

# ARUN DISTRICT COUNCIL

## REPORT TO HOUSING & WELLBEING COMMITTEE ON 21 JULY 2022

### PART A: REPORT

<b>SUBJECT:</b>	<b>Decarbonisation of our Housing Stock</b>
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<b>REPORT AUTHOR:</b>	<b>Steve Turner</b> , Housing Decarbonisation Project Manager
<b>DATE:</b>	31/5/22
<b>EXTN:</b>	7820
<b>PORTFOLIO AREA:</b>	Housing

#### **EXECUTIVE SUMMARY:**

Arun District Council has an ambitious “Zero Carbon” objective for the Council’s own activities with a target to achieve this by 2030 as the Council’s contribution to the Environment and Climate Emergency, (*Arun District Council Carbon Neutral Strategy 2022-2030*).

The Council’s strategy excludes the carbon emissions related to occupation of our social housing stock. This report asks committee to approve the adoption of the Social Housing Decarbonisation Strategy and action plan (Appendix 1) and to approve the making of an application to the Social Housing Decarbonisation Grant (run by the Department for Business, Enterprise and Industrial Strategy (BEIS)) for £3,000,000 to improve SAP ratings of 300 properties to achieve a minimum C Rating.

#### **RECOMMENDATIONS:**

That committee agrees

- 1) The adoption of the Social Housing Decarbonisation Strategy and action plan (Appendix 1) (which will be subject to final presentational revisions)
- 2) Approval for officers to make an application to the Social Housing Decarbonisation Grant (run by the Department for Business, Enterprise and Industrial Strategy (BEIS)) for £3,000,000 to improve SAP ratings of 300 properties to achieve a minimum C Rating which will involve match funding of £3,000,000 from within the existing HRA business plan, and to then apply that to the programme of retrofit works over 2023-2025.

## 1. BACKGROUND

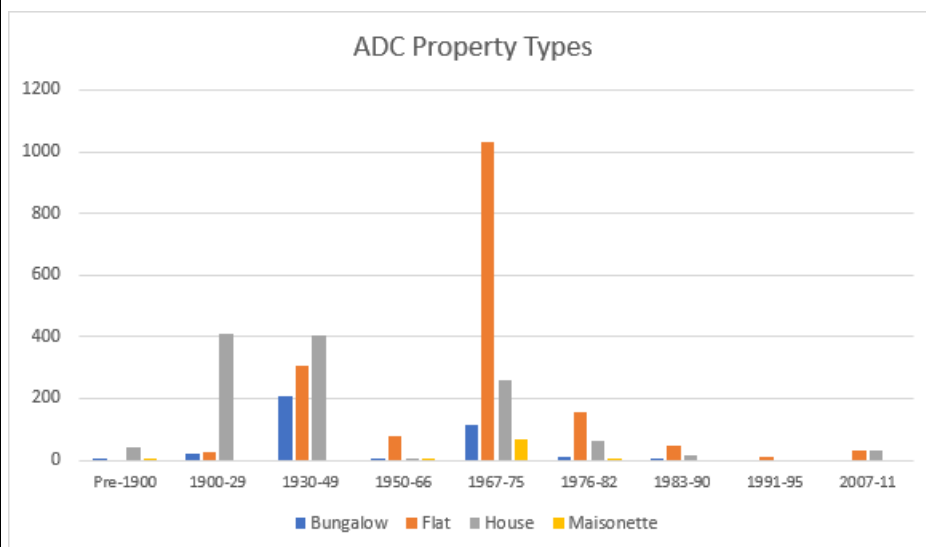
### 1.1 Climate Change Act and other legislation

1.1.1 The Council declared a climate emergency on 15 January 2020 and by pledging to become carbon neutral, the Council has committed to achieving net zero carbon dioxide emissions by 2030. That commitment excludes our housing stock which generates significant CO<sub>2</sub> from heating and lighting.

1.1.2 The work Arun undertakes through this strategy will feed into the national commitment to become carbon neutral by 2050, in accordance with the UK Climate Change Act 2008. This Act commits the UK Government by law to reduce greenhouse gas emissions by 100% (to Net Zero) by 2050. The pathways include generating low carbon electricity, decarbonising homes, and businesses (mainly by reducing heating demand or changing type) and reducing emissions in the public sector. We therefore need to address decarbonising our housing stock as well as council buildings.

1.1.3 Heating and lighting homes in the UK is one of the biggest carbon-generating activities, accounting for over 15% of all CO<sub>2</sub> produced. Across the Council's c.3400 properties, around 8,500 tonnes of CO<sub>2</sub> are produced each year to keep homes warm and lit.

1.1.4 The UK has some of the oldest housing stock in the developed world. Arun District Council's properties are a typical representation of these properties, with 500 now over, or approaching 100 years old. By 2050, over a third of our current stock will be 100 years old.

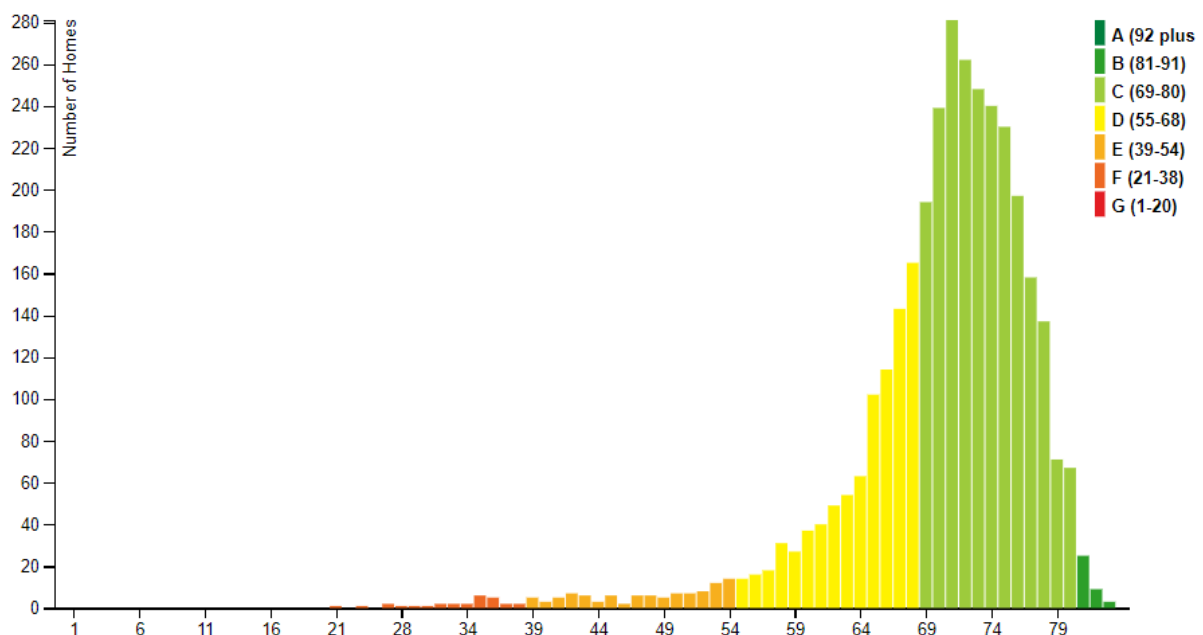


**Age bands applied reflect differing building regulations**

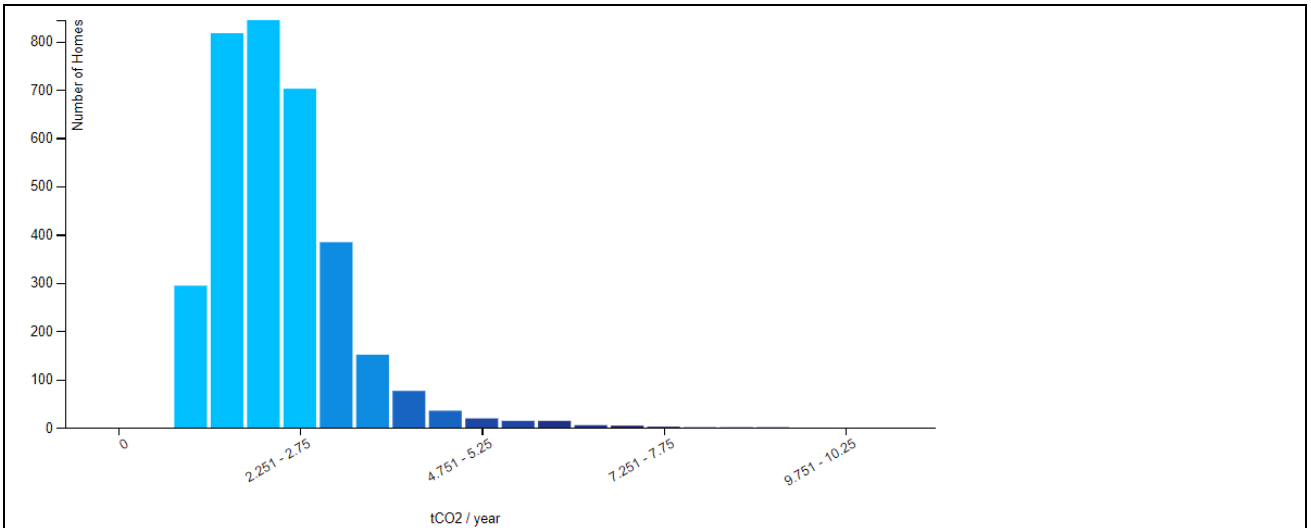
- 1.1.5 Many of these homes will still be here beyond 2050; it is, therefore, essential that the energy efficiency and carbon emissions of all homes are tackled if the UK and the Council is to meet and sustain our carbon reduction and fuel poverty targets.
- 1.1.6 As a registered provider of social housing the Council is legally obliged to improve the levels of energy efficiency in our homes and build new homes to new building regulations that help achieve decarbonisation, and work towards Net Zero by 2050.
- 1.1.7 We are required to move away from fossil fuels, in particular we cannot install gas boilers to new properties from 2025, or in existing properties from 2035. As an interim legal requirement, our properties should all have an EPC rating of C by 2030 (with limited exemptions).
- 1.1.8 A BEIS Presentation on the Climate Emergency related to housing is provided as Appendix 2.

## 1.2 Our Current Housing Stock, Energy Efficiency and Emissions

- 1.2.1 The SAP (Standard Assessment Protocol) for our homes is applied to generate Energy Performance certificates (EPCs) which we supply to our tenants. Currently our average rating is C, but there are several hundred properties with a lower rating.



**RdSAP ratings, Arun District Council Housing Stock, December 2021**

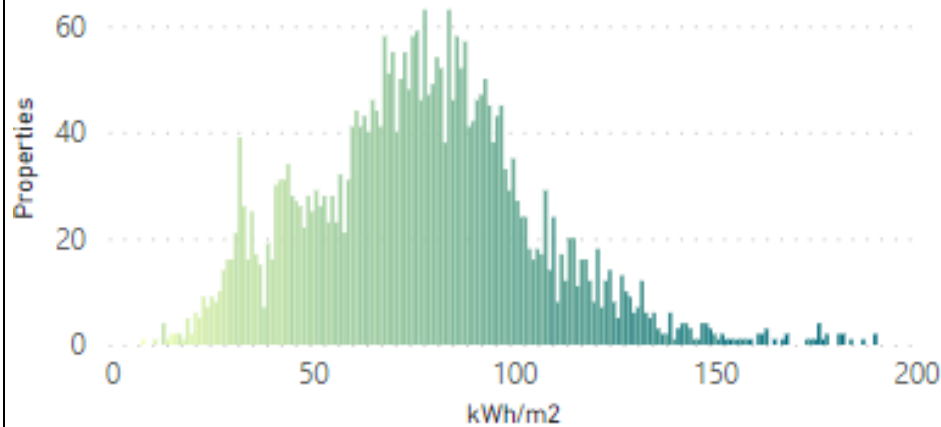


**CO<sub>2</sub> Usage per Property, Arun District Council Housing Stock, December 2021**

1.2.2 On average, our properties produce 2.3 tonnes of carbon to heat, light and run appliances in homes. In total our housing stock generates around **7,500 tonnes of CO<sub>2</sub> each year**. These are “Scope 1” and “Scope 2” emissions, either used directly (such as a gas boiler) or in the supply chain (that is, electricity generation). By comparison, the Council’s own Scope 1 and 2 emissions are under 400 tonnes a year.

1.2.3 Note, this slightly understates the total CO<sub>2</sub> produced across our housing stock, as we do not have sufficient information on communal areas in our schemes and blocks at the moment; our best estimate is that this is under 100 tonnes of CO<sub>2</sub> per annum as we fit LED lighting when we replace old lighting systems.

1.2.4 A third important measure of ‘thermal efficiency’ is the energy required to maintain a home at a reasonable temperature. This is measured in kilowatt hours per metre squared to give a comparable measure across any properties and is a key measure for achieving supporting grants.



**Annual Heating Demand in kWh/m<sup>2</sup>**

1.2.5 The average across all our properties is just under 80kWh/m<sup>2</sup>. Government grants have become conditional upon improved properties achieving at least a C SAP rating and under 90kWh/m<sup>2</sup> outcomes.

### **1.3 Social Housing Decarbonisation Fund (SHDF)**

1.3.1 The SHDF was set up in 2020 with the target of upgrade a significant amount of social housing stock to an Energy EPC rating of C. Wave 1 projects were awarded in December 2021, based on a worst first, fabric first, lowest regrets approach to improving the energy performance of social housing by 31 January 2023.

1.3.2 Wave 2 is expected to be open for applications in August/September 2022, and to award through 2022/3 to 2024/25 when the SHDF expires.

1.3.3 Wave 2 bids for funding are expected to follow the criteria of Wave 1. They will also require matched funding from the bidder. Arun District Council is well placed to bid for funding for initiatives such as exterior wall insulation, door and window upgrades and roof/loft insulation projects where several of our Sub-C EPC properties with higher-than-average kWh/m<sup>2</sup> would benefit from the building fabric approach and reach the required outcomes. Work is ongoing in identifying the properties with the best chance of qualifying; we estimate around 250-300 properties may meet these criteria.

1.3.4 Whilst no further funding initiatives have been announced, the huge ambition of the Government's agenda is likely to require additional support. The retrofit industry is now operating to two Publicly Available Specifications (PAS) developed by the British Standards Institute (BSI) which are monitored by TrustMark, the Government's own construction standards body. SHDF and future funds will require PAS 2030 qualified installers of retrofit measures and PAS 2035 qualified designers and auditors. Part of PAS2035 requirements is a 25-year plan ("Medium-term Plan") for a property setting out a strategy to achieve high levels of energy efficiency and low carbon heating. We have conducted a number of these so far and will undertake further medium-term plans to inform our programmes of works. An example assessment showing the detail involved is attached as Appendix 3.

1.3.5 Rapidly increasing energy prices are impacting on anyone suffering from fuel poverty. Fuel poverty is exacerbated further by houses that cost more to keep warm than they should, due to poor insulation or inefficient heating systems. In meeting decarbonisation targets the Council will help alleviate one of the underlying causes of fuel poverty. One of the challenges we will face is that homes heated electrically are much more expensive to heat than houses with gas central heating, which would increase energy bills of more than 90% of our tenants, unless we introduce supplementary sources of electricity such as solar power to mitigate that impact.

1.3.6 Residential Services are asking Members of the Committee to support the realignment of our capital spend programme to achieve decarbonisation goals in line with Government requirements; to support applications for grants that will help fund such programmes; and to review future recommendations concerning changes to our housing stock.

## **1.4 Conclusion**

1.4.1 At a local level, our housing stock generates twenty times as much CO<sub>2</sub> as the rest of the Council's estate, and housing is a key pathway for the Government's commitment to new zero.

1.4.2 This report's recommendations seek to ensure our capital programmes aligns to our decarbonisation responsibilities and has the best possible impact on our obligations to deliver the best possible outcome we can by 2050.

## **2. PROPOSAL(S):**

### **2.1 Timescales**

2.1.1 Given the scope of works likely to be required, the approach that began in November last year of profiling properties, identifying target properties for works, and building the information required for a successful SHDG bid should continue with a view to qualifying for grant funding and so beginning works on improving building fabrics in 2023/2024.

## **3. OPTIONS:**

### **3.1 Do Not Apply for funding.**

3.1.1 The Council could forego this funding round. There is no further Government funding expected before 2025/2026, although there may be some incentives from energy companies. With more than 750 properties that we need to improve SAP ratings to level C or above by 2030, we will still have to invest in our properties over the next seven years but finance it all ourselves.

### **3.2 Defer Retrofit Works**

3.2.1 The Council could seek to defer retrofit works. The necessary future spend would be compressed into a shorter timescale, putting more pressure on the HRA Capital Works programme. Some current capital works (such as windows, doors, roof renewals) may need to be redone inside the expected lifetime of the works to meet retrofit standards. This approach may well be seen as tardy in comparison to other local councils that are already progressing their own programmes. Even so, the Council is still obligated to improve SAP ratings to C or better for all our properties by 2025.

<b>3.3 Commence Retrofit Works in 2023/4</b>		
3.3.1 This is the preferred approach and the recommendations above support this option.		
<b>3.4 Fast Track Retrofit Works</b>		
3.4.1 We could seek a larger grant, so accelerating the programme. This would carry some risks:		
a) The spending required would adversely impact the HRA in the short term and may not allow new developments to take place as currently planned, compromising HRA income in future years or reduce funds for adaptations and other works compromising our obligations to vulnerable tenants.		
b) Additional works will include changes to heating systems. These technologies are embryonic and therefore risky in terms of outcomes. Grant funding will be subject to outcome, and therefore these measures are at risk.		
<b>4. CONSULTATION:</b>		
	<b>YES</b>	<b>NO</b>
Relevant Town/Parish Council		✓
Relevant District Ward Councillors		✓
Other groups/persons (please specify) Members of the Housing and Customer Services Working Group	✓	
<b>5. ARE THERE ANY IMPLICATIONS IN RELATION TO THE FOLLOWING COUNCIL POLICIES: (Explain in more detail at 6 below)</b>	<b>YES</b>	<b>NO</b>
Financial	✓	
Legal		✓
Human Rights/Equality Impact Assessment	✓	
Community Safety including Section 17 of Crime & Disorder Act		✓
Sustainability	✓	
Asset Management/Property/Land	✓	
Technology		✓
Other (Carbon Neutral Strategy. There will be some common approaches we will want to adopt)	✓	

## **6. IMPLICATIONS:**

### **6.1 Sustainability**

6.1.1 The Council will be meeting its obligations and targets under the Climate Emergency legislation to achieve net zero for our housing stock by 2050 through a manageable programme of works.

### **6.2 Asset Management/Property/Land**

6.2.1 The HRA has a capital programme of c. £200 million in current terms. Around £40 million was nominally assigned to decarbonisation, without specific programmes identified.

6.2.2 The cost of retrofitting all our properties is currently estimated at between £70 million and £100 million. Clearly there is an overlap in anticipated programmes for door and window replacements, roofing works, etc. but the strong likelihood is that there will need to be a reorganisation of the capital works to achieve a low carbon housing stock.

6.2.3 The Council will also need to be well placed to use grants and funds to support programmes of work across the housing stock. Whilst there will continue to be promotions from energy companies and other sources, these will only be viable when they fit in with a PAS2035 approach to each property concerned.

6.2.4 The HRA business plan is being reviewed in the autumn and will include a realignment of capital works programmes to support decarbonisation objectives.

6.2.5 While we cannot assure the Committee that we can achieve all the goals for 2050 within the existing HRA Capital Works programme, we broadly expect to be able to do this. That should be clear following the autumn review of the HRA.

### **6.3 Impact on Tenants**

6.3.1 The strong preference for SHDF-funded programmes of works is to be building fabric focused first. The PAS2035 approach is strong in preventing post-fit issues such as condensation and mould, by designing out the causes of these problems. For example, installing an exterior wall insulation system should be done in conjunction with renewing doors and windows to eliminate 'cold spot'. This means that works are more likely to be doing two or three things to a small number of properties, rather than one thing to many.

6.3.2 We want to be fabric focused first because:

- a) The work is understood, and there are established suppliers of services using materials that are well established
- b) Until a property is 'thermally efficient' we cannot properly specify a new low carbon heating system



c) Low carbon heating systems for domestic properties are still in their infancy, and the Council should not take risks of having to redo work. Much like solar panels we expect more efficient, more effective, and more economic solutions to emerge in the next five to ten years, and the benefits of regional collaboration will arise when a common programme is adopted.

6.3.3 Note, Lewes and Eastbourne Council and Arun District Council are already collaborating on research around decarbonisation. We are keen to develop a closer working relationship with Lewes and Eastbourne Council [and other local authorities] as it is long-term and collaborative planning that will enable Local Authorities to deliver a cost-effective zero carbon retrofit programme. It is envisaged that this collaboration will involve stock profiling, supply chain management and finding the best solutions for tenants to reduce costs and improve outcomes.

6.3.4 Tenants will see us doing more things to fewer properties, rather than the same thing to several properties, and we need to reassure them that we will address all properties over time.

#### **6.4 Fuel Poverty**

6.4.1 The Council will be actively tackling one of the drivers of fuel poverty, i.e., reducing the heating requirements through better insulation.

### **7. REASON FOR THE DECISION:**

#### **7.1 The Council's Net Zero Strategy**

7.1.1 Arun District Council has adopted a Net Zero target for 2030 with ambitious targets for carbon it produces directly, and that produced by suppliers of services and works.

7.1.2 Outside of this Strategy is the CO<sub>2</sub> used by our tenants. Domestic heating and lighting are a major contributor of CO<sub>2</sub> in the UK and targeted specifically by the Government with a 2050 Net Zero deadline. Tackling decarbonisation (and in the long term, fuel poverty) demands a thorough approach to the energy efficiency of Arun District Council's housing stock. By making each home more energy efficient, the Council will reduce the consumption of gas, oil, and electricity. By moving away from fossil fuels, the Council will reduce carbon emissions.

7.1.3 Registered providers such as the Council are facing the stick of legislation and the carrot of grants to decarbonise their housing stock. With careful planning, starting now, the Council can make dramatic progress over the next 25 years towards satisfying our obligations. By starting now, every project we undertake will be supporting the long-term goal of Net Zero for housing.

**8. BACKGROUND PAPERS:**

**Appendices**

**Appendix 1** - Social Housing Decarbonisation Strategy (Draft)

**Appendix 2** - Climate Emergency in Housing Terms; BEIS Presentation

**Appendix 3** - Example Retrofit Assessment for an ADC Property