

## Report:

# Capital grant required to meet social housing need in England 2021 – 2031

21 June 2019

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### Summary of key points:

- To meet housing need in England over the decade from 2021, it will be necessary to build 145,000 social homes each year, including 90,000 for social rent<sup>1</sup>.
- To meet social housing need will require an average of £14.6bn in capital grant from Government each year for ten years (£12.8bn per year in today's prices), to unlock a total housebuilding programme worth £46.2bn per year on average. For the grant-funded homes, this grant would cover 44% of total scheme costs.
- Predicted build cost inflation and the limits of the cross subsidy model both necessitate higher grant levels than have been available in recent years. In addition, the size of the proposed programme, the high proportion of social rent homes, and the geography of need are all key cost drivers.
- Building this number of homes per year for 10 years could significantly reduce homelessness and rapidly reduce poverty amongst families currently living in the private rented sector. It would deliver substantial economic benefits across the country, and unlock productivity improvements across the homebuilding sector. Given the pressures facing the housing market, it is also the only route to reaching the Government's target of building 300,000 homes per year.
- Investment on this scale would represent a return to previous high points in social housing spend. In today's prices, the investment called for here is only slightly above the £11.35bn spent in 1953<sup>2</sup>, which delivered a record output of more than 200,000 council homes. Until 2008 the public grant available for social housing as a proportion of total scheme costs had remained around or above 50% for several decades.

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<sup>1</sup> Bramley, G. (2018) Housing supply requirements across Great Britain: for low-income households and homeless people <https://www.crisis.org.uk/ending-homelessness/homelessness-knowledge-hub/housing-models-and-access/housing-supply-requirements-across-great-britain-2018/>

<sup>2</sup> Calculated by the National Housing Federation from figures in Historical Statistics of Housing in Britain – details available on request.

## 1. Summary

### 1.1 Housing need

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To meet housing need in England over the next decade it will be necessary to build 145,000 social and affordable homes each year, including 90,000 for social rent.<sup>3</sup> In contrast, 47,000 affordable homes were completed in 2017/18, 43,000 of which were newly built, and less than 6000 (or 12%) for social rent.<sup>4</sup>

### 1.2 The model

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This report estimates the subsidy required for housing associations and local authorities to deliver a programme of this scale and over this period. It does so by modelling the costs of such a programme at local level across England, and the funding which can be secured against future rental income and shared ownership sales.

The subsequent 'subsidy gap' is partially met by cross-subsidy from the sale of market homes, by in-kind contributions from private developments (s106 contributions), and by assuming some discounting of land values. The remainder would need to be made available in the form of capital grant from the Government.

We combine the outputs from two models. One developed separately for London by the GLA and G15<sup>5</sup>, and a similar model developed by the National Housing Federation for the rest of England which is outlined in detail below. Both have been developed with the help of advisory groups of social housing professionals. They model a ten year programme starting in April 2021, to anticipate the next spending review settlement and beyond.

### 1.3 Cost drivers

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The analysis shows the various factors that drive the size of the grant requirement.

Irrespective of the size or composition of the programme, the model shows that build costs rise faster than income between now and the early years of the programme. These increased costs can only be met from capital grant, which would therefore need to increase to deliver even the same output as at present.

In addition, the nature of housing need in future years will drive higher grant rates:

- The modelled programme delivers a much higher proportion of social rent homes than at present (59% of affordable output, compared to 12% at present). This reflects affordability pressure and need across the country. In most areas a social rent home needs more capital subsidy than an affordable rent or shared ownership home, so the overall grant requirement increases across the programme.

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<sup>3</sup> Bramley, G. (2018) Housing supply requirements across Great Britain: for low-income households and homeless people <https://www.crisis.org.uk/ending-homelessness/homelessness-knowledge-hub/housing-models-and-access/housing-supply-requirements-across-great-britain-2018/>

<sup>4</sup> MHCLG Live Tables 1000: additional affordable homes provided by type of scheme, England (2017/18).

<sup>5</sup> Full details of this model can be found in the GLA's technical report available at [www.london.gov.uk/affordable-housing-funding](http://www.london.gov.uk/affordable-housing-funding)

- The housing need figures which underpin the analysis, locate new affordable homes in the areas where they are currently needed. Affordable homes, and particularly social rent homes, are disproportionately required in the areas of highest affordability pressure, where land and build costs are more expensive. Rental income and sales receipts do not rise in proportion with costs in more expensive areas. Therefore, increased capital grant is required.
- Linked to this, current low grant rates effectively rule out building in the more expensive areas of some parts of the country. This constraint is removed in the modelled programme, so homes will be built where they are needed most.
- The total programme is almost three times larger than current output.
- As the total number of homes increases, cross subsidy from market sale does not increase in proportion. With cross subsidy spread out more thinly, the grant required per home increases.

#### **1.4 Results for the Rest of England**

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For the rest of England, not including London, an average of £9.8bn per year is required to deliver a programme of 80,000 grant-funded homes per year. A further 25,000 homes are assumed to be delivered through s106 agreements.

For the rest of England, not including London, the average grant per home over the 10 year programme is £162,000 for a social rent home, £74,000 for an affordable rent home, and £29,000 for a shared ownership home.

It is important to note that these figures are heavily influenced by where the homes are needed. The social rented homes are disproportionately needed in the areas of higher affordability pressure where costs are highest. Therefore the difference in average grant required between each tenure reflects the differences in where homes are needed, as well as the differences in rental income between tenures.

#### **1.5 Results for England including London**

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Combining the analyses for London and the Rest of England gives an average capital grant requirement over the ten years of the programme of £14.6bn per year, to deliver a programme of 137,000 affordable homes per year. This begins at £12.4bn in 2021/22, and rises to £16.1bn in year 2030/31. In today's prices (2019/20) this is an average of £12.8bn per year. This would require an average grant rate per grant funded home of 44% of total scheme costs.

Across all of England, including London, the average grant per home over the 10 year programme is £183,000 for a social rent home, £99,000 for an affordable rent home, and £32,000 for a shared ownership home. As is the case for the Rest of England, these figures are heavily influenced by the location of the homes which are needed.

Although unprecedented in recent times, investment on this scale would merely be a return to previous high points in affordable housing spend. Until 2008 the grant available as a proportion of total scheme costs had remained around or above 50% for several decades. In today's prices, the

investment called for here is only slightly above the £11.35bn spent in 1953<sup>6</sup>, which delivered a record output of more than 200,000 council homes.

## 1.6 Economic benefits

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Investment in housebuilding on this scale and for this length of time would ensure housing supply is more resilient to downturn in the private market, providing construction firms and particularly SMEs with a guaranteed long term pipeline of delivery.

It would also stimulate investment in new technology and productivity improvements. The cyclical nature of the housing market and slow rate at which new market homes are absorbed onto the market has meant there is little incentive for the mainstream construction industry to invest in new technology or expand capacity, because they are unable to take a long term view. Productivity in the construction sector is 20 percentage points below the average for the whole economy, compared to the manufacturing sector which is 10% above the whole economy average.<sup>7</sup>

Certainty of output on the scale described here, backed by considerable public investment, should transform not just affordable housing delivery but the wider homebuilding construction industry. Sustainable and well paid apprenticeships, training and high skilled employment could be supported on a much larger scale than at present.

## 1.7 Delivery

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Since new homes of every tenure are required in every area of England, funding should be made available across the country. In particular, 8.5% of the social rented homes required are in local authority areas which are currently ineligible for social rent grant funding.<sup>8</sup> And housing associations report that they have been prevented from delivering much-needed social rent homes in developments just across the local authority boundary from an area eligible for grant for social rent.

Outside London, Homes England should have the discretion and flexibility to spend grant funding in a way that is responsive to local needs and complements other government investment in places, including on infrastructure, land assembly, and wider economic and social regeneration. Funding should remain available to housing associations of all sizes.

## 1.8 Capacity

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An increase in output of the scale described in this report would require housing associations and local authorities to substantially increase their capacity to develop. The most ambitious organisations

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<sup>6</sup> Calculated by the National Housing Federation from figures in Historical Statistics of Housing in Britain – details available on request.

<sup>7</sup> ONS (2018), Construction statistics: Number 19, 2018 edition, <https://www.ons.gov.uk/businessindustryandtrade/constructionindustry/articles/constructionstatistics/number192018edition#comparisons-and-contributions-to-the-economy>

<sup>8</sup> The June 2018 Addendum to the The Shared Ownership and Affordable Homes Programme 2016 to 2021 Prospectus outlines the restrictions on social rent funding [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/720467/SOAHP\\_Adendum\\_-\\_Social\\_Rent\\_-\\_Final.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/720467/SOAHP_Adendum_-_Social_Rent_-_Final.pdf)

are already showing how this can be done, via innovative partnerships, new large scale developments and investment in new technology.

The capacity challenge takes three forms:

- financial capacity to secure private finance
- availability of land and ability to buy it
- capacity and skills in the construction sector.

Long term certainty over the availability of substantial grant funding is essential to overcoming each of these. It would allow housing associations and local authorities to:

- develop more ambitious long term business plans with greater certainty over income
- buy larger sites, build up a longer term pipeline of land opportunities
- invest in the skills and supply chains necessary to deliver over the long term, including in land buying, development management, MMC and SME businesses.

Homes England and GLA strategic partnerships announced in recent years have begun to demonstrate the benefits of longer term certainty, with examples of housing associations being able to invest in their land pipeline and development teams, unlocking additional delivery.

A Government commitment on the scale described here would support and accelerate this progress.

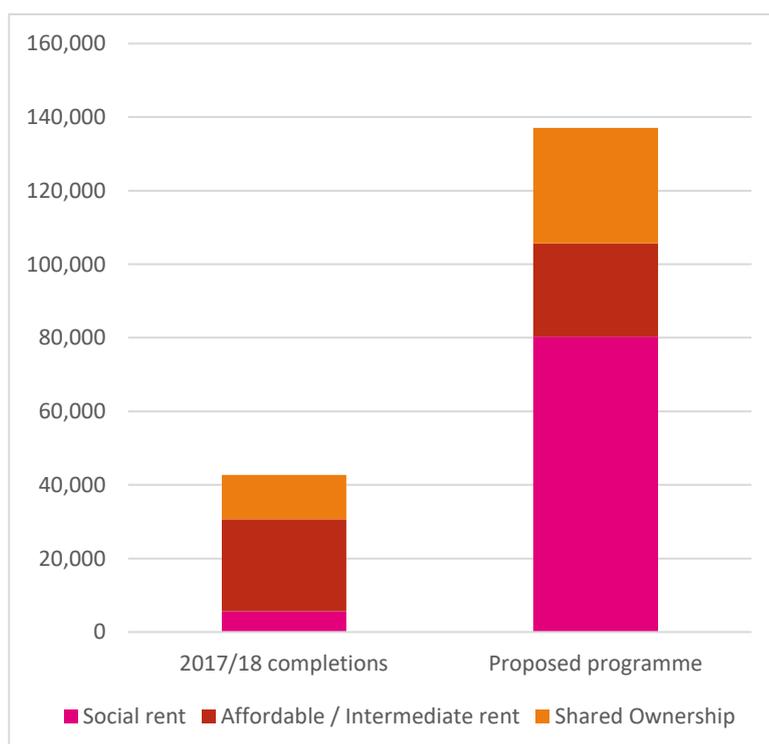
## 2. Introduction

### 2.1 Housing need

In Autumn 2018, the National Housing Federation and Crisis worked with Heriot-Watt University to publish a detailed analysis of the number of new homes needed per year to meet housing need across England over the next 15 years.<sup>9</sup> The research modelled the impact on a number of indicators of different levels of housing supply. The numbers arrived at are modelled to achieve moderate improvements in affordability to buy, substantial reductions in after housing costs poverty, financial difficulties and backlog housing need, very large reductions in core homelessness and the annual net new need flow of households, while doubling the chances of rehousing for households in need.

It estimated a need for 145,000 new affordable homes each year across England, of which 90,000 should be for social rent. In comparison, in 2017/18 there were 47,000 completions of affordable homes in England, 43,000 of which were new build homes<sup>10</sup>. Therefore, a substantial increase in output will be required in future years to meet assessed affordable housing need. And this output will need to shift strongly towards building homes for social rent.

Fig 1<sup>11</sup>: Affordable housing delivery in 2017/18<sup>12</sup> compared to proposed programme



<sup>9</sup> Bramley, G. (2018) Housing supply requirements across Great Britain: for low-income households and homeless people <https://www.crisis.org.uk/ending-homelessness/homelessness-knowledge-hub/housing-models-and-access/housing-supply-requirements-across-great-britain-2018/>

<sup>10</sup> MHCLG Live Tables 1000: additional affordable homes provided by type of scheme, England (2017/18).

<sup>11</sup> The total number of homes delivered under the 'proposed programme' does not match assessed housing need of 145,000 homes per year. This is because the model for London uses figures from the London plan, rather than the research cited above, bringing down the total slightly.

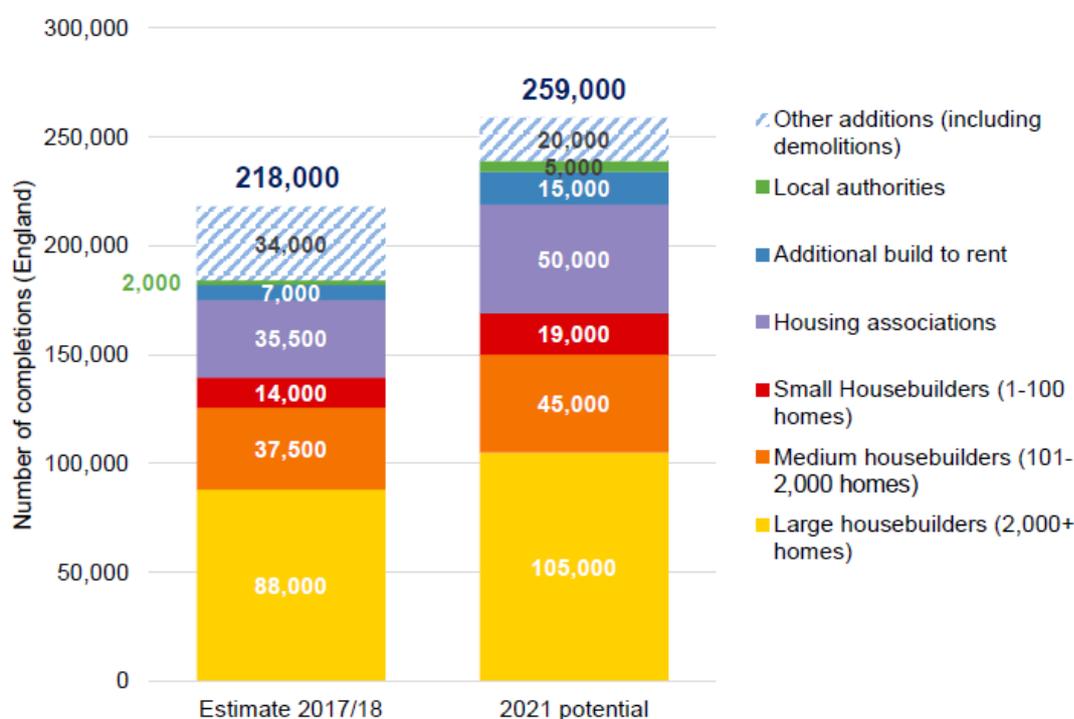
<sup>12</sup> 2017/18 figures taken from MHCLG Live Table 1000C NB

## 2.2 Affordable housing and Government’s target

Research undertaken by Savills on behalf of the G15, National Housing Federation and Homes for the North shows that over the coming decade, investment in affordable housing is likely to deliver close to 100% additionality, as long as it does not crowd out land and construction sector capacity.<sup>13</sup>

It also shows that the Government will not reach its target of building 300,000 new homes each year without a step change in delivery. It shows that under the current trajectory, and even under optimistic assumptions about private sector output, downside pressures including the phasing out of Help to Buy and a slowing market mean overall supply is unlikely to rise beyond 260,000 homes per year by 2021.

Fig 2: Estimated housing completions by 2021, by tenure. Taken from Savills (2019) *Additionality of Affordable Housing*.



Source: Savills

Sir Oliver Letwin’s Independent Review of Build Out Rates<sup>14</sup> shows that diversifying the tenure mix and increasing affordable housing delivery is vital to increasing build out rates on large sites.

All these point to a necessary role for additional affordable housing to help the Government reach its 300,000 homes per year target.

<sup>13</sup> Savills (2019) *Additionality of Affordable Housing* <http://s3-eu-west-1.amazonaws.com/pub.housing.org.uk/Additionality-of-Affordable-Housing-Published-April-2019.pdf>

<sup>14</sup> Letwin (2019), *Independent Review of Build Out: Final Report* <https://www.gov.uk/government/publications/independent-review-of-build-out-final-report>

## 2.3 Scope

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This report details the likely costs of a programme to meet affordable housing need over the ten years from 2021/22 – 2030/31, and the affordable housing funding required to enable housing associations, local authorities and others to deliver it.

To do this, it combines the outputs of two similar funding models.

For London, a model was developed by the Greater London Authority (GLA) and the G15 group of London's largest housing associations. Their separate technical report outlines their methodology in detail and is available at [www.london.gov.uk/affordable-housing-funding](http://www.london.gov.uk/affordable-housing-funding).

For the Rest of England, the National Housing Federation worked with the same consultancy, Beacon Partnership, to develop a similar model. Chapter 2 of this report describes in detail the methodology and assumptions used in this Rest of England model.

Chapter 3 outlines the results of this Rest of England model, and assesses the impact of altering some of the key assumptions and policy variables underpinning it. Chapter 4 brings together the results of the models for London and the Rest of England. Chapter 5 outlines the economic and social benefits of such a programme, and considers how it should be delivered.

### 3. Rest of England Model

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This model was developed in order to estimate the affordable housing grant required to deliver affordable housing need across England (not including London) for the 10 years from 2021/22.<sup>15</sup>

It was developed by the National Housing Federation and a consultant from Beacon Partnership LLP. They were supported by an advisory group of housing association finance and development professionals:

- John Hudson, Chief Financial Officer, Home Group
- Harriet Danby Platt, Strategic Relationship Manager, Home Group
- Jonathan Layzell, Executive Director for Development, Stonewater
- Steve Moseley, Group Director, Governance, Strategy and Communications, L&Q
- Julie Gray, Head of Development, Riverside
- Michael Farr, Executive Director of Assets and Growth, Bernicia
- Russell Baldwinson, Executive Director of Development, Livewest
- Phil Elvy, Executive Director of Finance, Great Places
- Sarah Ireland, Executive Director of Development and Growth, Accent Group
- Charles Glover-Short, Head of Public Affairs and Corporate Research, Optivo
- Alistair Smyth, Head of External Affairs, the Guinness Partnership

#### 3.1 Model design and parameters

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The model compares the costs of a programme to build affordable homes with the funding used to pay for it. This funding includes an element of subsidy, because the revenue from affordable housing is sub-market. This subsidy can come from several sources.

<b>Costs</b>	<b>Funding</b>
Land	Borrowing against future rental income <sup>16</sup>
Build costs	Income from shared ownership first tranche sales
On costs	<u>Subsidy</u>
	- subsidy from the profit made on market sale
	- implied s106 subsidy
	- implied subsidy from free / discounted land
	- capital grant

The model calculates the cost of providing the required mix of affordable housing, and the capitalised value of the income from initial sales and ongoing rental streams and staircasing receipts. Once the costs and revenues have been calculated, the difference between them is the subsidy required to break even.

This was modelled for each tenure (social rent, affordable rent, and shared ownership) for each of the eight regions of England (excluding London) for each of the ten years of the programme, so that 80

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<sup>15</sup> This date was chosen because March 2021 marks the end of the current Shared Ownership Affordable Homes Programme (SOAHP)

<sup>16</sup> We assume that housing associations and local authorities are able to borrow 100% of the present value of the future rental income. This might not always be possible as some of the future revenue may be required as debt security or interest cover. In which case more capital grant would be required. Future rental income also includes future Shared Ownership staircasing receipts.

separate models were run in total. They were then consolidated into an annual output and finally a programme-level summary.

The data used in each regional model is weighted wherever possible by the number and types of homes required in each local authority area. Therefore, although the modelling itself is done at regional level and presented nationally, it reflects considerable granularity in costs and incomes at local level.

### **Subsidy**

The model above gives a total subsidy requirement. We then deduct three forms of subsidy to give a final grant requirement<sup>17</sup>:

1. 'Market sale cross subsidy' is when a housing association or local authority builds homes for sale and uses the 'profit' from this sale (i.e. the difference between the sale price and the cost of building the home) to subsidise delivery of affordable housing. As not-for-profit organisations, any 'profit' a housing association makes from market sale is reinvested in new affordable homes. This is brought into the model by spreading an assumed annual 'market sale cross-subsidy' figure across every grant-funded social and affordable rent home in the programme.
2. 'Implied s106 cross subsidy' is when local planning authorities require a certain proportion of new homes on a development to be delivered as affordable housing. This obligation is factored into the price paid for the land upfront, and the subsidy is realised as a discount on the homes compared to market value when they are sold to housing associations or local authorities. Our model assumes that the price paid for the s106 home is equal to the present value of future rental and shared ownership sales income. As we have assumed (see footnote 13) that housing associations can borrow 100% of this value, no further subsidy is required on the part of the affordable housing provider. The effect of adding s106 units to the model is therefore simply to remove the grant requirement for those units.
3. Land subsidy: The core model assumes that all land is acquired at market prices. But in some instances housing associations will acquire land for free or at a discount, usually from the public sector, and future policy interventions could seek to bring down the price of land. From an overall economic perspective land acquired for free or at a discount can be regarded as a form of subsidy. The final model therefore allows for a certain proportion of the land costs to be treated as a subsidy and subtracted from the grant requirement.

## **3.2 Data and assumptions**

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The model comprises a large number of inputs and assumptions. The most important of these are explained below. Wherever possible, these have been drawn from official or independent data sources. Where these are not available, we relied on typical appraisal assumptions used by members of our advisory group.

### **Costs**

#### **Land costs**

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<sup>17</sup> The GLA's analysis for London includes market sale and s106 subsidy within the main model itself. This was not possible outside of London because of the lack of data and variation in local planning requirements across the country.

Land is not the largest cost, but it is the most variable, accounting for the majority of the difference in costs between homes, depending primarily on location. Given the geographic spread of the proposed programme, it was important that land costs used in the model took into account this significant variation across the country.

Land costs were taken from MHCLG's Land Value Estimates for Policy Appraisal dated October 2017<sup>18</sup>. The price per hectare was divided by 3,150m<sup>2</sup> to reach a land cost per m<sup>2</sup> for each local authority. This is the method used by MHCLG to obtain land costs per hectare. The regional land cost is calculated by weighting the land cost based on the percentage of units required in each local authority, and therefore reflects the location of the affordable housing at local authority level within each region. The core model assumes that all the land is acquired at market value. A 20% discount is then applied as a form of implied subsidy.

There is no official forecast of land cost inflation. It will vary considerably by location but without robust data this could not be modelled. We therefore estimated a national figure. Using a residual land valuation method, the price paid for land is the residual after costs and profit margins are subtracted from the total sales income accruing to a new development. Since build costs are forecast to increase more than house prices over the next 3 years, the model assumes a cautious early profile for land cost inflation of zero until 2021, followed by CPI+1% (to match sales inflation) from then on.

### **Works costs**

Works costs comprise the majority of the cost of building new affordable homes. Works cost data were taken from Homes England, which provides average works cost per m<sup>2</sup> in each region (bar London) for the Shared Ownership and Affordable Homes Programme (SOAHP) for 2016-2021.<sup>19</sup> This was felt to be the most reliable indicator of actual works costs for affordable home building and was assumed to represent typical costs in 2018. The works costs do not vary by local authority.

Works cost inflation is taken from BCIS All in Tender Price Inflation forecast<sup>20</sup> until it ends in 2023. BCIS forecasts high growth in costs, particularly from 2021 onwards, as they factor in the potential for skills shortages, higher materials prices, and more complex sites. From 2023 the model assumes inflation of CPI+1% (3%) per year until the end of the programme, reflecting the fact that the drivers of works cost inflation are likely to continue having some impact in the medium term.

### **On costs**

On costs comprise the additional component beyond land and works costs which the provider will need to meet as part of a scheme. These could include professional fees, sales fees, landscaping and demolition costs, fit-out costs, contingency and interest. In viability appraisals they are usually calculated as a percentage of land and works costs, and this model adopts the same approach.

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<sup>18</sup>

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/710539/Land\\_Value\\_s\\_2017.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/710539/Land_Value_s_2017.pdf)

<sup>19</sup>

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/737824/Summary\\_Report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/737824/Summary_Report.pdf)

<sup>20</sup> BCIS all in TPI, accessed December 2018 <https://www.rics.org/uk/products/data-products/insights/bcis-forecasts-for-the-construction-sector/>

The assumptions used here were derived from those used by members of the advisory group. They are set at 13.4% of works and land costs for rent (social and affordable) and 17% of works and land costs for shared ownership. On costs for shared ownership are higher because of the costs of selling the homes, and the additional fittings and fixtures usually provided in shared ownership homes.

Since on costs are calculated as a percentage of works and land costs, there is no assumption for on costs inflation.

## **Funding**

### **Present value of future rental income**

Providers secure the funding to build new affordable homes by borrowing against future rental income, and the sales income from shared ownership homes.

### **Social rent**

Social rent (also called target rent) is calculated with respect to local earnings and house prices in 1999, and then uprated for each year since. This was calculated at local authority level, using the local earnings table, and average house prices (see below) indexed back to 1999 using the Nationwide regional index. This was repeated for all bed sizes.

Social rents are assumed to decrease by 1% per year until 2020 in line with the Welfare Reform and Work Act 2016. They then increase by CPI+1% as per the five year rent settlement until 2025. They are then assumed to continue rising by CPI+1%.

### **Affordable rent**

Affordable Rents were taken from publicly available Homes England SDR data. The data used is the mean average Affordable Rent in 2017/18 for each bed-size for all existing stock. The data is applied at regional level, i.e. all units in each region have the same affordable rent for each bed size. Inflation is applied in the same way as for social rent.

### **House prices**

House prices are used to determine the value of Shared Ownership first tranche sales and staircasing receipts, and in the calculation of social rent (as above). House Price Data is from the Office for National Statistics (ONS). The model uses the average of two ONS publications, in order to overcome issues with both datasets.

The first is Table 10 of their Price per Area data. This data provides sales prices by m<sup>2</sup> in each local authority for all housing transactions. As the data is based on all sales including for existing homes, the figures in this publication were uplifted by 17% to reflect a plausible new build premium<sup>21</sup>. However even with this uplift, values were considerably lower in places than actual new build prices when cross-checked with live market data.

The second ONS publication provided average new build prices in each local authority, but this data is not specific to unit types (ie it does not distinguish between a 1-bed flat and a 5-bed house) and the

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<sup>21</sup> Countrywide (2017), What Price is a New Home: Understanding the New Build Premium. Available at <https://www.gpees.co.uk/media/433016/new-build-premium-gascoigne-pees.pdf>

small sample size led to significant fluctuations between quarters and data gaps in some areas. To overcome this, the average of the last year was used to determine house prices in each authority, and it was converted to a m<sup>2</sup> price by assuming an average unit size of 90m<sup>2</sup>, which is the figure used by MHCLG in their land valuation policy paper.<sup>22</sup>

House price inflation is based on Savills' forecast data between 2019 and 2023, at regional level.<sup>23</sup> Longer term house price inflation is extremely dependent on wider macroeconomic factors. We have assumed that it continues to rise faster than inflation, but given current pressure on affordability in many parts of the country we have only assumed a rise of CPI+1% after 2023.

### **First tranche sales and staircasing**

A shared owner buys a portion of their house at the outset (the 'first tranche' sale) and pays rent on the remainder of the equity. They are then able to buy further tranches of equity in future years in a process known as 'staircasing'. There is little data on shared ownership sales or staircasing rates so assumptions are based on data submitted by members of our advisory group and agreed to be reflective of practice across the country.

The model assumes a first tranche sale of 40% of the total house price for all unit types in all regions. It then assumes that a further 30% of the unsold equity is purchased between years 6 and 39. Shared ownership initial rent is assumed to be 2.75% of the unsold equity per year, and then inflates by CPI+1% each year.

### **Interest rate**

The interest rate is used to model the cost of debt and the present value of future rental income. There is variation amongst providers in the price at which they are able to borrow, and the assumptions used in viability modelling. The 2018 Global Accounts show an effective interest rate of 4.8% for sector borrowing<sup>24</sup>.

However, with base rate still at historic lows it seems likely that rates will increase over the ten-year programme. The scale of additional borrowing required may also push up interest rates. Therefore, the model uses the average of the rate submitted by advisory group members in their current viability assessments, which work out at 5.3% for rented units and 5.8% for shared ownership properties.

The risk that this might overstate the cost of borrowing is offset by the fairly long discount period used.

### **Discount period**

The discount period sets the number of years over which rental income must pay back the upfront borrowing. Again the model uses the average of the assumptions submitted by advisory group members, at 46 years.

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<sup>22</sup> MHCLG (2017) Land Value Estimates for Policy Appraisal, available at [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/710539/Land Value s\\_2017.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/710539/Land_Value_s_2017.pdf)

<sup>23</sup> Savills Residential Property Forecasts, available at <https://www.savills.co.uk/insight-and-opinion/research-consultancy/residential-market-forecasts.aspx>

<sup>24</sup> Regulator of Social Housing (2018), 2018 Global Accounts of Private Registered Providers. Available at <https://www.gov.uk/government/publications/2018-global-accounts-of-private-registered-providers>

## **Homes Delivered**

The model assumes that all homes are general needs social housing. In reality, a proportion will be specialist and supported housing. However there is limited data on supported housing need at local authority level, and on the additional costs required to build them, which makes modelling difficult. Additional grant will be needed in some instances. However, the most significant barrier to building many types of supported housing at present is the lack of certainty over future revenue funding for support costs and additional capital subsidy alone is unlikely to be sufficient to overcome this.

## **Unit size and type**

Build and land costs per home vary considerably according to the number of bedrooms and the type of home (flat or house) in a scheme. Data on bedroom size was derived from the original housing needs modelling by Heriot-Watt University. Estimates and data from the advisory group were then used to arrive at unit type and layout for homes of each bed size within each tenure. The full data is contained in appendix 1.

## **Space standards and circulation**

The floorspace in each home and the amount of communal or circulation space in flats also impacts on costs. Homes England requires that all homes delivered under its new Strategic Partnerships should aim to meet Nationally Described Space Standards (NDSS) and a minimum Building for Life score of 12.<sup>25</sup>

Therefore, the model assumes the Nationally Described Space Standards (2015) are met for each unit type. In addition, 10% of the units were assumed to be wheelchair units which are assumed to be 20% larger. Circulation space is assumed to be 20% of the net internal area for flats, based on feedback from the advisory group.

## **Location of homes**

The location of the homes is drawn from the underlying housing need research undertaken by Heriot-Watt University, which model housing need by tenure and by local authority.<sup>26</sup> Although the analysis concentrates primarily on housing requirements and needs, it does demonstrate that suggested targets are consistent with a reasonable interpretation of evidence on land capacity.

## **S106 Delivery**

Every additional affordable home delivered through a s106 agreement with a private developer means one fewer home requires grant funding. Therefore, assumptions around s106 delivery can have a significant impact on the size of the grant requirement (although not on the grant required per home, which is calculated only on grant-funded homes).

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<sup>25</sup> Homes England Capital Funding Guide, Ch 14 <https://www.gov.uk/guidance/capital-funding-guide/14-strategic-partnerships>

<sup>26</sup> Bramley, G (2018) Housing supply requirements across Great Britain: for low-income households and homeless people, Crisis and National Housing Federation

S106 output is hard to predict because it is sensitive to the state of the sales market, and to changes in national planning policy. It also varies widely by local authority, according to how vigorously the local planning authority seeks to secure affordable housing delivery.

S106 delivery is at an all-time high, both in absolute homes delivered, and homes as a proportion of total new housing supply<sup>27</sup>. Outside London, just over 19,000 affordable homes were delivered via s106 agreements in 2017/18<sup>28</sup>.

Recent changes to national planning policy should further help increase affordable housing delivery<sup>29</sup> on private developments. And additional delivery on the scale envisaged in this model should secure a proportion of its affordable output as s106 homes.

On the downside, pressure on the housing market might see s106 delivery reduce if overall private sector output falls.

Balancing these factors, the central model includes an increase in s106 delivery from 19,000 homes to 25,000. The most significant increase is assumed to be in social rent homes, given the low rate of delivery at present and the increasing policy focus on social rent. A modelled increase in shared ownership output reflects the ongoing policy commitment to affordable home ownership and the possibility that shared ownership becomes more attractive once Help to Buy ends in 2023.

Table 1: S106 delivery for the Rest of England (excluding London)

	<b>2017/18 delivery</b>	<b>Assumed in modelling</b>	<b>% increase</b>
<b>Social rent</b>	2675	5000	87%
<b>Affordable rent</b>	9909	10000	1%
<b>Shared Ownership</b>	6580	10000	52%
<b>Total</b>	<b>19164</b>	<b>25000</b>	<b>30%</b>

### **Market sale delivery**

When affordable housing providers build homes for market sale they invest the surplus they generate to subsidise affordable housing delivery. In some areas of the country, particularly in London, high house prices have allowed surpluses from market sale to play an important role in subsidising affordable housing in recent years, compensating for lower grant rates.

However, in lower value markets opportunities for cross subsidy are more limited. Only larger housing associations are able to manage the financial risks associated with building homes for market sale while safeguarding their core business. Outright sale activity amongst housing associations is heavily

<sup>27</sup> Savills (2019) Additionality of Affordable Housing <http://s3-eu-west-1.amazonaws.com/pub.housing.org.uk/Additionality-of-Affordable-Housing-Published-April-2019.pdf>

<sup>28</sup> Derived from MHCLG Live Table 1011 <https://www.gov.uk/government/statistical-data-sets/live-tables-on-affordable-housing-supply>

<sup>29</sup> This is another reason why land price inflation is kept quite low in this model, since higher affordable housing requirements should suppress land prices.

concentrated with 20 providers reporting 78% of sales income<sup>30</sup>. And housing associations in higher value markets are nearing the limit of their capacity to deliver more homes for market sale.

In 2017/18 housing associations made a surplus of £266m on homes for private sale.<sup>31</sup> In the absence of data on where this surplus is generated, the model assumes that just under half was generated outside London (£125m). Given high house prices in London, and the extent of delivery by housing associations there, this is likely to be an overestimate. Surpluses from market sale are then assumed to rise at 3% per year from this baseline, between now and the end of the programme. This implies that either profits per home will grow or the number of homes developed will increase.

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<sup>30</sup> Global Accounts 2018

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/764755/2018\\_Global\\_Accounts.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/764755/2018_Global_Accounts.pdf)

<sup>31</sup> Global Accounts 2018 data file, Non-social housing - Prop. built for sale - Op. Surplus/(Def.)

## 4. Rest of England Model Outputs

All the figures reported in this chapter are for the Rest of England, excluding London. Chapter 4 brings together both models to give a national summary.

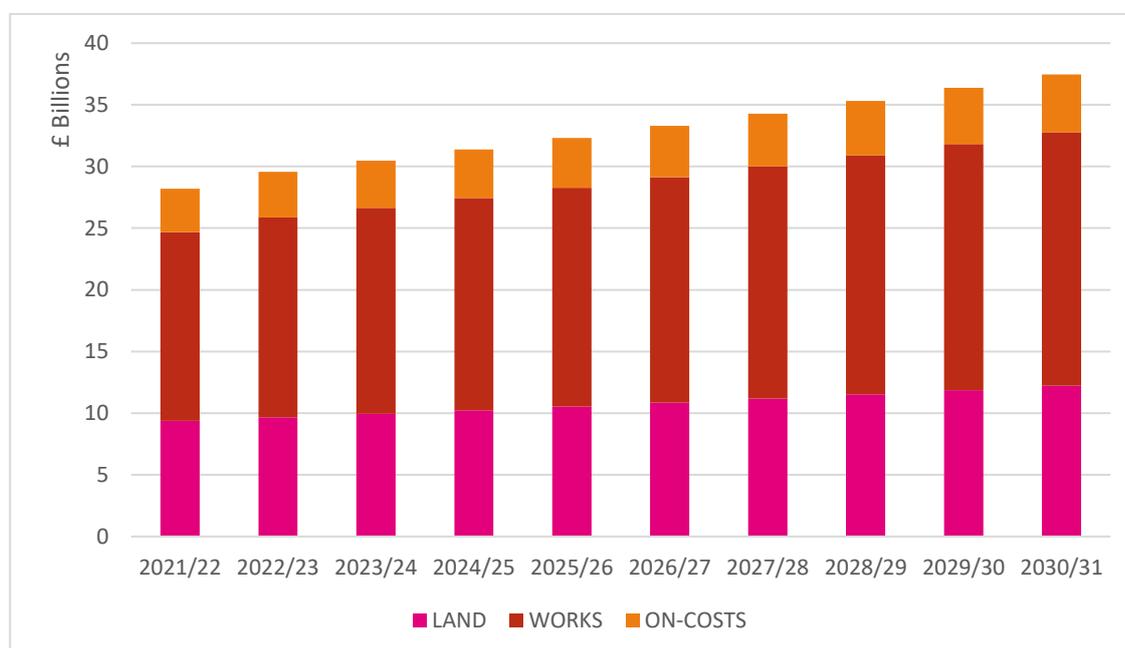
The model estimates costs and funding for a programme comprising the following:

Table 2: modelled programme size per year (rest of England, excluding London)

	<b>Total homes (inc s106)</b>	<b>Grant funded homes</b>
<b>Social rent</b>	57,535	52,535
<b>Affordable rent</b>	22,083	12,083
<b>Shared Ownership</b>	24,941	14,941
<b>Total</b>	<b>104,559</b>	<b>79,559</b>

The model estimates total costs for a build programme of this scale. These costs model land at market value (a 20% subsidy is subtracted subsequently). The average annual cost over the ten years is £32.9bn. Works costs comprise the majority of the overall cost per home (55%), followed by land (33%).

Fig 3: Total scheme costs for Rest of England, by year

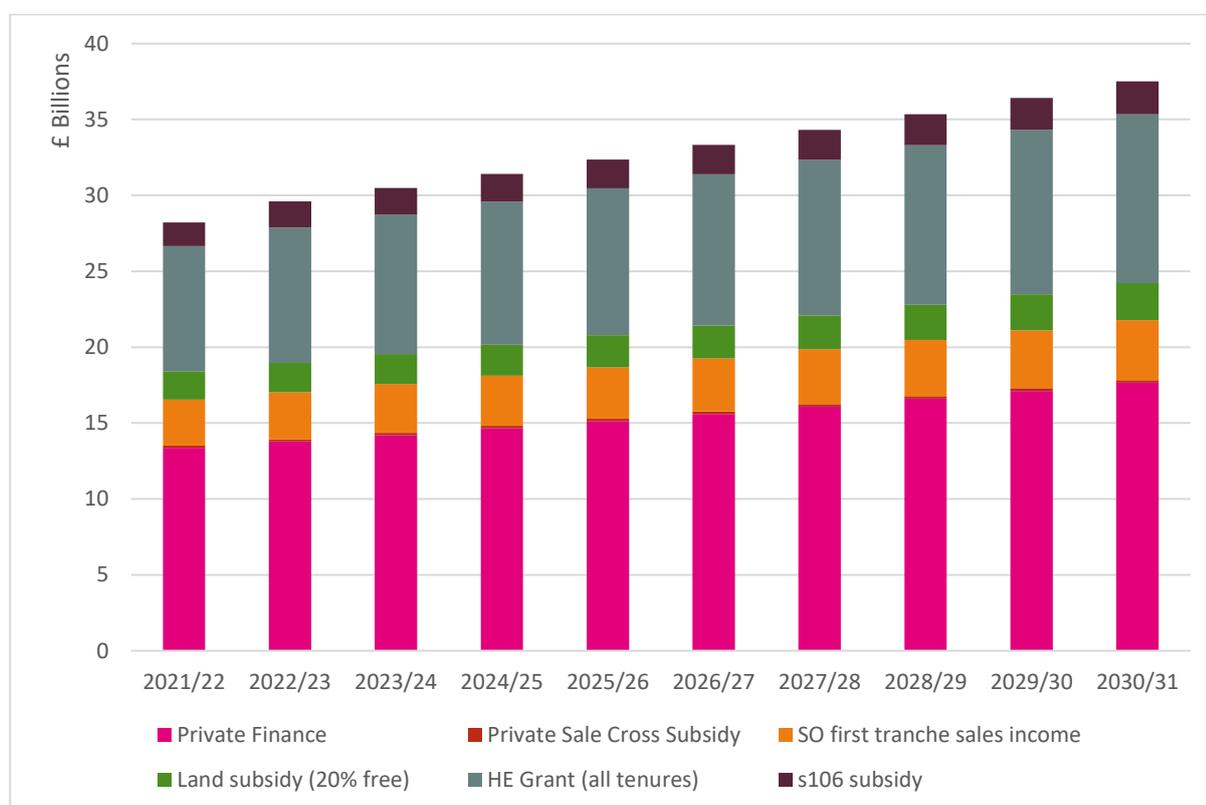


On the funding side (see Fig 4), the majority of the costs - on average £15.4bn per year over the ten-year programme are met by private finance, raised as debt against future rental income and staircasing receipts. Grant comprises the second most significant source of funding. The average grant requirement over the 10 years of the programme is £9.8bn per year. Shared Ownership first tranche sales account for a further £3.5bn on average per year.

The remainder of the income comprises other forms of subsidy. Market sale cross subsidy only contributes £156m on average per year. The implied subsidy from s106 (realised as the discount

when these homes are purchased from a private developer) is £1.9bn on average. Finally, the implied subsidy from assuming that 20% of the land is obtained for free contributes £2.1bn per year.

Fig 4: Total programme funding for Rest of England, by year



When looking at the results by tenure, the figures are heavily influenced by where the homes are needed across the modelled programme. The social rented homes are disproportionately needed in the areas of higher affordability pressure where costs are highest. Therefore, across the programme the average social rent home is more expensive than the average affordable rent home, even though they would cost the same if built next to each other. This also explains some of the difference in subsidy gap and grant requirement.

Table 3: Scheme costs, Subsidy gap and grant requirement by tenure (for grant-funded homes)

	Cost per home (£)	Subsidy gap per home (£)	Grant requirement per home (£)
<b>Social rent</b>	323,000	183,000	162,000
<b>Affordable rent</b>	278,000	100,000	74,000
<b>Shared Ownership</b>	327,000	49,000	29,000

The subsidy gap per home is the difference between the total cost of building the home, and the amount that can be borrowed against future rental income and Shared Ownership sales receipts. This subsidy gap is partially met through cross subsidy from market sale and from discounted land. The remaining gap needs to be met from capital grant.

Social rent requires the most grant subsidy per home. This is driven by two separate factors. First that the present value of future rental income from social rent homes is less than that from affordable rent homes, so a smaller proportion of the costs are met from private finance. Second, as mentioned above, in this model the delivery of social rent homes is skewed towards the areas of highest affordability pressure.

#### **4.1 Sensitivity analysis and variations to the model**

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Varying some of the assumptions of the model illustrates the sensitivity of the outputs to different parameters of the model.

##### **Market sale**

A more optimistic assumption about market sale might set the total surplus at double the current rate. This would represent either a doubling in output of market sale homes, or a doubling of the surplus achieved per home. This is modelled again with a 3% annual inflation. Doing so reduces the grant required by only £0.1bn to £9.7bn per year on average.

Outside London the scope for market sale cross subsidy is limited. And the scale of a programme this size means that any surplus from market sale is spread so thinly over a large number of homes that the grant requirement is not greatly impacted.

##### **S106**

Varying the level of s106 provision does not affect the grant needed per home (which is calculated for grant-funded homes), but it does affect the overall size of the grant requirement across the programme.

A more cautious assumption on s106 delivery could see s106 delivery remain flat from its current level. If so, this would increase the total grant requirement to £10.3bn.

## 5. Combining the Rest of England with London

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For a detailed description of the modelling and results for London, see the GLA's separate report technical report available at [www.london.gov.uk/affordable-housing-funding](http://www.london.gov.uk/affordable-housing-funding).<sup>32</sup>

Combining the main outputs of the central models for London and for the Rest of England:

Table 4: Programme size and tenure per year

	<b>Total homes (inc s106)</b>	<b>Grant funded homes</b>
<b>Social rent</b>	80,285	68,590
<b>Affordable rent / Intermediate Rent</b>	25,333	14,377
<b>Shared Ownership</b>	31,441	19,528
<b>Total</b>	<b>137,059</b>	<b>102,495</b>

On average the annual cost to deliver this programme is £46.2bn per year. This includes s106 homes.

The annual grant required to deliver this ten year programme is £14.6bn per year. In today's prices this is an average of £12.8bn per year.

Across the grant funded homes this funding would deliver a grant rate of 44% of total scheme costs.

Across all of England including London the average grant per home over the 10-year programme is £183,000 for a social rent home, £99,000 for an affordable rent home, and £32,000 for a shared ownership home. As is the case for the Rest of England, these figures are heavily influenced by the location of the homes in the model, with the social rent homes needed in areas of higher affordability pressure, which have higher costs, and therefore a higher average grant requirement per home.

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<sup>32</sup> The GLA report models a programme running from 2022/23, because the GLA's affordable homes programme funding is secured until March 2022. For the Rest of England, a small amount is available for Strategic Partners in 2021/22, but funding for the main Affordable Homes Programme ends in March 2021. Therefore the combined total outlined in this chapter is for a ten year programme beginning in April 2021. The GLA model was re-run to cover this period solely in order to provide the necessary input to this consolidation.

In addition, the Government has announced £2bn in affordable homes funding to be made available between 2022 and 2029, although this has not yet been committed. This funding is not taken into account in the totals above.

## 6. Economic and fiscal benefits

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This report does not contain new analysis of the economic impact of affordable housing provision. The National Housing Federation is undertaking further work to estimate these benefits. But this section briefly covers some of the evidence generated elsewhere.

A commitment to grant on this scale and over 10 years would ensure housing supply is more resilient to downturn in the private market, providing construction firms and particularly SMEs a guaranteed long term pipeline of delivery. It would also stimulate investment in new technology and productivity improvements. The Farmer Review of the UK Construction industry identified the prevailing environment of “low capital reserves and high demand cyclical” as one of the root causes of low productivity in the residential construction sector.<sup>33</sup> Grant certainty on this scale would significantly alter this environment.

Research from the Centre for Regional Economic and Social Research (CRESR)<sup>34</sup> estimates the Benefit to Cost ratio of new build housing at 2.6 (with a cautious assumption of 1.7). For a total programme cost of £46.2bn per year, underpinned by grant of £14.6bn, this delivers a benefit worth between £78.5bn and £120bn per year.

Construction activity has been shown to have an economic impact multiplier of 2.84<sup>35</sup>. Applying this to only the works cost element of total scheme costs (on average £26.5bn per year) yields an economic impact worth £75bn.

## 7. Delivery

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The delivery of affordable housing funding is important in securing the greatest level of additionality and impact. Both the GLA and Homes England have made substantial and welcome improvements in how affordable housing grant is delivered in recent years. Delivery of a new affordable homes programme should continue on this trajectory.

Strategic Partnerships developed over recent years have shown that longer term certainty along with flexibility over tenure mix, geography, and the timing of cash drawdown can unlock considerable additionality in supply. These principles should be adopted as far as possible across entire programmes in future.

In addition, Government should ensure Homes England have the flexibility to combine affordable housing grant with other public sector investment in place-making and regeneration, including infrastructure and remediation funding, equity investment and loans.

As part of this, funding for all tenures should be available across the country. The current eligibility constraints on social rent funding prevent much-needed homes being built, because 8.5% of the need for social rented homes falls outside areas eligible for social rent funding. Equally importantly, the

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<sup>33</sup> Farmer (2016), The Farmer Review of the UK Construction Labour Model: Modernise or Die. Available at <http://www.constructionleadershipcouncil.co.uk/wp-content/uploads/2016/10/Farmer-Review.pdf>

<sup>34</sup> CRESR (2019) Literature Review of regeneration scheme evaluations, produced for the NHF, available on request.

<sup>35</sup> L.E.K. Consulting, Construction in the UK Economy: The Benefits of Investment (The UK Contractors Group, London), 2009.

rules prevent social rent homes being built just across the local authority boundary from an area with high affordability pressure, or within transport or travel areas of where social rent homes are needed.

Finally, funding should continue to be available in a way that allows all housing associations to access grant directly from Homes England, outside London. Unlocking the capacity of medium sized and smaller housing associations will be an important contributor to expanding supply.

## **8. Capacity**

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A programme of this scale would represent a near threefold increase in affordable housing supply compared to 2017/18. To deliver this housing associations and local authorities will need the financial capacity to borrow on this scale, access to sufficient land, and access to sufficient construction capacity and skills.

Many housing associations and local authorities are already addressing these issues and significantly expanding their output via innovative partnerships, funding mechanisms and by taking on larger and more ambitious sites.

The National Housing Federation is working with housing associations and local authorities to share the learning from these, uncover barriers to expanding supply, and provide targeted support to unlock delivery.

However, alongside this work, it is important to note that the scale and long term certainty of a programme like the one proposed should itself unlock much of the capacity to deliver additional output, particularly over the medium term.

### **Financial capacity**

In 2017/18 housing associations raised more than £10bn in new finance. In contrast the programme described above would require an average of £21.6bn in new borrowing per year.

Local Authorities would be expected to play a significantly expanded role in delivery, absorbing some of this difference via their ability to borrow cheaply from the Public Works Loan Board.

In addition, there might be a role for increased equity investment from the public sector and for joint equity partnerships with private developers to unlock capacity. There are already innovative examples of this underway.

The National Housing Federation is planning further work on financial capacity in 2019.

### **Access to land**

Long term funding certainty is important in allowing affordable housing providers to secure larger sites, and build up longer land pipelines to support delivery into the future. At present, only the largest housing associations can take the risk of acquiring strategic sites or multi-phase developments.

There are already examples of housing associations who have signed strategic partnership deals with Homes England using this additional certainty to secure new staff with specific land-buying skills, acquire larger sites, and start to build more significant land pipelines.

In addition, local authorities will have an important role in making more land available, as will Homes England and the GLA. Continued reform of the planning system should make sure more private land becomes available as recent changes bed down, particularly if the Government continue with the current policy direction.

More substantial reforms to the planning system would further help unlock land and separately the National Housing Federation has urged Government to consider reform of the 1961 land compensation act, adopt a target of delivering 50% affordable housing on public sector land, and deliver on their commitment to making information on options agreement on land publicly available.

### **Construction skills and MMC**

Finally, grant delivered on the scale outlined above should enable greater investment in new construction technologies and skills, to increase both capacity and productivity across the sector. In particular, modern methods of construction (MMC) have the potential to increase productivity and reduce the impact of skills shortages, while also delivering better quality homes more cheaply.

However, MMC manufacturers struggle to secure the certainty of demand they need to invest upfront in new technology. The cyclical nature of the housing market and the impact of the absorption rate of market homes on delivery by private developers has held back the evolution of new technologies. Substantial grant commitment to affordable housing should provide the certainty needed to unlock investment.

## 9. Appendix

### Assumptions for unit size and type – Rest of England model

Type	Stoery	Flat / House	NIA MINIMUM	Circulation	BEDS	% OF BED SIZE	SOCIAL RENT UNITS	AFF RENT UNITS	SHARED OWNERSHIP	TOTAL
1b2p flat	Single storey	F	50	10.2	1	71%	13,849	5,347	1,731	20,927
1b2p flat	two storey	F	58	11.8	1	10%	1,885	728	236	2,849
1b2p house	two storey	H	58	0.0	1	20%	3,827	1,478	478	5,783
2b3p flat	Single storey	F	61	12.4	2	15%	3,329	1,382	2,304	7,015
2b3p house	Single storey	H	61	0.0	2	3%	731	303	506	1,540
2b4p flat	Single storey	F	70	14.3	2	5%	1,083	449	749	2,281
2b3p house	two storey	H	70	0.0	2	17%	3,834	1,592	2,654	8,080
2b4p house	two storey	H	79	0.0	2	60%	13,577	5,637	9,399	28,613
3b4p flat	Single storey	F	74	15.1	3	2%	166	56	77	299
3b4p house	Single storey	H	74	0.0	3	2%	166	56	77	299
3b4p house	two storey	H	84	0.0	3	31%	3,468	1,165	1,613	6,246
3b5p house	two storey	H	93	0.0	3	60%	6,583	2,211	3,062	11,856
3b5p house	three storey	H	99	0.0	3	6%	663	223	308	1,194
4b5p house	two storey	H	97	0.0	4	27%	1,181	394	471	2,046
4b6p house	two storey	H	106	0.0	4	67%	2,930	976	1,170	5,076
4b5p house	three storey	H	103	0.0	4	1%	61	20	24	105
4b6p house	three storey	H	112	0.0	4	5%	201	67	80	348
<b>TOTAL</b>							57,534	22,084	24,939	104,557

### Other assumptions for the Rest of England model, not described in Chapter 2

Service Charges	Service charges have minimal impact on the modelling as money is collected and then spent. The only impact is that there is a small void and bad debt loss on the service charge income. The rates are modelled based on regional data taken from the SDR. They range from £4.80 to £6.80 across the regions at 2016 values.
Management Costs & Maintenance Costs	The costs for management and maintenance were taken from the cost assumptions used by advisory group. These costs and they differ by region. The range is £970 to £1,100 per unit per year and this covers both management & routine maintenance. The sinking fund/major repairs allowance is not included in this.
Sinking Fund / Major Repairs	The sinking fund in the model is based on a percentage of the rebuild costs per unit.  The rebuild costs is set at 70% of the works costs. This varies across the regions from £875per m <sup>2</sup> in the North East to £1.2k per m <sup>2</sup> in the South East at 2018 values. A sliding scale of rebuild cost is then applied to this base cost starting at 0% in year 1 and increasing by 0.3% every five years until reaching 1.5% of rebuild costs in year 26.
Voids & Bad Debts	

	<p>Voids and bad debts were taken from the group and a figure of 2.5% has been used for all regions for the rented housing with 0% used for shared ownership.</p>
<p>Management &amp; Maintenance Cost Inflation</p>	<p>CPI + 0.5% assumed (2.5%)</p>