

improving living in scotland



Infrastructure Commission for Scotland: Initial call for evidence

Homes for Scotland Response

Homes for Scotland (HFS) welcomes the establishment of the Infrastructure Commission for Scotland and the appointment of our Homes for Scotland Chair, Ken Gillespie, as one of the ten Commissioners. We equally welcome the recognition of housing as an infrastructure asset, as set out within the Scottish Government definition.

We recognise that this consultation is the start of a longer process of engagement and look forward to working with the Commission in order to develop strategic plans for wholesale infrastructure delivery across Scotland.

We have answered the questions put forward primarily on the basis of how they relate to the delivery of new homes. We recognise that other organisations are better placed in many respects to answer questions about other forms of infrastructure. However, given that the requirement for roads, water, sewerage, broadband, gas, electricity and all other utilities to be delivered to all new homes, as well as public transport, education, health and community infrastructure is required to create sustainable communities, housing is at the very heart of all infrastructure delivery.

Infrastructure funding and delivery is one of the biggest blockers to the delivery of new homes and can also make it harder for existing communities to welcome new development. This is compounded by the nature of land allocations over the last ten years which put a greater reliance on larger strategic sites of over 500 homes which have a resultant need for significant upfront infrastructure investment. The lack of a common infrastructure-first approach to forward funding these strategic developments has a major impact on the industry's ability to provide the homes that have been allocated in plans and for which there is a clearly identified need.

Simply put, homes are the baseline infrastructure that an inclusive society needs to deliver: we need to house people to enable all other aspects of the economy to operate effectively, and grow sustainably. Enabling infrastructure must therefore be in place at a national and local level to allow this country's inclusive economic growth ambitions to be realised.

On the basis that we currently need to be delivering approximately 25,000 homes per annum to not just meet current demand, but also address the 80,000 shortfall of homes delivered over the last decade, over the next 30 years, Scotland will need approximately 750,000 new homes and we must ensure we have the right infrastructure capacity in place to deliver them.

1. The remit and in particular the Commission objectives provide an illustration of some key strategic drivers to an inclusive growth and low carbon economy:

- a. *What are your views on these drivers and are there any others that should be considered by the Commission?*

Homes for Scotland agrees with the key strategic drivers set out by the Commission in delivering an inclusive growth and low carbon economy. In particular, 'demographic and other social change', 'technological change and innovation' and 'place-making' as strategic drivers are key to the delivery of inclusive growth and a low carbon economy. In addition, they have a fundamental impact not just on the delivery of infrastructure but specifically the new-build homes industry and future need and demand.

Demographic and other social change factors

The forecasted increase in Scotland's population of older people will have a significant impact on infrastructure needs in the future, specifically that of housing. It is estimated that by 2030, 1.1 million people will be aged 60-74, accounting for approximately 25% of the population. This increase will have clear implications for future delivery of new housing that can meet the needs of an ageing population, as well as presenting constraints on public infrastructure such as health care facilities.

The location of where new homes will be built will become increasingly important. New housing that can meet the needs of an older population will require the provision of land in locations which can incorporate the delivery of multiple services such as integrated public transport, local health care facilities as well as a wider consideration on models for intergenerational living.

Technological change and innovation

In the coming decades, the changing demographic and generational influences will shape the development of new technology in homes. The provision of superfast connectivity to homes through Fibre to the Premises, 4G/5G networks, coupled with the mainstreaming of smart homes, eHealth facilities and home working will place higher demands on the networks. All private digital connectivity providers must be included in the future planning of our wider infrastructure agenda.

In addition, the future of electric vehicles will continue to evolve. Although it is difficult to predict how this will eventually play out, there must be a recognition that the capacity of the electricity grid, and our current inability to store power will have an impact on our growth aspirations if this is not considered in the round.

Innovation within the home building industry through off-site manufacturing has an important role to play in meeting Scotland's ambitious climate change goals. New homes in Scotland are built to some of the highest technical standards in Europe. As such they play an important role in reducing Scotland's carbon footprint, with new homes built representing a 75% reduction in carbon emissions when compared to 1990 baseline levels.

Place-making

The links between housing, place-making and regeneration are obvious. The delivery of new, high quality housing through well planned housing developments helps to support the development of communities that are economically, physically and socially sustainable, as well as helping to connect and link into existing communities.

However, it is important to acknowledge that the creation of high quality places where people wish to live, requires upfront investment in 'hard' infrastructure such as transport, utilities,

and educational facilities as well as 'soft' infrastructure such as recreational open space, blue and green networks as well as cultural facilities.

Financing of infrastructure

Pivotal to all of the above, is how future infrastructure needs can be financed. Infrastructure funding is one of the biggest barriers to the delivery of new homes. Currently the planning system provides the most convenient structure for linking the development of homes to the delivery of infrastructure through Section 75 agreements. However, these developer contributions cannot always fully fund the required level of investment needed, especially for strategic sites. Further there are no national mechanisms in place to manage the planning, programming and funding of the infrastructure required to support the delivery of new homes.

We would therefore hope that funding models are considered as part of the Commission's remit.

It may be worth considering the potential future models for securing land and procuring new homes as part of the Commission's work. The current considerations of Land Value Capture, Land Value Tax and the evolving nature of home ownership versus long term private rental models is worth exploring further. There are more calls for public sector involvement in the delivery of affordable homes for sale and rent, and new funding models including long term patient capital through pension funds etc that could all have a bearing on how homes will be delivered in future.

- b. What is the impact of these (and any additional) drivers on an inclusive growth and low carbon economy?*
- c. What are the key interactions and dependencies across these drivers?*

All of the above drivers have the ability to promote inclusive growth and meet low carbon objectives in the future, further they are all inter-linked and require coordinated development to fulfil these objectives.

The opportunity for technological change and innovation to address challenges arising from demographic and social changes is clear. The positive impacts on opportunities for inclusive growth include potential access to all, enabling access to online information – jobs/careers/training as well as benefits and support. For older and disabled people there are opportunities to expand eHealth, online communities that can combat isolation and loneliness. Inclusive growth of housing options will provide fairer access to homes, located where people can access work at a price that makes home ownership affordable for all.

The positive impacts on a low carbon economy include the use of smart homes to control heat and light; energy efficiency which comes with new homes as previously stated; the opportunities for district heating networks and renewable heat sources; electric cars etc as well as reduction in fuel poverty and opportunities to provide energy back to the grid or at the least be self-sustaining.

As more employers encourage flexible working from home, with employees accessing files from cloud-based applications, homes are becoming a place to work as much as they are to live. This has positive impacts on work/life balance, improving mental health outcomes and improving productivity.

As the coming decades see rapid development regarding the use of electric and hybrid cars, the uptake of electric car use is expected to grow exponentially, it is expected that charging points will be provided as a matter of course. This will positively impact the carbon reduction

agenda. However, the increase pressure on the grid and the requirement for greater power generation may have negative impacts on the ability to 'keep the lights on'. We would suggest that future transportation models are the hardest area of infrastructure to accurately predict. The use of alternative fuels such as hydrogen or the rapid move to autonomous vehicles could change how we plan and design our places. Will we need different on-street and off-street parking requirements, and road capacity calculations may need to be altered. While not transport experts, home builders are required to implement policy and are affected by changes so have an interest in shaping future policies.

Place-making and the location of where new homes will be built will become increasingly significant in addressing the changing demographics related to an ageing population. Requiring land to be released which is viable for development, but additionally close to public transport links and other public infrastructure facilities such as health care facilities.

d. What is the impact of each of them and cumulatively on Infrastructure demand and need now and for the future?

We would refer you to our response to Q1c, which highlights the potential demand and constraints the drivers will have. Serious consideration should be given over what the expected costs these will have in delivering them, as well what capacity currently exists to deliver them.

2. Infrastructure has a key role in relation to an Inclusive Growth and Low Carbon Economy:

a. What are your views on Scottish Government's definition of infrastructure as provided in the Commission remit, and are there any additional elements that should be considered, or areas that could be omitted?

In large, Homes for Scotland agrees with the fundamental principles behind the Scottish Government definition of infrastructure. However, we believe that there is further room to recognise the central role and importance that housing plays in relation to the delivery of infrastructure in Scotland. The new build industry in Scotland directly relates to all the infrastructure components within the definition, wherein new build housing and the provision of infrastructure are interdependent on one another.

b. What contribution does each of the infrastructure categories identified make to achieving an inclusive growth and low carbon economy?

In terms of achieving inclusive growth and a low carbon economy, in our view it is not appropriate to separate out the various categories of infrastructure. Each makes its own crucial contribution to economy and society. The interdependencies are so strong, particularly when it comes to the delivery of new homes.

c. What role and impact does each of the infrastructure categories identified have on the drivers identified in the Commission remit and objectives?

Whilst we recognise the role and impact of all infrastructure categories, from the point of view of housing we particularly recognise the role and impact that it has on the drivers of 'demographic and other social change', 'technological change and innovation' and 'place-making'. Our response to Q1a in this submission outlines this in more detail.

- d. *What are your views on the relative importance and impact of optimising whole life asset capacity through investment in enhanced renewals and maintenance compared to investing in and developing new infrastructure?*

Whilst there is a clear need for continuous investment and development infrastructure, it is important that we make better use of existing infrastructure. It is essential that going forward into the future Scotland strikes a better balance between new investment and maintenance in infrastructure.

However, it should be noted that whilst there is a clear need to address the poor quality of some of the existing older housing stock through maintenance and refurbishment, the likely cost of this will be extremely high once the scale of the problem is fully researched and analysed. In contrast the development of new high quality homes within new sustainable communities presents clear advantages, particularly in terms of the cost of investment, but also achieving higher levels of design quality which can contribute to the overall objectives of the Scottish economy becoming more inclusive and low carbon.

- e. *To what extent and in what way can infrastructure act as a catalyst for change in a place; be that at a community, local, strategic or national level?*

Investing in the right infrastructure in the right places has the ability to improve a variety of outputs, ranging from local community levels, to broader strategic national outcomes. Infrastructure can facilitate the development of key sectors, unlock private sector capital and investment, increase economic capacity whilst reducing regional disparities across Scotland and contribute to overall carbon reduction objectives. For example investment in:

- renewable energy technology can facilitate investment which supports the adoption of new technologies such as the electric vehicle charging network which has the potential to lead to a step change in the take up of electric and hybrid vehicles, directly contributing to achieving low carbon objectives.
- education infrastructure can support long term economic growth by boosting skills output and consequentially create higher economic productivity.
- new roads, transport hubs and public transport can enable new employment opportunities by allowing local residents in rural areas to commute to economic hubs, this in turn makes more rural, remote communities more attractive places to live in and can sustain local economies.

All of this is key in relation to the delivery of new housing, the development of all infrastructure assets across Scotland can unlock land that may not have been previously viable to develop housing.

- f. *To what extent and in what way can infrastructure act as a catalyst for:*
- i. *Increased economic investment and growth?*
 - ii. *Improved service delivery?*
 - iii. *Improved community cohesion?*

Economic benefits of home building:

The new-build industry in Scotland forms a substantial section of the built environment of housing, and further plays a central role in the physical, economic and social fabric of Scotland. Given the current shortfall of 80,000 new homes amassed over the last decade; to make Scotland a better place in which to live, work and invest it is crucial that we have an

increased steady supply of new homes of all tenures in the right locations to meet the diverse needs of the Scottish population. Home building in Scotland plays a core role in contributing to inclusive growth and low carbon objectives within the Scottish economy.

According to independent analysis commissioned and published by HFS from Nathaniel Lichfield & Partners in 2015, a total of 15,562 new homes were built in Scotland which generated the following benefits:

- £730m invested in land and buildings for homes
- £614m spent on suppliers
- £3.2bn direct, indirect and induced GVA
- 63,260 jobs through direct, indirect and induced employment.

However, the scale of benefits and value that can be achieved is being constrained by under supply. If we were to increase new housing supply in Scotland to pre-recession levels of 25,000 homes per annum, it would support the higher delivery of affordable housing, stimulate economic performance, as well as generate:

- £1.17bn in net capital expenditure
- A total £5,1bn in economic output
- 101,630 jobs through direct, indirect and induced employment
- Increases of £93.7 million in tax revenue through LBTT, Corporation Tax, NI and PAYE Contributions, as well Council Tax to local Government
- £50.7 million of additional developer contributions to local infrastructure including school places, community facilities, public open space and affordable housing developments.

Social benefits of home building:

The creation of a higher number of new homes will lead to a variety of added social benefits, from a local community level to the broader strategic outcomes targeted at a national level. Increasing the scale of well-designed, energy efficient homes can play a key role in delivering improvements to health, education, regeneration and carbon reduction outcomes and improve access to housing for all.

New housing plays a key role in supporting the development of sustainable communities. A new housing development can improve access to places of employment and to shops, schools and other local facilities, as well as increasing the number of users to those developments. This in turn helps to support the development of communities that are economically, physically and socially sustainable, as well as helping to sustain existing communities.

It was estimated in 2014/2015 that home builders in Scotland contributed a total of £19.3 million towards community facilities including infrastructure improvements, public transport and public art which, in turn, will support access to employment and services and support wider generation. A further £330,000 was also contributed towards youth/community facilities. All of which supports a greater level of community cohesion.

3. The demand and need for infrastructure assets included in the Commission remit is considerable and wide ranging. Across all the infrastructure assets identified:

- a. *What is your assessment of the current infrastructure stock in terms of quality of provision?*

Research is required to consider what the costs and benefits of refurbishing versus the demolition and rebuild of the some of the existing housing stock that is in poor condition due to inefficient or unsuitable design and further difficult to retrofit.

Given that approximately 73% of Scotland's housing stock was built pre-1982 (of which 19% is pre-1919, 12% is 1919-1944, 22% is 1945-1964 and 21% is 1965-1982), the total cost of upgrading and retrofit is likely to be very high.

- b. *What is your assessment of the current infrastructure stock in terms of its capacity and fitness for purpose to meet current demand and needs?*

Housing Infrastructure:

Homes for Scotland estimates that there is current shortfall of 80,000 new homes amassed over the last decade, and to keep up with current demand, new housing output must increase to pre-recession levels of at least 25,000 homes per annum. However, this will require significant supplementary infrastructure investment in tandem. The establishment of the Scottish National Investment Bank presents an opportunity to provide finance for infrastructure delivery, particularly where significant investment is required, for example education and transport infrastructure, wherein the capital costs often make development unviable.

In increasing new housing output, it should be recognised that new homes constructed to 2015 standards, represents a 75% reduction in carbon emissions from equivalent 1990 baseline levels (a 45% improvement on 2007, and 21% improvement on 2010 standards). In relation to the targets set out by the Climate Change (Scotland) Act of a 42% and 80% reduction in emissions by 2020 and 2050 respectively, this highlights the significant progress the new build sector has made in relation to low carbon objectives.

A key challenge for meeting low carbon objectives will be tackling the energy efficiency standards of existing housing stock. It is estimated that only 31% of housing stock will have been constructed to 2010 Standards, leaving around 2 million existing homes requiring some form of energy intervention. To illustrate the scale of the challenge, in 2016 new housing output in 2016 totalled 16,904, with Scotland's total housing stock estimated at 2.58 million for the same year, in that context, new build output represented only 0.66% of the existing housing stock.

Additionally, while new homes built meet a wide range of accessibility requirements including where practicable, barrier free access to and from the home as well as provisions for future adaptations such as stair lifts and space for the inclusion of a shower on the principal living floor. These features are not available in most existing housing stock, 73% of which was built before 1982, and further cannot be easily adapted to meet the needs of an ageing population.

Utilities Infrastructure:

It is essential that future infrastructure strategies consider the wide and complex range of stakeholders involved in delivery new homes. Water, drainage, electricity, gas, roads and

broadband are essential in the delivery of new housing. However, utility infrastructures go further than the home, the smooth delivery of utility infrastructure is critical if we are not just to build more homes, but also create quality places.

Policy and standards must consider the requirements of the public and private utility providers and what impact decisions, particularly around placemaking, may have on a congested utilities network. Often current policy is developed with limited acknowledgement of industry concerns; the promotion of low and zero carbon energy generating technologies such as PV panels and electrical charging points on new developments. Such policies failed to recognise that the existing energy infrastructure network was never developed to absorb the additional energy load. These policies place a large onus of responsibility upon the home building industry to support the modernisation of national energy infrastructure, something which the industry has little control over, or the resource to deal with.

In this light it is vital the Scottish Government should consider how it supports its own long-term maintenance of national infrastructure networks and engage with privatised utilities to work in a broad, collaborative manner.

Education Infrastructure:

The provision of needed education infrastructure can have long lead in times and often involves high capital costs. Where there are capacity constraints over education infrastructure, issues over funding and lead in times frequently leads to new housing development being stalled. Strong consideration should be given on how best to use the existing education infrastructure already available as well how best to deliver what will be required in the future. This has the ability to unlock not just new housing, but attract new commercial investment and subsequently employment in regions across Scotland.

The SFT-led Infrastructure First project – in which Homes for Scotland and our home builder members are working with local authorities planning and education teams, and others, to overcome current education capacity barriers to housing delivery – is an exciting demonstration of the power of collaboration over a common issue rather than submitting to the conflict-based bureaucratic structures of the planning system. The use of the Building Scotland Fund to help unlock schools provision is also welcomed, and we hope to see this approach embedded in the SNIB.

Wider Opportunities for Collaboration

A similar approach should be rolled out across the full range of type-specific infrastructure barriers to housing delivery – including the local and strategic transport networks. The advent of this Commission provides an opportunity to take that collaborative approach at the macro scale – looking beyond the current barriers to consider what wider system, agency and approach changes are needed to instil a common purpose of (and common arrangements for) collective responsibility for infrastructure planning, funding and delivery, as well as for the thinking needed to ensure infrastructure is recognised as a current and potential barrier to housing delivery – as well as being an outcome in itself (in terms of big-ticket items).

- c. *What is your assessment of forecast future needs and demand for infrastructure and the key areas of change and development over a five and 30-year horizon?*

Over the next 30 years the Scottish population will change dramatically:

- The National Records of Scotland (NRS) predicts that the Scottish population will increase from 5.4m in 2016 to 5.69m in 2041.
- Population sizes with Scottish regions are shifting, with council areas decreasing in population concentrated mainly in the west of Scotland.
- One-person households are now the most common type in Scotland, with 900,000 people living alone in 2016.
- The number of people aged 75+ is projected to increase by 27% over the next 10 years and by 79% over the next 25 years.

As a result, the number of homes required across all tenures must not only rise to keep up with demand, but invariably the models of housing delivery and design also. Considering the shortfall of 80,000 homes delivered over the last decade, to keep up with demand, Scotland must deliver at least 25,000 homes a year. If current levels of demand then maintain, Scotland will then require 750,000 new homes with the next 30 years. Outcomes from public policy will very much shape this figure in the future, changes to social, health or immigration policy for example all of the potential to alter the figure drastically.

d. What do you see as the priority areas for investment in order to enable these future needs and demands to be met?

Scotland requires further investment in future models of research and analysis, as well as greater collaboration between all stakeholders from local to national level, to accurately identify not just housing need in the future, but other infrastructure needs also.

For example, current problems exist with NRS projections for calculating future household formations. There is a current projection of an increase in households of between 206,000 and 427,000 net for the period between 2016 and 2041, with a principal projection of 317,000. However, projections currently do not take into account existing unmet need and demand, the impacts of suppressed household formations nor the need to replace obsolete stock or account for demolitions.

Further research is also required with key utility providers to identify what the existing infrastructure capacity is. For example, utility providers such as Scottish Water currently do not know what full capacity their network has. Similarly, it is essential we identify what capacity the national grid has and what constraints it will face as Scotland moves forward to accommodate electric charging points and other features in meeting its carbon reduction goals.

Considerable investment will be required to ensure there is a well-functioning and well-resourced planning system that has the capacity to deliver high quality outcomes in an efficient manner. This is not just fundamental to the delivery of new housing, but also major infrastructure projects as well.

e. Where do you see future convergence of need and demand having an impact across infrastructure classes?

The convergence of all infrastructure categories is most visible in the delivery of new places and the improvement of existing communities. Successful places are those which balance need and demand and provide appropriate infrastructure at the appropriate time to allow

them to flourish. This is true equally in urban and rural settings and achieving the successful balance of need and demand is fundamental to economic growth.

4. In relation to approaches to infrastructure assessment and prioritisation across all the infrastructure assets identified:

a. What is your view on existing approaches to evaluation and assessment of infrastructure in Scotland?

Scotland's Infrastructure Investment Plan and the March 2019 Project and Programme Pipeline Updates give only a limited picture of the infrastructure needed to support the delivery of enough new homes across all sectors. There are no national mechanisms in place to manage the planning, programming, funding or delivery of the infrastructure needed to support the new homes required in Scotland.

The Infrastructure Investment Plan does not formally acknowledge homes as 'infrastructure', despite being an absolute and under-provided requirement for the population of Scotland. Scotland's Infrastructure Investment Plan identifies two programmes directly relevant to housing delivery. One is the Scottish Government target to deliver 50,000 new affordable homes. The other is "raising housing delivery across the sectors", of which there is no set target.

Whilst the National Planning Framework is aligned with Infrastructure Investment Plan in a macro sense, that relationship does nothing to support the delivery of more new homes. The National Planning Framework does not identify housing as a core part of Scotland's social and economic infrastructure. Nor does it identify home building as a priority class of development. The Infrastructure Investment Plan makes incredibly scant provision for infrastructure specifically intended to support the delivery of new homes. There is a clear absence of a coordinated and committed approach to infrastructure delivery as a key pillar of the framework needed to support housing delivery in Scotland.

b. What is your view of good practice approaches to evaluation and assessment of infrastructure internationally?

No comment.

c. What is your view of existing approaches to the criteria and principles for investment prioritisation in Scotland?

Infrastructure investment and prioritisation in Scotland is currently hindered by political short-termism, where there is an unbalanced focus on 'big ticket' projects, rather than looking at infrastructure need at more base fundamental levels of delivery. Scotland requires a more holistic approach to all levels of infrastructure delivery that go beyond current political parliamentary cycles and that focus on both national and more regional requirements.

Homes need to be provided across Scotland, in rural and urban areas and over differing timescales as economic and demographic trends change. Therefore infrastructure requirements to deliver these will vary across the country and over time. Priorities and principles for investment need to be forward planned and well-articulated to give confidence to home builders to be able to respond to need and demand. Continual review and forward planning of infrastructure investment is also needed to allow the industry to respond flexibly to previously unforeseen changes.

- d. *What is your view of good practice approaches to the criteria and principles for investment prioritisation internationally?*

No comment.

- e. *What is your view on existing approaches and methodologies that enable cross infrastructure sector evaluation and assessment to be undertaken, and also the potential for further development of such approaches and methodologies?*
- f. *What is your view on existing approaches and methodologies that assess impact at different spatial levels, and also the potential for further development of such approaches and methodologies?*

The National Planning Framework, Strategic Development Plans and Local Development Plans both in current form and new emerging formats all seek to identify, prioritise and allocate spatial development across all sectors throughout Scotland.

At a local development level however, connections to and from the availability of key infrastructure services and utilities is often unplanned and uncoordinated. Development is often delayed and otherwise unnecessary cost is incurred. There is an urgent need for a mechanism to identify this development need and demand and plan for the provision of key infrastructure which accounts for these time-scales in which development can be delivered efficiently and on time, ultimately supporting the desire for an efficient, prosperous inclusive economy.

Local authority planning and building control teams are uniquely placed by virtue of their regulatory roles to assess, monitor and provide invaluable market intelligence into development trends, both spatially and quantitatively. Greater use and incorporation of this forward planning information amongst all infrastructure and utility providers needs to be developed and thereafter robustly maintained.

- g. *What is your view on good practice approaches to assessing and establishing the post implementation impact on the desired outcomes from infrastructure investment?*

No comment.