



CABINET

Wednesday 6 May 2020

ACKNOWLEDGEMENT OF THE DECLARATION OF CLIMATE CHANGE AND IMPACT ON HOUSING

EXECUTIVE SUMMARY

1. On 22nd January 2020, at Full Council, a Notice of Motion (the Motion), received from Cllr Gooch, was included on the agenda for the meeting. The Motion was asking the Council to consider how it might seek to achieve the highest standards of energy efficiency and carbon neutrality in new residential developments in the district and in the Council's own housing stock. The exact wording of the Motion is set out, below.
2. Council Procedure Rule (CPR) 11.5 provides that Motions may be discussed immediately by the Council, with the consent of the Council shown by a majority vote. When a vote was taken to obtain the consent of the Council to discuss the Motion immediately, it was not carried. Therefore, in accordance with CPR 11.5, the Motion was automatically referred to Cabinet "for investigation and/or debate and further report back for subsequent debate to Council".
3. The issues raised by the Motion were complex and warranted further investigation, in order to be fully and meaningfully debated. This report provides a response to the Motion and set outs some essential background information on the topic. It sets out what the Council has achieved, to date, and what its approach has been to minimise the environmental impacts where it can, through new build, and within the existing housing stock.
4. Additionally, it includes a recommendation to Cabinet to consider appointing a specialist consultant, subject to budgets, to develop a schedule for retrofitting the Council's existing housing stock to a higher sustainable standard.

Is the report Open or Exempt?	Open
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Wards Affected:	All
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Cabinet Member:	CLlr Richard Kerry, Cabinet Member with responsibility for Housing
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Supporting Officer:	Cairistine Foster-Cannan Head of Housing
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1 INTRODUCTION

1.1 At a meeting of the Full Council on 22 January 2020, the Motion was included on the agenda. It proposed that:

1. all new council houses will be built carbon-neutral, for example by futureproofing with low carbon heating and the highest standards of energy efficiency.
2. all developers of new affordable housing should be encouraged to meet these same high standards.
3. all other developers of new housing should be encouraged to meet these same high standards.
4. all existing council stock, and properties purchased for such use, should be retrofitted to the highest standards as economically as possible.

1.2 At Full Council, consent to discuss the Motion that evening was not forthcoming. Instead, in accordance with CPR 11.5, the Motion was automatically referred to Cabinet for investigation and/or debate “and further report back for subsequent debate by the Council”. This report sets out the results of the investigations which have been carried out into what the Motion proposed. The results of these investigations will provide the detail and background to this complex subject, which would not otherwise have been available to Council, on 22.1.20. It will enable Members to carefully consider the Motion and the recommendations which are proposed, as a result.

1.3 This report considers:

- the environmental achievements to date, and the significant investments made in the Council’s housing stock to address energy efficiency and carbon reduction.
- the existing ambitions for sustainability, set out in our recently approved Housing Development Strategy.
- the Council’s encouragement of developers to provide high standards of energy efficiency in new developments in the district.
- how we can seek to build on our environmental achievements to date, by considering new options to reduce the carbon impact of housing.
- the financial implications of the above

2 ENVIRONMENTAL ACHIEVEMENTS TO DATE

2.1 The Council currently owns 4, 444 properties which are located predominantly in the north of the district. Within the housing stock, there is a turnover of approximately 300 properties (voids) each year. This is set against a housing waiting list for social housing

(Council and Registered Provider) of around 4,000 households, demonstrating that demand for homes significantly exceeds supply.

- 2.2 A proactive housebuilding programme has been adopted by the Council with 8 new properties being completed in 2018 and 54 in 2019. We have a target of building over 1,700 new homes over the life of the 30-year Housing Revenue Account (HRA) Business Plan (the Business Plan) with a projected budget of £227m to achieve this. The Business Plan acknowledges that this is a challenging aspiration. Projections for new build in the coming 2-3 years are likely to be lower than the target, due to the lack of small sites to develop and the limited capacity in the Council to dedicate to this activity, although it is acknowledged and anticipated that the recent recruitment of staff in the Housing team should assist in this regard, to some degree.
- 2.3 With regard to the Council's own housing stock, historically, investment has been made to improve the energy efficiency of properties for the benefit of our tenants, primarily to reduce fuel poverty. This long-term investment has taken place over the last 30 years, with the Council at the forefront of energy efficiency improvements in social housing in the region, as well as achieving the Decent Homes Standard some two years ahead of the Government requirement.
- 2.4 The energy efficiency programmes delivered previously across all the Council's stock included cavity wall insulation and external cladding, full double glazing, installation of combination and condensing boilers, enhanced loft insulation and installation of thermostatic radiator valves on every wet system radiator.
- 2.5 In recent years, the Council has adopted more advanced technology for carbon-reducing improvements to the housing stock which have been to the benefit of both the environment and our tenants. These include the installation of solar photovoltaic panels across a range of housing, air-source heat pumps in predominantly rural areas and a bio-fuel heating system at a retired living scheme. We continue to look to extend the opportunities to use these methods, and other new technologies, in our housing stock to benefit tenants and the environment.
- 2.6 The collective success of this historical investment in the Council's housing stock is evidenced with a significant Standard Assessment Procedure (SAP) energy rating average for our housing of 70.52 (band C). This compares very favourably to the national social housing average of 67 (band D) and a privately owned housing average of 61 (band D). The excellent achievement of this high SAP banding should be seen in the context of a generally ageing housing stock (excepting the recent new builds) which dates predominantly from the inter-war years to the mid-1980s, making the delivery of energy efficient homes a considerable success. The Council is continually seeking to improve the SAP energy rating, but this inevitably becomes increasingly more challenging and expensive following the improvements which have already been carried out or continue to be rolled out.
- 2.7 Current data on the relatively new air-source heat pumps installed in 252 homes suggests that we have achieved a significant 10-point increase on the SAP rating for these homes. This amounts to an estimated saving of 616 tonnes of CO₂ emissions, demonstrating the potential impact our changes can make to the environment. It is planned that this investment will continue to reduce the housing stock's overall carbon footprint.
- 2.8 The Council has also installed solar PV panels on 238 properties and has collected £634,000 to date through the Government's Renewable Heat Incentive (being the largest

allocation of all the English district councils) that is wholly re-invested by the Council in green housing initiatives in our housing stock.

3 HOUSING DEVELOPMENT STRATEGY AND SUSTAINABILITY

- 3.1 Cabinet recently approved the Housing Development Strategy 2020-2024 (the Strategy). Report ES 0240 which was presented to Cabinet on January 2020 refers. The Strategy very clearly sets out the Council's environmental ambitions for its housing stock, and Members are reminded of it, as it has addressed some of the issues raised by the Motion. Members are referred to the section of the Strategy about sustainability. The Strategy explicitly states that the Council will explore the use of greener building technologies and examines innovative design ideas which recognise the benefit of Passive House principles, and the value of carbon neutral design. Passive House is a European recognised design standard that relates to a building in which thermal comfort can be achieved solely by post-heating or post-cooling the fresh air flow required for a good indoor air quality, without the need for additional recirculation of air.
- 3.2 The Strategy goes on to state that "the challenge of climate change means measures to minimise carbon emissions, promote renewable energy and manage water effectively should be an integral part of design solutions. We seek to improve energy efficiency and meet current modern standards and provide new homes that meet these standards where it is feasible to do so within the constraints of site layout, orientation and financial viability".
- 3.3 The feasibility of adopting a carbon neutral approach to new build Council housing will need to be considered alongside other competing demands including:
- An ever-increasing demand for housing to meet the needs of the community
 - The financial viability of individual carbon-neutral schemes
 - The available funding within approved allocated budgets
 - The 'opportunity cost' of building homes (e.g. the impact on the environment balanced against the need for affordable and sustainable housing)
- 3.4 Cabinet will be presented with a Housing Enabling Strategy (HES) in May to compliment the Strategy in encouraging the delivery of more sustainable homes in the district. The HES outlines the measures taken by the Council to encourage sustainable development across the whole of the housing sector.
- 3.5 The HES also references the Council's current commitment to the Environmental Guidance Note written by the Council's own Environmental Task Group. This Guidance Note gives advice to developers on new build and retrofit development. This document will dovetail with the HES and the Strategy to ensure that sustainability issues are given proper consideration.

4 WHAT HAS BEEN/CAN BE DONE TO ENCOURAGE PRIVATE DEVELOPERS

- 4.1 The regulatory requirements for the energy efficiency of new houses are stipulated within Building Regulations, the contents of which are not within the control of the Council. However, Local Planning Authorities can set energy performance standards for new housing that are higher than the building regulations (up to approximately 20% above current Building Regulations). Local requirements must also be based on robust evidence and consider the impact on the viability of development.
- 4.2 The Government consulted recently on increasing energy efficiency for new homes in 2020 and requiring new homes to be 'future-proofed' with low carbon heating and energy efficiency by 2025. The outcome of this consultation is not yet known and would

apply to both the Affordable and Market housing sectors. The Council's Local Development Plans, for development control, do not differentiate between either for sustainable construction.

- 4.3 Both of the Council's Local Development Plans contain policies to support sustainable development and contribute towards the mitigation of climate change and reducing energy use. Both contain sections on climate change which set out a range of possible options including examples of Sustainable Construction and increased water efficiency.
- 4.4 The Council will shortly consider an Environmental Guidance Note which is aimed at encouraging developers to raise standards and recommends a range of possible environmental measures that could be used in developments. The document is intended to provide a clear, consistent message from the Council on environmental issues relating to development and is acknowledged in the draft HES.

5 NEW OPTIONS TO FURTHER REDUCE OUR CARBON IMPACT

5.1 Average new build costs in relation to Passive House - The Council has built or acquired a total of 80 properties since 2015/16. The average cost to purchase these properties (including professional fees, development fees, associated revenue costs, as well as the actual construction cost where applicable) was £120,559. A recent meeting with Norwich City Council on their exemplar Passive House development, 'Goldsmith Street', showed that the average cost of build per property was approximately £164,800. (£44,241 more than our current average property cost). The site, consisting of 105 properties, was HRA-owned land and, therefore, did not include any significant land purchase costs. If this Council needed to purchase a site of this size to bring forward a development, it would add a significant sum to the overall cost of the scheme, which would substantially push up the average cost per property and increase the payback period.

5.2 When the Norwich development was built, it had an average build cost of £2,200 per m². The estimate today is £2,500 per m². This would push the average build cost up to £187,300 per unit (without land costs) in an equivalent large city development. In a smaller scale development in this area, it could amount to over £200,000 per property (an increase of £80,000 per property on the average new build in East Suffolk, or 66%). Using this as an example, we could reasonably assume, for the same amount of money, we could deliver 30 new Passive Houses compared to 50 standard properties.

- 5.3 *Extent of planning and project managing* - On average with a standard development, it takes approximately 2 - 2.5 years to build out a site from initial identification to completion. However, the Goldsmith Street development took 11 years to reach completion. It is recognised that these types of developments, because of their technical specifications, cannot be built-out quickly. The adoption of a strictly Passive House or Carbon Neutral approach to new homes will require a change in focus, which will impact, inevitably, on the projected delivery of housing, in terms of numbers and time.
- *Differences between a Passive House and a carbon neutral property* – It should be noted that there is a difference between Passive House properties and carbon neutral properties. Broadly speaking, a Passive House would result in reduced energy costs for tenants. This is because the construction principles are set to achieve very high levels of insulation, with extremely high performance windows with insulated frames, airtight building fabric, "thermal bridge free" construction, and a mechanical ventilation system with highly efficient heat recovery. Passive House is an accreditation standard, and properties can include 'passive

principles' without meeting the high Passive House standard for full certification. There is a cost associated with obtaining the certification which again will impact on the overall cost. A carbon neutral property uses fabric energy efficiency standards based on space heating and cooling, energy efficient heating and cooling technologies, e.g. solar panels, and "allowable offsite solutions" — a form of carbon offsetting. The main distinction is that costs for tenants in carbon neutral properties (but not Passive House properties) may be greater than current costs due in part to the cost of gas, compared to electricity, and in part due to the occupier's understanding how to use the technology correctly.

- *Council stock differences* - When considering the retrofitting of the current housing stock, unfortunately, there are some practical restrictions which mean that not all properties will be able to benefit:
 - Solar panels on roofing – Not all roofing on the Council's housing stock receives enough sunlight or is of the right size/shape/framework. Consideration needs to be given, for example, to the government initiatives available, the implications of Right to Buy on the costs of the panels which have been bought, and the need for re-roofing works etc.
 - Conservation areas and listed buildings – may not allow thermal improvements such as PVC windows or doors or solar panels.
 - Air-Source heat pumps – may not be able to be installed in all of the stock due to physical limitations.
- *Period of Retro-fitting* - It is anticipated that retro-fitting void (empty) stock will take a considerable period of time and significantly impact on the turnover of stock (and our ability to house people), as well as the impact on lost rental income. Additionally, the costs of the improvements may be such that the future viability of the property for the Council is questionable. More details on retrofitting on the housing stock will become available following feedback from a consultant (detailed below 6.2)

6 PATHWAYS TO CARBON NEUTRALITY

6.1 Officers have already initiated a variety of investigations to move the Council closer to a far more sustainable position, mindful of the commitments in the Strategy. Following these investigations, possible options will be outlined to Cabinet with associated cost and programme implications for consideration.

6.2 A specialist Passive House Designer with experience of retro-fit has been consulted recently by the Housing Team to establish the viability of undertaking retro-fit work across our housing stock to EnerPhit standards (a retrofit standard supported by the Passive House Institute). The advice is that *"there are three obvious paths to Carbon Neutral:*

1. *Build new properties and dispose of the Council's worst performing homes.*
2. *Partially renovate many homes per year and ensure that each renovation is complimentary to the last*
3. *Fully renovate 150+ homes per year to an agreed specification that will achieve the goals of "carbon neutral".*

"With so many house types of differing ages, there may be a requirement to incorporate a blend of all three paths. In terms of moving forward, we would suggest that our strategy would encompass the following:

1. *Review properties by house type / age / condition, ascertaining which "path" (options) should apply to each unit / type.*

2. *Cost those improvement options to determine which should be attempted, and in which order, to each unit / type.*
3. *Highlight accreditations / schemes achievable – i.e.*
 - a. *New Build: Passivhaus or AECB Gold Standard or Future Homes Standard.*
 - b. *Renovation: EnerPhit or Energiesprong or PAS2035 / PAS2030.*
4. *Select two / three house types and attempt to cost the differing renovation standards, highlighting the likely:*
 - a. *performance; and,*
 - b. *resultant householder bills; and,*
 - c. *reduced maintenance, as appropriate.*
5. *Stratigise, in conjunction with yourselves, a realistic programme linked to capital expenditure for each year, excluding inflation etc.”*

6.3 In light of the advice from the consultant, Officers will consider the costs involved with the programme, tenant disruption, and the overall value for money of any proposed changes. Officers will utilise the expertise of the consultant to formulate a long-term programme for our current housing stock.

6.4 The development of a ‘green standard’ specification for new build is being researched by the Housing Team Officers with the aspiration of migrating our standard specification to the new green specification over the next few years. A draft version will be available in the early summer. To assist with Members understanding, it is intended that there will be 3 specifications for comparison, together with the associated costs of each (both build and running). This should provide the detail necessary for Members to make an informed decision about the specification which will be proposed, which are:

- ‘top of the range’ - adopted by high end house builders with less financial constraints and desire to be as environmentally friendly as possible.
- ‘standard house builder’ - predominantly profit driven with minimal regard for sustainable design or construction.
- ‘affordable sustainability’ - this is what we will suggest for adoption, based on a balanced view of cost, impact and return.

It is proposed that the new specification would be reviewed and adopted by the Council, following a trial project to assess costs, construction time, suitability and the cost effectiveness to tenants.

6.5 We are also investigating alternative construction methods, such as modular housing. This claims to deliver carbon neutral housing, as well as flexible and expedited construction. A recent visit by Members to a building site that was utilising factory-built modular housing (<https://www.projectetopia.com/>) has brought back useful information on this form of construction. It would be envisaged that the ‘green standard’ specification, discussed above, would be used to ensure that this form of housing met our standards and would be competitive during a procurement exercise.

7 HOW DOES THIS RELATE TO THE EAST SUFFOLK STRATEGIC PLAN?

7.1 The discussion of the development of a carbon neutral approach to housing sits within one of the five key themes, Caring for our Environment

8 FINANCIAL AND GOVERNANCE IMPLICATIONS

8.1 The impact of adopting a carbon neutral position for new housing and retrofitting of the existing Council housing stock is recognised and considered to be important in light of the

Council's declaration of a climate emergency. However, there are significant cost associated with the adoption of the approach advocated in the Motion.

The Business Plan identifies, within the 30-year capital programme funding on major works on existing stock of £83.8m, a redevelopment budget/plan of £55.9m, and new developments of £227.3m. The new homes programme is funded mainly from The Council's reserves and contributions. Without increasing the Council's borrowing level, the budgets identified above are agreed until 2048. This funding has been allocated already to maintaining our existing stock and deliver our target of 50 new homes a year. The funding of additional standards, such as achieving a carbon neutral housing stock, may result in a reduction in the proposed development programme, if additional borrowing is to be avoided.

- 8.2 Currently, the HRA has borrowing of £71.2m with £10.76m to be repaid in 2020/21, reducing the debt to £60.4m. Though there is no longer a borrowing cap, borrowing needs to remain affordable. The previous cap provided a good guide to continue to fund the day to day running costs while servicing the debt. On this basis, using the old borrowing cap of £87.2m as a guide, from 2020/21, the HRA could look to borrow an additional £26m. This would cost the HRA £10.2m in interest over the 30-year life of the borrowing, together with paying the principle debt.
- 8.3 Additional borrowing for retrofitting or improving the current housing stock further would not generate any additional income to offset against the interest paid, putting the HRA in a worse financial position, and reducing new build opportunities in the long term.
- 8.4 The HRA supports investment in initiatives to reduce carbon emissions, and also needs to ensure that expenditure is affordable and manageable over the 30-year HRA business model.

9 REASON FOR RECOMMENDATION

- 9.1 This report responds to the propositions in the Motion that
 - 1. all new council houses will be built carbon-neutral, for example by futureproofing with low carbon heating and the highest standards of energy efficiency.
 - 2. all developers of new affordable housing should be encouraged to meet these same high standards.
 - 3. all other developers of new housing should be encouraged to meet these same high standards.
 - 4. all existing council stock, and properties purchased for such use, should be retrofitted to the highest standards as economically as possible.
- 9.2 It investigates the propositions so that Cabinet may debate them and further report back for subsequent debate to the Council, in accordance with CPR 11.5.
- 9.3 Therefore, the report sets out the considerable investment, and achievements, to date, to reduce the carbon impact of the Council's housing stock. It sets out how the Council's recently adopted Housing Development Strategy aims to promote sustainability, and to meet the Council's environmental ambitions. It explains what we have done to encourage private developers to do likewise. Finally, it sets out the Council's realistic intentions, going forward, to further our environmental aims, to meet the challenges of

our climate change agenda, and crucially, to find a pathway to carbon neutrality for our housing stock.

- 9.4 To meet this latter ambition, the report recommends, additionally, that a consultant be appointed to look at developing a future programme of work for the retrofitting of the existing housing stock.

RECOMMENDATIONS

1. That Cabinet considers Cllr Gooch's motion of 22.1.20 which is referred to in the report, above, together with this investigatory report, what the Council has done to reduce the carbon impact of its housing stock and what it intends to do, in future, to build on its successes to date.
2. That this report, together with comments from Cabinet, form the basis of a further report back for subsequent debate by Council, in accordance with Council Procedure Rule 11.5.
3. That notwithstanding any subsequent debate in Council, Cabinet continues the work to limit the carbon impact of its housing stock by giving delegated authority to the Head of Housing, acting in consultation with Member for Housing, to consider appointing a specialist consultant, subject to budgets, to develop a schedule that will provide a realistic pathway to carbon neutrality for the Council's existing housing stock, subject to compliance with the Council's Contract Procedure Rules.