

HOME ENERGY CONSERVATION ACT (HECA) UPDATE

1 Purpose

- 1.1 To update Environment and Living Scrutiny members on the production of the Council's mandatory production and submission of a HECA report every 2 years as set out in legislation of 1995 and revised in 2017.

2 Recommendations

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| 2.1 That Committee members note the production of the updated HECA Report and agree to its publication on the Council's website. |
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3 Executive summary

- 3.1 The report (see appendix 2), has been produced this year by the National Energy Foundation who have partnered with Aylesbury Vale District Council for many years in order to help us to address issues such as affordable warmth and fuel poverty through a joined-up and collective approach county-wide.
- 3.2 The production and publication of the Council's HECA report and submission for 2017 is a mandatory requirement of all district and borough councils across the UK and must be carried out every other year (due again in early 2019). The Home Energy Conservation Act (1995) has been reissued by the Department for Business, Energy and Industrial Strategy (BEIS) in January 2017. This report meets their new requirements.

4 Supporting Information

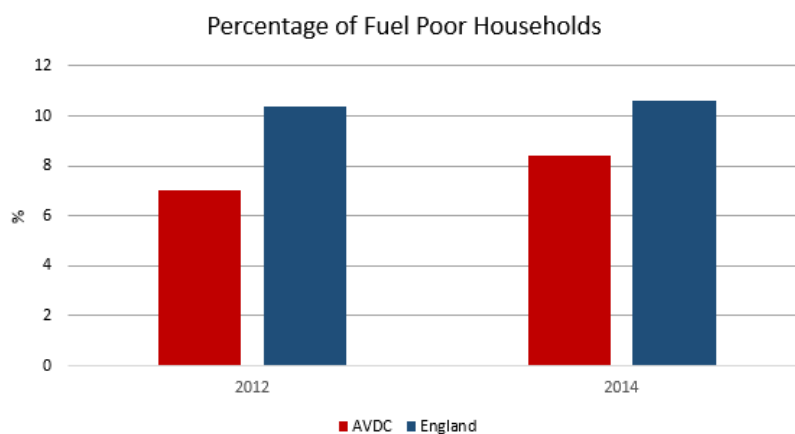
- 4.1 The HECA report uses Council and Government held data to assess Council's by Ward (Lower Super Output Areas). The report assesses demographics, insulation measures introduced, hard to treat properties and Index of Multiple Deprivation (IMD) statistics to come up with mapping that highlights areas of concern. These are areas that the Council may then focus upon when addressing affordable warmth issues.
- 4.2 The report uses data showing a population of 174,100 in 2011 and recognising a large growth in residents aged between 60 and 64 along with a 12% increase in those with chronic health or disability.
- 4.3 Whilst Aylesbury Vale scores very highly (well) amongst other Local authorities for IMD, there are pockets of significant deprivation in Quarrendon, Southcourt and Gatehouse Wards where some LSOAs feature in the top 20% in England.
- 4.4 Whilst energy consumption in Vale households has fallen, it is still significantly above the national average (34% above for electricity and 47% above for gas).
- 4.5 With the failure of the Green deal, the UK Government are shortly to announce ECO 2T. The next iteration of the ECO scheme aimed at those that need help most with insulation and other energy efficiency measures. As a consequence of the removal of government insulation grants, removal of the Green Deal and the delays in the introduction of ECO 2T, insulation measures across the UK as well as Aylesbury have fallen significantly.

- 4.6 The Chief Executive at Chiltern and South Bucks Council has agreed and signed a Statement of Intent to tackle fuel poverty as part of the Bucks Affordable Warmth Network. This is in partnership with the National Energy Foundation, Age UK, Prevention Matters and the Fire Service. A similar statement is currently being considered at Aylesbury Vale District Council. With changes in Council structures, it has been agreed that the Environmental Manager will henceforth be the named officer with the Group Manager – Specialist Services committing budget for this process, at least in the short term.

5 Conclusion

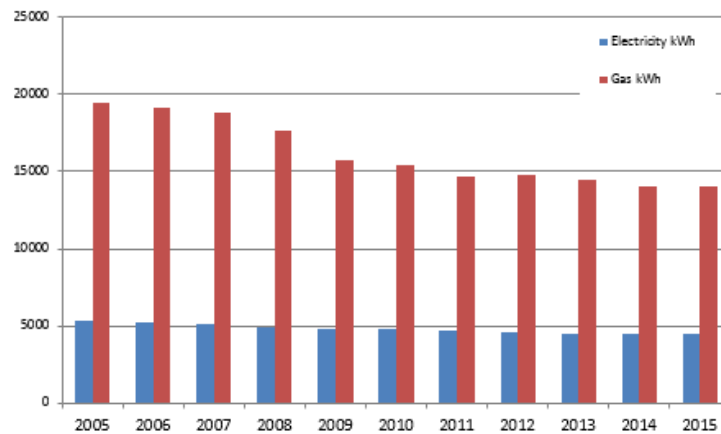
- 5.1 Since the last report in 2015, there has been an increase in fuel poverty in the Vale, not least because of the high prevalence of off mains gas areas in the region. This change is common across the UK. However, with 8.4% of Aylesbury Vale households now considered to be fuel poor, the increase of 1.4% since 2012 is markedly higher than the previous reporting period that was showing a 0.1% decrease.

- 5.2 The graph below sets this out:



- 5.3 Solar PV installations at 295/10,000 households in the Vale compare favourably against a national average figure of 224/1000. This must be contextualised by the fact that the UK is not uniformly radiated by the sun and, as such, the Vale has very good solar resource. Also, many of these installations will have been delivered upon able to pay households.
- 5.4 There are encouraging trends regarding household energy consumption. Electricity consumption has fallen by 10% and gas by 20% between 2005 and 2015 (see graph below). However, statistically, consumption in the Vale is still 34% and 47% above the national average.

Aylesbury Vale Average Domestic Energy consumption (kWh)



5.5

5.6 This report sets out progress made by Aylesbury Vale District Council since the previous HECA submission in March 2015. Increases in fuel poverty and a large proportion of off-mains gas households suggest that there is still scope to further improve the energy efficiency of some households within the district.

5.7 However, support available from both the Affordable Warmth Network and local or national funds (following the expected launch of ECO 2T), put the Council in a strong position to be able to achieve improved energy efficiency across the district over the coming reporting period.

6 Reasons for Recommendation

The report serves as an update to members on the mandatory HECA (1995) process and requests that members note the position.

7 Resource implications

There are no direct additional resource implications relating to this report other than those already funded.

Contact Officer
Background Documents

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Cabinet Report 2015



Home Energy Conservation Act (HECA) Progress Report 2017

Aylesbury Vale District Council

Prepared by the National Energy Foundation



Contents

1.	HECA Requirements and Background.....	3
1.1.	Process and Methodology	3
1.2.	General Profile of Aylesbury Vale District.....	3
2.	Data Analysis.....	4
2.1.	Index of Multiple Deprivation (IMD).....	4
2.2.	Fuel Poverty	5
2.3.	Energy Consumption.....	7
2.4.	Domestic Emissions.....	7
2.5.	Cavity Wall and Loft Insulation	8
2.6.	Solid Walls.....	9
2.7.	Off gas network.....	10
2.8.	Condensing boilers.....	11
2.9.	Solar PV Installations.....	12
3.	Measures to deliver energy efficiency improvements in housing.....	13
3.1.	Locally available financial incentives	13
3.2.	Nationally available financial incentives	15
4.	Local Energy Efficiency Ambitions and Priorities	16
4.1.	Commitments	16
4.2.	Carbon Emissions targets.....	16
4.3.	Fuel Poverty targets.....	16
4.4.	Renewables.....	17
4.5.	Smart Meters	17
4.6.	Minimum Energy Efficiency Standards in Private Rented Sector	17
5.	Conclusion.....	18
6.	Data sources.....	18



1. HECA Requirements and Background

This report is mandatorily required every two years as per the 'Guidance to English Energy Conservation Authorities (ECA's) pursuant to the Home Energy Conservation Act (HECA) 1995' issued by the Department for Business, Energy and Industrial Strategy (BEIS) in January 2017. This report aims to set out how Aylesbury Vale District Council will improve the energy efficiency of its residential accommodation.

1.1. Process and Methodology

The process for producing this report involved the data analysis and production of Lower Super Output Area (LSOA) / ward level maps for Aylesbury Vale district to better understand energy use, fuel poverty and demographic factors which may be influencing these. Additionally, undertaking a review of relevant policies, plans and schemes in place to address energy issues, along with outlining potential priorities that should be considered by the district over the next reporting period.

Data analysed has been collated from Census information, statistics from the Department of Business, Energy and Industrial Strategy (BEIS) and Department of Communities and Local Government (DCLG), Home Energy Efficiency Database (HEED) information and data provided from the local authority itself (a full list of data sources can be found in section 6 at the end of this report).

1.2. General Profile of Aylesbury Vale District

Since the 2001 census, the total population of Aylesbury Vale has increased by 5% from 165,748 to 174,100, making it the largest district (both geographically and now by population) in Buckinghamshire. Similar to surrounding districts, Aylesbury Vale is experiencing a significantly ageing population, with the largest growth of 47% experienced in residents aged between 60 and 64. Aylesbury Vale has also seen a 12% increase of those who described themselves as having a long-term health condition or disability that limits everyday activities. This suggests that over the coming years, demand for support services (including those around keeping warm and well) and suitable housing is likely to increase.

2. Data Analysis

2.1. Index of Multiple Deprivation (IMD)

Aylesbury Vale is ranked 283 out of 326 English Local Authority districts in terms of multiple deprivation (with lower numbers indicating greater levels of deprivation) making it the most deprived district in Buckinghamshire (by Buckinghamshire standards). Deprivation is most prevalent in Quarrendon, Southcourt and Gatehouse wards of Aylesbury, where some Lower Super Output Area's (LSOA's) feature in the top 20% of most deprived areas in England.

Aylesbury Vale - IMD Decile

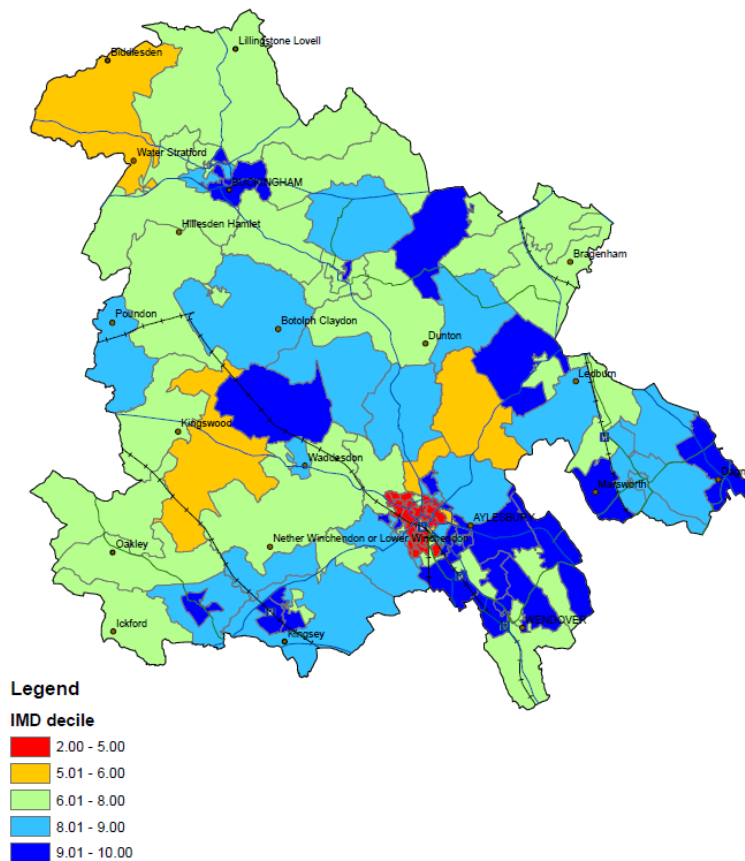


Figure 1: IMD Decile for Aylesbury Vale District. DCLG, 2015

2.2. Fuel Poverty

There are now two definitions in use for fuel poverty the UK. The previous 10% definition (*where a household is deemed fuel poor when having to spend over 10% of disposable income to pay for energy*) is no longer in use in England, but is still implemented in Northern Ireland, Scotland and Wales.

In England, the Low Income, High Cost (LIHC) is now used to measure fuel poverty and considers a households to be fuel poor if:

- They have required fuel costs that are above average
- If they were to spend that amount, would be left with a residual income below the official poverty line

Under the LIHC definition, 8.4% of households in Aylesbury Vale are considered to be in fuel poverty, showing a 1.4% increase from 2012. Although this remains below the national average, this differs from the previous reporting period which saw a 0.1% decrease. When assessing the issue in numerical terms, the number of households in fuel poverty has increased from 4,828 to 6,038, reiterating the need for further energy efficiency support within Aylesbury Vale district.

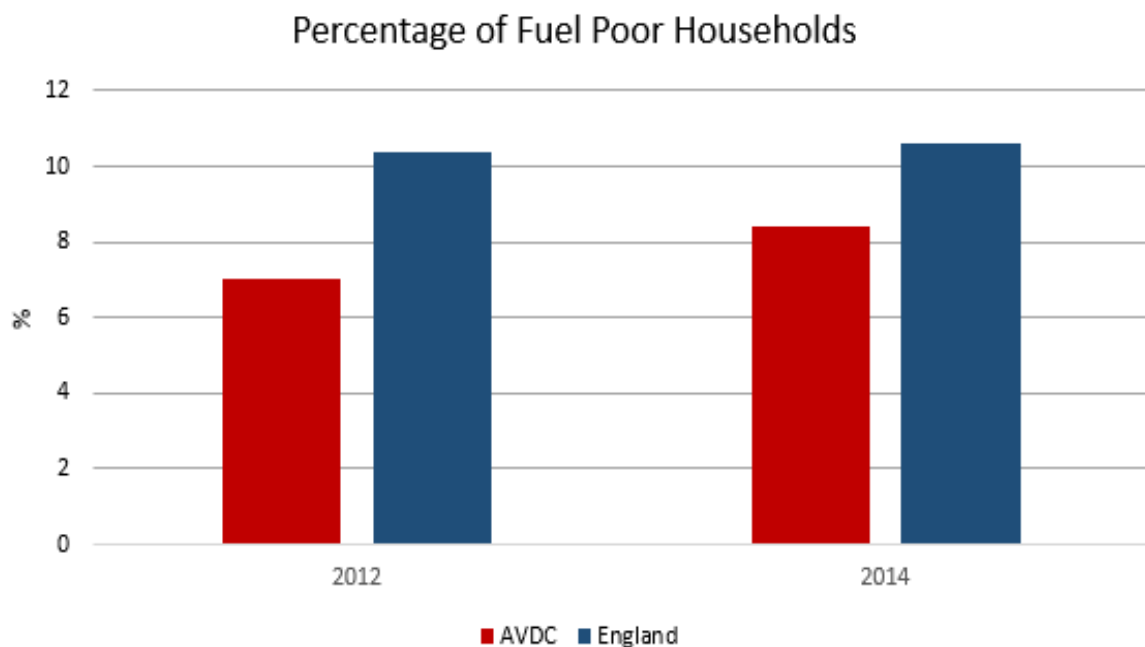


Figure 2: Percentage of Fuel Poor households under LIHC. BEIS, 2015

Aylesbury Vale - Fuel Poverty 2015
Low Income High Cost

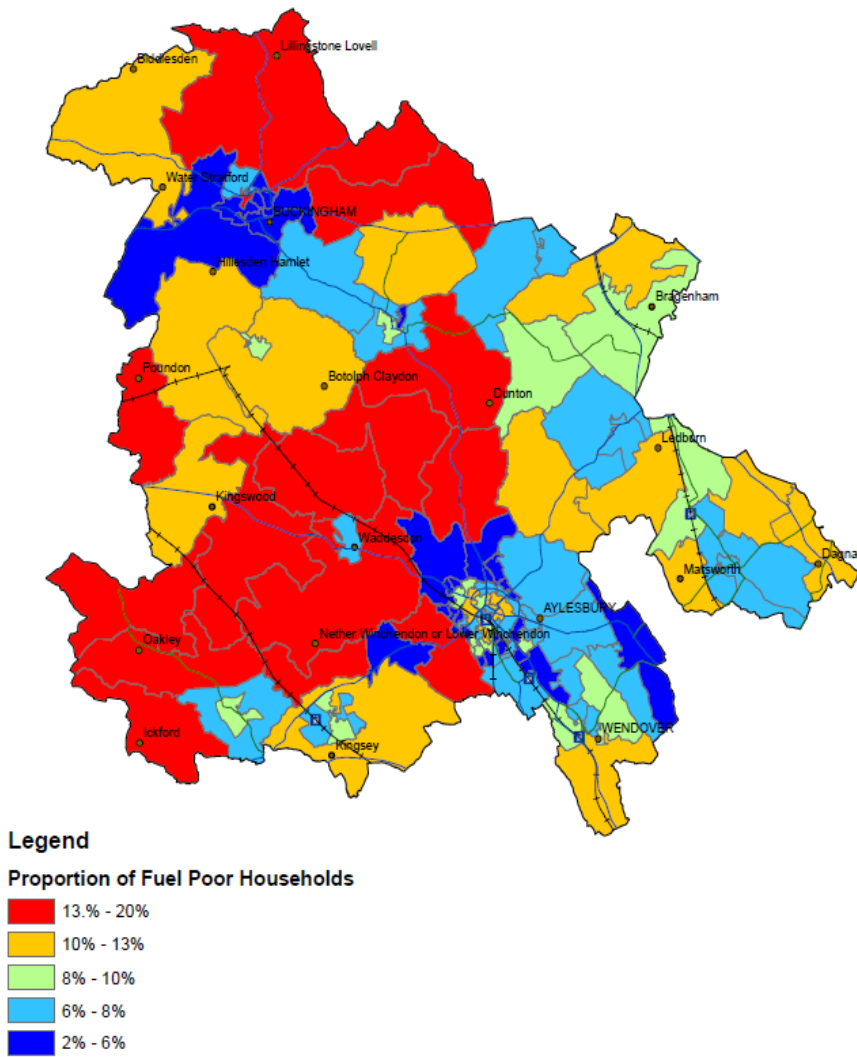
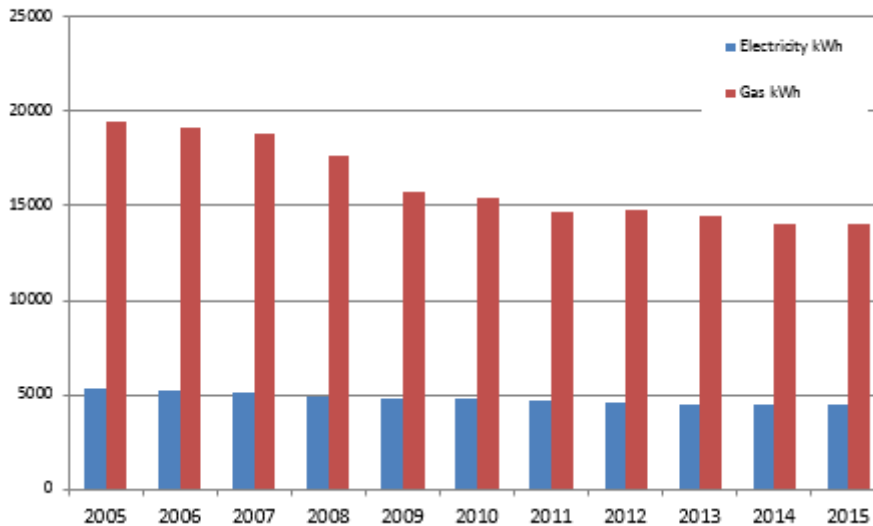


Figure 3 Mapped fuel poverty data for AVDC. BEIS, 2015.

2.3. Energy Consumption

Average annual domestic electricity consumption fell by 10% between 2005 and 2015, with domestic gas consumption falling by 20% over the same time period. Despite this, overall domestic electricity consumption is 34% above the national average and gas even higher at 47%¹.

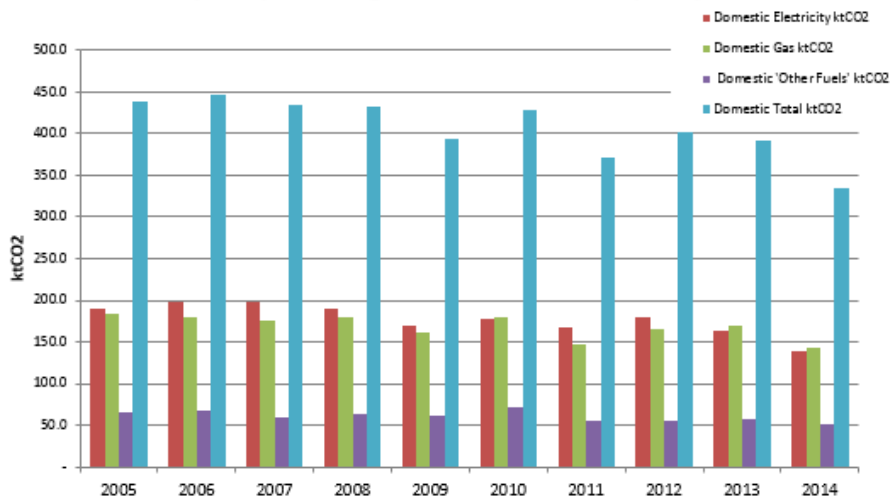
Aylesbury Vale Average Domestic Energy consumption (kWh)



2.4. Domestic Emissions

Average building related CO₂ emissions in 2014 were 2.3 tonnes per person, showing a decline of around 0.4 tonnes per person since 2012 and 2013².

Aylesbury Vale Average Carbon Dioxide Emissions (ktCO₂)



¹ Source: <https://www.gov.uk/government/statistical-data-sets/regional-and-local-authority-electricity-consumption-statistics-2005-to-2011> and <https://www.gov.uk/government/statistical-data-sets/gas-sales-and-numbers-of-customers-by-region-and-local-authority>

² Source: <https://www.gov.uk/government/statistics/local-authority-emissions-estimates>

2.5. Cavity Wall and Loft Insulation

Since 2015, the Council has received 226 building control notifications for installation of Cavity Wall Insulation. Overall, there has been no update on statistics around cavity and loft insulation installs since the previous reporting period, with data still showing a steady increase in both types of installs. In terms of cavity wall insulation installs, between 2012/13 Aylesbury Vale was slightly below the GB average, with 865 installs per 10,000 households taking place compared to the GB ratio of 904 per 10,000. Loft insulation installs are slightly closer to the GB average, with 1,247 per 10,000 households occurring in Aylesbury Vale compared to the GB average of 1,365 per 10,000. This shows that there is still scope for residents within the district to take advantage of offers under ECO2 Transition (ECO2T) over the next reporting period.

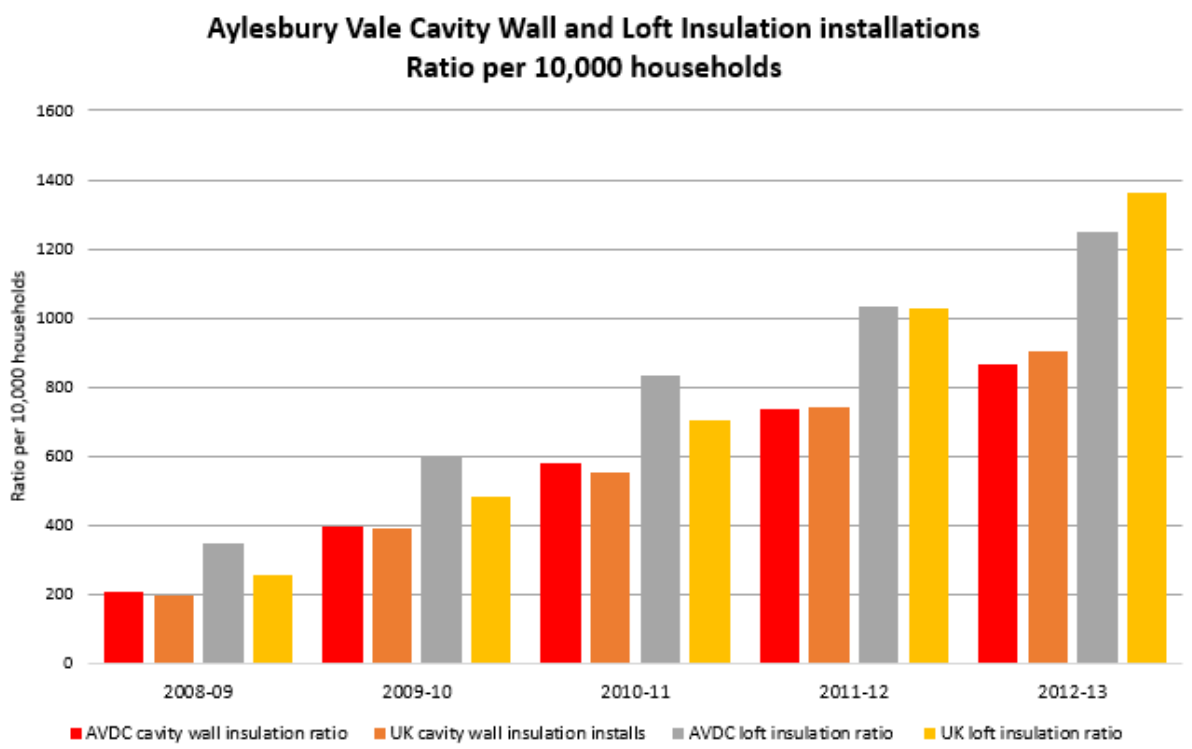


Figure 4: Ratio of cavity wall and loft insulation installs per 10,000 households. BEIS, 2017³

³Source: <https://www.gov.uk/government/collections/interactive-maps-trends-in-fuel-poverty-energy-use-and-energy-efficiency-measures>



2.6. Solid Walls

Data around Solid Walls has not been updated since the previous reporting period and has been obtained from the Home Energy Efficiency Database (HEED). This data details the energy efficiency of a sample number of households within a district. It must be noted that HEED reports on aggregated data, with no address level records available. An example being that data is mainly collated from installation data gathered from the Carbon Emission Reduction Targets (CERT), Community Energy Saving Programme (CESP) and Energy Assistance Package (EAP), so will be biased towards measures installed under these schemes (such as loft and cavity wall insulation)⁴. Therefore, information extrapolated is not representative of the entirety of Aylesbury Vale and should be viewed with caution.

In total, 38,693 out of 72,241 (53.6%) households have been included in the Aylesbury Vale HEED sample. As highlighted in the table below, of the 17,976 households where external wall type is known, 8 (0.0%) have external wall insulation and 173 (0.4%) have built insulation (which simply refers to new build properties with already built in insulation). 1,948 (5%) of solid wall households where the wall type is known to be solid are known to be uninsulated.

Measure	Number of installations	Percentage of sample
Cavity Wall Unfilled	1,308	3.4%
Cavity Wall Filled	14,539	37.6%
Solid Wall – Uninsulated	1,948	5%
Solid Wall – Externally Insulated	8	0%
Solid Wall – Internally Insulated	-	-
Solid Wall – Build Insulated	173	0.4%
Unknown insulation	20,717	53.5%
Total	38,693	100%

⁴ Source: <http://www.energysavingtrust.org.uk/scotland/businesses-organisations/data-services/heed>

2.7. Off gas network

In 2014, approximately 11,000 properties in Aylesbury Vale were not connected to the gas network, representing 16% of total households in the district. This is higher than the average experienced across the South East, where it is estimated that 10% of households are not connected to mains gas. The village of Brill has the highest percentage of off-gas households at 89%. However, Aylesbury is rural in character, and many of the areas with over 46% of off-gas properties such as Water Stratford, Biddlesden, Dunton, Nether Winchendon and Marsworth are rural villages. The two major towns of Aylesbury and Buckingham have low levels of off-gas properties (ranging between 0% and 20%).

Aylesbury Vale - (BEIS 2014)
Percentage of households not connected to the gas network

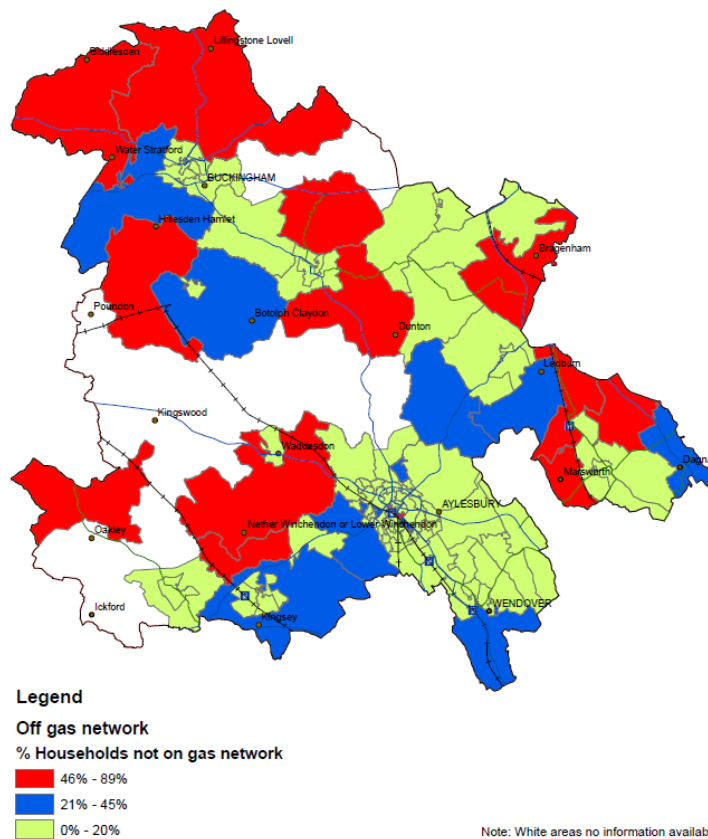


Figure 5 Percentage of off-gas households. BEIS, 2014



2.8. Condensing boilers

As previously identified, there has been no update on HEED data since the previous reporting period in terms of the number of condensing boilers within Aylesbury Vale district. From the sample data displayed below, 17.2% of households have a regular condensing boiler, with 14.2% having a less efficient non-condensing boiler.

Measure	Number of installations	Percentage of sample
Non-Condensing Regular Boiler	5,079	13.1%
Condensing Regular Boiler	6,600	17.1%
Unknown	24,622	63.6%
Non-Condensing Combination Boiler	413	1.1%
Condensing Combination Boiler	21	0.1%
Back Boiler	539	1.4%
Electric Storage Heaters	583	1.5%
Community Heating	-	-
Heat Pump	130	0.3%
Warm Air	210	0.5%
Room Heaters	2	0%
Other	494	1.3%
Total	38,693	100%

2.9. Solar PV Installations

Ratio of Solar PV installs per 10,000 households has continued to increase and remains above the UK ratio. In June 2016, 295 domestic solar PV installs occurred per 10,000 households in Aylesbury Vale compared with the UK ratio of 224 per 10,000 households. Efforts should be made to ensure that this increase continues over the next reporting period.

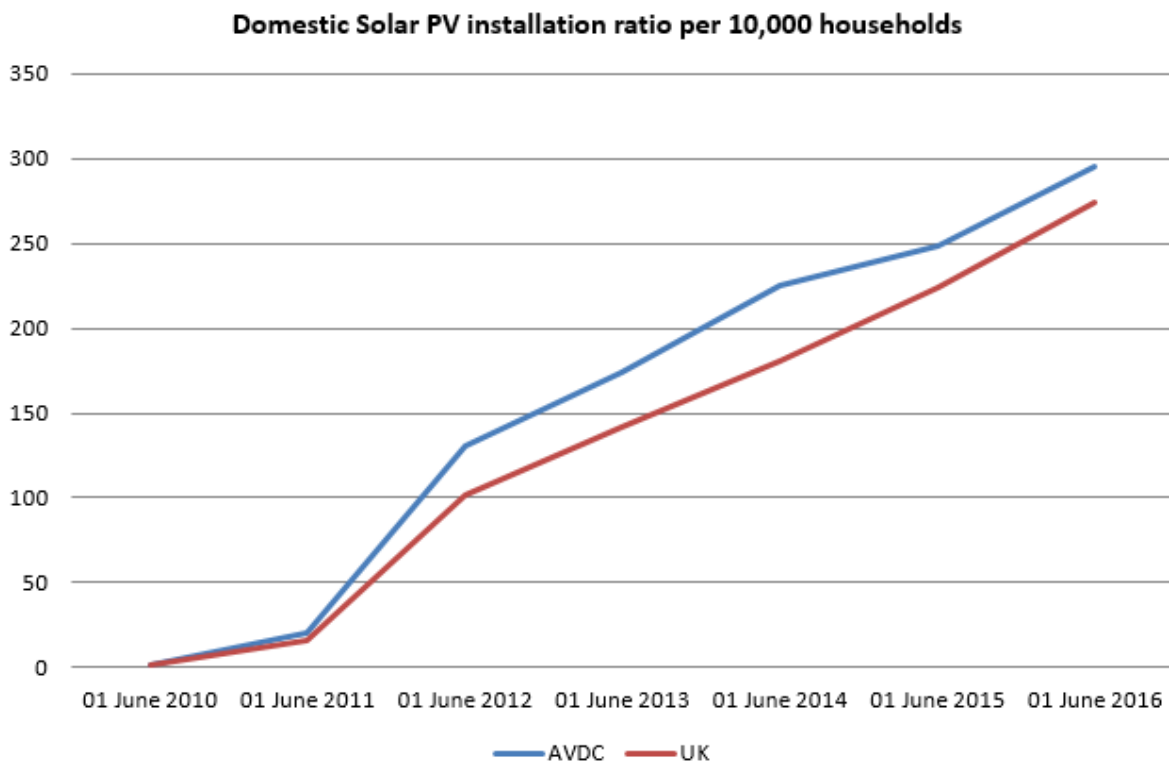


Figure 6: Domestic Solar PV installations per 10,000 households. BEIS, 2017⁵.

⁵ Source: <https://www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy/about/statistics>



3. Measures to deliver energy efficiency improvements in housing

Key messages from the data:

- The increase in the percentage of fuel poor households in the district suggests that the energy efficiency of some properties needs to be improved. Aylesbury Vale should continue to encourage residents to investigate local and national offers that may assist with this.
- Cavity wall insulations installs are on par with the national average, with loft insulations slightly below. This may be due to the fact that majority of lofts in the district already have sufficient insulation, but suggests there is still scope for residents to take advantage of potential ECO2T and future ECO3 funding to help top this up
- Large proportions of the district are still not connected to the mains gas network. Currently, Aylesbury Vale has levels higher than the South East average for off-gas households and these properties are likely to have inefficient and expensive heating systems. Efforts must be made to increase awareness of this issue and access to any potential funding upgrades to more efficient systems in the future.
- High proportions of off-gas and solid wall households occur in more rural areas of the district. This highlights the importance in ensuring that promotion of support available reaches all parts of the district
- Domestic energy consumption continues to fall but still remains above the national average.

3.1. Locally available financial incentives

Flexible Home Improvement Loan (FHIL)

Aylesbury Vale District Council offers Flexible Home Improvement Loans of up to £30,000 to homeowners over the age of 60 to allow work that will assist in making homes safer, warmer, healthier and more comfortable to live. This takes away the worry of the initial upfront cost of large scale improvements and the flexible nature allows repayments to be suited to the resident, which can even be when the property is sold. This is not exclusively for energy efficiency improvements, but many residents choose to use it in this manner. Since 2015, 10 FHIL's have been signed off and further information around installed measures can be seen below.

Aylesbury Vale Flexible Home Improvement Loan Funded Measures
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3 boiler installations
6 window/door replacements
4 roofing/pointing works

Minor Works Grant



This grant is replaced by the 'Essential Repairs Grant' from April 2017 and it offers means-tested grants for homeowners either over the age of 60 or for households with children under the age of 10 of up to £2,500. This can be used for essential repairs to make non-decent properties safer for occupants. Since April 2015, one Minor Works Grant has been signed off and was used towards replacement external doors and a replacement window.

Affordable Warmth Funding

The Council along with its partners on the Health and Wellbeing Board and local Affordable Warmth Network will continue to collectively and individually seek funds to support targeted affordable warmth work within the district. Key sources of funds, in addition to funding already provided by the Council, will potentially include Public Health (through Buckinghamshire County Council), Buckinghamshire Clinical Commissioning Group (CCG) and energy utilities. Since March 2015, the Network has been looking at the potential of a project linking fuel poverty and health. This resulted in the pilot project Better Housing, Better Health which ran between January and December 2016.

➤ Better Housing, Better Health (BHBH)

Funded by the British Gas Energy Trust and running alongside Oxfordshire and Buckinghamshire local authorities, this provided grants of up to £2,500 each for 40 Buckinghamshire residents for energy efficiency improvements. A total of 13 referrals were received from residents in Aylesbury Vale and this resulted in grant funding for 7 eligible residents equating to just over £15,000. The scheme proved so popular that a waiting list was created for residents and Aylesbury Vale Council were able to provide grants for a further two residents on the waiting list for replacement boilers. Due to high demand for this project, Aylesbury Vale council alongside the Affordable Warmth Network will continue to try and seek funding to keep the referral mechanism, which came to an end in December 2016.

➤ Affordable Warmth Helpline – Outcomes since March 2015

Between April 2015 and March 2017, the following outcomes have been received by Aylesbury Vale residents contacting the Buckinghamshire Affordable Warmth helpline.

Outcome	Number of residents
Telephone advice	148
Signposted for further support/measures	94
Outreach events	16
Face to Face advice	511



3.2. Nationally available financial incentives

Energy Company Obligation (ECO)

ECO2 Transition (ECO2T) is due to begin in April 2017 and will have a renewed, more flexible focus on reducing carbon emissions along with concentrating funding on the fuel poor and those who are on low incomes. With an increase in the percentage of fuel poor households evident in Aylesbury Vale, ECO funding may be vital in improving the energy efficiency of households to ensure the level of fuel poverty does not continue to rise. ECO2T is comprised of two strands with differing criteria/measures that can be installed under each:

➤ **Home Heating Cost Reduction Obligation (HHCRO)**

More commonly known as the Affordable Warmth element, eligibility for this will be better targeted and extended to social housing with Energy Performance Certificate (EPC) bands E, F or G. As this obligation now covers social housing, the Council will be identifying and promoting the funds to newly eligible households through its links with the Buckinghamshire Affordable Warmth Network and its partners.

➤ **Carbon Emissions Reduction Obligation (CERO)**

This aspect is aimed towards more expensive measures such as solid wall insulation and is based around the amount of carbon that can be saved through insulating the property.



4. Local Energy Efficiency Ambitions and Priorities

Analysis of demographic, energy consumption and energy efficiency data shows that the council will need to adopt the following approaches in order to reduce CO₂ emissions and tackle fuel poverty.

- The increase in the percentage of fuel poor households and an ageing population within the district suggests that the council should continue to promote targeted local programmes that will help improve the efficiency and warmth of properties
- Areas with above average off-gas properties should be encouraged to explore options to upgrade to greater energy efficient measures (including insulation and heating systems). The council should also promote ways in which residents can potentially switch to mains gas, where practical and assist with this in any way possible.
- Both loft and cavity wall insulations remain fairly close to national averages. Aylesbury Vale should continue to promote to residents potential ECO offers, encouraging those who think they may be eligible to contact the Buckinghamshire Affordable Warmth Network.
- Working with planners on emerging Garden Town plans for Aylesbury, policy guidance and Council influence re-planned new build and potential retrofit

4.1. Commitments

The council has made public commitments through the adoption of the Carbon Trust's 5 year Carbon Management Programme (2007/8 – 2013/14)⁶, with a targeted 22% carbon reduction within its own estate exceeded by early 2013. Aylesbury Vale continues to be a part of the Buckinghamshire Affordable Warmth Network which aims to tackle fuel poverty, incidents of poor quality housing and improve energy efficiency. This is through providing impartial energy efficiency advice, income maximisation services and onward referrals to other local support services that may benefit the resident.

4.2. Carbon Emissions targets

Having achieving a 22% reduction in carbon emissions by 2013, Aylesbury Vale District Council has now agreed a 2.5% year on year carbon reduction until 2020. This puts the council in line with the nationwide target of a 34% reduction in carbon emissions by 2020. Recently independently reported figures suggest that the Council has exceeded this target with a 36% reduction to April 2016.

4.3. Fuel Poverty targets

Aylesbury Vale has not set out any specific fuel poverty targets outside of those already identified council programmes and funded assistance. The council will continue to work alongside the Affordable Warmth Network to implement schemes and actions set out in the countywide Buckinghamshire Affordable Warmth Strategy. Alongside this, the Council will also address

⁶ https://www.aylesburyvaledc.gov.uk/sites/default/files/page_downloads/CD-ENV-008-AVDC-Carbon-Management-Plan-2007-8-to-2012-13-Revised-Aug-2010-.pdf



identifying and targeting households under new 'flexible eligibility' aspect of ECO2T over the next reporting period and awaits clarity in national policy in this area.

4.4. Renewables

As highlighted, Aylesbury Vale remains above the national average in terms of domestic solar PV installations and there has been some community-focused PV discount scheme activity within the district. Solar PV (<30kWp) and solar thermal have also been installed on Council owned estate and ideally, this would increase over the coming years. Aylesbury Vale has worked alongside Buckinghamshire County Council in the development of a countywide energy strategy, where the increase in locally generated heat and power forms an important part of future milestones.

4.5. Smart Meters

With many areas within the district featuring a high percentage of off-gas households, the council is working alongside a countywide initiative run by Community Impact Bucks which hopes to raise awareness of the smart meter roll out to off-mains gas residents. Although no specific district plans have been agreed, information around Smart Meters will be provided where appropriate through Affordable Warmth events within the district.

4.6. Minimum Energy Efficiency Standards in Private Rented Sector

A recently launched "Aylesbury Property First" will potentially provide a future forum opportunity to meet and discuss energy related issues with Vale Landlords to help increase awareness of relevance to their business and their tenants.

Currently, Aylesbury Vale council visits properties and checks EPC's following a complaint from a tenant to ensure that minimum standards are being met. It is unlikely that there will be any additional resources within the Council to enforce minimum energy efficiency standards in the private rented sector. Currently, this activity is undertaken within the Environmental Health team and it is likely that additional activity will be integrated within this.

AVDC Building Control ensures boilers meet requirements by the installers being a member of a competent person scheme and self-certifying their own work. On the rare occasion that works are not carried out under a competent person's scheme, installs would be assessed as compliant by members of the Building Control team upon receipt of the details of the boiler and its commissioning data.



5. Conclusion

To summarise, this report sets out progress made by Aylesbury Vale District Council since the previous HECA submission in March 2015. Increases in fuel poverty and large proportions of off-mains gas households suggest that there is still scope to further improve the energy efficiency of some households within the district. However, support available from both the Affordable Warmth Network and local or national funds put the Council in a strong position to be able to achieve improved energy efficiency across the district over the coming reporting period.

6. Data sources

BEIS, 2013. Interactive maps: trends in fuel poverty, energy use and energy efficiency measures. Retrieved from: <https://www.gov.uk/government/collections/interactive-maps-trends-in-fuel-poverty-energy-use-and-energy-efficiency-measures>

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