans to make use of smart metering data from residents of wider communities are as follows:

a. Wirral Council is experienced in using available data to cost-effectively target energy efficiency advice and improvements where they are most needed. Any additional data that can be made available to local authorities, at no cost, will be utilised and aligned with existing data to improve targeting of resources.
b. Wirral Council will investigate how best to use any available smart meter energy consumption data to make energy efficiency behavioural interventions. The Council has experience of trialling normative feedback with some success through the "CRed" online carbon reduction tool.
c. Wirral Council will work with partners to identify any additional energy services appropriate once it becomes clear how and when live smart energy data can be accessed, however this will need to be considered in line with available resources if this is required.

Minimum Energy Efficiency Standards in the Private Rented Sector

1. How Authorities are planning for enforcement of the minimum standards in the private rented sector?

Wirral Council is considering how best to incorporate enforcement of the minimum standards in the private rented sector. It has been proactive in ensuring private landlords are aware of the forthcoming Standards through the Wirral Landlords Forum and articles in the Council's Landlord Newsletter. The Council will continue to ensure the Standards are integral in its future training and advice for private landlords.

2. Whether Authorities have dedicated resource to enforce the minimum standards?

   It is likely that enforcement will be integrated with existing activity and the response managed on a risk basis subject to available resources.

3. Are there plans to integrate enforcement of the minimum standards with other enforcement activity in the private rented sector?

   Enforcement of the minimum standards will be strongly linked to existing activity (enforcement and non-enforcement). The Council has a Property Accreditation Scheme for private rented properties which has required a minimum EPC rating of E since 2011 in preparation for the national regulations and which will flag any properties falling below the minimum standard. The Council also operates Selective Licensing which as part of the license conditions requires the license holder to provide a valid EPC to the Council. This will also highlight any properties that aren't meeting the Minimum Energy Efficiency Standards.

6. COST OF MEASURES AND DECREASE IN CO_2 EMISSIONS

The privately owned housing sector presents the biggest challenge to installing energy efficiency measures. The social housing sector in the Borough has, on the whole, higher EPC ratings and is therefore a lower priority in the Council's improvement activity. In addition, through the Council's 2013 Private Sector House Condition Survey, estimates of the number of measures required are readily available.

Wirral's assessment of costs, CO_2 emissions reduction and fuel bill savings are as follows[30]:

Energy efficiency measure	**Number of private dwellings requiring measure**	**Tonnes of CO_2 saved per annum**	**Total costs of installing measures**	**Average fuel bill saving per annum**	**Total fuel bill saving per annum**
Loft insulation top-up	36,582	2,012	£8,779,680	£15	£548,730
Loft insulation where none currently exists	353	208	£105,900	£140	£49,420
Cavity wall insulation	26,207	17,297	£12,448,325	£155	£4,062,085
Solid wall insulation	50,410	55,451	£604,920,000	£260	£13,106,600
Total	*113,552*	*74,968*	*£626,253,905*		*£17,766,835*

[30] Notes:
1. Loft insulation top-up is where there is some existing insulation but its thickness is less than 200mm.
2. The need for replacement boilers wasn't included in the House Condition Survey.
3. CO_2 and fuel bill savings and costs are sourced from Energy Saving Trust and based on a semi-detached house, apart from the average cost for solid wall insulation which has been based on knowledge of local average costs (£12,000 per measure).

7. TIME FRAME FOR DELIVERY AND NATIONAL AND LOCAL PARTNERS

The Action Plan below has been fully refreshed since 2013's Further Report due to the substantial changes in national policy and initiatives on home energy efficiency in the years since 2013.

ACTION	DETAIL	TIMING	PARTNERS
i) LOCAL ENERGY EFFICIENCY AMBITIONS AND PRIORITIES			
	• Continuously monitor and update Wirral's Climate Change Strategy to reflect changes in policy and programmes and to assist the Government target to reduce CO_2 emissions by 80% by 2050.	Ongoing	All signatories to the Strategy
	• Continue the Council's commitment as a signatory to the Local Government Association "Climate Local" initiative.	Ongoing	
	• The Council is committed to delivering actions within the Liverpool City Region Sustainable Energy Action Plan and the Liverpool City Region Local Devolution Deal with Government and to work with the new City Region Mayor on their energy efficiency and fuel poverty priorities.	Ongoing	Combined Authority and Local Authorities.
	• Deliver on the actions within Wirral's Housing Strategy 2016-20, which contains a key aim to improve the quality of Wirral's housing offer for our residents, including improving 2,250 private sector homes by 2020. Energy efficiency improvements are an important part of this target.	2020	All Housing Strategy partners
	• Deliver on the priority within Wirral's Improving Life Chances Strategy of "Tackling the immediate effects of poverty" through the key action of "Through targeted work, increase take-up of entitlements such as free nursery places, free school meals and energy efficiency schemes".	2020	All Improving Life Chances Strategy partners

ii) THE MEASURES THAT TAKE ADVANTAGE OF FINANCIAL ASSISTANCE AND OTHER BENEFITS OFFERED FROM CENTRAL GOVERNMENT INITIATIVES, TO HELP RESULT IN SIGNIFICANT ENERGY EFFICIENCY IMPROVEMENTS OF RESIDENITAL ACCOMMODATION			
ECO, Feed-in Tariff and Renewable Heat Incentive, Smart Meters	• We will work with Scottish Power, selected through the Liverpool City Region ECO Framework, to enable eligible Wirral households to easily access ECO Affordable Warmth and to promote Affordable Warmth to residents using intelligent targeting of households more likely to qualify. We will pilot “Flexible Eligibility” within this arrangement.	2021	Scottish Power
	• We will utilise the local Cosy Loan scheme to support households that don’t qualify or partially qualify for grant support.	Ongoing	Cheshire West & Chester Council; Wirral Methodist Housing Association.
	• We will continue to work with the Liverpool City Region Project Viridis partnership to help deliver cross-organisation schemes, including a potential ESCO partnership based around the Feed-in Tariff.	Ongoing	Project Viridis partners including RPs and other Councils
	• Wirral Council will publicise all Government initiatives through its website and occasionally through its publication “Wirral View”.	Ongoing	
	• Work with Registered Providers to access available funding initiatives to improve the energy efficiency of their properties with below-average EPC ratings.	Ongoing	RPs

	• Wirral Council will continue to support publicity on Smart Meters, utilising the Smart Energy GB publicity materials (co-branded where required), include articles in the Council's publication "Wirral View" and produce a webpage to direct local households to the Smart Energy GB website.	Ongoing. Summer 2017 for 1st article and webpage.	Smart Energy GB, Energy Projects Plus
	• Target appropriate publicity on energy efficiency around the smart meter installation programme, particularly where there is financial assistance available for measures.	2020	BEIS, Smart Energy GB, Energy Projects Plus
	• Utilise any additional data from Smart Meters that can be made available to local authorities, at no cost, and align with existing data to improve targeting of resources and to make energy efficiency behavioural interventions.	Dates to be confirmed once data access is finalised by BEIS	BEIS
Local grants, loans and advice	• We will continue, subject to funding, to provide the Council's Cosy Homes Heating Grants to ensure vulnerable households that don't qualify for ECO Affordable Warmth can access funds to improve the efficiency of their heating system.	Ongoing	
	• We will continue to offer interest-free energy efficiency loans to private households and landlords through the Council's "Cosy Loans" scheme, particularly where a replacement boiler is required and the applicant is not eligible for a grant.	Ongoing	Cheshire West & Chester Council; Wirral Methodist Housing Association.

	• The Council will, subject to available resources, continue to provide and support impartial, independent advice on energy efficiency and fuel poverty-related assistance.	Ongoing (renewable annual contract)	Energy Projects Plus
	• We will support the Liverpool City Region-wide "Winter Warmth" campaign including an annual public event where members of the public can be given advice on the assistance available during colder months.	Every winter	City Region LAs and Project Viridis
	• The Council will support and promote the collective switching campaign with Liverpool City Region partners and managed by Energy Projects Plus.	2-3 campaigns per annum	City Region LAs, Energy Projects Plus
Energy efficiency data	• The Council will assess private sector housing energy efficiency standards across the Borough using a House Condition and Home Energy Survey or stock modelling.	Autumn 2018	Potential joint procurement with other local LAs.
	• We will monitor nationally available home energy data for Wirral to assess trends and influence energy efficiency activity.	Quarterly	
Increasing standards in the Private Rented Sector	• We will maintain minimum energy efficiency standards for the properties of agents and landlords that are part of the Council's Property Accreditation Scheme.	Ongoing	Local private landlords
	• We will assist private landlords with advice provision on the improvement	Ongoing	Local private

	of their properties to an EPC rating of “E” or preferably above to meet the 2018 legal requirement. • Where necessary, we will take enforcement action on private landlords where they refuse to remove Category 1 Excess Cold Hazards from their property, focussing on areas subject to Selective Licensing of private landlords. • We will continue to offer support to households through Wirral Healthy Homes in the Selective Licensing areas in order to improve housing standards and in particular reduce excess cold hazards.	Ongoing Until 31.03.18	landlords Referral partners
iii) MEASURES WE PROPOSE TO COST EFFECTIVELY DELIVER ENERGY EFFICIENCY IMPROVEMENTS IN RESIDENTIAL ACCOMMODATION BY USING AREA BASED / STREET-BY-STREET ROLL OUT			
	• The Council will work with RPs and other partners to explore the potential for district heating schemes. • Where RPs are planning area-based energy efficiency improvements to their own stock an offer of the same energy efficiency improvements is made to private sector households and other RPs with stock in the same geographical area, where feasible. “Flexible Eligibility” will be incorporated where ECO funding is being accessed for solid wall insulation. • The Council will focus energy efficiency awareness activity within the Selective Licensing areas for greatest impact.	2017-19 When opportunit-ies arise. Ongoing	

8. GLOSSARY OF TERMS

Department for **Business, Energy & Industrial Strategy (BEIS)**
The Government department responsible for HECA and fuel poverty.

Carbon Emissions Reduction Obligation (CERO)
The CERO focuses on the insulation of solid and hard-to-treat cavity walls, which are primary measures under this obligation. Other insulation measures and connections to district heating systems are also eligible if they are promoted as part of a package that includes solid wall insulation or hard-to-treat cavity wall insulation.

Carbon Emissions Reduction Target (CERT)
CERT required gas and electricity suppliers to achieve targets for a reduction in carbon emissions generated by the domestic sector between 2008 and 2012.

Carbon Saving Community Obligation (CSCO)
CSCO focuses on the provision of carbon saving measures to domestic energy users that live within an area of low income or a rural area.

Collective switching
Collective switching is when consumers get together to negotiate a better tariff with their gas and electricity suppliers. There is no set model for how individual schemes operate, though a third party usually facilitates them.

Community Energy Saving Programme (CESP)
CESP required gas and electricity suppliers and electricity generators to deliver energy saving measures to domestic consumers in specific low income areas of Great Britain. CESP was been designed to promote a 'whole house' approach and to treat as many properties as possible in defined areas.

Cosy Home Heating Grants
Cosy Homes Heating Grants are managed by Wirral Council. They help owner occupiers or private tenants, on certain welfare benefits, to improve their heating systems and where the household does not qualify for the Home Heating Cost Reduction Obligation scheme.

Cosy Loans
Wirral Council offers interest-free loans to homeowners and private landlords and tenants to help make their homes more energy efficient. The scheme is managed by Wirral Methodist Housing Association on behalf of the Council.

Decent Homes Programme
The Decent Homes Standard was introduced by the Government in 2001 and is a standard by which mainly social housing is measured. The Decent Homes Programme funded improvements to social housing to meet the Standard, which meant that by 2010 most social housing properties had basic insulation and adequate modern heating.

Energy Companies Obligation (ECO)
ECO is a government energy efficiency scheme for Great Britain. It sits alongside the Green Deal and places obligations on larger domestic energy suppliers to deliver energy efficiency measures to domestic households, with a focus on vulnerable consumer groups and hard-to-treat homes.

Energy Efficiency Commitment (EEC)
EEC required gas and electricity suppliers to achieve targets for a reduction in carbon emissions generated by the domestic sector between 2005 and 2008

Energy Performance Certificate (EPC)
A domestic EPC is required whenever a property is sold or rented. It is based on SAP (see below) and presents the energy efficiency of dwellings on a scale of A to G. The most efficient homes are in band A. The certificate includes recommendations on ways to improve the home's energy efficiency.

Feed-in Tariff (FIT)
The Feed-in Tariff is a Government policy to accelerate the uptake of renewable electricity systems. It provides regular payments up to 25 years for technologies such as photovoltaic panels, wind turbines and hydro power.

Fuel Poverty – LIHC indicator
The "Low Income High Costs" indicator adopted by the Government in 2013 has the following definition: a household is considered to be in fuel poverty if:

- they have required fuel costs that are above average (the national median level);
- were they to spend that amount they would be left with a residual income below the official poverty line.

Fuel Poverty – 10% indicator
The Government still reports on this indicator although it is no longer used as the official indicator for England (it is still used in Scotland, Wales and Northern Ireland). The definition is as follows: a household is said to be in fuel poverty if it needs to spend more than 10% of its income on fuel to maintain a satisfactory heating regime (usually 21 degrees for the main living area, and 18 degrees for other occupied rooms).

Green Deal
The Green Deal was a market-led framework open to applications between 2013 and 2015, which aimed to improve energy efficiency throughout Great Britain. The Green Deal financial mechanism allowed businesses and individuals to make energy efficiency improvements to their buildings at no upfront cost. The costs of the measures of existing plans are paid for out of the resultant savings on that consumer's electricity bill.

"Hard-to-treat" cavity wall insulation
Primarily, this includes cavities with a gap of less than 50mm which have been excluded from previous cavity wall insulation schemes due to the risk of penetrating damp from glass fibre insulation and therefore haven't been guaranteed. These walls can be filled with polystyrene beads which lower the

risk of penetrating damp and are now covered by guarantees. Other hard-to-treat cavities include low-rise flats over three stories high and buildings of mixed solid / cavity wall construction.

Home Energy Conservation Act (HECA) 1995
The first HECA guidance on the implementation of HECA said "the Secretary of State formally regards 30% as significant and that Energy Conservation Areas should show a strategy for making at least substantial progress towards a 30% improvement in [the] energy efficiency [of the domestic building stock] in 10 – 15 years from 1 April 1996". “Energy Conservation Areas” are top-tier or unitary authorities. The Government issued new guidance in July 2012 and again January 2017.

Home Heating Cost Reduction Obligation (HHCRO – also known as “Affordable Warmth”)
Under HHCRO, energy suppliers must deliver measures which result in cost savings and which improve the ability of a householder to affordably heat their home. HHCRO focuses on low income and vulnerable householders, living in private housing (generally), where residents are in receipt of specific benefits and meet other related conditions (the “affordable warmth group”)

Homes Energy Efficiency Database
HEED is operated by Energy Saving Trust and was designed and implemented to help monitor and improve the energy efficiency of the UK's housing stock. Data from HEED is accessible via an online portal and can provide reports to various geographical levels on insulation and renewable energy measures installed through national funding programmes.

Lower Super Output Area (LSOA)
LSOAs were developed by the Office for National Statistics following the 2001 Census and are geographical areas of no less than 400 households and 1,000 people.

Private Registered Providers of Social Housing (RPs)
Not-for-profit and for-profit organisations and companies providing social housing. Most not-for-profit providers are also known as housing associations.

Renewable Heat Incentive (RHI)
The RHI for households began in April 2014 for renewable heat systems such as solar thermal panels and heat pumps. It provides regular payments in a similar way to FIT payments.

Standard Assessment Procedure (SAP)
SAP is the Government's Standard Assessment Procedure for Energy Rating of Dwellings. SAP is adopted by Government as part of the UK national methodology for calculation of the energy performance of buildings. It is used to demonstrate compliance with building regulations for dwellings (Part L in England and Wales). SAP is expressed on a scale of 1 - 100, 1 represents a poor standard of energy efficiency while a SAP of 100 represents zero energy costs.