

Title: Building Safety Bill Lead department or agency: MHCLG	Impact Assessment (IA)
	Date: 20/07/2020
	Stage: Final
	Source of intervention: Domestic
	Type of measure: Primary legislation
1 Summary: Intervention and Options	RPC Opinion: Not Applicable

Cost of Preferred (or more likely) Option (in 2019 prices)

Total Net Present Social Value	Business Net Present Value	Net cost to business per year	Business Impact Target Status
£ - 3,285m	n/a	n/a	Non qualifying provision

What is the problem under consideration? Why is government action or intervention necessary?

The fire at Grenfell Tower represented the greatest loss of life in a residential fire since the Second World War. Dame Judith Hackitt’s Independent Review of Building Regulations and Fire Safety, announced immediately after the Grenfell tragedy, uncovered systemic failings that had developed over decades and which had undermined the safety of people living in high rise residential buildings across the country.

Dame Judith Hackitt concluded that the concerns of residents were too often ignored, that regulation covering high-rise residential buildings was weak, and that there was a lack of accountability and culture in industry that did not prioritise safety. She concluded that fundamental reform of the building safety system was needed, covering both regulatory reform and industry change.

The Government agrees that the tragic fire at Grenfell Tower was a manifestation of underlying problems that had gone on for too long and is determined to put that right. We are taking forward all of the principles and recommendations in Dame Judith’s independent review, bringing forward the biggest change to building legislation in nearly 40 years. This will require change through legislation - and a significant change in the industry culture – to put in place the new regime that is fit for purpose and ensures residents are safe, and feel safe, in their homes.

What are the policy objectives and the intended effects?

The objective of the Building Safety Bill is to implement the Government’s ambition for long-lasting reform of the building safety system. The draft Bill is being published for pre-legislative scrutiny. The Government will consider the feedback from the pre-legislative scrutiny phase before introducing the final Bill to Parliament. This impact assessment will also be updated at that stage.

The intention is to reform the building safety system to improve building safety and performance for all buildings and to establish a more stringent regime to strengthen the management of fire and structural safety risks for new and existing buildings in scope, which will initially be defined as all multi-occupied residential buildings of 18 metres or more in height, or more than six storeys (whichever is reached first). The system will have put in place stronger oversight, clearer accountability for, and stronger duties on, those responsible for the safety of buildings in scope throughout design, construction, and occupation, and stronger enforcement and sanctions to deter and rectify non-compliance.

The new regime will also give residents a stronger voice in the system, ensuring they have access to a wide range of building safety information and the opportunity to contribute to the decision-making for their homes, fully understand how they contribute to maintaining safety in their buildings and can raise and escalate concerns when things go wrong. We will also put in place a stronger and more comprehensive framework for the regulation of construction products and create a new regulatory role to provide national oversight of construction products regulation.

Some of these measures will be directly legislated for in the Bill, while in other areas the Bill will provide powers for the Government and/or Building Safety Regulator to take forward detailed requirements through secondary legislation. The overall effect of the Bill will be to deliver a stronger regulatory system and a stronger voice for residents which delivers better performance of all buildings across the built environment and better management of fire and structural safety risks in new and existing buildings in scope of the more stringent regime. As part of delivering this effect, the Bill also includes measures to improve resident redress. We will remove the need for social housing residents to pass through the ‘democratic filter’ in order to access the Housing Ombudsman. In addition, we will require developers of new build homes to belong to a New Homes Ombudsman to address a known gap in the redress landscape.

This IA appraises the impact of implementing these reforms through legislation. Where necessary, that assessment is based on current assumptions about measures that will be taken forward through secondary legislation. Further detailed assessments will be carried out for secondary legislation as appropriate in the future.

What policy options have been considered, including any alternatives to regulation?

The Government does not consider that there are viable alternatives in order to deliver the comprehensive and fundamental reform of the current regulatory system for buildings that it has committed to. Without primary legislation, the Government would not be able to put in place new and enhanced regulatory regimes for building safety and construction products or ensure there is greater accountability and responsibility for the safety of buildings in scope throughout their lifecycle. We could have engaged with building owners to encourage voluntary action to give residents a stronger voice in the system, but without legislation we could not be assured that this would be consistent in the fragmented property market, or that there would be sufficient scope for enforcement where buildings owners fail to meet the expected standards for engagement.

The policy outcome this Bill delivers is fundamentally the system recommended by Dame Judith Hackitt's independent review, tested and refined to reflect feedback from public consultation and engagement with stakeholders through groups including the Early Adopters and the Joint Regulators Group. It also reflects Dame Judith's further recommendations as independent advisor to the Government on the Building Safety Regulator. Alongside developing the measures included in this draft Bill, the Government has taken forward a range of other legislative and non-legislative measures, including funding to resolve current cladding issues, establishment of a building assurance exercise by Fire and Rescue Services for high-rise residential buildings of over 18 metres, reviewing existing Approved Documents and engagement with industry to start driving the needed culture change. More detail on these measures are outlined in the Government response to the public consultation on the measures in this draft Bill.

The Government has also taken forward clarification of the Fire Safety Order through the Fire Safety Bill. Delivering additional reform without further primary legislation would fundamentally require continuing with the regulatory system for design and construction involving Building Control as set out in the current legislative and regulatory system. While Dame Judith Hackitt identified that a range of non-legislative measures could be taken forward, particularly around starting to drive culture change, her clear advice was that the Government '...must strengthen regulatory oversight to create both positive incentives to comply with building safety requirements and to effectively deter noncompliance'. That stronger regulatory oversight is what is set out in this draft Bill.

Does implementation go beyond minimum EU requirements?		N/A		
Is this measure likely to impact on international trade and investment?		Yes		
Are any of these organisations in scope?	Micro Yes	Small Yes	Medium Yes	Large Yes
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)	Traded: N/A		Non-traded: N/A	

Will the policy be reviewed?

The proposed Bill includes a statutory requirement on the Secretary of State to appoint an independent person to carry out a review of the regulatory system. The purpose of the review would be to consider the effectiveness of the overall regulatory system – both the new system established through this Bill and the existing legislative framework, and review the implementation of that system by the Building Safety Regulator, and to make recommendations as to how the system and the Building Safety Regulator can be improved. The Secretary of State will be required to publish the report.

Summary: Analysis & Evidence

Description:

FULL ECONOMIC ASSESSMENT

Price Base Year 2019	PV Base Year 2020	Time Period 15 Years	Net Benefit (Present Value (PV)) (£m)		
			Low: £-6,460m	High: £-192m	Best Estimate: £-3,285m

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	£557m	£321m	£4,381m
High	£1,082m	£594m	£8,161m
Best Estimate	£820m	£442m	£6,085m

Description and scale of key monetised costs by 'main affected groups'

The costs above are the implementation, operating and maintenance costs associated with the Building Safety Bill, the costs can be split as:

- Transitional costs covering the initial uplift of some existing buildings to comply with the new regulations as well as familiarisation and training costs.
- Annually recurring costs of the new regulations for newly constructed buildings and recurring annual admin costs on all buildings.

Other key non-monetised costs by 'main affected groups'

There are no hypothesized non-monetised costs.

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low		£138m	£1,701m
High		£335m	£4,189m
Best Estimate	£0	£225m	£2,800m

Description and scale of key monetised benefits by 'main affected groups'

The primary monetised benefit is reducing the risk of fires spreading across or within buildings. This will reduce risks to life and health (including mental health) and avoid losses of property and other costs related to such incidents. The likelihood of systemic risks arising and requiring expenditure to mitigate and remedy will also be reduced. There will also be other cost savings, in part due to the avoidance of defects arising in the construction process, as well as potential benefits related to innovation and trade.

Note: These estimates reflect benefits accrued over the 15-year policy that could persist up to 60 years after the end of that period.

Other key non-monetised benefits by 'main affected groups'

Non-monetised benefits include the reassurance of residents in the safety of their homes, enhanced confidence of insurers and mortgage lenders and a clearer operating environment for the construction industry. Switching value analysis has been carried out on the reassurance of residents benefit. This indicates that the benefits of the policy would equal its costs if the present value benefit of reassurance was worth £3,300 per resident (using best estimates of NPV and resident population).

Key assumptions/sensitivities/risks Discount rate (%)

The key assumptions on benefits are set out in Annex A.

For the first 30 years of the appraisal period, a discount rate of 3.5% has been applied to costs and non-health related benefits and 1.5% to health-related benefits. For the subsequent 45 years, a 3% and 1.29% discount rate has been applied respectively. This is in line with guidance in HM Treasury's Green Book - Appraisal and Evaluation in Central Government.

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1. Background and policy context

1. The Grenfell Tower was a 24-storey residential tower block in West Kensington, London, which in 2016 had been re-clad in Aluminium Composite Material (ACM) cladding as part of a refurbishment project. On 14 June 2017, a fire broke out on the fourth floor of the 24-storey tower block and took 24 hours to get under control. A series of failures in the building's design and maintenance caused the fire to spread at a speed and extent that was unexpected. In particular, the cladding acted as a catalyst for the fire spreading externally. 255 people escaped or were rescued by firefighters. 71 fatalities were confirmed by the coroner, and a further former resident passed away in January 2018. 151 homes were lost.
2. In response, the Government invited Sir Martin Moore-Bick to head a public inquiry to examine the circumstances leading up to and surrounding the fire, and established the Building Safety Programme within the Ministry of Housing, Communities and Local Government (MHCLG) to oversee its response. The programme is structured around four key areas: identifying unsafe buildings, making those buildings safe, identifying system problems, and fixing the system. As the first step in identifying and fixing system problems, Dame Judith Hackitt was appointed to examine building and fire safety regulations and related compliance and enforcement with the focus on multi-occupancy high-rise residential buildings, and make recommendations that will ensure:
 - a sufficiently robust regulatory system for the future; and
 - residents feel that the buildings they live in are safe and remain so.
3. The 'Independent Review of Building Regulations and Fire Safety Review' was published in May 2018¹. The review found the regulatory system of building regulations and fire safety is not fit for purpose for high-rise residential buildings, leaving room for those who wish to take short cuts to do so. In particular:
 - regulations and guidance are often misunderstood or misinterpreted;
 - the drive to do things as quickly and cheaply as possible means that concerns are often ignored, and some of those undertaking building work fail to prioritise safety; and
 - there is ambiguity as to where responsibilities lie and inadequate regulatory oversight and enforcement.
4. Dame Judith Hackitt's recommendations were developed after consultation with a wide range of stakeholders², and draw on comparison with the experiences and approaches taken by other countries³.
5. The Government committed to taking forward all of the principles and recommendations for reform set out in the independent review and published an Implementation Plan⁴ in December 2018 setting out how the recommendations would be taken forward. In June 2019, the Government published a consultation, 'Building a Safer Future'⁵ consultation that built on the recommendations from the independent review and set out how it would achieve this long-term reform. The consultation closed in July 2019 and the Government published its response⁵ in April 2020, setting out how it intended to reform the building safety system covering the performance of all buildings and the management of building safety risks in new and existing buildings in scope.

¹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/707785/Building_a_Safer_Future_-_web.pdf

² https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/707785/Building_a_Safer_Future_-_web.pdf - Annex G - Stakeholder Engagement.

³ As above – Chapter 10: International Examples

⁴ <https://www.gov.uk/government/publications/building-a-safer-future-an-implementation-plan>

⁵ <https://www.gov.uk/government/consultations/building-a-safer-future-proposals-for-reform-of-the-building-safety-regulatory-system>

6. The Government will legislate for these reforms in new primary legislation through the Building Safety Bill and further secondary legislation where necessary. At the core of the recommendations made by Dame Judith Hackitt is the requirement for a new simpler regulatory framework that has the power to drive the right behaviours, and create an environment where there are incentives to do the right thing and serious penalties for those who choose to game the system and as a result put residents at risk. This must be delivered by putting that new regulatory framework on a statutory basis, overseen by a new national Building Safety Regulator, that will be established within the Health and Safety Executive. The Building Safety Regulator will oversee and enforce the more stringent regime for new and existing buildings in scope, and drive improvements in building safety and performance standards across the built environment. MHCLG is working closely with the Health and Safety Executive to establish the regulator.

2. Wider Action

7. Beyond the measures being taken forward through the Building Safety Bill, the Government is also implementing legislative measures in response to the recommendations from Phase 1 of the Grenfell Tower Inquiry through the Fire Safety Bill. The Bill will clarify the scope of the Regulatory Reform (Fire Safety) Order 2005 to ensure that when the Responsible Person makes a 'suitable and sufficient assessment of the risks' in multi-occupied residential buildings, they take account of the structure, external walls (including balconies) and flat entrance doors in order to identify the general fire precautions necessary for compliance with the Order.
8. There are a number of areas of market failure that can and are being tackled without legislation, including remediation of buildings with inadequate cladding, focused research on building risks, reviewing existing building regulations, and working with industry to tackle cultural and behavioural change across the industry.
9. The Government is delivering a programme of non-legislative measures, that have been summarised in the Government response to the 'Building a Safer Future' consultation⁶. All costs and impacts associated with these measures have been considered independently of this Impact Assessment.

3. Policy Objectives

10. The Government is committed to learning the lessons from the Grenfell Tower fire and bringing about the fundamental reform of the building safety system envisioned by Dame Judith Hackitt in her independent review. The overall aim is that everyone should live in a home which is decent, safe and secure.
11. Implementation of these reforms is intended to move us from the conditions that allowed a fire like that at Grenfell Tower to occur, to a system where developers and building owners take greater responsibility for the safety of residents in their buildings. A change of this scale requires new legislation to implement regulatory reform and a significant culture change in industry and increased levels of competence for all those acting within the sector. The intended impact of the more stringent regulatory regime for buildings in scope is to provide stronger accountability for, and stronger duties on, those responsible for the safety of buildings in scope throughout design, construction, and occupation. The intended impact for buildings across the built environment is improvements in building safety and performance standards.
12. The outcome expected is that buildings are safer places to live and, particularly for buildings in scope, there is a reduction in the risk of multi-fatality incidents occurring in a building in scope per

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/877628/A_reformed_building_safety_regulatory_system_-_gvt_response_to_the_Building_a_Safer_Future_consultation.pdf - Introduction and Chapter 10 - Improving the whole system: wider measures on building safety

year. In addition to a reduction of such incidents, the outcomes expected (that may also be measurable) are increased professional standards across the built environment, including through:

- Improved performance of Building Control – both Building control authorities and Registered building control approvers, demonstrated against key performance indicators (KPIs).
 - A more informed understanding of current and emerging risks to building safety and performance, as reported by the Building Safety Regulator based on research and on data.
 - Improved individual professional standards for industry and regulators (specifically building control), as measured through the Competence Steering Group’s oversight of competency frameworks, and through the unified professional structure for building control professionals.
13. Progress and evidence of improved performance will also be assessed through a statutory requirement for independent periodic reviews of the regulatory regime for building safety, its effectiveness and operation.

4. Transition and implementation

14. The new provisions being implemented through this Bill will be commenced by Order following Royal Assent. The Bill will provide powers in several areas to implement detailed requirements via secondary legislation and statutory guidance, including for many of the elements of the more stringent regime for buildings in scope.
15. The Government intends to set out more details on the transition timeline for the Bill in due course. For the introduction of the new regime for buildings in scope, this transition will need to prioritise the delivery of safety at pace, balanced with ensuring sufficient capacity is available in the Building Safety Regulator and in all affected stakeholder groups, and minimising disruption to ongoing construction activity.
16. There will be a suitable transition period for existing buildings in scope of the more stringent regime. As explained elsewhere in this document these will ‘enter’ the regime through the Building Registration process⁷, and the Building Safety Regulator will set out the details of a risk-based transition approach in due course.

5. Approach to evidence and analysis in this document

17. As this Impact Assessment relates to primary legislation, the description of our policy intent and many estimates of costs and benefits rely on high-level or provisional working assumptions about the precise nature of the regime in operation. These assumptions will be refined, and may change, during the detailed planning of implementation and development of the detailed regulations that sit under the primary legislation. Future regulations will be supported by further assessments of impacts and in some cases by the development of operational policy and guidance by the Building Safety Regulator. As a consequence, it is not always possible to state the costs of the proposed regime with certainty and a wide range of possible costs is therefore presented.
18. Analysis presented in this Impact Assessment has drawn significantly on the experience of client work on high-risk buildings of PRP Architects and modelling by Adroit Economics as part of a consortium contracted by the Ministry for Housing, Communities and Local Government. Cost estimates for the Building Safety Regulator have been aligned as far as possible with financial and operational modelling by the Health and Safety Executive. Additional evidence has been drawn from engagement with industry groups and representative bodies for local enforcement bodies, and this engagement will continue.

⁷ Please note – Policy officials and Parliamentary Counsel are discussing the detail of the registration process, and the information that can be available and required at initial registration. We expect the detailed description in this section to be updated before publication.

19. The costs associated with not taking forward the measures in this Bill, namely the consequences to safety and building management in continuing with the current building control regime, have not been explored as a distinct option. However, the benefits and costs estimated in this Impact Assessment have been considered relative to doing nothing.

6. Description of policy Intent

This section provides a detailed overview of the policy intent behind the measures that have been included in the draft Building Safety Bill, and is based on statutory obligations specifically included in the Bill, as well as assumptions of detailed requirements where these will be delivered through secondary legislation. The intention is to provide a complete picture of the intent, and of the policy basis upon which the impact, costs and benefits of that intent have been considered. All detail is of course dependent on scrutiny from Parliament, as well as on future consultation on and consideration of secondary legislation.

Overview of groups impacted across all measures

20. The measures being implemented in the Building Safety Bill will impact those involved in the design, construction, management and occupation of all buildings, including:

- Local regulators and enforcing authorities, including Local Authority Building control authorities and Fire and Rescue Authorities – The national Building Safety Regulator will implement the new regulatory regime for buildings in scope, working with the Fire and Rescue Authorities and Local Authorities, who will facilitate and assist the work of the Building Safety Regulator. Where the Building Safety Regulator uses building control and fire safety expertise to assist with the regulation of a building in scope, this is referred to as using a multi-disciplinary team to oversee the building in scope.
- Local Authorities, Housing Associations, developers and others involved in the commissioning of buildings in scope – the new regulatory regime will place additional responsibilities on these persons and/or corporate bodies, identified as clients in the new regime, to make suitable arrangements for managing building work so as to comply with building regulations and with the new regime.
- Developers, designers, contractors and others involved in the design and construction of buildings in scope – the new regulatory regime will place additional responsibilities on these persons and/or corporate bodies, identified as duty holders in the new regime, to manage and coordinate all phases of construction to ensure that the building project complies with building regulations.
- Building owners, management companies and individuals involved in the management of buildings in scope. There are many complex ownerships structures, and therefore this category may include (but not be limited to): freeholders, the head lessees, management companies, commonhold associations and Right to Manage Companies – the new regulatory regime will place additional responsibilities on these persons and/or bodies, identified as Accountable Persons and Building Safety Managers in the new regime.
- Registered building control approvers (formerly known as Approved Inspectors) – The Building Safety Bill will remove the ability of the dutyholder to choose which building control body oversees the construction or refurbishment of buildings in scope, impacting on Registered building control approvers, both corporate bodies and individuals. The Government intends that Registered building control approvers will play a significant role in the new regime for higher-risk buildings. The Building Safety Regulator will be able to draw on building control services from Registered building control approvers on the regulatory side where Local Authorities are not well-placed to provide these, and Registered building control approvers will be able to provide consultancy services to developers to help them navigate the new system. The Bill will also put in place a unified professional structure for building control covering both Registered building inspectors working for Local Authorities and Registered building control approvers.

- Leasehold owners for properties that are part of buildings in scope – Leasehold owners will have clear legal responsibilities to cooperate with the Accountable Person and Building Safety Manager in discharging their duty to reduce fire and structural safety risks in the building. This may result in additional costs to leaseholders. The draft Bill establishes the concept of the ‘building safety charge’; this will be a separate mechanism from service charges to give leaseholders greater transparency around costs incurred in maintaining a safe building. It also includes numerous powers to limit these costs, ensure that they are reasonably incurred and exclude certain costs from being charged. It is our intention that leaseholders should not face unaffordable costs and we are exploring options to mitigate these if they arise.
- Residents of properties that are part of buildings in scope – Where residents are not also the leasehold owner of the property, they will nonetheless have clear legal responsibilities to cooperate with the Accountable Person and Building Safety Manager in discharging their duty to reduce fire and structural safety risks in the building.
- Manufacturers, distributors and suppliers of construction products – The Bill will provide a power to establish a new construction products regulatory role through secondary legislation and will place new requirements on those involved in the construction products sector. The impact of those requirements will be considered alongside any proposed secondary legislation.

The Building Safety Regulator

21. In her independent review, Dame Judith Hackitt recommended establishing a new Joint Competent Authority (JCA), comprising Local Authority Building Standards, fire and rescue authorities and the Health and Safety Executive to oversee better management of safety risks for buildings in scope, with new overarching bodies or structures to ensure that residents are at the heart of a new system of building safety for buildings in scope, improve oversight of the building regulatory regime, and oversee competence requirements. The proposed Building Safety Regulator brings these proposals together and goes further, putting in place a single national regulator at the heart of the system.
22. Following further advice from Dame Judith as independent advisor to the Government on the Building Safety Regulator, the Government announced in January 2020 that the Building Safety Regulator will be established in the Health and Safety Executive, and will report on building safety matters to the Secretary of State for Housing, who will retain overall responsibility for the regulatory system. The Health & Safety Executive is setting up the Building Safety Regulator in shadow form ahead of it being fully established when the statutory framework is in place.
23. The Building Safety Regulator will have three functions:
 - Leading implementation of the new more stringent regulatory regime (for buildings in scope).
 - Oversight of the building safety and performance system (for all buildings).
 - Assisting and encouraging competence among the built environment industry and regulators.
24. The Building Safety Regulator will carry out a range of activity to support those functions, including:
 - Operating a complaints handling system to triage residents’ safety concerns that have not been resolved by the Accountable Person/Building Safety Manager and track them through to their conclusion.
 - Setting up national systems, including establishing a national register of buildings in scope.
 - Producing advice and working with dutyholders to encourage those responsible for managing the safety risks of buildings in scope to discharge that responsibility.
 - Undertaking research, market surveillance and analysis to identify, advise on and respond to current and emerging safety risks both in buildings in scope and in other buildings, including identifying patterns and trends.

25. The detail and impact for these functions are covered in more detail below, and the overall costs associated with establishing the Building Safety Regulator are considered in the costs section later in this document.

The new more stringent regulatory regime (for buildings in scope)

26. For buildings within scope of the more stringent regime, the Building Safety Regulator will oversee a new dutyholder regime operating over a building's life span, working with existing local regulators and enforcement bodies.

27. There will be broad powers for the Building Safety Regulator to be assisted by Local Authorities (notably building control teams) and Fire & Rescue Authorities. The Building Safety Regulator will also be able to call upon expertise from the private sector, including structural engineers and registered building control approvers. Where the Building Safety Regulator uses building control and fire safety expertise to assist with the regulation of a building in scope, this is referred to as using a multi-disciplinary team. In this Impact Assessment, we assume that the Building Safety Regulator will always set up a multi-disciplinary team when making decisions at Gateways 2 and 3, and when appropriate for decisions on buildings in occupation.

Scope

28. In the first instance, the more stringent regime will apply to all multi-occupied residential buildings of 18 metres or more in height, or more than six storeys, whichever is reached first. We estimate this will include approximately 13,000 existing buildings⁸ when the Bill receives Royal Assent and will grow by 400 buildings per year (on average) thereafter, assuming further buildings are added as a result of new development at an average rate of 3% per year. The following groups are impacted by the scope of the more stringent regime for buildings in scope:

- Local Regulators and enforcement bodies, including building control teams and fire and rescue authorities that will facilitate and assist with the work of the Building Safety Regulator in applying the more stringent regime to buildings in scope (typically through working with HSE in multi-disciplinary teams).
 - Developers, designers, contractors and others involved in the commissioning, design and construction of buildings in scope will be required to comply with its requirements.
 - Building owners, management companies and individuals involved in the management of buildings in scope will be required to comply with the requirements of the new regulatory regime.
 - The draft Bill establishes the concept of the 'building safety charge'; this will be a separate mechanism from service charges to give leaseholders greater transparency around costs incurred in maintaining a safe building. It also includes numerous powers to limit these costs, ensure that they are reasonably incurred and exclude certain costs from being charged. It is our intention that leaseholders should not face unaffordable costs and we are exploring options to mitigate these if they arise. All residents will also need to meet their obligations to cooperate with the Accountable Person and Building Safety Manager in discharging their duty.
29. The Secretary of State will have the ability to amend what buildings are in scope of the regime and the definition of 'building safety risks' being regulated, based on the latest evidence. The Building Safety Regulator will have a duty to keep the safety of people occupying or otherwise using buildings under review in relation to risks arising from buildings, and must advise the Secretary of State when the scope, or the definition of a building in scope, may be amended. Any changes to the scope will

⁸ We estimate that, as of April 2020, there were approximately 12,500 buildings in scope. This figure was then adjusted to account for expected growth in building numbers up to Royal Assent.

Further information on buildings in scope (including characteristics such as height and building type) will be published in due course in the Building Safety Programme's monthly data release.

be laid in Parliament following engagement with the sector and accompanied by an appropriate impact assessment. Changes in scope will also be subject to a reasonable transition period.

Design and construction – The Dutyholder

30. When buildings are designed, constructed or refurbished, dutyholders -- including existing dutyholders identified in the Construction (Design and Management) Regulations 2015 (CDM 2015) (the Client, the Principal Designer, the Principal Contractor, designers and contractors) -- will have formal responsibilities for compliance with building regulations. The main dutyholder roles are Client, Principal Designer, Principal Contractor, Designer, and Contractor⁹.
31. Tables 1 and 2 summarise what dutyholders will be required to undertake during design and construction. These duties will also apply to the Accountable Person (the dutyholder in occupation) if they meet the definition of a client detailed above (for example, during a refurbishment).

<i>Table 1: Duties that apply to all dutyholders during design and construction</i>	
Cooperate and share information with other relevant dutyholders and the building safety regulator;	
Ensure compliance with building regulations;	
Comply with specific regulatory requirements imposed by the new regime (e.g. at gateway points, mandatory occurrence reporting);	
Ensure they and the people they appoint are competent (have the necessary skills, knowledge, experience and behaviours to carry out to carry out design work and building work they are engaged to do and only undertake work within the limits of that competence.	

<i>Table 2: Role-Specific Duties</i>	
Client	<ul style="list-style-type: none"> • Make suitable arrangements for managing building work to deliver compliance with building regulations, including allocating sufficient time and resource; • Appoint a Principal Designer and Principal Contractor in accordance with CDM requirements, if there is more than one contractor working on the building project; • Take reasonable steps to ensure that those they appoint comply with their responsibilities in relation to building safety; • Ensure appropriate handover of information takes place between key dutyholders; • Ensure that the regulatory requirements of the building regulations are met, including the requirements specific to buildings in scope; • Develop and maintain a golden thread of information that will enable building safety information to be available to other dutyholders, during design and construction, to the Building Safety Regulator and later to the Accountable Person;*; • Establish reporting processes to support a mandatory occurrence reporting regime.**
Principal Designers	<ul style="list-style-type: none"> • Plan, manage and monitor the pre-construction phase and coordinate matters to ensure that the building project complies with building regulations; • Ensure cooperation between Designers, Client and Principal Designer; • Liaise with the Principal Contractor and share information relevant to the planning, management and monitoring of the construction phase (including information that will form part of the golden thread); • Take reasonable steps to ensure the Designers are discharging their duties; • Assist the client in meeting the requirements of the building regulations, including those specific to buildings in scope; • Contribute to the construction control plan, engaging with the principal contractor

⁹ See https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/877628/A_reformed_building_safety_regulatory_system_-_gvt_response_to_the_Building_a_Safer_Future_consultation.pdf - Duty-holders section, for further detail.

Designers	<ul style="list-style-type: none"> • When preparing or modifying a design, comply with building regulations; • Must not carry out work in relation to a project unless they are satisfied the Client is aware of their duties set out in regulation; • Take reasonable steps to provide sufficient information about the design, construction and maintenance of the structure; • Report safety concerns to the Client, Principal Designer or Principal Contractor.
Principal Contractors	<ul style="list-style-type: none"> • Plan, manage and monitor the construction phase and coordinate matters to ensure that the building project complies with building regulations; • Ensure cooperation between Contractors, Client and the Principal Designer; • Liase with Principal Designer and share information relevant to the planning management and monitoring of the pre-construction phase; • Take reasonable steps to ensure contractors are meeting their core duties; • Assist the client in meeting the requirements of the building regulations, including those specific to buildings in scope; • Contribute to handover of golden thread to the Accountable Person, including relevant information provided as part of gateways.
Contractors	<ul style="list-style-type: none"> • Plan, manage and monitor build work carried out by the contractor to ensure that the building work complies with building regulations; • Must not carry out work in relation to a project unless they are satisfied the Client is aware of their duties set out in regulation; • Report safety concerns to the Client, Principal Designer or Principal Contractor; • Satisfy themselves that those they appoint to carry out work have the relevant Skills, Knowledge, Experiences and Behaviours or are appropriately supervised.

* **golden thread** – see paras 48-50

** **Mandatory occurrence reporting** – see para 40

32. Dutyholder roles can be fulfilled by either an individual or an organisation/legal entity. A dutyholder can hold more than one role in a building project. The principal designer will be a designer, and will therefore also have designer duties; and the principal contractor will also be a contractor and will therefore also have contractor duties:

- Local Authorities, Housing Associations, developers and others involved in the commissioning of buildings in scope will usually be identified as clients. The Accountable Person for a building may also take on the role of client during a refurbishment.
- Developers, designers, contractors and others involved in the construction of buildings in scope could take on any of the dutyholders roles, depending on the size and complexity of the project, providing that they have the competence or organisational capability for the work they are engaged to do.

Design and construction – The Gateways Process

33. Dutyholders during the design and construction phase of buildings in scope will be responsible for meeting the requirements at two of three new key sign off points, where the Client will need to demonstrate to the Building Safety Regulator that the requirements of the building regulations are being met and risks are being appropriately managed in order to progress to the next stage of development.

34. All three Gateway points will apply to all multi-occupied residential buildings of 18 metres or more in height, or more than six storeys (whichever is reached first). This goes further than the proposal set

out in the consultation¹⁰ where Gateway one would apply to multi-occupied residential buildings of 30 metres or more height.

Planning Gateway one

35. The first gateway utilises the existing planning permission process to ensure that fire safety issues which impact on planning are considered for developments containing buildings in scope. Planning Gateway one will require fire safety to be considered and integrated into a scheme as early as possible in the life of a building, through consideration by the Local Planning Authority (LPA) as part of their decision-making process.
36. Developers will be required to submit a Fire Statement with planning applications for buildings in scope. The Fire Statement will contain information on water supplies, emergency fire vehicle access, as well as fire safety information which specifically relates to and impacts on planning considerations.
37. The Building Safety Regulator will be established as a statutory consultee to provide the LPA with specialist fire safety input where planning consent for a development containing an 'in-scope' building is sought. National guidance will be published to help developers prepare effective Fire Statements and to support local planning authorities in implementing Planning Gateway one. Where a planning application is not required (e.g. because it has been permitted by the General Permitted Development Order 2015), the development proposals will proceed straight to Gateway two.
38. Planning Gateway one occurs before dutyholders are required to be in place. The requirement to prepare the Fire Statement will be fulfilled by those applying for planning permission for a development containing an in scope building, including Local Authorities, Housing Associations, and developers. We estimate that on average over the 15 year appraisal period around 720 buildings per year will be required to go through Planning Gateway one, based on an assumption that the stock of buildings in scope grows as a result of new development at an average rate of 3% of stock per year, and that the number of planning applications will be 50% higher than the number of new builds per year.
39. When assessing an application at Planning Gateway one, the local planning authority will check informational requirements have been met (the submission of a Fire Statement) and consult the Building Safety Regulator for specialist fire safety expertise on a statutory basis. The Building Safety Regulator may choose to draw on the expertise of local Fire and Rescue Services. The current statutory deadline for responses to consultations on planning applications will apply, to avoid delays to the planning process.
40. We expect Planning Gateway one to involve some additional administrative and officer time and costs for local planning authorities and the Building Safety Regulator as the statutory consultee. A New Burdens Assessment for the Building Safety Bill will be prepared in due course.

Gateway two

41. The second Gateway point will be before construction begins, replacing the current 'deposit of full plans' stage under the Building Regulations 2010. Under the new regime, the Building Safety Regulator will take on the role of the Building Control Body and be legally responsible for regulating in-scope buildings in respect of building regulations. The Building Safety Regulator will be able to bring together multi-disciplinary teams, including local regulators and enforcement bodies, to support it through the build process.

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/877628/A_reformed_building_safety_regulatory_system_-_gvt_response_to_the_Building_a_Safer_Future_consultation.pdf - Page 14

42. At Gateway two the Client will be required to submit key information to the Building Safety Regulator demonstrating how they are complying with building regulations and demonstrating that they are managing building safety risks. Key Information¹¹ will include:
- Full Plans, as defined under the Building Regulations 2010;
 - Construction Control Plan, describing how building safety and Building Regulations compliance will be maintained during the construction phase, the framework for mandatory occurrence reporting, how information will be collated and managed to develop the golden thread, how competence of those appointed to work on the project will be assured, and how change will be controlled and recorded;
 - Fire and Emergency File, which builds upon the fire statement produced at Planning Gateway one (where produced) and sets out the key building safety information;
 - A signed declaration that they are content the Principal Designer and Principal Contractor have the necessary Skills, Knowledge, Experiences and Behaviours, with evidence of their assessment process;
 - The relevant key dataset (See Paras 47-49 on Golden Thread) and other supporting documentation that will help the Building Safety Regulator determine whether the application meets the building regulations requirements and that the duty-holder has sufficiently demonstrated that they will manage building safety risks.
 - A developer may wish to start occupation of the building before building work is complete. Developers should submit plans for partial occupation as part of the 'full plans' application submitted at Gateway two.
43. The Building Safety Regulator will assess the full plans and associated information against all the requirements of the building regulations. We assume that the Building Safety Regulator will use a multi-disciplinary team approach, working with local regulators and enforcement bodies, to deliver this function. They will be able to seek further information from the Client or reject an application outright if they are not satisfied it meets the necessary requirements to proceed to the next development stage. If an application is rejected but the Client starts work anyway, the Building Safety Regulator will be able to issue a stop notice, requiring all work to stop, breach of which will be a criminal offence.
44. For complex buildings, the Client will be able to apply for a staged approach to obtaining Gateway two approval, by submitting documents in tranches rather than all at once. It will be at the Regulator's discretion whether plans proceed through the staged plans route or the full plans route. Building on best practice established in the planning regime, the Government is also exploring how early advice could benefit developers that are required to go through the Gateway process and reduce overall costs.
45. The lead responsibility for submitting the key information required at Gateway two will sit with the Client, though they will be assisted as appropriate by the other dutyholders, particularly the Principal Designer and Principal Contractor. This requirement will therefore be fulfilled by Local Authorities, Housing Associations, developers or others involved in the commissioning of buildings in scope, as well as designers, contractors and others involved in planning and managing their construction. We estimate that on average over the 15 year appraisal period around 490 buildings per year will be required to go through Gateway two, based on an assumption that the stock of buildings in scope grows as a result of new development at an average rate of 3% of stock per year.
46. To assess the information provided, the Building Safety Regulator will typically work with building control (most often from the Local Authority) and Fire and Rescue Services as part of the multi-

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/877628/A_reformed_building_safety_regulatory_system_-_gvt_response_to_the_Building_a_Safer_Future_consultation.pdf For further information on information see Chapter 11: Glossary of Terms Used

disciplinary team. This will require effective cooperation between the Building Safety Regulator, Local Authority and Fire & Rescue Authorities.

During Construction

47. Once permission has been provided at Gateway two, dutyholders will be able to proceed with construction, during which they will be required to:
- Comply with the programme of inspection agreed with the Building Safety Regulator, to demonstrate ongoing compliance with Building regulations; The Building Safety Regulator can undertake additional inspections as they deem necessary.
 - Implement and fully comply with the **change control process** they have proposed for managing departures to the plans and strategies outlined in the fire and emergency file, or construction control plan agreed at gateway two. Any deviations will need to be agreed by the Client, Principal Contractor and Principal Designer, making appropriate considerations of the impact of proposed changes on building safety, and recorded in the change control log within the Construction Control Plan. Changes that could impact on fire and structural safety (safety changes) will need the Building Safety Regulator's approval to proceed. Depending on the nature of the change and the consideration required, this may also involve consultation and consideration through the multi-disciplinary team; and
 - Implement and fully comply with the framework they have proposed for **Mandatory Occurrence Reporting**, providing obligatory reporting of fire and structural safety occurrences to the Building Safety Regulator. In doing so liability is not attributable to individual(s), however, the Building Safety Regulator will use the intelligence gathered from the report to inform its inspection regime. The Government will provide for a list of occurrences within legislation.
48. If any of these controls is not implemented properly, the Building Safety Regulator will be able to issue an improvement notice, requiring compliance by a set date; if the notice is not complied with, the Building Safety Regulator will have the option of issuing a stop notice (as described at Gateway two) or prosecuting the relevant dutyholder.

Gateway three

49. The third and final gateway point is before occupation of the building at the final completion certificate/final notice stage under the building regulations. Again, the Building Safety Regulator will provide the building control function and we assume that it will work with local regulators and enforcement bodies, using a multi-disciplinary team approach to delivering this function.
50. At this stage, the Client will be required to submit to the Building Safety Regulator information on the final, as-built building. This will include:
- Updated as-built plans indicating any variations since Gateway two;
 - Construction control plan with complete change control log;
 - An updated fire and emergency file; and
 - A complete key dataset (see paras 55-57 on Golden Thread).
51. At Gateway three, the Client, Principal Designer and Principal Contractor will also be required to produce and co-sign a final declaration confirming that to the best of their knowledge the building complies with building regulations.
52. The Building Safety Regulator, typically working with local regulators and enforcement bodies through the multi-disciplinary team, will decide whether to accept the declaration, and associated information providing evidence that the building complies with all the requirements of Gateway three, with the option to request further information from dutyholders if not satisfied. If partial occupation is desired, the developer will be required to submit a partial completion application with plans and relevant documents for the completed parts of the building. If satisfied, the Building Safety Regulator

will issue a partial completion certificate for the completed parts of the building, and the building should then be registered before occupation commences.

53. As with Gateway two, the lead responsibility for submitting the key information required will sit with the Client, assisted as appropriate by the other dutyholders. This requirement will therefore be fulfilled Local Authorities, Housing Associations, developers or others involved in the commissioning of buildings in scope, as well as designers, contractors and others involved in managing their construction. We estimate that on average over the 15 year appraisal period around 490 buildings per year will be required to go through Gateway three, based on an assumption that the stock of buildings in scope grows as a result of new development at an average rate of 3% of stock per year.
54. To assess the information provided, the Building Safety Regulator will typically obtain building control advice (most often from the Local Authority) and fire safety advice from the Fire and Rescue Services as part of the multi-disciplinary team. This will require effective cooperation between the Building Safety Regulator, Local Authorities and Fire & Rescue Authorities.

Golden Thread

55. Dutyholders will be responsible, during the design and construction of a building, for creating and maintaining the golden thread of safety-related information collected through the gateway process. The key dataset is a subset of the golden thread, which, unlike the golden thread, must be held in a specified format. Over the lifetime of a building, the key dataset is supplemented by further information and evidence that becomes part of the Golden Thread.
56. The Client will be responsible for starting the creation of the golden thread during the design and construction process. As with the rest of the Gateway process, the lead responsibility for creating and maintaining the Golden Thread will sit with the Client. The Principal Designer and Principal Contractor will assist the Client in developing and maintain the golden thread through the construction process. The Client will then be responsible for handing over the golden thread at Gateway three to the Accountable Person. The Government will publish guidance and standards setting out what digital requirements the golden thread of information will have to meet, including specifications regarding the sharing and access of information.
57. The Client will be responsible for providing the key dataset required at Gateway two to the Building Safety Regulator. The key dataset will at this stage not be complete and it will be built up to the complete key dataset that must be provided to the Building Safety Regulator at Gateway three, and handed over the Accountable Person.

In Occupation – Dutyholders

58. Once a building subject to the new more stringent regulatory regime is deemed by the Building Safety Regulator to satisfy the requirements of the building regulations and safety related information (the golden thread) has been handed over to the Accountable Person Gateway three can be passed. The Accountable Person will then be the dutyholder for the building.

The Accountable Person

59. The Accountable Person is the lead dutyholder during occupation. They may be an individual, partnership or corporate body and there may be more than one Accountable Person for a building, depending on its use and ownership model.
60. The Accountable Person will be legally responsible for ensuring that they understand fire and structural risks in their buildings and to take appropriate steps and actions to mitigate and manage these fire and structural risks on an ongoing basis so the building can be safely occupied. To meet this requirement, the Accountable Person will be required to comply with all statutory obligations on an ongoing basis, including those set out in Table 3 below:

Table 3: Key statutory obligations on the AP

Statutory obligations	Description
Assess and manage building safety risks	<ul style="list-style-type: none"> • Build and maintain the safety case (see paras 63-71) • Prepare the Safety Case Report for review as part of the application for a Building Assurance Certificate • Manage key information in the golden thread • Establish and operate a Mandatory Occurrence Reporting Regime
Requirements related to the Building Safety Manager	<ul style="list-style-type: none"> • Appoint a competent Building Safety Manager with the relevant Skills, Knowledge, Experiences and Behaviours, always have a Building Safety Manager in place and notify the Building Safety Regulator of a proposed change of Building Safety Manager. The Building Safety Regulator will ensure that the Accountable Person has carried out due diligence in its nomination/ appointment • Provide adequate funding for the Building Safety Manager
Plans for resident engagement	<ul style="list-style-type: none"> • Promote a strong partnership between residents and the Building Safety Manager, through standalone obligations covering engagement and participation, complaints handling, information provision and the role of residents in helping keep the building safe • Produce and maintain an Engagement Strategy setting out how the obligations will be delivered in practice • Produce an Annual Management Plan (in conjunction with Building Safety Manager and where applicable), adhere to it and provide a copy of it to residents
Building insurance	<ul style="list-style-type: none"> • Ensure the building is adequately insured against fire and structural damage risks, covering the residentially occupied part of the building
Display Building Assurance Certificate	<ul style="list-style-type: none"> • Display a copy, or summary copy, of the Building Assurance Certificate prominently in a part of the building accessible to all residents (e.g. the common parts)

61. For most buildings in scope the identity of the Accountable Person will be the individual, partnership or corporate body with the legal right to receive funds through service charges or rent from leaseholders and tenants in the building. The Accountable Person will also be identifiable by their legal responsibility for the upkeep and maintenance of the building. There are many complex ownership structures of residential and mix-used buildings, and therefore this may include (but not be limited to): freeholders, the head lessees, management companies, commonhold associations or a Right to Manage Companies.
62. There could also be more than one Accountable Person in buildings with complex ownership structures. The Government will produce comprehensive guidance to help identify and support the Accountable Person where there is a complex ownership structure. In such cases, the Accountable Person may also be the responsible person under the Fire Safety Order, but it will be on the relevant dutyholder to demonstrate that their actions have met both the requirements of the new regime and the existing Fire Safety Order requirements. Where a building is mixed-used, the Government intends to consult in the forthcoming fire safety consultation on duties of cooperation between the responsible person(s) under the Fire Safety Order and the Accountable Person(s) under the new regime in order to ensure that the building as a whole is effectively managed.

The Building Safety Manager

63. The Building Safety Manager is appointed by the Accountable Person and can either be an organisation or individual. The principal role of the Building Safety Manager will be to support the Accountable Person in fulfilling their duties.

64. The Accountable Person will need to ensure that the Building Safety Manager has the necessary skills, knowledge and experience and behaviours. The appointment of the nominated Building Safety Manager must be approved by the Building Safety Regulator.
65. The role of Building Safety Manager is new, and the expectation is that it will most usually be fulfilled by a management company, commonhold association or a Right to Manage Company, or an employee thereof.

In Occupation – Building Registration and Assurance

66. All buildings within scope of the new more stringent regulatory regime will be required to register the building with the Building Safety Regulator within a prescribed time, as set by the Building Safety Regulator.
67. To register a building, the Accountable Person will be required to provide the Building Safety Regulator with specified information, which is likely to be core details identifying the building, details of the Accountable Person and Building Safety Manager.
68. After the building is registered, and within a prescribed time period, the Accountable Person for an occupied higher-risk building must also apply to the Building Safety Regulator for a Building Assurance Certificate for the building.
69. The Building Safety Regulator must provide the Accountable Person with a Building Assurance Certificate if their application reassures the Regulator that they are not breaching any of the relevant statutory duties, these include having a Building Safety Manager appointed, having assessed the building safety risks in their building and managing them in accordance with an acceptable Safety Case Report and having produced a Resident's Engagement Strategy.
70. Once the certificate has been awarded by the Building Safety Regulator, the Accountable Person must display it in a prominent position in the building so that it may be easily read by residents.
71. The Secretary of State will make regulations that will set out requirements and procedures for when the certificate must be revised or reissued and the circumstances under which it will be revoked.
72. The Accountable Person will be responsible for registering and certifying a building, a role which will therefore be fulfilled by a body or individual as described in paras 59 to 62 under 'In Occupation – Dutyholders'. We estimate on average over the 15 year appraisal period that around 490 new buildings each year will registration and apply for a Building Assurance Certificate, based on an assumption that the stock of buildings in scope grows as a result of new development at an average rate of 3% of stock per year.
73. There will be a staged transition period for existing buildings.

In Occupation - Safety Cases

74. There will be an ongoing duty on the Accountable Person, supported by the Building Safety Manager, to assess the building safety risks relating to their building and take reasonable and practicable steps to prevent catastrophic accidents and/or fires arising from those risks and limit the consequences to the safety of people in and around the building. By catastrophic, we mean accidents, fires, catastrophic events that have the potential to cause serious danger to people in the building and in its vicinity.
75. The Safety Case Report is the document which explains how the fire and structural risks in a building are being managed by the Building Safety Manager, with an explanation and justification of the approach being taken to manage risks, referencing the supporting evidence in the safety case.
76. The Accountable Person will be required to submit the Safety Case Report to the Building Safety Regulator for review. In assessing the Safety Case Report the Building Safety Regulator will have the ability to require changes to the mitigations in place where it is appropriate to take further measures.

77. The Building Assurance Certificate and safety case will be reviewed periodically by the Building Safety Regulator. A formal review could be triggered outside of this periodic cycle where changes take place such as a refurbishment or change in Accountable Person. The Building Safety Regulator will also be able to call for a review where it considers it appropriate, for example as a result of a mandatory occurrence report or other intelligence such as potential system wide risks and concerns raised by residents.
78. The lead responsibility for creating and maintaining the Safety Case will sit with the Accountable Person, assisted by the Building Safety Manager. This requirement will therefore be fulfilled by a body or individual as described in paras 61-67 under 'In Occupation – Dutyholders'. We estimate that there will be an average of circa 500 new buildings each year over the 15-year appraisal period will be required to prepare their Safety Case, based on an assumption that the stock of buildings in scope grows as a result of new development at an average rate of 3% per year.
79. For existing buildings, the Accountable Person will be required to submit the Safety Case Report for review as part of their application for a Building Assurance Certificate. As explained above, there will be a staged transition period with higher-risk buildings within those in scope of the regime being registered earlier, and the Building Safety Regulator will decide a backstop date for the registration of all existing buildings.
80. To assess the Safety Case Report and supporting information, the Building Safety Regulator will have the option where necessary to work with building control (most often from the Local Authority) and Fire and Rescue Services as part of the multi-disciplinary team. This will require effective cooperation between the Building Safety Regulator, Local Authorities and Fire & Rescue Authorities.
81. For buildings in scope, the requirement to assess the building safety risks relating to their building and put in place adequate safety measures to mitigate those risks may result in disruption and financial requirements placed on leasehold owners within the building. This is likely to be higher for existing buildings, as their building enters the new system with the initial safety case. The draft Bill establishes the concept of the 'building safety charge,' this will be a separate mechanism from service charges to give leaseholders greater transparency around costs incurred in maintaining a safe building. It also includes numerous powers to limit these costs, ensure that they are reasonably incurred and exclude certain costs from being charged. It is our intention that leaseholders should not face unaffordable costs and we are exploring options to mitigate these if they arise.

In Occupation – Residents Engagement and Obligations

82. The Accountable Person will be required to submit a Residents Engagement Strategy to the Building Safety Regulator alongside the Safety Case Report. as part of their application for a Building Assurance Certificate. Thereafter, the Building Safety Manager will be required to implement the commitments in their Statement.
83. The Resident Engagement Strategy sets out how the Accountable Person, supported by the Building Safety Manager, will comply with their obligations in relation to resident engagement and participation, complaints handling, information provision and the role of residents in helping keep the building safe. This will be reviewed regularly by the Building Safety Regulator, alongside the Safety Case Report.
84. The Building Safety Bill will also introduce clear legal responsibilities for residents to cooperate with the Accountable Person and Building Safety Manager in the fulfilment of their duty to reduce fire and structural safety risks. This will mean that residents have legal responsibilities to avoid actions that could pose a risk to the fire and structural safety of the building, for instance removing or replacing compliant fire doors or windows. The Building Safety Manager will have a route to enforce resident responsibilities that balances individual residents' rights with the need for effective, timely enforcement where there is a risk to the safety of other residents, including as a last resort the ability to enforce the statutory duty through the courts.
85. The lead responsibility for creating and maintaining the commitments set out in the Statement will sit with the Building Safety Manager, on behalf of the Accountable Person. This requirement will

therefore be fulfilled by a body or individual as described in paras 61-67 under 'In Occupation – Dutyholders'. We estimate that on average 500 new buildings each year will be required to prepare a Resident Engagement Strategy, based on an assumption that the stock of buildings in scope grows as a result of new development at an average rate of 3% per year. As explained above, there will be a staged transition period for existing buildings to register, requiring the preparation of the Residents Engagement Strategy. Higher-risk buildings within those in scope of the regime will be registered earlier, requiring the preparation of the Statement, and the Building Safety Regulator will decide a backstop date for the registration of all existing buildings. For buildings in scope, the requirement to comply with resident obligations will fall to leasehold owners and other residents within the building.

In Occupation - Residents' Complaints Handling and Escalation

86. Accountable Persons will be required to put in place an internal complaints process for safety concerns, and set this out in the Resident Engagement Strategy. Residents will have the right to escalate safety concerns to the Building Safety Regulator where the Accountable Person/Building Safety Manager has been unable to resolve a concern, or go direct to the Building Safety Regulator where there is a risk to life or of serious injury from failing to act quickly.
87. The Bill will have provision for a duty to co-operate between the Building Safety Regulator and other regulators, ombudsman and redress schemes to support effective complaints handling, by ensuring that complaints are promptly redirected when they are submitted to the wrong organisation originally or that where the concern raised is shared organisations work together to address it. Effective management of this process will require regulators to cooperate.
88. As part of a wider commitment to make complaints handling more effective and broaden access to redress across housing, the 'democratic filter' in the Housing Act 1996¹² will be removed to speed up and improve access to the Housing Ombudsman for social housing tenants. The Social Housing Green Paper consulted on removing the 'democratic filter', and the result of the consultation will be published in due course. The impact of the removal of the 'democratic filter' has been addressed in this assessment.
89. The Government has also committed to ensuring that a New Homes Ombudsman is to be established and that we will legislate to require developers to belong to it. There is a market failure of asymmetric information within the new homes industry where one party has more information than the other. In this case the developer has full information and the buyer only has partial information, with certain elements of the quality of the home not being observable to the buyer. This will result in the buyer not being able to make a fully informed decision.
90. There is currently no incentive for industry to drive up standards. Falling satisfaction rates according to the Home Builders Federation and National House-Building Council's consumer satisfaction survey¹³ demonstrates that the current consumer redress system has flaws, which is also highlighted by the increasing complaints about defects after completion.
91. The New Homes Ombudsman will help to solve the problem of asymmetric information by providing a redress mechanism for consumers to reduce the risk they face when buying a new home and encouraging developers to be more transparent and thus increasing the information available to buyers. The New Homes Ombudsman will plug a gap in the market and provide better redress for purchasers of new build homes and increase overall confidence in the build sector. It will also have a role in driving up quality overall as it will hold developers to account.
92. We will implement a statutory requirement for developers to belong to a New Homes Ombudsman, which can be delivered by either a public or a private body with the Government making arrangements so that one is secured. This option fits the strategic objective of the department and

¹² Housing Act 1996, Schedule 2, Paras 7A and 7B

¹³ <https://www.hbf.co.uk/policy/policy-and-wider-work-program/customer-satisfaction-survey/previous-years-results/>

will give consumers confidence in ensuring that matters will be put right. There are existing bodies¹⁴ which have the capacity and capability and who have expressed a desire to undertake the administration of the New Homes Ombudsman scheme. This option means that there is effective competition in the market which will bring efficiencies and be better value for money.

93. The New Homes Ombudsman measures included in the Building Safety Bill will include:

- Empowering the Secretary of State to make arrangements for securing that a New Homes Ombudsman scheme is available for the purposes of adjudicating on disputes between purchasers and developers of new build homes;
- Requiring new build developers to join the selected New Homes Ombudsman when the scheme is in place and provide relevant information to potential purchasers on the scheme;
- Providing powers to the Secretary of State to approve an existing, or create a new, Code of Practice. This will set guidance on what consumers can expect and what is expected of a developer, standardising the approach to buying and selling and rectification of defects/resolution of disputes across the industry; and
- Setting out which enforcement body will enforce the legislation and what penalties may be applied.

In Occupation – Refurbishments

94. Refurbishment work in buildings in scope could vary widely, from replacement of a window or a door, to adding a number of storeys. The design and construction dutyholder regime will apply to refurbishment work that is building work. Work may be undertaken by a resident within their own property or by the Accountable Person. Requirements will be proportionate and dependent on the scale of works proposed and potential impact on fire and structural safety:

- Refurbishment that is defined as 'Building Work'¹⁵ will be subject to a new 'full plans plus' process. An application must be submitted to the Building Safety Regulator for permission to proceed before work can commence. The Building Safety Regulator will be able to request further information, proportionate to the proposal, including the gateway products. Significant refurbishment may also trigger a review of the Safety Case Report.
- Refurbishment that is 'Building Work', subject to the Competent Person Schemes¹⁶ will be required to submit notification of the proposed work to the Building Safety Regulator prior to work commencing, and on completion. Once the notification has been made work can start, however the Building Safety Regulator has the right to inspect it, should it wish to.
- Refurbishment that is not covered by the building regulations but could have a foreseeable impact on fire and/or structural safety will be covered under the safety case general duty to manage building safety risks.
- Where the proposed refurbishment work requires planning permission, the planning application will need to include a fire statement (as under the Planning Gateway one process).

95. Proposals that would bring out of scope buildings into the scope of the regime should go through the gateways process rather than the refurbishment 'full plans plus' route.

96. The Building Safety Regulator will be the building control body for regulating full plans plus applications in respect of building regulations. They will review applications, consult with residents and Building Safety Managers as required to understand the proposal and its potential impact, and make decisions on whether work can proceed. Where appropriate and proportionate they will

¹⁴ The Property Ombudsman, The Housing Ombudsman, Centre for Dispute Resolution, Ombudsman Services, Consumer Council: Northern Ireland and Public Services Ombudsman Northern Ireland.

¹⁵ The meaning of 'Building Work' is defined in the Building Regulations 2010. The full criteria are available [here](#).

¹⁶ Competent person schemes allow individuals and enterprises to self-certify certain types of building work.

undertake inspections during work, and inspect the work on completion, issuing a completion certificate for the works once satisfied. They will also have the option to intervene in work notified under Competent Person Schemes should they wish to.

97. As refurbishments vary enormously in scale, the Building Safety Regulator will have the option where necessary to work with external building control specialists (most often from the Local Authority) and Fire and Rescue Services as part of the multi-disciplinary team. This will require effective cooperation between the Building Safety Regulator, Local Authorities and Fire & Rescue Authorities.
98. Residents in buildings in scope will be required to notify the Accountable Person/Building Safety Manager of their intention to carry out any refurbishment work in line with their statutory resident obligations, and submit their proposal to the Building Safety Regulator where required.
99. The Accountable Person, supported by the Building Safety Manager, will need to review and update the safety case and golden thread to reflect any refurbishment changes, and any changes to safety measures in the building.

Oversight of building safety and performance system (for all buildings)

100. The Building Safety Regulator will undertake several regulatory functions that will apply to all buildings:
 - Working with technical experts and the construction industry to provide access to advice on best practice in delivering safe, high-performing buildings. This will include advising the Government on changes to the building regulations and Approved Documents.
 - Overseeing and publishing reports on the performance of Building Control Bodies – both Local Authority Building control authorities and Registered building control approvers against key performance indicators (KPI's), with sanctions available where building control services are failing to meet acceptable standards.
 - Advising on current and emerging risks to building safety and performance, drawing on expert advice and on data that Building Control Bodies may be required to share with the Building Safety Regulator from time to time.
101. To carry out these functions, the Building Safety Regulator will manage a new oversight structure, replacing the current Building Regulations Advisory Committee and drawing on specialists with a wide range of knowledge, skills and experience from across the built environment.
102. The Building Safety Regulator will work with Building Control bodies (Local Authorities and Registered building control approvers) to define a series of key performance indicators (KPIs) which will be related to the performance of their building control work. These will be risk-based indicators related to critical elements of their inspection work and the measures for their control, ensuring the safety of buildings they certify. Building Control bodies will then be required to report on their activity in sufficient detail to allow the Building Safety Regulator to monitor and analyse their performance. This will involve some additional administrative time and costs for building control bodies, and professionals providing Registered building control approvers services.

Assisting and encouraging competence across industry and within building control

Industry Competence

103. To deliver fundamental reform of the wider building safety system and ensure that the new regulatory framework for buildings in scope operates effectively, those working in the building sector must be able to achieve and demonstrate a sufficient standard of competence to provide confidence to dutyholders, regulators and residents that they can do their job and deliver safe, high quality buildings.

104. Government is working with the industry-led Competence Steering Group, and its constituent working groups, relevant professional and trade bodies to enhance and encourage improved competence across all people involved in building design, construction, management and maintenance. Key developments to date can be found in the Government response to the consultation on building a safer future¹⁷. The Government intends to take powers through the Building Safety Bill to make building regulations where needed to provide statutory underpinning of competence requirements. Future regulations would include suitable impact assessment(s).
105. As part of the reform to the oversight of built environment professionals, we are amending the Architects Act 1997 to allow the Architects Registration Board (ARB), the regulator of architects in the UK, to monitor the competence of architects throughout their career. These changes will impact architects registered in the UK and may result in costs associated with demonstrating compliance. The detail requirements will be developed in consultation with the ARB and stakeholders and taken forward via secondary legislation, which will be accompanied by a full Impact Assessment or a de minimis report as necessary.
106. The Building Safety Regulator will also establish a new industry-led committee to advise the Building Safety Regulator on industry competence, oversee the longer-term development of the competence frameworks, and drive improvements in levels of competence, through collaborative working, independent analysis and research, and advice and guidance to Government, industry and residents.

Building Control Competence

107. The Building Safety Regulator will be responsible for oversight of the competence and performance of registered building inspectors and the building control bodies in which they work, taking a wider view of the professionalism and culture that needs to support building safety in all classes of work, not just in-scope buildings. The Government intends to create a unified professional structure for building control covering both building inspectors working for Local Authorities and Registered building control approvers, to increase regulatory standards across the sector, and enable greater collaboration and knowledge-sharing
108. The Government intends to provide the legislative framework for this profession through the Building Safety Bill and expects that practical details about the administration of the profession would be developed by the Building Safety Regulator or a designated body in discussion with building control professionals, bodies and their representatives. The impact of the detailed proposals in this area will therefore be considered in due course, once the approach to the administration of the profession has been developed.

Improving the safety of construction products: a new regulatory framework

109. The Government intends to provide a legislative framework through the Building Safety Bill to strengthen the oversight of the existing construction products regulatory regime. The aim is to establish a new national Construction Products regulatory role, responsible for market surveillance, oversight and enforcement at local and national level, advice and support to the industry, and technical advice to the Government.
110. The Government intends to expand the scope of the regulatory regime for construction products to cover more products, ensuring the safety of a wider range of construction products.
111. Any expansion of the regulatory regime will involve placing new requirements on manufacturers of construction products. Detailed proposals will be taken forward in the future through secondary legislation, which will be supported by appropriate impact assessments. Initial estimates are based

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/877628/A_reformed_building_safety_regulatory_system_-_gvt_response_to_the_Building_a_Safer_Future_consultation.pdf Chapter 7: Promoting Competence

on the assumption that a regulatory function will be established within central government, following a relatively centralised model of delivery.

Wider changes to the Building Act

112. The Government has committed to fundamental reform of the wider building safety system. As well as legislating to put in place the new more stringent regulatory regime for buildings in scope, the Government also intends to legislate through the Building Safety Bill to make improvements to other parts of the Building Act 1984 where this will further the objectives of improving building safety; make the legislation clearer and more understandable; and so, strengthen compliance and help enforcement.
113. Specific proposals include:
- Tightening up the framework for transitional arrangements which apply when changes are made to the Regulations so that it is clear that they apply to individual buildings within developments and also providing that approvals of deposited plans, or notices which have been given, lapse automatically after three years if work has not started. Impacts will be dependent on the nature of new regulatory requirements. However, the general effect is likely to be that benefits will be realised sooner whilst some costs may be spread over a shorter period of time.
 - Enabling Building Regulations to extend the scope of Local Authority charging schemes to allow for more cost recovery e.g. related to functions not covered by Building Regulations. Detailed proposals will be subject to a full review and separate consultation and impact assessment.
 - Introducing a more flexible legal framework for plans applications, notices and the operation of self and third-party certification schemes. The intention is to provide appropriate powers for detailed procedural requirements to be set in Building Regulations. An aim of new procedural requirements will be to make them easier for developers to understand and comply with, and for building control bodies to implement.
 - Reviewing the arrangements under which building control bodies consult fire and rescue authorities for buildings out-of-scope of the new regime and for handing over fire safety information on the completion of building work. The aim is to increase the efficiency and consistency with which building control bodies and Fire and Rescue Services can deal with building plans applications, thereby improving the quality of information provided to Fire and Rescue Services and providing greater certainty for developers. We are consulting on options for changes to the regulations as part of the forthcoming consultation on changes to the Fire Safety Order which will be accompanied by its own impact assessment.
 - Making technical improvements to the Act to ensure that there is a consistent approach to the definition of key terms used in the legislation; clarifying powers available to make changes to provisions in the legislation derived from EU law, depending on any future trade deal with the EU; and providing a more flexible framework for dealing with exemptions from the legislation. This clarification work is intended to make the Act easier to understand so helping developers understand what they have to do and aiding compliance.
114. The intention of these changes is to address existing issues impacting on the effectiveness of the Building Act. Specific impacts will be dependent on future changes to existing Building Regulations which will flow from these proposed changes to the Act, and which will be subject to consultation and further assessment of impacts.
115. It is not expected that any of these changes will impact substantially on the implementation of the requirements of the Act. However, there will be a requirement for all parties involved in the interpretation of the Act to familiarise themselves as necessary with the changes. This will of course sit alongside the requirement for all involved in the commissioning, design, construction and management of buildings, and those advising individuals and companies

undertaking these roles, to familiarise themselves with all other changes being legislated for through the Building Safety Bill.

7. Monetised and non-monetised benefits

116. Our analysis estimates that the proposals would yield £137.6m - £335.2m per annum in monetised benefits. This is broken down in table 4.

Table 4: Total monetised benefits, £m per annum, England 2020

	Low	Central	High
Reducing the risk of fire incidents	£39.0m	£81.0m	£146.6m
Reducing the cost of resolving systemic issues	£37.9m	£56.9m	£75.9m
Indirect benefits to the construction industry	£42.1m	£60.2m	£78.2m
Wider benefits	£18.5m	£26.5m	£34.4m
Total	£137.6m	£224.6m	£335.2m

117. Some benefits have not been monetised because of the absence of a sufficiently robust evidence base, while in other cases it was not considered proportionate to monetise benefits. Non-monetised benefits are discussed below.
118. The benefit estimates set out here have been calculated over a 75-year appraisal period. This includes benefits experienced in the 15-year policy appraisal period (equal to that used to estimate costs) and benefits that may persist over the life-span of a building, assumed to be 60 years. This is to best capture all the benefits and reflects the Green Book guidance on 'persistence' of benefits. For example, benefits associated with residents' engagement are likely to last the 15-year policy period, however improvements in the construction quality of new builds will likely last the life-span of the building.
119. A more detailed description of the methodology used to estimate these monetised benefits is set out in Annex A.

Reducing the risk of fire incidents (£39.0m - £146.6m)

120. The Building Safety Bill proposals are expected to reduce the risk of fires spreading across multiple dwellings within an in-scope building (referred to here as fire incidents), and in particular to reduce the risk of major fires (the proposals are not expected to have a material impact on the number of fire ignitions). This will be achieved through stronger oversight, clearer accountability for, and stronger duties on, those responsible for the safety of buildings in scope throughout design, construction, and occupation, and stronger enforcement and sanctions to deter and rectify non-compliance. A stronger voice for residents, and a stronger and more comprehensive framework for the regulation of construction products will also play a part in this.
121. The Building Safety Bill proposals complement and build on other recent policies to reduce the risk of future incidents and the impact that they would have. Relevant policies include the Aluminium

Composite Material (ACM) remediation funds, the review of Approved Document B and the Fire Safety Bill¹⁸. Changes to industry practice may also act to reduce this risk.

122. The Building Safety Bill proposals are expected to further reduce the risk of fire incidents in in-scope buildings and consequently the risk of fatalities and injuries to residents. There are also expected to be reductions in negative impacts on the mental health of residents involved in such incidents, their family members and others, as well as the avoidance of the cost and disruption of rehousing residents, site management and demolition costs, and loss of property.
123. Estimates of the scale of these benefits take account of the projected residual risk of such incidents in the absence of the Building Safety Bill proposals (but after the measures already taken, some of which are discussed above, the extent to which the proposals will reduce this risk, and the expected harm caused by such incidents. While the uncertainty around each of these factors makes any monetised estimates of the scale of benefits highly uncertain, an indicative range of £39.0m - £146.6m per annum is suggested.
124. Substantially reducing the risk of fire incidents in buildings in scope is likely to have the important additional benefit (not monetised in this impact assessment) of reassuring residents and making them feel safer in their homes. This is further discussed in the section on non-monetised benefits below.

Avoided costs of resolving systemic issues (£37.9m - £75.9m)

125. There are wider costs associated with weaknesses in the current regime, where construction does not meet the necessary requirements and so buildings require subsequent and urgent remediation (which may or may not be triggered by an incident involving a specific building). An example of this is the remediation of unsafe ACM cladding on multi-occupied residential buildings over 18 metres following the Grenfell Tower fire and the emergence of other concerns requiring remediation during investigation. This has involved costs for remediation, waking watch fees, and related investigative/legal costs.
126. There is a risk that a similar systemic crisis could emerge in future and necessitate a similar response. The Building Safety Bill proposals are expected to reduce the risk of this happening and therefore to reduce the risk that such associated costs are avoided. An estimate has been made of the annual benefit from avoided costs of resolving systemic issues of around £37.9m-£75.9m.

Other avoided costs (£42.1m - £78.2m)

127. The Building Safety Bill proposals are likely to lead to the avoidance of some costs to the construction industry and others (the expected costs to industry are set out elsewhere in this impact assessment).
128. We would expect the overall package of additional checking and information-gathering to lead to a reduction in re-work costs relating to defects identified during and at the end of the construction period, as well as fewer latent defects identified during building occupation.
129. Information requirements would help to reduce costs from future invasive surveys and for general asset management. There would also be time saving benefits from the checking of products during design and construction, safety case preparation and establishing performance as a result of the products testing, declaration of performance and market improvements.
130. Finally, there are expected to be some costs avoided relating to replacement of windows and balconies and structural incidents in buildings.
131. In total, these benefits are expected to be worth £42.1m - £78.2m per year.

¹⁸ <https://publications.parliament.uk/pa/bills/cbill/58-01/0121/20200316FireSafetyBill2020IA.pdf>

Wider benefits (£18.5m - £34.4m)

132. The proposals may also have wider benefits. The affected UK industries would be likely to gain skills and expertise which could enhance their international competitiveness. Additionally, the improved systems, processes and techniques that may be adopted by industry in response to regulator activities, will drive innovation across the industry resulting in productivity gains/ further cost savings. We estimate that these could be worth £18.5m - £34.4m per year.

Non-monetised benefits

133. In addition, there are a range of benefits which have not been monetised, either because there is a lack of robust data and evidence base available or because it was not considered proportionate to carry out this analysis. The non-monetised benefits of the proposed enhanced building safety regime that have been identified are:

- reassurance to residents that risks to their safety and their homes have been reduced. This would mitigate negative mental health and wellbeing impacts arising from any existing uncertainty/concerns as to the safety of people's homes. This could be achieved by the cumulative impact of safety cases mandating a proactive approach to building safety, the provision of information to residents to help develop more transparent and collaborative relationships over building safety, and a more effective system of handling complaints whereby residents have an increased confidence that issues are raised and resolved faster. Similarly, the introduction of the Building Safety Regulator, will give further confidence to residents that dedicated action is being taken to ensure that the fire and structural safety risks in their households are minimised.

The benefit of reassuring residents of in-scope buildings that their homes are safe has not been monetised in this IA. This is because there is insufficient evidence to do so robustly. Gathering such evidence, for example through a stated preference study, would be challenging and costly, and would be unlikely to deliver results within the required timeframe.

However, it can be instructive to consider how great the monetised value of this benefit would need to be for the benefits of the policy to equal its costs (i.e., to achieve an NPV of zero). This can be done by calculating a switching value representing the required valuation of this benefit per resident of in-scope buildings.

Table 5: Additional benefit per resident required for total benefits to equal costs (over the 15-year policy period)

	Present Value	Equivalent Annual Benefit
Low (high NPV, high resident population)	£200	£10
Central (best estimate NPV, mid-point resident population)	£3,300	£250
High (low NPV, low resident population)	£6,900	£510

Note: A discussion of the methodology used to estimate these figures is presented in Annex A.

In practice, the reassurance benefit would be unlikely to be experienced equally across the population of residents. Some residents would experience no or only a small benefit (for example, because they already feel safe in their home, or because they do not believe the Building Safety Bill proposals and consequent actions will make it safer). This would mean that other residents would need to experience greater reassurance for these averages to be achieved. This should be borne in mind when interpreting these figures.

To put these values in context, DfT's TAG data book values the human cost of a slight casualty at £13,918 (in 2020 prices and values), which is substantially higher than the

switching values calculated here. This is based on a stated preference study and reflects the willingness of an individual to pay to avoid the pain, grief and suffering of a slight accident to the casualty, their relatives and friends;

- greater mortgage provider/insurer confidence, which should improve the functioning of the mortgage and insurance markets and thus the availability and value of these products to leaseholders and residents. This improved confidence will be achieved through the introduction of safety case certificates as well as the licensing process, demonstrating that the senior dutyholder is competent to own and manage the building in scope. The Building Safety Regulator will also provide industry confidence in an approved approval process minimising ambiguity around compliance;
- design and construction workers could benefit from a more transparent operating environment as a result of a consistent accountability framework accomplished by the dutyholder requirements. This would likely also provide assurance of the effective management of risk over the lifecycle of the building. The benefits also include better information management, as well as better management and maintenance of buildings. This could potentially result in safer buildings and reduced long-term maintenance costs;
- the non-monetised benefits of mandatory occurrence reporting include increasing awareness and shared knowledge of building safety concerns, and providing the Building Safety Regulator with an informed intelligence picture of the safety issues within the sector;
- there are likely to be additional benefits to the safety of out-of-scope buildings through the Building Safety Regulator's oversight and competence functions;
- the new national Construction Products regulatory role is intended to improve compliance rates and provide additional assurance that standards are indeed complied with. The main objective is to improve the quality of construction products and push unsafe products and substandard manufacturers out of the market. This will promote a level playing field for companies providing safe products and enhance healthy competition in the industry. Domestic and non-domestic consumption of UK construction products could also increase, relative to products produced elsewhere, due to the enhancement in the reputation of UK construction products with the provision of additional quality assurance. The regulator could also be used to foster continuous improvement of standards and regulations. Analysis of similar regulatory bodies in other industries have found evidence of regulators achieving such benefits. For example, in the food industry the presence of a regulator and food standards regulation have increased overall compliance and food safety, and compliant businesses have also benefitted from increased revenues. There is also evidence of increased competition¹⁹;
- and the New Homes Ombudsman will likely benefit consumers of new build homes, developers/housebuilders, warranty providers and the Government. Consumers of new build homes may have greater confidence when purchasing a new build home, a decrease in risk of defects in their new home and, through a standardised code and increased minimum warranty standards, increased protection. Developers/housebuilders will likely benefit from a fairer rating system in which, due to this assurance, smaller developers become more equal to larger developers. Developers will also have a clear set of transparent guidelines to be held accountable to and benefit from the potential increase in demand for new build housing. Raising minimum warranty standards will lead to greater consistency across the warranty industry, a reduction in complaints/claims and improved reputation from consumers. Finally, this Government intervention will likely lead to higher quality new housing and a more sustainable and resilient housing market.

¹⁹ Adroit Economics, 2020. Task 52: Evidence base for the national regulatory role for construction products – Food Standards Agency case study

8. Costs to regulators of the new regime for buildings in scope

Costs to Government of the Building Safety Regulator

134. As set out above, the Building Safety Regulator has three main functions whose costs will be discussed in detail below.
1. Leading implementation of the new more stringent regulatory regime (for buildings in scope).
 2. Oversight of building safety and performance system (for all buildings).
 3. Assisting and encouraging competence in the built environment industry and registered building inspectors with a role in delivering safe, high-performing buildings (for all buildings).
135. The Building Safety Regulator will carry out a range of activity to support those functions. They will set up national systems, including establishing a national register of buildings in scope. They will produce advice and work with dutyholders to encourage those responsible for managing the safety risks of buildings in scope to discharge that responsibility, including dealing with residents' concerns. They will also undertake research, market surveillance and analysis to identify, advise on and respond to current and emerging safety risks both in buildings in scope and in other buildings.
136. The gross costs (excluding optimism bias) of the Building Safety Regulator across all three functions and its central costs are estimated to be between £64.5m and £116.4m, with a central estimate of £91.6m, on an equivalent annual cost basis when modelled over a 15-year appraisal period²⁰. Optimism Bias of 35% has been applied, increasing the gross costs of the Building Safety Regulator to between £87.1m and £157.1m, with a central estimate of £123.6m per annum.
137. It is assumed that 70% of costs for the regulation of buildings in scope will be recovered in year 1 and 2. From year 3 and thereafter this is expected to increase to 90%. For the competency function and oversight body, it is assumed that 45% and 10% of costs will be recovered respectively. Where central policy, research and administration costs of the Building Safety Regulator directly support the delivery of its operational functions, we assume these costs will be recovered along with operational costs of that function. Where central costs do not directly support an operational function, we assume they cannot be recovered.
138. These costs recovery assumptions are high level and top down, and will be refined considerably as the operating model of the Building Safety Regulator develops. Details such as the fee charging points (e.g. at application for a Building Assurance Certificate), the mechanisms for charging, decisions on who pays and rates for specific activities will be determined as the operating model takes shape and we expect to provide further analysis alongside supporting Secondary Legislation. The analysis below assumes that the administrative effort of charging fees to regulated parties will fall on the Building Safety Regulator. Optimism bias of 10% has been applied to reflect the uncertainty in cost recovery, leading to central estimate of income including Optimism bias of £77.6m, and net costs for the Building Safety Regulator of £46.0m on an equivalent annual basis.
139. The costs presented below in the subsequent subsections are gross costs - excluding income and optimism bias. The costs adjusted for optimism bias and cost recovery are outlined in table 6 below.
140. The annual net cost (EANC) of the Building Safety Regulator, after the inclusion of Optimism Bias on both Gross Costs and fee income is £46.0m, and the present value (over 15 years) is -£548.7m.

²⁰ This figure is inclusive of the Local Regulator staffing costs.

Table 6: Breakdown of gross and net costs, by Building Safety Regulator function - central estimates

Building Safety Regulator function	NPV in £m	EANC in £m
Gross Costs (excl, Optimism Bias)		
Building Safety Regulator Central Costs	30.0	2.5
Regulation of buildings in scope	807.5	67.7
Oversight of building safety and performance	182.9	15.3
Assisting and Encouraging Competence of the Built Environment Industry and Registered Building Inspectors	71.0	6.0
Gross Costs (incl. optimism bias @ 35%)		
Building Safety Regulator Central Costs	40.5	3.4
Regulation of buildings in scope	1,090.2	91.5
Oversight of building safety and performance	246.9	20.7
Assisting and Encouraging Competence of the Built Environment Industry and Registered Building Inspectors	95.9	8.0
Fee Income (incl. optimism bias @ -10%)		
Building Safety Regulator Central Costs	-	-
Regulation of buildings in scope	(863.7)	(72.5)
Oversight of building safety and performance	(22.2)	(1.9)
Assisting and Encouraging Competence of the Built Environment Industry and Registered Building Inspectors	(38.8)	(3.3)
Total Fee Income (incl. optimism bias)	(924.8)	(77.6)
Net Costs (incl. optimism bias)		
Building Safety Regulator Central costs	40.5	3.4
Regulation of buildings in scope - management	226.5	19.0
Oversight of building safety and performance	224.7	18.9
Assisting and encouraging Competence of the Built Environment Industry and Registered Building Inspectors Building Control Professionals	57.1	4.8
Total Net Costs	548.7	46.0

Note that figures in individual sections outlined below (e.g. on Gateways and Safety Cases) are gross costs, excluding optimism bias.

Leading the implementation of new more stringent regulatory regime for buildings in scope

141. The Building Safety Regulator's regulatory function for buildings in scope accounts for the majority of our estimated costs.
142. In costing the operational delivery of the Building Safety Regulator, a "hybrid"²¹ model of the Building Safety Regulator is based on the assumption of the use of multi-disciplinary teams involving cooperation between the Building Safety Regulator, and the Local Authority and Fire and Rescue Authority.
143. Under this model the Building Safety Regulator would be accountable for the effective working of, and decision-making in the regime for buildings in scope but draw on expertise from a team including local regulators and enforcement bodies, primarily Local Authority Building control authorities and Fire and Rescue Services. The cost estimates presented here should be treated as high-level ranges given that the details of operational delivery are still being developed.
144. Once it is established, we estimate that the ongoing annual gross operating costs of the regulatory regime for buildings in scope will be between £26.9m and £51.4m with central estimate of £38.9m on an Equivalent Annual Cost (EAC) basis over a 15-year appraisal period. Given the "hybrid" regulatory model design, these costs and staff requirements will split between the Building Safety Regulator and local regulators and enforcement bodies. We estimate that as a result of the additional activity required, Fire and Rescue Authorities will collectively see an increase in staffing costs on an annual basis of between £9.0m and £15.4m²², Local Authority Building control authorities between £7.9m and £18.3m, Environmental Health services between £1.9m and £3.2m, and Local Planning Authorities between £0.2m and £0.6m.
145. The annual projected demand for Full Time Equivalent (FTE) staff for the Building Safety Regulator for both the national Building Safety Regulator which comprises of HSE staff and local regulators and enforcement bodies which includes FRS, LABC, EHOs and LPA is in the range of 500-1000 with a central estimate of c. 750 if 65% utilisation rate is applied²³. This is further broken down for the Building Safety Regulator requiring between FTE staff between 300-600 and a mid-estimate of c. 450 per annum²⁴.
146. Please note that there may be roles such as lead inspector, inspectors and safety case review officers who may be drawn from the local regulators and enforcement bodies or recruited permanently into the Building Safety Regulator. The demand number of FTE's required within local bodies may increase when as the details of the operational model are developed further secondary legislation.
147. There may be an uplift of building inspectors working for Local Authorities of 83 to 195 with a central estimate of 147 additional FTE staff per annum. The FRS may also require 96 to 164 FTE staff with a central estimate of 129 per annum. Environmental Health officers may be in additional demand, with a central estimate of 33 FTEs per annum. Finally, Local Planning Authorities across England may cumulatively need between 3-7 additional officers to meet the new regulatory demands specifically from Planning Gateway one.
148. However, we estimate these costs will be partially offset by income from fees and charges raised from regulated parties, e.g. the Accountable Person and/or Building Safety Manager of buildings in scope, which is outlined in the section titled 'cost recovery'. The Building Safety Regulator will be

²¹ Hybrid model assumes that the Building Safety Regulator will work with local regulators to deliver new regulatory regime for high rise buildings. The hybrid model sits somewhere between localised variant where local regulators do most of the regulatory functions and centralised version where the Building Safety Regulator will carry out most the regulator functions.

²² In all the functions that the FRS will have a role, we have included time and cost for Quality Assurance to be undertaken by a competent person such as a Station Manager.

²³ The Local Regulator FTE count is generated from the estimated hourly requirements for Local Area Coordination, Gateways, Safety Case Reviews, Residents Voice, and Sanctions.

²⁴ The Building Safety Regulator FTE count is generated from the estimated hourly requirements for Central Management, the Central Team, the Competency Committee, Management of the new regime, Centres of Excellence, Local Area Coordination for the new regime, Gateways, Safety Case reviews, Building Registrations, Mandatory Reporting, Residents Voice, and Sanctions.

responsible for compensating local regulators and/or enforcement bodies for the resource it draws upon. The implementation of the regime for buildings in scope will result in costs to the Building Safety Regulator itself and also to local agencies who will work with the Building Safety Regulator to deliver its statutory functions. The Building Safety Regulator will recover costs from dutyholders, and compensate local regulators for their involvement in delivering elements of this regime.

Table 7: Summary of regulator costs for buildings in scope, by element²⁵

Policy	15 year PV (£m)	Annual cost (EAC)(£m)
Transitional guidance	£2.9 (£1.2 - £4.8)	£0.2 (£0.1 - £0.4)
Gateways	£265.7 (£159.4 - £371.9)	£22.3 (£13.4 - £31.2)
Registrations	£22.8 (£18.3 - £27.4)	£1.9 (£1.5 - £2.3)
Mandatory occurrence reporting	£3.9 (£2.4 - £5.4)	£0.3 (£0.2 - £0.4)
Safety cases	£102.3 (£80.2 - £124.4)	£8.6 (£6.7 - £10.4)
Residents Engagement and Obligations	£14.5 (£10.9 - £21.7)	£1.2 (£0.9 - £1.8)
Residents' Complaints Handling and Escalation	£49.8 (37.4 – 74.7)	£4.2 (£3.1 - £6.3)
Refurbishments	£90.0 (£48.5 - £113.6)	£7.5 (£4.1 - £9.5)
Sanctions	£103.4 (£81.4 - £126.4)	£8.7 (£6.8 - £10.6)
Management of the regulatory regime	£152.2 (£106.9 - £190.0)	£12.8 (£9.0 - £15.9)
Total costs	£807.5 (£546.5 - £1,060.4)	£67.7 (£45.8 - £89.0)

Transitional guidance function

149. It is assumed that Building Safety Regulator will provide guidance to Accountable Persons on how to meet the general duty during the transitional period. This could include best practice and model expectations to cover particular circumstances. We estimate this could cost £0.2m per annum, or £2.9m in PV terms over the appraisal period in a central scenario. This costing includes salary for 8 FTE safety case review officers in the Building Safety Regulator, who are assumed to provide 3 hours of advice on the Accountable Persons first safety case application. In addition, 7.5 hours have been allocated for the safety case review officers to review and comment on this first safety case.

During design and construction – The Gateway process

Planning Gateway one

150. Planning Gateway one costs to the Building Safety Regulator are estimated to be between £0.8m and £2.0m per annum on an EAC basis and between £10.1m and £23.5m in PV terms over a 15-year appraisal period.

²⁵ Costs presented in this table have not had optimism bias or cost recovery applied to them.

151. The costs assume that Planning Gateway one will be delivered through the existing planning system and implemented by the Local Planning Authority (LPA). It is assumed that in every case (where an application is received which contains an in scope building) the LPA will be required to consult specialist expertise on a statutory basis before making a decision on the application.
152. The Building Safety Regulator will take on the role of the statutory consultee. The application will be received by the LPA and then the statutory consultee will be notified and sent links to the planning application (including the Fire Statement) to review. We assume that the number of applications received by the LPA is 50% higher than the number of new build projects which are assumed to reach later Gateway points, on the basis that the LPA (or bodies with powers to “call in” planning applications) will decide against some applications and also to account for applications that do not get built out on site.
153. The Building Safety Regulator have the option to consult the local Fire and Rescue Authorities on applications where they feel additional input from the Fire and Rescue Service on water supplies and vehicle access is required. It is assumed that 10% of applications will require a site visit from a Building Safety Regulator fire engineer, 50% of all applications received by the Building Safety Regulator will be deemed to require Fire and Rescue Service input on water supplies and vehicle access and a small proportion of these applications reviewed by the local Fire and Rescue Service (5%) will require a site visit from a Fire and Rescue Service official. Of the applications reviewed by the Fire and Rescue Service it is assumed in the analysis that 3% of these will require Quality Assurance from a Station Manager. The total time for all regulators to review and make a decision on a Planning Gateway one application is assumed to take on average around 3 days (23 hours) per application. The split between the regulators in this scenario can be seen in table 8 below. It is estimated that the cost to the Building Safety Regulator per application in this scenario would be around £1,900.

Table 8: Planning Gateway one central estimates resourcing assumptions

Regulators	Occupation	Scenario 1 (hrs per application)
Local Planning Authority	Planning Officer	6.75
Building Safety Regulator	Administrator	3.00
	Fire engineer	11
Fire and Rescue Authorities	Watch Manager	1.6
	Station Manager	0.03
	Administrator	0.4

Pre-commencement meeting and setup of Multi-Disciplinary Team (MDT)

154. The costing for this aspect includes the Building Safety Regulator providing discretionary advice prior to Gateway two submissions at the request of developers.
155. This is assumed to involve a meeting between the Principal Designer of the project and representatives from the Building Safety Regulator. It is assumed in the analysis that there will be representatives from the Building Safety Regulator, local building control and FRS in attendance at the meeting. The total time to attend the meeting and correspond with the Principal Designer before and after the meeting takes place is assumed to be around 2.5 days of regulator time.
156. The Building Safety Regulator is expected to determine when to set up a multi-disciplinary team with local regulators and enforcement bodies to regulate a building in scope. Such a team may not be set up for pre-commencement meetings, as such discussions could be requested well before applications are submitted at Gateway two. However, for the purposes of the analysis we have assumed that before construction begins, the Building Safety Regulator will establish the multi-

disciplinary team to carry out the required regulator checking at the future gateway points. It is assumed that this will take 2.1 days of regulator time and the split between regulators for both establishing the multi-disciplinary team and attending the pre-commencement meeting can be seen in table 9 below.

157. The cost to the Building Safety Regulator to attend the pre-commencement meeting and set up the Multi-Disciplinary Team is estimated to cost on average around £4,200 per application. However, this cost will vary based on the complexity of the project.

Table 9: Resource breakdown for Pre-commencement and setup of Multi-Disciplinary Team (MDT)

Regulators	Occupation	Hour per Application for meeting and correspondence	Hours per Application to establish MDT
Building Safety Regulator	Lead Inspector	15	7.5
	Administrator		0.5
Fire and Rescue Authorities	Watch Manager	2	4
Local building control	Building Control Officer	2	4

Gateway two

158. Gateway two costs to the Building Safety Regulator are estimated to be between £9.3m and £21.7m per annum on an EAC basis and between £110.9m and £258.8m in PV terms over a 15-year appraisal period.
159. At Gateway two it is assumed that applications will be made to the Building Safety Regulator before construction commences, after planning permission has been granted at Planning Gateway one (where it was required). We assume that the multi-disciplinary team will be in place and will assess the full plans, the Fire and Emergency File and the Construction Control Plan, including making competency checks of the respective dutyholders as well as assuring that the proposals meet building regulation requirements. Checking the documents submitted at Gateway two is estimated to take around 5.3 days (40 hours) of regulator time on average.
160. Once construction work has begun, the multi-disciplinary team will review proposed safety change submissions if they arise, and conduct site visits to ensure that construction is following the agreed plans. During construction, site visits and assessing safety change submissions are estimated to take around 39.6 days (297 hours) of regulator time in addition to the site inspections currently carried out by Local Authority Building control authorities or Registered building control approvers during construction. The breakdown between the different regulators involved at this stage can be seen in table 10 below.
161. It is likely that there will be the option of a staged approach to Gateway two, where rather than submitting complete detailed full plans and prescribed documents before construction begins the developer is able to stagger the submission of plans and prescribed documents to the Building Safety Regulator in tranches over an agreed-upon period and in agreed work packages. However, it is likely that this approach will only be offered to complex builds where requiring complete detailed full plans before construction begins is not reasonable and could result in extensive delays. For the purposes of the analysis we have assumed that all developments in scope will be required to submit full plans at Gateway two.

Table 10: Gateway two Design and construction resourcing assumption

Regulators	Resource involved in design and construction	Hours	Proportion
Building Safety Regulator	Administrator	1	0%
	Lead Inspector	88	26%
	Specialist engineers (façade, M&E, Fire Structure)	102	30%
Local building control	Administration	2	1%
	Building Control Officer	109	32%
Fire and Rescue Authorities	Administrator	2	1%
	Fire Safety inspector	35	10%
	Total additional time spent	337 (45 days)	100%

Gateway three

162. Gateway three costs to the Building Safety Regulator are estimated to be between £2.1 and £5.0m per annum on an EAC basis and between £25.3m and £59.1m in PV terms over a 15-year appraisal period.
163. The total regulator time to review the documents submitted at Gateway three and to undertake the final building inspections is estimated to be around 12.5 days (93 hours). The breakdown of this time between the regulators can be seen in the below table.

Table 11: Gateway three regulator resourcing assumption

Body	Role	Time taken per building (hrs)	Proportion
Building Safety Regulator	Lead Inspector	27.8	30%
	Fire Engineer	11.3	12%
	Administrator	0.8	1%
Local building control	Administrator	2.3	2%
	Building Control Officer	41.3	45%
Fire and Rescue Authorities	FRS Watch Manager	9.4	10%
	Total additional time	92.7	100%

Golden thread and Key dataset

164. The Building Safety Regulator does not directly bear the costs of producing the golden thread or key dataset for buildings in scope. During the process of reviewing the Safety Case Report the Building Safety Regulator will consider whether to inspect the golden thread. the state of the golden thread. If the Building Safety Regulator inspects the golden thread this is likely to need a site visit to access the Accountable Person's digital system. We do not expect the Building Safety Regulator to inspect every golden thread but will inspect on a risk based approach. The Building Safety Regulator will also use information from the key dataset to inform their horizon scanning activities. The costs are included within the estimated cost to the Building Safety Regulator of reviewing the safety cases

Registrations²⁶

165. Registration costs to the Building Safety Regulator are estimated to be between £1.5m and £2.3m per annum on an EAC basis and between £18.3m and £27.4m in PV terms over a 15-year appraisal period.
166. The Building Safety Regulator will review registrations and applications for certificates for all buildings, both those built prior and post policy implementation, which fall within the scope of the new regime. The following documents will be required to be submitted as part of the registration application and application for a certificate for every building (or within a prescribed time limit which we assume to be 12 months for new buildings) and will need to be reviewed by the Regulator:
- Core details identifying the building: name and address, height, and age for existing buildings;
 - Details of the Accountable Person: names and address, and an address in England (or Wales) for the service of notices;
 - Details of the Building Safety Manager, including evidence of the assessment of their Skills, Knowledge, Experiences and Behaviours;
 - Confirmation that key obligations have been met including Gateway three;
 - A Mandatory Occurrence Reporting Framework; and
 - For existing buildings, a Safety Case Report and Resident Engagement Strategy.
167. Please note that to avoid double counting the costs presented here only relate to documents which are not costed elsewhere in the analysis and to collating all this information together. For regulator costs of reviewing the Safety Case Report, resident engagement strategy framework and mandatory occurrence framework please see below.
168. In the analysis we have assumed that it will take the Building Safety Regulator on average 1.5 days (11 hours) to review the first registration and certificate application for a building. In the analysis we have assumed that the profile of registration applications will replicate the profile assumed for safety case reviews, that buildings will re-register every 5 years from the first registration. The analysis assumes new building applications will be reviewed in the year following the completion of construction and then every 5 years thereafter. We have assumed that the review of registrations after the first application will take the Building Safety Regulator on average 2.5 hours to review.

Mandatory occurrence reporting

169. The costs to the Building Safety Regulator for mandatory occurrence reporting are estimated to be between £0.2m and £0.4m per annum on an EAC basis and between £2.4m and £5.4m in PV terms over a 15-year appraisal period.
170. In the analysis mandatory occurrence reporting is broken down into reporting on new build projects, major refurbishment projects and existing buildings. The analysis assumes that there will be an average of around 600 instances of reporting per annum for new build constructions, around 35 for major refurbishment projects and around 3,500 instances of reporting from existing buildings per annum.
171. The analysis assumes that the around 20% of these reports of instances across all 3 scenarios will be dealt with through a single report and this will be reviewed and logged by the Building Safety Regulator taking an average time of 0.5hr per report. The Building Safety Regulator is assumed to require follow up reports in around 80% of instances and it is estimated to take the Building Safety Regulator an additional 1 hour per instance to review and respond to the follow up reports. A small

²⁶ Please note – Policy officials and Parliamentary Counsel are discussing the detail of the registration process, and the information that can be available and required at initial registration. We expect the detailed description in this section to be updated before publication.

proportion of instances in existing buildings (around 3%) are expected to require a site visit by the Building Safety Regulator. It is estimated to take a Building Safety Regulator official around 8 hours to conduct a site visit and write up a report.

- 172. The analysis also assumes an additional role for the Building Safety Regulator to analyse data on issues reported, and to produce quarterly reports. This is estimated to take 10 days of regulator time per quarter to complete both tasks.
- 173. The Building Safety Regulator will also be responsible for developing and maintaining a Voluntary Occurrence Reporting (VOR) system. Dutyholders will be encouraged to report structure and fire safety occurrences which are not classified as mandatory occurrences under the reporting regime to this voluntary reporting system.
- 174. It is expected that the scheme will be delivered by Structural Safety – an organisation that runs the Standing Committee on Structural Safety (SCOSS) and Confidential Reporting for Structural Safety (CROSS). The ongoing annual cost of this service is assumed to be £328,250 per annum and this is expected to be funded by the Building Safety Regulator. This will result in a cost of around £3.6m in PV terms over the 15 year appraisal period.

Safety Cases

- 175. Safety case costs to the Building Safety Regulator are estimated to be between £6.7m and £10.4m per annum on an EAC basis and between £80.2m and £124.4m PV over a 15-year appraisal period²⁷. The total FTE required for Safety Cases reviews are 112 FTE in total per annum. This is further broken down by the national Building Safety Regulator requiring around 30 FTEs, Fire and Rescue Authorities may need around 55 FTEs, local building control bodies around 18 and finally Local Authorities may require around 9 additional FTE staff for Environmental Health.
- 176. It is assumed that it will take the Building Safety Regulator seven years to review and inspect the safety cases for all existing buildings for the first time. This review will be carried out phase by phase, and we currently assume that all buildings will be prioritised based on pre-existing information on their likely complexity and level of hazards. Buildings in scope of the regime will be required to reapply for registration periodically; for the purposes of modelling it is assumed it happens every 5 years. Please note that this is a high-level estimate and tools for risk profiling and the design of phasing are still under development.

Table 12: Safety case risk profile assumption

	% of all cases	Number of buildings in scope (year 1)	Inspection schedule for existing buildings
Simple / low risk ²⁸	30%	3,900	2028/29 - 2029/30
Standard / mid risk	60%	7,800	2024/25 - 2027/28
Complex / high risk	10%	1,200	2023/24 - 2024/25

- 177. The Building Safety Regulator will be responsible for reviewing safety cases and for determining when to call upon local regulator and other assistance (described as setting up a multi-disciplinary team) to review each safety case. The decision on whether to call upon local regulator assistance by standing up (or later standing down) a multi-disciplinary team will be at the discretion of the

²⁷ Please note that this calculation includes the cost for the safety case reviews (both regular and mandatory), inspections, and fire engineer input. It does not include the Building Safety Regulator’s overhead time for management and coordination.

²⁸ The estimated risk profiling of the stock has been based on work undertaken by the architectural practice PRP to identify 18m+ residential buildings to prioritise for remediation on behalf of large Registered Provider Clients. PRP undertook an initial desk-based review and visual 2-hour survey of over 200 buildings. From this, PRP identified the number of buildings falling into low, medium and high-risk categories. This risk categorisation is based on a scoring system, which considers Facades, Balconies, Fire safety measures (e.g. appliance access, firefighting equipment, etc.), external fire risks, etc.

Building Safety Regulator. Where the Building Safety Regulator decides to deliver its functions with the assistance of local regulators, we assume that the multi-disciplinary team will include the Fire and Rescue Services, local building control bodies (most often the Local Authority, but also including Registered building control approvers) and may draw on Environmental Health officers on some cases.

178. In costing the safety cases review, we have estimated resource requirements for three distinct categories of complexity. The table below gives the resource allocation assumed.

Table 13: Total time in hours per safety case

Complexity	Safety Case Review	Inspections	Regulator management	Regulator coordination	Fire Engineer specialist	Total per Safety Case
Simple	15.0	7.5	9.0	1.5	-	33.0
Standard	30.0	15.0	9.0	1.5	3.75 ²⁹	59.25
Complex	45.0	22.5	9.0	1.5	22.5	100.5

179. The estimated time split between the national and local regulators and enforcement bodies within the multi-disciplinary team is as follows: it is assumed that the lead inspector (typically from the Building Safety Regulator) will spend 10% of their time on each case, a local Fire Safety inspector is assumed to highest proportion of time which is estimated around 60%. The local building control officer is estimated to spend 20% of their time and finally 10% time may be required from local Environmental Health officers.

Residents Engagement and Obligations

180. Residents Engagement and Obligations costs to the Building Safety Regulator are estimated to be between £0.9m and £1.8m per annum and £10.9m - £21.7m PV.
181. The Building Safety Regulator will be required to review the Resident Engagement Strategy, at initial registration and then every 5 years, alongside the safety case. We assume that this will take 0.5 days per building, costing the Building Safety Regulator approximately £200 for each review of the Resident Engagement Strategy.

Residents' Complaint Handling and Escalation

182. Residents' Complaints Handling and Escalation costs are estimated to be £3.1m - £6.3m per annum and £37.4m - £74.7m PV. In PV terms, it is estimated that approximately £30.5m of these costs will fall to the Building Safety Regulator whilst £9.7m will fall to Fire and Rescue Authorities and another £9.7m to Local Authorities.
183. The Building Safety Regulator will incur costs when fire and structural safety issues are raised by residents. We estimate it will take an average of £75 per annum per building for the Building Safety Regulator to report on and monitor the progress of low risk issues raised with the Accountable Person/Building Safety Manager. We estimate that approximately one fire and structural safety issue will be escalated to the Building Safety Regulator per annum per building, excluding buildings undergoing refurbishment³⁰. It will cost the regulators an additional £210 per annum per building to deal with the issues raised and liaise with other necessary enforcement bodies. The breakdown of this cost between the regulators is currently 60% to the Building Safety Regulator, 20% to Fire and

²⁹ Assumes a fire engineer is required for 3 days in 1 out of 6 standard reviews.

³⁰ As residents will be particularly involved in decisions about their buildings during refurbishment, we expect an increase in the number of issues raised whilst their building is undergoing refurbishment. This has been accounted for in the estimate of total costs.

Rescue Authorities and 20% to Local Authorities. We expect a decreasing number of issues will be raised each year as legacy issues are identified and resolved, and this has been accounted for in the estimate of total costs. Where the escalation process reaches the stage of non-compliance it is assumed that the sanctions process will be triggered. This is included in the estimate of the cost of the sanctions and enforcement proposals.

184. The Building Safety Regulator will also need to commit approximately 1 FTE's time to analysing complaints to identify systematic issues. This will cost approximately £1.4m PV and might involve trend analysis and identification of dutyholders who have a disproportionately large number of escalated issues relative to the number and size of the buildings they are responsible for. This will allow the Building Safety Regulator to hold dutyholders to account, so that problems do not persist.

Refurbishments

185. We estimate the cost to the Building Safety Regulator of duties linked to refurbishments at between £4.1m and £9.5m per annum on an EAC basis and between £48.5m and £113.6m in PV terms over a 15-year appraisal period.
186. For the purposes of the analysis we have assumed that the number of major refurbishment projects per year will be 4% of the stock of buildings in scope.
187. For the purposes of the analysis we have assumed that 35% of those refurbishments will require planning permission, in addition to submission of a full plans plus application. The analysis assumes that these refurbishment projects requiring planning permission will require 25% of the Building Safety Regulator checking time for a new build for Gateways one, two and three and 10% of the inspection time of a new build project during construction.
188. The remaining 65% of major refurbishments per annum do not require planning permission but are still notifiable to the Building Safety Regulator and are required to submit a full plans plus application. It is estimated that this will require around an additional 2 days of regulator checking time per project. In the analysis we estimate that the Building Safety Regulator will inspect 10% of these refurbishments and this will take around 2.5 days of regulator time to undertake this check.
189. The final type of refurbishment that will require some regulatory time is a refurbishment covered by the competent persons scheme. We estimate in the analysis that there is on average 8.5 of these types of works per building in scope per annum. All of these works will require the competent person carrying out the works to notify the Building Safety Regulator. In the large majority of cases the Building Safety Regulator will just log this notification however in a very small number of cases (1.5%) we assume in the analysis that the Building Safety Regulator will deem that oversight is necessary. This will result in the Building Safety Regulator delivering its role as building control body with assistance from building control specialists (typically from the Local Authority, with the flexibility to use Registered building control approvers) when needed in overseeing the works. It is estimated to take around 3 days of regulator time if oversight is required.

Sanctions and appeals

190. The Building Safety Regulator will incur costs when sanctions are enforced. The estimated PV cost of this is £103.4m over a 15-year appraisal period, and £8.7m per annum costs.
191. This section has been costed cross cutting all regulatory functions. The Building Safety Regulator will have a range of enforcement powers to take action to ensure compliance for buildings in scope, and will cooperate with local regulators to secure effective enforcement. For buildings outside the scope of the new regime, most of the powers will be available to local regulators and enforcement bodies as well. These costs are based on assumed proportions of non-compliance which are indicative and represent only a potential scenario.
192. Costs include the regulator time and legal due diligence for instance during construction, refurbishment and occupation of buildings in scope. When instances of non-compliance are serious enough, improvement and stop notices can be issued and the costs of complying with

these on dutyholders and clients are included in the industry section. The actions of the Building Safety Regulator have currently been modelled on the Fire Safety Order escalation structure and further work is ongoing in the department to refine how the Building Safety Regulator might react to different types of non-compliance.

193. Some regulator decisions can be appealed, which will go through an internal review process within the relevant regulator body. These are primarily for decisions made during the gateway process and the appointment of the Building Safety Manager. The regulator costs include the time to review the appeal and inform the dutyholder and original decision maker. The amount of time required is based on a proportion of the original time taken to make the decision. In the low-cost scenario 3% of decisions are appealed, and in the high scenario, 7%.

Table 14: Sanctions and appeals regulator costs

	Annual cost (EAC)		
	Low	Central	High
Ongoing costs- Sanctions and enforcement			
Costs to regulator	£6.7m	£8.4m	£10.0m
Ongoing costs- Appeals			
Cost to regulator	£0.2m	£0.3m	£0.6m
Ongoing costs Total	£6.9m	£8.7m	£10.6m

Note: Instances which are escalated to the courts have not been included in this analysis.

Table 15: Sanctions resourcing assumptions

Regulator resource	New Buildings	Refurbs / Occupied Buildings
Building Safety Regulator	50%	25%
Local Fire and Rescue Authorities	-	50%
Local building control bodies	50%	10%
Local Environment Health	-	15%

Note: Final proportions are subject to change and regulator split may differ. Proportion of instances dealt with by FRS estimated by PRP/Adroit Consultants following discussion with HSE/MHCLG analysts.

Central Building Safety Regulator

194. The total cost of setting up and running the Building Safety Regulator is estimated to be between £2.3m and £2.6m per annum, and the total PV cost over the 15-year appraisal period is between £26.9m and £30.8m.

Table 16: Central Building Safety Regulator cost by category (annual cost, 15-year PV cost)

Central Regulator	Annual cost (EAC)			PV cost		
	Low	Central	High	Low	Central	High
Staffing and overheads	£0.3m	£0.5m	£0.6m	£3.1m	£6.2m	£7.0m
IT costs	£2.0m	£2.0m	£2.0m	£23.8m	£23.8m	£23.8m
Total	£2.3m	£2.5m	£2.6m	£26.9m	£30.0m	£30.8m

195. To ensure coordination across regions, we have made the following assumptions in the costs:
- Central staffing will comprise Board and support staff time, equivalent to 1 FTE each
 - Annual overhead costs will be equal to 82.5 percent of the Regulator’s total salary cost
 - IS/IT capital costs will amount to £2m per annum

Table 17: Central Building Safety Regulator resourcing assumptions (FTEs)

Role	FTEs (Low)	FTEs (Central)	FTEs (High)
Board	1.0	2.0	2.4
Administrator	1.0	2.0	2.0
Total	2.0	4.0	4.4

Management of the regulatory regime for buildings in scope

196. Costs presented in this section are costs for the regulation function of the buildings in scope of the Building Safety Regulator that are not directly attributable to specific policies and represent general support functions.
197. The total cost of the functions attributed to management of the buildings in scope function of the Building Safety Regulator is estimated to cost between £103.8m and £187.0m in PV terms over the 15 year appraisal period and between £8.7m and £15.7m per annum on an EAC basis. It is assumed that these costs will be cost recovered at the same rate as other functions of the Building Safety Regulator associated with buildings in scope (i.e. 70% increasing to 90% from year 3).
198. The main cost under this function is the set up and operation of centres of excellence. These centres of excellence will be set up for the first 3 years and will provide local regulators with support in transition to the new system. It is estimated in the analysis that these centres will require the equivalent of around 52 FTE to operate for the first 3 years.
199. Other functions included in the costs presented above include a concerns and advice team (19 FTE), managing the overall delivery of work and allocating this to staff (30 FTE) and providing management oversight on each safety case review (10 FTE).

Oversight of the safety and performance of all buildings

200. Our early indicative estimate of the cost of the Regulator’s function of overseeing and publishing reports on the performance of all Building control bodies and the professionals who work in those teams and exercising its powers to intervene in cases where building control services are failing to meet standards set by the Building Safety Regulator, is in the region of £15m per annum. This will remain under review as policy and plans for implementation develop. These costs include those incurred by the Building Safety Regulator in performing these functions but currently exclude related costs which may be incurred by Building Control Bodies, as further policy development is required to understand the full impact of the oversight function on BCBs. However, an indicative cost of £2m per annum is estimated for BCBs but is not reflected in the costs presented in this report.
201. While more buildings will fall within the scope of the oversight functions of the Building Safety Regulator, relative to its function of delivering the more stringent regulatory regime, due to the nature of these functions it is expected that the total cost of delivering the oversight functions will be lower than that of delivering the more stringent regulatory regime. Our estimates of the costs of the Regulator’s oversight functions include the following assumptions:

- The Building Safety Regulator will incur costs in collecting and analysing data from Building Control Bodies, in auditing Building control bodies and in taking enforcement action against those which are found to be underperforming. Costings of these functions rely on several assumptions, including how many Building Control Bodies are being enforced against and audited each year, as the resource required for each audit and enforcement action and the scale of regulatory intervention; the policy has been designed to allow the Building Safety Regulator maximum flexibility to target its regulatory intervention according to the risks it identifies and seeks to mitigate
 - the Building Safety Regulator will also incur costs in carrying out and/or commissioning research aimed at informing and developing policy on other buildings, as well as in communicating its work and the impact of it;
 - Building Control Bodies themselves will be likely to incur costs in providing data to the Building Safety Regulator (although it is understood that they are likely to already produce some of this data, so the additional costs may be minor);
 - The policy intent is that Building Control Bodies will enhance their internal scrutiny of their performance in response to the establishment of the Building Safety Regulator (for example, to reduce the reputational and financial risk of enforcement action). Some of the increased cost of doing this may reflect Building Control Bodies raising their standards to the level which is currently expected; and
 - Building Control Bodies will also incur costs in responding to any informal or formal action undertaken against them by the Building Safety Regulator, and in accommodating audits and other such inspection activity undertaken by the Building Safety Regulator from time to time.
202. No estimate of the potential costs to Building Control Bodies has been included at this stage, as further development of the oversight policy is required to understand the full impact on Building Control Bodies. The costings also do not include legal costs that may be incurred by the Building Safety Regulator as a result of taking enforcement action against Building Control Bodies.
203. Table 18 below summarises the estimated FTE requirement and PV cost linked to each of the oversight functions within scope for the Building Safety Regulator.

Table 18: FTE requirement, by Building Safety Regulator oversight function

Oversight function	FTEs		
	Low	Mid	High
Advisory Committee	2.0	2.0	2.0
Data Analytics	22.0	22.0	22.0
Operations/Assurance	8.0	8.0	8.0
Strategic Communications	5.5	5.5	5.5
Policy	14.0	24.0	34.0
Guidance	2.2	12.0	12.2
Concerns & Advice	20.0	20.0	20.0
Research	2.0	6.0	10.0
Total	75.7	99.5	113.7

Table 19: Building Safety Regulator oversight costs, by cost category

Oversight cost category	Annual cost (EAC)			PV cost		
	Low	Mid	High	Low	Mid	High
Staffing and overheads	£9.9m	£14.2m	£17.1m	£118.3m	£169.1m	£203.3m
External communications	£0.6m	£0.6m	£0.6m	£6.6m	£6.6m	£6.6m
Research and development	£0.6m	£0.6m	£0.6m	£7.3m	£7.3m	£7.3m
Total	£11.1m	£15.3m	£18.2m	£132.1m	£182.9m	£217.1m

Assisting and Encouraging competence across the built environment industry and registered building inspectors

- 204. The Building Safety Regulator will have overarching functions to assist and encourage the built environment industry and registered building inspectors to improve competence of organisations and individuals in these sectors. These duties would allow it to undertake activities such as setting the strategic direction of the competence committee, carrying out research and analysis, convening working groups, establishing advisory committees, publishing advice and guidance, as well as other activities which would support these functions.
- 205. The total cost of this function is estimated to cost £71.0m in PV terms over a 15-year appraisal period, and £6.0m per annum. This includes the cost of 37 FTEs which fall under the functions outlined in table 20.
- 206. We estimate that the cost of both running an interim committee and setting up and operating a permanent committee over a 15-year period will be approximately £4.4m in PV terms. The budget includes costs of salary of three FTE staff, travel and subsistence of the advisory committee, operational costs and a research budget.
- 207. The regulator competence and capacity element of the competence function is estimated to consist of 15 FTEs. The assumed activities undertaken by this element of the competence function includes monitoring competence and competence schemes, accreditation of trainers and the provision of training, registration of accredited regulators for buildings in scope, and the provision of operational intelligence.
- 208. To support the Regulators Advisory Committee, the Building Safety Regulator is estimated to provide 2 FTEs to advise and support on competence-related matters.
- 209. The general guidance function, supporting both industry and regulator competence, is estimated to consist of 6 FTEs. The activities undertaken by this element of the competence function will include the provision of technical guidance, development of competence standards and sharing industry best practice.
- 210. The general competence element of the function will be required to oversee and monitor competence schemes and accreditation.
- 211. There is allocation of £66k per annum to support the work streams this function would deliver such as insights, science, research and further guidance.

Table 20: FTE requirement and cost of the competence function, by activity

Competence function	FTEs	EAC	PV
Competence Committee	3	£0.4m	£4.4m
Regulator competence/capacity	15	£2.2m	£26.2m
Competency regulator advisory	2	£0.3m	£3.5m
General guidance	6	£0.9m	£10.5m
General competence	11	£1.6m	£19.2m
Insights, science and research and development		£0.7m	£7.2m
Total	37	£6.0m	£71.0m

Total Regulator cost profile

212. The total regulator cost – including national and local regulator costs – is between £64.5m and £116.4m per annum, with a central estimate of £91.6m per annum. The total PV cost over the 15-year appraisal period is between £768.9m and £1387.0m, with a central estimate of £1091.5m. The costs are broken down as shown below, but it should be noted that these costs are indicative and exclude both optimism bias and cost recovery. Further work will be undertaken to assess the impact on local enforcement bodies as secondary legislation is brought forward and/or operational design decisions are made.

Table 21: Total Regulator cost by enforcement body

Body	Annual cost (EAC)			PV cost		
	Low	Central	High	Low	Central	High
Building Safety Regulator	£45.5m	£62.7m	£78.8m	£542.3m	£748.0m	£939.7m
Local building control bodies (additional to counterfactual)	£7.9m	£13.9m	£18.3m	£93.7m	£165.3m	£218.6m
Local Fire and Rescue Authorities	£9.0m	£12.1m	£15.4m	£107.4m	£144.2m	£183.6m
Local Planning Authorities	£0.2m	£0.4m	£0.6m	£2.8m	£4.7m	£6.6m
Local Environmental Health Officers	£1.9m	£2.5m	£3.2m	£22.7m	£29.3m	£38.6m
Total	£64.5m	£91.6m	£116.4m	£768.9m	£1091.5m	£1387.0m

Cost recovery

213. Establishing and operating a Building Safety Regulator will impose costs on the Building Safety Regulator itself and on the local agencies who will work with the Building Safety Regulator to deliver its statutory functions; we will ensure that the Building Safety Regulator has the resources it requires. Some of the regulatory functions that will be undertaken within the Regulator's proposed remit are already funded by taxpayers and by developers. In line with Dame Judith Hackitt's recommendation, the Building Safety Bill will give the Building Safety Regulator the ability to recover costs from those it regulates, as far as is possible within Managing Public Money guidance. Where costs cannot be recovered, we would expect the Building Safety Regulator to receive Government funding. Fees Regulations in secondary legislation would provide details of: when a fee is payable; by who; what it is payable for; what triggers the charge; and applicable hourly rates and/or application fees.

214. Preliminary work has been undertaken to estimate the cost recovery rates achievable across each of the functions of the Building Safety Regulator. The rates contained in the table below are working assumptions and will need to be refined as the Building Safety Regulator is implemented and the operating model takes shape.

Table 22: Working Assumptions, Cost Recovery Rates

Building Safety Regulator Function	Cost Recovery Rate
Regulation of buildings in scope	Year 1 and 2: 70% Year 3 onwards: 90%
Oversight of the Building Safety and Performance Regulatory Framework	10%
Competence of the built environment industry and registered building inspectors	Year 1 onwards: 45%
Central costs	No costs recovered

Note that the above costs recovery rates are before the application of optimism bias (OB) on fee income. This has the impact of reducing the overall fee income expected per annum – see below for the OB applied.

Optimism bias

215. In line with HMT guidance, optimism bias has been applied in this impact assessment to account for the proven tendency for appraisers to be optimistic on key project parameters – including costs and income. The net costs/funding requirements for the Building Safety Regulator are assessed with the inclusion of optimism bias.

216. The optimism bias applied in this impact assessment are as follows:

Table 23: Applicable optimism bias rates

Element	OB Rate
Gross costs	35%
Fee Income	(10%)

217. The rates have been determined with reference to both HMT guidance on the application of optimism bias, and to other programmes in Central Government that are at similar stage in their development.

9. Costs to industry of the new regime for buildings in scope

Planning Gateway one

218. In the analysis we have assumed that the client project manager (PM) will prepare the fire statement and this is estimated to take 2 days (15 hours) to prepare. After an initial review and feedback from the Building Safety Regulator some fire statements will require revising, in the analysis we have assumed that 30% of applications will need to revise their fire statement based on Building Safety Regulator feedback and this will take an additional 0.5 days (4 hours) to complete.

Table 24: Amount of buildings applying for Planning Gateway one approval

Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Year of policy	yr 1	yr 2	yr 3	yr 4	yr 5	yr 6	yr 7	yr 8	yr 9	yr 10	yr 11	yr 12	yr 13	yr 14	yr 15
Number of applications	580	600	620	640	650	670	690	720	740	760	780	810	830	850	880

219. The cost per year to the industry of Planning Gateway one is estimated to be between £0.5m and £1.2m on an EAC basis and between £6.2m and £14.4m in PV terms over a 15 year appraisal period.

Pre-commencement meeting (1-2 meeting)

220. The Government is exploring how early advice could benefit developers that are required to go through the Gateway process. One approach would be a providing discretionary advice prior to Gateway two submissions at the request of developers. If the developer requested this advice it would involve a meeting between the principal designer of the project and representatives from the Building Safety Regulator. It is assumed that it will take two days of the Principal Designer’s time to attend the meeting and complete subsequent correspondence, the assumptions for regulator time to attend the meeting can be seen in paragraph 153.

Gateway two

221. At Gateway two developers will be required to submit a full set of detailed design information relating to all parts of the Building Regulations, a fire and emergency file and construction control plan to the Building Safety Regulator before construction begins. If a staged approach is adopted the developer will submit a outline plans, a plan of the work packages, a construction control plan, and high level fire and emergency file as a minimum before construction begins, including information on Building Regulations A and B compliance, with additional information and detail being submitted in stages – as agreed with the Building Safety Regulator – throughout the build phase of the development. As mentioned in the Building Safety Regulator section we expect that the staged approach will only be offered to very complex developments. For the purposes of the analysis we have assumed that all developers will submit a full plans application before construction begins.

222. Under the Local Authority building control route, developers are already required to submit a full plans application – this is not however a requirement under the Registered building control approvers (formerly Approved Inspector) route. The analysis assumes that the information submitted at Gateway two will take an estimated 32 days (full time equivalent) to prepare at a cost of around £16,000 to the developer, this is additional to the time required to prepare the full plans in all cases. This additional time includes preparing the Gateway application, Principal Designer review of full plans and the preparation of a construction control plan and fire and emergency file.

223. In addition to Gateway two, developers will be required to record minor changes and submit proposals for major safety changes during construction to the Building Safety Regulator who will undertake regular site inspections. The analysis estimates that the policy will require an average of around 115 additional days of time, at a cost of around £42,000 to the developer. We are assuming that the Clerk of Works will spend an additional 1 day a week undertaking site inspections on top of the 2.5 days a week of inspections they do already to provide assurance that the work of sub-contractors is compliant. It is the extra time that is being spent on site which is driving the costs. The analysis also assumes 8 major safety changes per building where the dutyholders will have to prepare safety change submissions.

224. The cost to industry of the Gateway two requirements before construction and during construction is estimated to be between £14.5m and £33.8m on an EAC basis and between £172.8m and £403.3m in PV terms over a 15 year appraisal period.

Cost estimates for the risk of delays during construction

225. In discussions with stakeholders many have raised concerns about delays to construction once the Gateway proposals are implemented. Whilst some stakeholders can factor the additional requirements into their development planning and use the time between planning application approval and the start of construction to meet them, others have raised concerns that the approach may cause delays to the start of construction. It is considered that under both a “full plans” or staged approach there is a risk of delays in the completion of the projects which will come at a cost to developers. We expect that delays could result in higher financing costs as well as lost rent, totalling an estimate of around £150 per flat per week. This results in a per building cost of around £10,000 per week of delay.
226. Requiring detailed structural and fire safety information to be submitted as part of a ‘full plans’ application at Gateway two increases the risk of delays, which have been estimated to be potentially between 2 and 26 weeks. An illustrative 10-week delay has been estimated to cost around £103,000 per building, in addition to the above Gateway costs.
227. A staged approach would mean that the risk of delays was reduced. For example, as the full design of structural and fire safety elements doesn’t need to be fixed as early, the risk of late design changes and the associated delays are reduced. However, delays may still exist, potentially between 2 and 6 weeks. An illustrative 4-week delay is estimated to cost around £41,000 per building.
228. These illustrative costings remain uncertain, and it is not yet clear how many projects might experience delays. We have therefore not included an estimate for delays in our summary of total costs to industry.

Gateway three

229. We estimate that Gateway three will require an average of 48 days to prepare the information required, resulting in a cost to developers of around £24,000. The analysis assumes that at Gateway three, the Client, the Principal Contractor and Principal Designer will be expected to produce and co-sign a declaration confirming that the building complies with building regulations and that key safety information has been handed back to the client. The time taken to complete this process includes the preparation of an updated Construction Control Plan, adding enhanced record information to the as-built plans, an updated Fire and Emergency File (covering a finalised Evacuation Strategy) and to collate and provide documentation to the Building Safety Regulator prior to occupation. fire emergency plans, a finalised evacuation strategy and information required under Regulation 38 of the building regulations are already required and so will not be an additional cost for industry. We expect that these documents would be included in the Fire and Emergency File which will form part of the golden thread of information.
230. The cost to industry of Gateway three is estimated to be between £5.1m and £12.0m per annum on an EAC basis and between £61.3m and £143m in PV terms over a 15 year appraisal period.
231. We have also assumed a one off familiarisation cost to industry that can be associated with Gateways, estimated to be between £1.6m and £4.8m. This cost will only be incurred in year 1 and covers raising awareness within firms of the policy change and employees attending external events to become familiar with the new policy.

Table 25: Gateways costs to industry (mid estimates)

Industry costs	Cost Per New Building (£k)	15-year NPV (£m)	15-year EANC (£k)
Gateway 1	£1	£10.3	£0.9
Gateway 1-2	£1	£5.9	£0.5
Gateway 2	£16	£81.6	£6.8
Gateway 2-3 ³¹	£42	£206.5	£17.3
Gateway 3	£24	£102.1	£8.6
Total	£84	£406.4	£34.1

Other dutyholder requirements during design and construction

232. The policy is estimated to cost around £16,000-£24,000 per new building, equating to a total cost of around £6-£9 million per annum. All these costs will be on industry, with the Client, Consultant, Principal Designer and Principal Contractor assumed to incur extra costs during new build projects and refurbishments as a result of doing extra checking of their respective areas of work and additional competence checks due to their greater accountability under the new requirements.
233. We have also assumed a one off familiarisation cost to industry that can be associated to additional duties for dutyholders under the new regime, this is estimated to be between £1m and £3m. This cost will only be incurred in year 1 and covers raising awareness within firms of the policy change and employees attending external events to become familiar with the new policy.

Wider dutyholder role

234. In addition to the specific requirements of dutyholders during the design and construction of buildings in scope of the new regime, we also expect to legislate for additional requirements for dutyholders in all building work where building regulations are triggered. We have estimated a high-level indicative cost for this proposal of between £13.5 and £20.3m per annum on an EAC basis and between £161m and £242m in PV terms over a 15-year appraisal period.
235. The costs presented above include one off familiarisation costs for some firms including; familiarising with the new requirements, amending scopes of services and contracts and having systems in place so that their work can be delivered in accordance with building regulations. These one off costs to industry are estimated to be in the region of around £13.6m and this is expected to be incurred in year 1.
236. The costs that will arise annually as a result of this policy are assumed to come from all the dutyholders identified under CDM now doing additional work to ensure compliance. In the analysis we estimate that principal designers and principal contractors on average will take an additional 0.5hrs per project to gather the relevant information and ensure work complies with building regulations, designers and contractors will take an additional 0.25hrs of time per project. We have also assumed additional time for the person whom the work is being carried out for (the client), in the analysis we have assumed on average an additional two hours per project to undertake additional competence checks and challenge the systems and arrangements of those they appoint to ensure they can demonstrate compliance with Building Regulations.

³¹ During construction – inspection phase.

237. All the above time costs for dutyholders are an average and vary based on the type of project. For example, we have assumed more time per dutyholder for more complex projects such as a block of apartments³² and less time for projects such as single dwellings.

Golden thread and Key dataset

Table 26: Costs of Golden Thread and Key Dataset to industry, 2020 prices

	Annual cost (EAC)		
	Low	Central	High
Transitional costs- Digitalising full plans for existing buildings	£19.5m	£28.7m	£33.5m
Familiarisation costs	£1.7m	£3.4m	£5.1m
Transitional total	£21.2m	£32.1m	£38.6m
Ongoing costs- Upgrading to BIM level 1, the Common Data Environment and COBie file (new buildings and refurbishments)	£2.2m	£4.7m	£7.2m
Completing Key dataset during construction (new buildings and refurbishments)	£0.02m	£0.03m	£0.04m
Maintaining information and the key dataset (during occupation)	£2.3m	£2.9m	£3.4m
Ongoing costs Total	£4.5m	£7.5m	£10.6m

238. This section sets out estimates of the additional cost for the dutyholders for all buildings within scope of these proposals to comply with the new technical requirements. We estimate the cost of these proposals will be £26.7m - £48.2m, with a central estimate of £39.6m.

239. We have also assumed a one off familiarisation cost to industry that can be associated with Golden thread, estimated to be between £1.7m and £5.1m. This cost will only be incurred in year 1 and covers raising awareness within firms of the policy change and employees attending external events to become familiar with the new policy.

New buildings

240. We assume that firms that already comply with Building Information Modelling (BIM) level 1 standards, by using a Common Data Environment (CDE) and complete COBie files, will not incur any additional costs (due to the expectation that they already meet proposed standards). We estimate that firms that do not currently meet these standards will face additional costs for digitalising information, estimated to be £24,000 - £38,000 per affected building. This includes the cost of completing a COBie file. We have also modelled the cost for dutyholders on all new-build projects to fill out a COBie file during construction for handover at project completion. This method will allow dutyholders in the occupation stage to access “as built” information on their buildings using their choice of software. We estimate this will cost £4,000 - £8,000 per building, due to time taken for data entry.

Existing buildings

241. Dutyholders for existing buildings will have to gather the information required to meet registration and safety case requirements. This information must be held digitally in order to effectively manage building safety risks. We have assumed that buildings that currently have no plans or inaccurate plans will carry out a two-dimensional Computer Added Design (CAD) plan and evaluation drawing, costing between £10,000-£19,000 per building. While this is not the only way to

³² That are out of scope of the more stringent regime

create digitalised plans, and people may opt for 3D scans or other methods, a digital 2D plan is considered the least costly, acceptable option. We assume there will not be an additional cost for software to use the outputs of a COBie file because dutyholders are likely to already own suitable spreadsheet software such as Microsoft Excel.

In occupation

242. Building information will have to be kept up to date once the building is completed or existing buildings have produced digital plans. This will include managing the data in the COBie file and the digital record to reflect any changes in the building. We estimate this will cost £300 - £500 per building each year.

Major refurbishment works

243. The requirements for carrying out major refurbishments are comparable to those for new buildings. We have assumed, as a minimum, BIM level 1 standards will have to be used, and documents required for Gateways two and three will have to be digitalised, including building data being in a COBie format for handover. As with new buildings, there will not be additional costs for projects which already use a CDE and fill out a COBie file. However, projects not yet meeting this standard will incur an estimated additional cost of complying of £10,000 - £16,000. The costs differ from new buildings because refurbishments are typically shorter projects and therefore have lower software license costs and require less data entry.

Key dataset

244. The key dataset is a subset of information that we propose will be collected by the Building Safety Regulator in a consistent format from each building, allowing analysis of risks across the stock of buildings. We estimate the one-off costs of creating an up-to-date key dataset are between £600 and £1,200 per affected building. All buildings with a key dataset will be required to keep this up to date as elements of the building change. This will cost an estimated £200 - £300 per building per annum.

Residents Engagement and Obligations

Table 27: Industry costs of Residents Engagement and Obligations requirements, England, 2020 prices, EAC

	Low	Central	High
Residents information	£5.1m	£6.8m	£10.2m
Residents engagement	£18.7m	£25.0m	£37.5m
Total	£23.8m	£31.8m	£47.7m

245. Current practice for engagement appears to vary significantly between buildings, and some housing providers already have robust systems in place. We estimate the average annual additional cost to industry of these proposals will be between £23.8m and £47.7m.

246. The Accountable Person for each building will face one-off initial costs in the first year of the policy for the Building Safety Manager to prepare and share information with residents (including printing and publishing material), and to establish a Resident Engagement Strategy. We estimate this could take approximately 8.5 days per building, costing approximately £2,500 per building. They will face a slightly lower recurring annual cost to share information and deliver the strategy, though building owners may already be carrying out a significant proportion of this activity.

247. During the refurbishment of a building there will need to be additional engagement, for example, the provision of more residential meetings. We expect that this additional engagement will require an extra 10.1 days of the Accountable Person/ Building Safety Manager's time. The cost of this will be approximately £2,800 per year during the refurbishment period.
248. Industry costs expected to be incurred in the enforcement of resident obligations are addressed under the sanctions and enforcement proposals. The industry will also face costs associated with familiarising professionals to the proposals, this is summarised under Residents' Complaints Handling and Escalation.

Residents' Complaints Handling and Escalation

249. We estimate the average annual additional cost to industry of these proposals will be between £8.8m and £17.6m (mid estimate £11.7m).
250. It will take an estimated 4.7 days per building, an average of around £1,000, for the Building Safety Manager to set up a complaints handling and escalation process for building safety issues, and initially an additional approximately £1,000 per annum (4.3 days) to deal with the issues raised and liaise with the Building Safety Regulator and other enforcement bodies if complaints are escalated. We expect a decreasing number of issues will be raised each year as legacy issues are identified and resolved, and this has been accounted for in the estimate of total costs.
251. Total industry costs expected to be incurred as a result of removing the Democratic Filter are not currently included, however the impact of this is considered under the "wider impacts" section. The industry and Government costs of setting up a New Homes Ombudsman are addressed in chapter 10 of this impact assessment.
252. Additionally, there will be some transitional costs to the industry associated with the users of the guidance familiarising themselves with the Residents Engagement and Obligations, and Residents' Complaints Handling and Escalation proposals, this is estimated to be between £1m and £3.1m. This cost will only be incurred in year 1 and includes raising awareness within the relevant workforces of the policy change and employees attending external events to become familiar with the new policy.

Refurbishment

253. Buildings in scope of the new regime that undergo refurbishments defined as building work³³ will now face additional measures. There are 2 types of refurbishment that will now require additional work for industry and the Building Safety Regulator, and one type that will just result in additional work for industry.
254. Refurbishments that require planning permission will now require a fire statement to be produced and submitted as part of the planning application. Refurbishment proposals will need to pass through the refurbishment gateway whereby depending on the nature of the refurbishment the developer may need to submit certain Gateway two and three documents to the Building Safety Regulator as requested. For the purposes of the analysis we have assumed that the time taken to produce the relevant documents required will take 25% of the time allocated to a new build development for Gateways one, two (before construction) and three and 10% of the time allocated to a new build for Gateway two during construction (inspection phase). The volumes of buildings requiring this per year can be seen table 28 below.
255. For refurbishments that are defined as building work but do not require planning permission we have assumed in the analysis that the person carrying out the work will submit full plans to the Building Safety Regulator for review. If the refurbishment is proposed by a resident within their own property they will need to notify the Accountable Person or Building Safety Manager prior to

³³ Regulation 12(6)(b) and Schedules 3 & 4 set the definition of building work and what building work needs to be subject to official controls

submitting a full plans plus application with the Building Safety Regulator. It is estimated in the analysis that it will take the Building Safety Manager an average of 0.5 hours per refurbishment to manage the resident notification. The additional time to update the golden thread information and Safety Case Report can be seen in the relevant sections.

256. Refurbishment work that is covered by a competent person scheme (CPS) will also require the person carrying out the work to notify the Building Safety Regulator prior to commencing work and on completion. In the analysis we have assumed that it will take the competent person who is carrying out the works an average of 0.5 hours to notify the Building Safety Regulator of the work. The resident will also be obliged to notify the Building Safety Manager of the works and we have assumed it will take the Building Safety Manager an average of 1 hour per works to log the notification and inspect the building work on completion if necessary. We have assumed an average of 8.5 works a year per building that is covered by the competent persons scheme. Volumes can be seen in table 28 below.
257. The final type of refurbishment considered in the analysis that will result in additional cost for industry is a refurbishment that does not require building control approval and is not notifiable to the Building Safety Regulator, that may however have an impact on the fire and/or structural safety of the building. For the purposes of the analysis we have assumed an average of 10 of these notifications to the Building Safety Manager per building per annum. We estimate that it will take the Building Safety Manager an average of 1.5 hours per notification to log the notification.
258. The cost of the refurbishment policy to industry is estimated to be between £19.7m and £31m per annum on an EAC basis and between £234.6m and £369.2m in PV terms over a 15-year appraisal period.

Table 28: volumes of buildings undertaking refurbishments

Year of policy	yr 1	yr 2	yr 3	yr 4	yr 5	yr 6	yr 7	yr 8	yr 9	yr 10	yr 11	yr 12	yr 13	yr 14
Number of refurbishments requiring planning	190	190	200	200	210	220	220	230	240	240	250	260	270	270
Number of refurbishments requiring notification and full plans	350	360	370	380	390	400	410	430	440	450	470	480	500	510
Number of CPS works requiring notification	113k	117k	120k	124k	127k	131k	135k	139k	143k	148k	152k	157k	161k	166k
Number of non-notifiable works	133k	137k	141k	145k	150k	154k	159k	164k	169k	174k	179k	184k	190k	195k

Sanctions and appeals

259. As explained in the Building Safety Regulator section on sanctions, dutyholders and clients will have to prove compliance with the Building Safety Regulator when instances of non-compliance are suspected. The costs include the time to engage with the Building Safety Regulator, legal costs, and the costs of sanctions, which include site delays and fines.
260. There is also the cost of engaging with the Building Safety Regulator to appeal certain decisions. This includes the time to prepare and submit the appeal. Further details are found in the relevant Building Safety Regulator section.

Table 29: Costs of sanctions and appeals to industry, 2020 prices

	Annual cost (EANC)		
	Low	Central	High
Ongoing costs- Sanctions and enforcement			
Costs to dutyholders and contractors	£1.8m	£2.2m	£2.6m
Costs to clients	£0.3m	£0.3m	£0.4m
Costs to accountable persons	£4.6m	£5.8m	£6.9m
Ongoing costs- Appeals			
Cost to dutyholders	£0.2m	£0.4m	£0.7m
Ongoing costs Total	£6.6m	£8.3m	£10.0m

261. Instances which are escalated to the courts have not been included in this analysis.

Safety Cases

262. This section sets out the estimated additional costs of the proposed requirements to prepare and maintain a safety case for each building in scope. The majority of these costs fall onto dutyholders. These estimates have been refined since the April 2020 publication of the Government Response to the 'Building a Safer Future' consultation based on stakeholder responses to the consultation, additional information from industry, and ongoing trials. We currently estimate the total cost of the proposed Safety Case regime to fall between £90.2m and £202.8m per annum, with a central estimate of £136.5m, over a 15-year appraisal period. Of this, the estimated cost is between £83.4m and £192.3m, with a central estimate of £127.9m per annum to fall on the dutyholders³⁴. There is also a one-off cost for familiarisation with the safety case regime which is estimated to total approximately £3.6m on a PV basis to industry as a whole.

The costs of safety case documentation, reports and reviews to the Accountable Person

263. The Accountable Person or the Building Safety Manager will face the costs of compiling the evidence (including building surveys) and documentation for the safety case and drafting an overarching document – the Safety Case Report. The required information will broadly include a full building description, a hazard and risk assessment, a summary of mitigation measures, and the approach to risk management. Compiling this might require contracting a team of technical experts such as structural engineers, fire engineers and safety experts. In the initial and subsequent safety cases for each building, the Accountable Person, or on their behalf the Building Safety Manager, will incur costs in keeping the safety case documents and Building Safety Risk Assessments updated. The estimated direct cost of conducting safety cases to industry is between £48.1m and £135.2m per annum, with a central estimate of £82.4m, over a 15-year appraisal period.

264. As a result of the Fire Safety Bill (currently before Parliament), there may also be additional costs associated with checking risk areas such as entry doors and external walls; further details can be found in the published impact assessment³⁵. In addition, the Accountable Person or Building Safety Manager may incur costs for mandatory reviews, which occur out of the safety case cycle, which

³⁴ This includes the costs of conducting a safety case (which includes the additional cost of risk management and invasive surveys), drafting and updating the annual management document, costs relating to the enhanced fire risk assessment requirements as part of the Fire Safety Bill requirements, and sprinkler retrofitting as a result of safety case policy.

³⁵ <https://publications.parliament.uk/pa/bills/cbill/58-01/0121/20200316FireSafetyBill2020IA.pdf>

are triggered by critical events. These events could be a significant fire event at the building, a major incident at a comparable building, the emergence of new technical knowledge about safety matters or hazards, prior to commencing refurbishment or other work which could have significant impacts on hazards, and following any significant change to the safety management system. We estimate that an average of approximately 1,500 buildings per annum over the 15-year appraisal period will require a mandatory review. We currently estimate the total cost of mandatory reviews to industry to be £0.6m per annum across a 15-year appraisal period. The breakdown of safety case costs to industry can be found in table 30.

Table 30: Breakdown of estimated cost borne by industry, 2020 prices

	Overall annual cost (EAC) ³⁶			Average cost per building		
	Low	Central	High	Low	Central	High
Familiarisation	£0.2m	£0.3m	£0.4m	£15	£19	£23
Conducting safety case	£48.1m	£82.4m	£135.2m	£3.3k	£5.6k	£9.1k
Enhanced fire risk assessment requirements	£34.1m	£41.8m	£49.5m	£2.3k	£2.8k	£3.3k
Mandatory reviews	£0.5m	£0.6m	£0.7m	£29	£36	£43

Note that these figures are indicative estimates

265. The Building Safety Regulator will incur costs for reviewing safety cases when they are submitted, and for carrying out a risk-based schedule of inspections on each building in the period following registration.

Safety case remediation work

266. The only remediation cost that can be attributed to safety case policy is the installation of sprinklers, which is estimated to cost between £1.0m and £7.3m, with a central estimate of £3.5m per annum, when modelled over a 15-year appraisal period. This estimate does not include the costs of bringing buildings up to the applicable building regulation standards and addressing a backlog of works, where the safety case identifies such work is required. The estimated costs of all remediation to leaseholders of affected flats, assuming this is passed on by the Accountable Persons, is set out in the “wider impacts” section below.

Registration³⁷

267. All buildings in scope of the new regime will be required to register with the Building Safety Regulator and apply for a Building Assurance Certificate. It will be the Accountable Person’s responsibility to submit an application with the required documents for the building(s) they are responsible for. Where a building has multiple Accountable Persons, they will all have to agree the information submitted and will be required to co-sign a declaration that they have reviewed the information submitted. The documents required at registration are outlined earlier in this document (paras 66-73).

³⁶ EAC (Equivalent Annual Cost) costs are modelled on a 15-year appraisal period using a 3.5% discount rate as specified in the Green Book.

³⁷ Please note – Policy officials and Parliamentary Counsel are discussing the detail of the registration process, and the information that can be available and required at initial registration. We expect the detailed description in this section to be updated before publication.

268. The analysis assumes that there will be a setup cost for all lead Accountable Persons of buildings to understand the new process of registration and will take around 2.5 hours. The time to collate all the information required for registration and certificate applications will depend on the number of Accountable Persons that a building has. The analysis assumes that for the first application for a building with one accountable person it will take 0.5 hours to collate the information, a building with two 5.4 hours per application, a building with three – 10.3 hours per application and a building with four accountable persons it is estimated to take around 15.2 hours per application. We estimate a cost per hour of an Accountable Person’s time of around £75.
269. The analysis assumes that registrations will be prepared and submitted to the Building Safety Regulator in the same year that the building produces a Safety Case Report, however, in practice the time that the building must register within will be prescribed by the Building Safety Regulator. The profile of registrations in the analysis therefore follows the same profile as for buildings producing a safety case and can be seen in table 31 below. The profile assumes that existing buildings will apply based on the risk profile set out in table 12 and new builds will apply the year after completion.
270. The analysis also assumes that AP’s will be required to re-apply for a certificate for their building every 5 years from the first registration. This is estimated to take less time than the first application and the analysis assumes that for subsequent applications for a building with one accountable person it will take 0.5 hours to collate the information, a building with two 1 hour per application, a building with three – 1.5 hours per application and a building with four accountable persons it is estimated to take around 2 hours per application.
271. The total cost to industry for registration is estimated to be between £0.4m and £0.6m per annum on an EAC basis and between £4.4m and £6.6m in PV terms over a 15 year appraisal period. Note that the costs associated with producing documents such as the Safety Case Report to be included as part of the registration are costed elsewhere, the costs presented here are just the costs of collating all the required information together and agreement between AP’s.

Table 31: Number of buildings applying for registration per annum

Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
	-	-	yr3	yr4	yr5	yr6	yr7	yr8	yr9	yr10	yr11	yr12	yr13	yr14	yr15
Total registration applications	-	-	1,000	1,800	2,700	2,800	2,800	4,400	3,300	3,200	3,300	3,300	5,000	3,800	3,800

Duties during occupation & across the lifecycle of the building

272. Competence checks are estimated at £66.1m PV over a 15-year appraisal period and £5.5m per annum on an EAC basis. This checking is assumed to be undertaken by the Building Safety Manager (see further analysis under “wider impacts” below). The remainder of the cost is assumed to consist of time to appoint and check the competence of the Building Safety Manager. The costs are calculated assuming that one Building Safety Manager manages 10 buildings.

Mandatory Occurrence Reporting

Table 32. Summary of Mandatory reporting costs, 2020 prices

Cost of Mandatory Reports	PV (£m)	EAC (£k)
industry - new build	£0.9m	£77k
industry - refurbishment	£0.1m	£5k
Industry - existing buildings	£5.9m	£498k
Industry - Total	£6.9m	£580k

273. Estimates in this section include the cost of mandatory occurrence reporting to industry. The Client (in the construction phase) and the Accountable Person (in the occupation phase) is responsible for establishing a system to report fire and structural safety issues.
274. The number of instances of reporting per annum for new build projects, refurbishment projects and in occupation buildings can be seen above, in the consideration of the costs to the Building Safety Regulator of Mandatory occurrence reporting.
275. The analysis assumes that instances that are dealt with through a single report will take on average 0.5hrs of a dutyholder's time to report to the lead dutyholder and then 1 hour of the lead dutyholder's time to report to the Building Safety Regulator. For instances where follow up information is requested by the Building Safety Regulator this is estimated to take an additional 1 hour of the dutyholder's time and then an additional 1.5hrs of the lead dutyholder's time to report to the Building Safety Regulator.
276. In a small number of instances reported in existing buildings (3%) it is estimated that the Building Safety Regulator will conduct a site visit. In this instance the Building Safety Manager or Accountable person will need to accompany the site inspection and this is estimated to take on average 4 hours.
277. Overall, over the 15-year appraisal period mandatory reporting is estimated to cost the industry between £6m and £8m which equates to an annual cost of between £0.5m and £0.7m.

10. Costs to government and industry of other bill clauses

Costs of the New Homes Ombudsman

278. As there are a number of existing bodies who have the capacity and capability to undertake the administration of the New Homes Ombudsman there is a greater element of competition in our preferred approach as there are a higher number or potential suppliers whom are able to deliver the New Homes Ombudsman scheme. Procurement of an existing ombudsman service could also provide better value for money as they would not need as much, or possible any, funding to scale up to deliver the service.

Table 33: Potential costs to operationalise the New Homes Ombudsman from an existing ombudsman, should this be necessary, and ongoing costs

	20/21	21/22	22/23 onwards
RDEL: Recoverable one-off cost to operationalise existing ombudsman		£0.2-0.4m	
Ongoing cost to business			£0.9-2.5m
TOTAL		£0.2-0.4m	£0.9-2.5m

279. We estimate that the recoverable one-off cost will fall in the year 2021/22 following procurement of a New Homes Ombudsman. The New Homes Ombudsman may require some seed funding in 2021/22 or 2022/23 to operationalise and we estimate this to be in the range of £200k-£400k.

280. The costs of employing staff for the first year of operation and overheads including IT and accommodation is incorporated in the set-up costs. This is required as there will be a time lag before the costs are recovered through charging. We believe this provides a reasonable estimate of genuine set-up costs for the first year of operation only.
281. Table 33 above also sets out a range for the estimated ongoing running costs for the New Homes Ombudsman from 2022/23 onwards to be between £900,000 and £2.5 million. Data obtained from a comparable existing ombudsman scheme, The Property Ombudsman (TPO), for estate and property agents has been used to estimate the average cost per enquiry. This has been combined with data provided by the NHBC on enquiries and complaints relating to new build homes. For the upper estimate it is assumed that there is a higher enquiry rate and the costs of processing an enquiry is higher than for TPO. As the New Homes Ombudsman will be industry funded, we expect the chosen supplier to take forward the decision on what the payment model will be. The ongoing costs will be determined by the New Homes Ombudsman and paid for by developers.

The new construction products regulatory framework

282. This analysis takes into account the impacts on the construction industry of the proposed building safety regulatory framework governing non-harmonised products applying this policy to construction products in the UK.

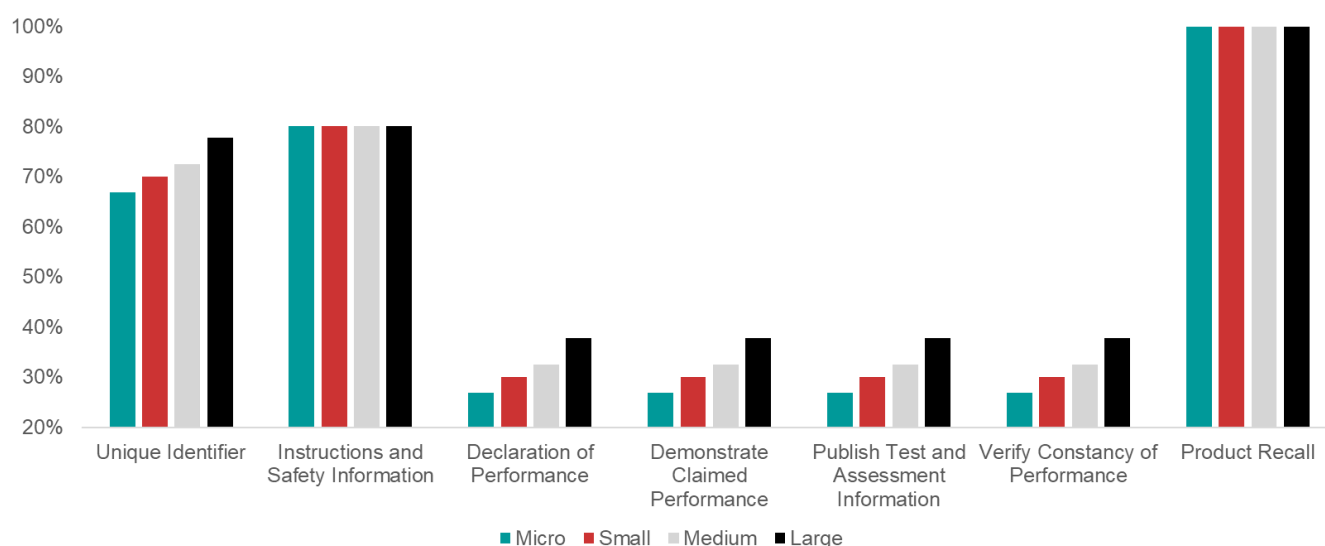
Costs of expanding the scope of the framework to non-harmonised construction products

283. The costs of the proposed building safety regulatory framework governing non-harmonised products are estimated to amount to £48m-£72m. This includes initial set up costs and annual costs. This is summarised in table 34.
284. To estimate the costs of the extended framework, a bottom-up analysis of the costs of each proposal was carried out. This relied on responses to consultations, expert advice and a review and analysis of the CPR framework. Consistent with assessing incremental costs against the Do-nothing counterfactual, we assessed costs against current levels of compliance within the sector.
285. The analysis carried out is based on the costs of applying similar requirements as those already required for harmonised products. We expect this to accurately reflect the requirements we plan to place on manufacturers of 'safety critical' products. The requirements for products falling under the requirement to be safe, will be slightly different, but in the absence of further detailed information, we will use this as a reasonable approximation of the likely cost.

Current levels of compliance

286. Our analysis considers what the current levels of compliance are within the sector to identify the net economic impacts of our policies. Using evidence from a combination of surveys and responses to previous consultations, we estimate that currently approximately 80% of firms already comply with instructions and safety information requirements, 68% use unique identifiers, and 28% already publish declarations of performance, demonstrate claimed performance, publish test and assessment information and verify constancy of performance.
287. With the exception of the proposals relating to instructions and safety information, where the current compliance rate is estimated to be the same for all firm sizes, we estimate that the level of voluntary compliance with these proposals is higher amongst larger firms.

Figure 1: Percentage of voluntary compliance to each policy across different sized firms



Source: Adroit Economics Consortium

Costs

288. The total additional cost for all firms to comply with the policy proposals is estimated to be around £60m per annum (in our central estimate), representing considerably less than 1% of the current market value of construction products. It has not been possible to monetise the cost of meeting general quality requirements as the cost of redesigning a product to improve the quality will vary substantially, depending on the product and the type of defect. However, the estimated cost of additional testing that may be undertaken to demonstrate the claimed performance of a product has been included in our estimates and can be seen in table 34.

289. Larger firms are likely to be already compliant with the CPR, which somewhat lowers the costs compared to smaller firms. Overall the cost per firm for larger firms will be higher because of coverage of multiple products.

Table 34: Estimated costs of each of the policy proposals, United Kingdom, 2019 prices

Policy	Cost type	Breakdown	Cost (£m)	Equivalent annual cost (£m)
Unique identifier	One-off costs	Firms redesigning product labels	£3.4m-£5.1m	£2.9m-£4.3m
	Annual recurring costs	Updating unique identifier (annually)	£2.4m-£3.6m	
		Administrative costs	£0.4m-£0.6m	
Instructions and safety information	One-off costs	Preparing instructions and designing leaflets	£2.3m-£3.5m	£0.4m-0.6
	Annual recurring costs	Preparing instructions for new products	£0.2m-£0.4m	
Declaration of Performance (DoP)	One-off costs	Administrative costs of publishing DoP and Procurement costs in getting external companies to develop test standards	£47.1m-£70.6m	£8.4m-12.6
	Annual recurring costs	Administrative costs of publishing for new products	£4.9m-£7.3m	
	One-off costs	Administrative costs in producing written assessments and full-scale tests	£23.5m-£35.3m	£7.0m-£10.4m

Policy	Cost type	Breakdown	Cost (£m)	Equivalent annual cost (£m)
Demonstrate claimed performance		Third party testing and written assessment costs	£17.8m-£26.7m	
	Annual recurring costs	Administrative costs to producing test evidence for new products	£2.4m-£3.5m	
		Producing written assessment to support minor changes	£1.5m-£2.2m	
Publish test and assessment information	One-off costs	Design and prepare test information for publishing	£8.1m-£12.2m	£1.4m-£2.1m
	Annual recurring costs	Administrative costs for publishing information for new products	£0.8m-£1.2m	
Verify constancy of performance	One-off costs	Factory visits and testing product samples	£23.5m-£35.3m	£24.7m-£37.1m
	Annual recurring costs	Administrative costs and verification costs	£7.1m-£10.6m	
		Inspections and reporting	£17.7m-£26.6m	
Product recall	Annual recurring costs	Recall costs	£0.3m-£0.4m	£0.2m-£0.4m
		Total		£45.0-£67.5m

Unique Identifier

290. The Unique Product Identifier (UPI) is a numerical identifier with 10-15 digits, including details such as the brand, part number and item number. The UPI would be printed onto the product/or product packaging. The data would be stored digitally, either by the firm, or on a system managed by industry/building safety regulator.
291. Firms that do not already have a unique identifier on their products will have to redesign labels to accommodate its introduction. This is estimated to be a one-off cost, requiring an average of 1.75 days additional work across 6,500 businesses, at an estimated cost of £375 a day. This is the rate used for all administrative costs in this section. This leads to an overall central estimate of £4.3m.
292. These firms will also face a recurring cost as they will have to update this unique identifier each year. This is expected to cost £322 on average for an estimated 9,400 currently non-complaint firms, with an overall annual cost to businesses of £3.0m.
293. There will be an increased administrative burden in order to ensure continual compliance, however the cost of this is relatively minor with the 9,400 businesses requiring an average of 0.14 days of additional work. This is estimated to cost £0.5m each year.

Instructions and Safety Information

294. Many construction products already include information on how to use the product as well as safety information – therefore the proportion of products that will have to produce additional information is limited. Any firm that doesn't already provide suitable instructions will have to spend time preparing them and designing a leaflet for them to accompany the product. This is expected to

take the same amount of time and cost the same as firm's redesigning labels for a unique identifier, however since the number of firms that already comply is higher (80% across firms of all sizes) the total one-off cost is lower at £2.9m.

295. There will also be a recurring cost to prepare instructions for newly introduced products. This is expected to take the same amount of time as the administrative costs associated with the unique identifier, totalling £0.3m every year.

Declaration of Performance

296. This would typically involve drawing up or filling in a declaration of performance standard template, similar to the one found in Annex 3 of the EU CPR. Firms will incur the additional costs of testing their products and establishing a suitable test standard, alongside the additional administrative costs of publishing a Declaration of Performance (DoP). The time estimated to prepare the DoP is 10.8 day on average. Compliance is relatively low, meaning that approximately 14,500 firms will incur these extra costs, creating a one-off set up cost of £58.9m.
297. The administrative time expected to be spent publishing a DoP for new products is 1.1 days, leading to an annual cost of £6.1m.

Demonstrate claimed performance

298. The test and assessment information should be relatively low cost to provide on a website. It will be one of two documents, and this information is not provided with every product but would be available from the manufacturer if requested. The cost of product testing will be the same for all firm sizes. However, in reality larger firms are expected to incur most of the costs for developing new standards.
299. Most firms will need to obtain test evidence and produce a written assessment, verified by a notified body. This is estimated to take 5.4 days of labour for the 14,500 firms affected and leads to a total cost of £29.4m. Third party testing and written assessment costs are expected to reach an average of £1,531 for each firm. Overall, this is a one-off cost to businesses of £22.2m. Any newly introduced products will also need test evidence, taking 0.5 days each year. This creates an annual cost of £2.9m.
300. Some firms may have to make minor changes to their test evidence documents over time. This will cost firms £125, leading to an overall annual cost of £1.8m.

Publish test and assessment information

301. It will be necessary to compile and publish test evidence in an understandable way in an accessible location. It is expected to take businesses 1.9 days to design and prepare the evidence, with a total cost of £10.1m. Publishing test evidence for newly introduced products will take 0.2 days, costing £1.0m.

Verify constancy of performance

302. One off factory visits and product testing will take 5.4 days on average for 14,500 firms. Since compliance is low, the cost is expected to be £29.4m. Continued inspections and reporting are expected to cost £1,529, totalling £22.2m a year.
303. The additional administrative burden will require an extra 1.6 days of work on average each year, leading to an annual cost of £8.8m.

Product recall

304. Product recall is only expected to happen on very rare occasions, and so only an estimated 10 firms per year will be affected. It would cost the regulator an average of £31,692 for each product recalled, with an annual recall cost of £0.3m.

Costs of a national Construction Products regulatory role

305. Based on an initial high-level analysis of costs for the national Construction Products regulatory role, we estimate the present value of costs to range between £81.7m and £151.8m over the 15 year appraisal period. Our central estimate is £116.8m. This amounts to £9.8m (£6.9m – 12.7m) per annum in our central scenario.³⁸ The cost estimates presented here should be treated as high-level ranges given that the details of the policy and the operational delivery model are still being developed. Detailed proposals will be taken forward through future secondary legislation, which will be supported by appropriate Impact Assessment.
306. To estimate the high-level costs of the Construction Products regulatory role, a bottom-up analysis of the costs of each of its functions, as currently proposed, was carried out. The estimation relied on case studies and cost data analysis from other regulators, and scopes the time and costs required to fulfil the functions and activities the regulator is expected to assume. The costs of the regulatory role providing oversight over construction products include both costs of providing new national remits relating to enforcement for products under the CPR, and establishing remits on products not currently covered under the CPR. The analysis takes into account the current levels of enforcement and compliance activity undertaken in the construction products sector in order to obtain a net estimate of costs.
307. The proposed responsibilities and activities of the regulator are assumed to include:
- **Market surveillance** and oversight of local enforcement action, including maintaining a national complaints system and supporting local Trading Standards in dealing with complex cases;
 - **Enforcement** action with manufacturers, where issues are judged to be national and/or significant; and
 - **Providing advice and support** to the industry to improve compliance as well as providing technical advice to the Government.
 - **Working worth with other Regulators** to share emerging information and address emerging risk.
308. For this analysis, we considered a centralised model. This would include a national regulatory function with all capabilities provided through a central government function, with only limited functionalities outsourced, e.g. to accredited bodies or Trading Standards as per their current remit.
309. To fulfil the regulatory functions as outlined above, we anticipate that costs would be incurred by the regulator for IT costs, external (outsourced) costs, staff costs and overheads (e.g. accommodation). Some costs will only be incurred in a transition period as the regulatory role is established.
310. We anticipate that transition costs will be incurred for setting up IT and communication systems. These amount to approximately £2.3m during the set up phase of the regulator. For recurring costs, we assume that the regulatory role would commence operations from year 2 of its inception, with an increase in costs over the first two years as operations are slowly expanded to full capacity. Total recurring costs are estimated at £114.5m in our central scenario over the 15 year period.
311. Total costs for the regulatory function are estimated to £9.8m on an equivalent annual basis, or £116.8m over 15 years, as outlined in table 35. As part of this, Staff costs are estimated at £4.7m per year, for a total staff of 66 FTE.³⁹ This includes the strategic and day-to-day management of the regulator, as well as staff to fulfil the regulatory duties regarding research and analysis, communications and engagement, inspections, complaints and sanctions, as well as policy and

³⁸ The figures are in present values and adjusted for optimism bias.

³⁹ Consistent with assumptions for the Building Safety Regulator, costs per FTE are assumed to align to civil service rates.

advice. External costs are estimated at £1.0m annually, and relate to expenditure on product testing (such as commissioning Trading Standards and accredited bodies) and prosecutions, as well as external communications costs. These have been estimated through comparison with other regulators, including MHRA and OPSS. Office overheads are anticipated to incur £3.9m expenditure per year. Consistent with assumptions for the Building Safety regulator, overheads are assumed to amount to 82.5% of wage costs. We estimate that IT costs of £0.1m will be incurred each year.

Table 35: National Construction Products Regulator - Estimated costs, 2019 prices

Costs, £m	Total costs, 15 years, PV			Equivalent annualised costs		
	Low	Central	High	Low	Central	High
IT transition cost	£0.7m	£1.0m	£1.3m	£0.1m	£0.1m	£0.1m
External transition costs	£0.9m	£1.3m	£1.7m	£0.1m	£0.1m	£0.1m
Total transitional	£1.6m	£2.3m	£3.0m	£0.1m	£0.2m	£0.3m
Staff costs	£39.1m	£55.8m	£72.5m	£3.3m	£4.7m	£6.1m
Overheads	£32.2m	£46.0m	£59.9m	£2.7m	£3.9m	£5.0m
IT costs	£0.8m	£1.1m	£1.5m	£0.1m	£0.1m	£0.1m
External costs	£8.1m	£11.5m	£15.0m	£0.7m	£1.0m	£1.3m
Total recurring	£80.1m	£114.5m	£148.8m	£6.7m	£9.6m	£12.5m
TOTAL COSTS	£81.7m	£116.8m	£151.8m	£6.9m	£9.8m	£12.7m

11. Wider impacts

Leaseholder impacts

312. The various impacts, described above, on the Accountable Person of buildings in occupation - including cost recovery by the Building Safety Regulator - are likely to be passed onto any leaseholders, where reasonable, through the new mechanism of the 'building safety charge,' costs such as these would have previously been recovered through the annual service charge. Using a range of 35 - 100 leaseholders per building, the increase due to these costs might average £100 - £400 per leaseholder, with a central estimate of around £200. These costs are based on reference buildings and show costs averaged over multiple years: in years in which reviews of documentation (e.g. of the safety case) take place, costs will be higher than these averages. There will also be considerable differences between buildings, depending on the complexity of each building and the number of leaseholders.
313. For existing buildings which fall within the scope of the new regime, it is likely that work will have to be undertaken to bring those buildings up to existing standards. This work would be identified in inspections which support the review of the first safety case, submitted when a building is registered. The costs have not been included in the total cost of the regime above, as past practice in Regulatory Impact Assessments has been to exclude the cost of increased compliance with previous regulations.
314. Under the terms of most leases, the cost of such work can be charged to leaseholders. The draft Bill establishes the concept of the 'building safety charge'; this will be a separate mechanism from service charges to give leaseholders greater transparency around costs incurred in maintaining a safe building. It also includes numerous powers to limit these costs, ensure that they are reasonably incurred and exclude certain costs from being charged. It is our intention that leaseholders should not face unaffordable costs and we are exploring options to mitigate these if they arise. To showcase the scale of some of these activities, below in table 36 there is a list of activities that may be needed, an estimate of the incidence of this work, and the possible cost, based on market rates.

Table 36: Potential Activities

Remediation type	Estimated % of buildings that will require remediation	18-30m		30m+	
		Average estimated cost per building (£)	Potential cost per leaseholder in affected buildings (£)	Average estimated cost per building (£)	Potential cost per leaseholder in affected buildings (£)
Sprinkler Retrofit	6%	569,000	9,000	1,008,000	12,000
Fire Doors	19%	540,000	9,000	695,000	8,000
Means of Escape arrangements	1%	71,000	1,000	117,000	1,000
Compartmentation	3%	189,000	3,000	271,000	3,000
Fire Stopping	30%	36,000	1,000	68,000	1,000
Smoke Control	6%	60,000	1,000	112,000	1,000
Automatic Fire Detection	8%	89,000	1,000	100,000	1,000
Emergency Lighting	8%	20,000	300	38,000	500
Emergency Power Source - generator	1%	363,000	6,000	469,000	6,000
Emergency Power Source - connection	1%	149,000	2,000	149,000	2,000
Signage - exit	2%	7,000	100	12,000	200
Signage - storey level	50%	7,000	200	12,000	200
Ducts and dampeners	1%	11,000	700	17,000	900
Voids and shafts	1%	42,000	1,000	79,000	1,000
Facades	15%	1,849,000	29,000	2,164,000	26,000
Cavity Barriers	10%	478,000	8,000	860,000	10,000
Balconies	36%	235,000	4,000	283,000	3,000
External Fire Risks	80%	200	0	200	0
Plant and other ancillary	80%	200	0	300	0
Fire fighting facilities	80%	200	0	300	0
Maximum cost		4,717,000	75,000	6,456,000	78,000
Weighted average cost		583,000	9,000	762,000	9,000

315. The estimated proportion of buildings requiring each remediation is based on high-level analysis of a particular subsection of the 18m+ stock and is indicative only. Each building will be different and have different combinations of these issues. It would be very rare for one building to need all these changes.

316. “Per leaseholder” costs in table 36 are based on an assumption of 63 leaseholders in an 18-30m building and 84 in a 30m+ building. The number of leaseholders and the cost of changes will

depend on the size of the building, so the average cost per leaseholder can vary significantly between buildings. To capture this uncertainty in the number of leaseholders, a range of 35 - 100 leaseholders per building has been used below.

317. To account for variations in cost, we have also modelled the costs for several sets of buildings that represent portions of the stock. For the most expensive 10% of 18m+ buildings leaseholder costs might be £30,000 – £60,000 whereas a similar but less expensive building requiring less façade work and fire stopping might cost £15,000 – £35,000 per leaseholder. The least expensive buildings will require little to no work or only internal work, costing less than £1,000 per leaseholder. The median building would potentially cost £10,000 – £20,000 per leaseholder, with a central estimate of £17,000, involving balcony replacements and fire compartmentation.
318. Based on the weighted average cost per building, leaseholders in 18m+ buildings can be expected to pay between £8,000 and £17,000, with £9,000 being the central estimate. This is the average across all dwellings – but this is highly sensitive to the number of leaseholders per building and this average includes a large number of leaseholders who may face little or no costs at all. A typical bill in an affected building might be significantly higher.

The Building Safety Manager

319. Based on the proposed responsibilities of Building Safety Manager which has been set out above, the costs to the Building Safety Manager are presented below. To avoid double counting, the costs presented immediately below should not be combined with those in other sections of this IA, as the time required is already costed under each separate proposal.
320. We assume here that the cost to the Accountable Person to recruit a Building Safety Manager will be around £3,000 per Building Safety Manager, although this rate could fall between £2,400 and £3,600 per Building Safety Manager depending on the skills, knowledge, experiences and behaviours required of the Building Safety Manager and whether the role more closely resembles that of a competent facilities manager, properties manager or a housing manager.
321. Our analysis assumes that the Safety Case Report will be compiled by Building Safety Manager and with technical report being provided by fire and structural consultants. The remaining responsibilities such as resident engagement will remain with the Building Safety Manager. If the Building Safety Manager was to undertake all designated activities⁴⁰ except for the safety case, there would be a cost per building of between £6,400-£10,000. These costs do not include costs of producing Safety Case Report which is set out in the safety case section. Under this scenario as the Building Safety Manager will have limited involvement in the safety case it is estimated that they will have the capability to manage between 7-11 buildings, based on the assumed time taken per building. These calculations have been based on assumptions that it will take 28 days of Building Safety Manager time on average per building. The average employment cost is estimated at £60,000 p.a.

The regulatory framework's impact on the construction sector workforce

322. The Bill is likely to have a significant impact on the demand for skilled labour in the professions involved in the design, construction and management of buildings in scope of the new regulatory regime. These include those filling roles such as the Principal Designer, the Principal Contractor, Designers, Contractors and Building Safety Managers. We have considered the counterfactual supply, policy impact and likely need for increased capacity in relevant professions through a literature review, industry survey and detailed modelling. Please see the Annex B for more details.

⁴⁰ Building Safety Manager designated activities are reviewing supporting evidence, writing the safety case and reviewing and checking the safety cases. Their first safety case requires more designated Building Safety Manager time in comparison to re-registration.

Costs of removing the Democratic Filter for social housing tenants

323. The Housing Ombudsman Service estimates that removing the “democratic filter” could increase cases entering its formal remit as a result of reduced fatigue among complainants (after removal of 8 week waiting time) by 20% in the year of removal and 10% thereafter. They have estimated that covering the costs of the additional resource required to determine these additional cases without slowing determination times would require an increase in its Scheme’s subscription rate by 13p per unit and 6p per unit respectively.
324. As at 31 March 2019, 2,449 landlords were in membership to the Housing Ombudsman Scheme, representing 5,030,006 housing units.⁴¹ Therefore in the first year of removal of the Democratic Filter, the financial impact of the revised subscription fee would be an additional approximately £650,000 for all landlord members. For Housing Association members specifically, the financial impact in the first year of removal would be an additional approximately £400,000. Using the latest information on annual turnover of Private Registered Providers, the increase to the subscription fee in the first year of removal represents only 0.002% of total annual turnover for all PRPs in England.⁴²

Impact on the supply of new housing

325. Based on a high-level assessment of the current viability of private housing development of buildings 18m or more, or more than six storeys in height, we expect any impact of the increased costs during design and construction – or any administrative costs which were capitalised into lower sales prices – to be minimal in terms of reduced housing supply.
326. To come to this conclusion, we carried out some high-level viability analysis to estimate the impact that the increased build costs as a result of the Bill will have on development proposals coming through the planning system post-implementation. The increased build cost is estimated to be between £114,000 and £246,000 for a building of 18m or more, or more than six storeys in height.
327. Using average regional flat prices from the Land Registry, linked to a dataset of buildings in scope of the new regime, we estimated the excess value of the average development for a building in scope following the implementation of the Bill regime for each region⁴³. These results were all positive and ranged from £7,800,000 in the North East to £1,700,000 in the East Midlands. The results for each region can be seen in table 37. This suggests that the increased build costs as a result of the Bill will not impact the viability of the average development proposal in scope in any region.
328. We also estimated a range of prices in which the increased build costs would result in previously viable projects becoming unviable. The results from this analysis can be seen in table 37, including the proportion of all prices paid for buildings in scope which fall within this range. It should be noted that new build development usually sells at a considerable premium relative to the average transaction.
329. Previous work conducted by Quod on viability, examining comparable increases in build costs in high-rise residential development, found that it would not be beneficial even to reduce planned developments by one storey to avoid the scope of the regime, as the development value foregone far exceeds the costs saved.

⁴¹ As reported in ‘Housing Ombudsman Annual Report and Accounts 2018-19’

⁴² As reported in ‘2019 Global accounts of private registered providers’ figures as at 31/03/2019

⁴³ This also takes account of typical costs for site clearance, construction, and finance, and developer contributions through Section 106 and CIL.

Table 37: Outputs from the viability analysis of the Building Safety Bill

Region	Post-Bill excess value/ viability per building in scope	Lowest price per flat viable before Bill costs	Lowest price per flat viable after Bill costs	Proportion of flats in all buildings in scope sold within this range	Average price for flats in buildings in scope
East	£6,300,000	£152,000	£156,000	0.6%	£266,000
East Midlands	£1,700,000	£147,000	£151,000	0.0%	£175,000
London	£6,300,000	£402,000	£407,000	1.0%	£584,000
North East	£7,800,000	£143,000	£146,000	0.0%	£273,000
North West	£5,100,000	£129,000	£131,000	2.4%	£209,000
South East	£5,200,000	£194,000	£198,000	1.5%	£299,000
South West	£5,400,000	£161,000	£165,000	1.4%	£270,000
West Midlands	£6,500,000	£137,000	£140,000	1.0%	£243,000
Yorkshire and The Humber	£3,800,000	£129,000	£132,000	2.3%	£190,000

330. The potential impact of administrative requirements in occupation, including the wider impact of remediating existing buildings to make them compliant with existing regulations, could potentially reduce the ability of social housing providers to develop new housing without additional financial support.

Impact on small and micro businesses

331. Outside of public sector bodies, the majority of the impact of the requirements of the Building Safety Bill will be fall on bodies including:

- Developers, designers, contractors and others involved in the commissioning, design and construction of buildings in scope, and building owners;
- management companies and other bodies involved in the management of buildings in scope; and
- registered building control approvers, formerly known as Approved Inspectors

332. For the majority of these groups, the impacted bodies will be companies of a size sufficient to take on the defined roles in relation to the buildings in scope, and the majority of the burdens of the new regime will fall to such bodies. However, there will also be an impact on individuals, including building control professionals and designers, contractors and building management professionals who are operating as self-employed sub-contractors. These individuals may face a comparatively higher burden in meeting and demonstrating compliance with the required competence standards.

333. This requirement is not unique. Dame Judith Hackitt identified in her review⁴⁴ that a range of competence frameworks are in place across different specialisms with an interest in construction, including engineers, architects, fire risk assessors and electrical installers. Competence is a key part of delivering safety both in the construction and operation of buildings. Any exemptions for

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/707785/Building_a_Safer_Future_-_web.pdf - Annex E: Competence

individuals or for small and micro-businesses would involve an unacceptable compromise of the high standards of competence that such groups should be able to demonstrate, and could potentially create loopholes for less scrupulous companies who might look to sub-contracting to abrogate their own responsibilities to ensure that competence is delivered.

334. The Government will continue to work with the industry-led Competence Steering Group, and its constituent working groups, relevant professional and trade bodies to increase competence across all people involved in building design, construction, management and maintenance. As this work matures, we will ask the Steering Group and its members to consider how small and micro-businesses can minimise being disadvantaged.

Potential impact of Covid-19

335. No assessment has yet been made on the potential impact of Covid-19 on the assumptions, including industry capacity or construction trends, used in the above analysis. The longer-term effects of the pandemic and response on the construction sector, and the impact this might have by 2022 as measures commence, remains highly uncertain. However, potential short/medium-term impacts may include project delays, increased construction costs and reduced output, resulting from a range of factors including material shortages (due to supply-chain disruptions) and labour shortages (due to on-site social distancing measures).
336. While the extent of these impacts remains uncertain, the financial crisis of 2008 may provide some indication of potential construction trends that may emerge in an economic downturn of this scale. In the first instance, the financial crisis of 2008 was followed by a c.40% decline in new orders for housing construction in 2008, and a further c.20% decline in 2009, before a staggered recovery commencing the following year. Similar trends were observed for new build registrations and new high-rise building applications over the same period.
337. While these trends may be indicative of the impact of Covid-19, it should be noted that the circumstances are different. Throughout the Covid pandemic, MHCLG has worked to ensure construction has been able to continue. Developers have been issued guidelines on operating in an effective and safe manner, in addition to the Department working with Home Builders Federation to produce a Charter on safe working on housing construction sites. This in turn has enabled flexibility to increase productivity, minimising risks to the viability and delivery of development which will be vital to economic recovery in England. This is twinned with Government's extensive business support package, including business rates holidays, deferred VAT payments and a Job Retention Scheme, which gives businesses and their employees some support and resilience during the pandemic. In light of this, historical trends should be considered as illustrative at best, rather than predictive.
338. From a Building Safety perspective, however, should a slowdown in new high-rise construction occur this would likely reduce the overall volume of operational activity for the Building Safety Regulator in its early years (e.g. fewer new build projects going through Gateway processes). This may consequently impact the initial staffing requirements and running costs for the new regime. However, it is expected that remediation works, for existing high-rise buildings with unsafe cladding, will continue to progress at pace during the pandemic and afterwards, subject to the necessary health and safety precautions being followed.

12. A summary of the potential trade implications of measures

339. The UK construction sector has a strong reputation for construction services such as architecture and development of advanced technologies used in construction such as Building Information Modelling (BIM) which enables businesses to make more intelligent use of data and hence minimise waste from construction processes⁴⁵. The measures proposed through the Building

⁴⁵ As reported in 'UK Construction: an Economic Analysis of the Sector' (2013) prepared by the Department for Business and Innovation Skills.

Safety Bill will likely reinforce the UK's technological advantage in this sector by improving productivity in the industry, such as architecture and surveying services, and further developing advanced technologies in the golden thread of information. We estimate that this will eventually increase the total UK architectural and construction industry services exports by 1% - an increase of £18million⁴⁶ per annum.

340. There are likely to be trade impacts from the proposed measures regarding construction products, however the directional impact of these as unilateral standards is uncertain.⁴⁷
341. The regulation is likely to impact the UK's competitiveness internationally, particularly as the requirements set out are unilateral. The cost of UK suppliers may increase as a result of compliance costs, which could decrease competitiveness and reduce exports. Our initial analysis shows that additional costs are likely to only amount to a small proportion of revenues (approximately 1%), and therefore this impact may be relatively small. On the other hand, the enhanced assurance on safety and quality of products may increase demand for UK construction products, and thus increase exports. Evidence from the literature shows that standards promote trade due to the additional information reducing international transaction costs,⁴⁸ particularly for complex goods.⁴⁹ The relative strength of each effect will determine the overall impact on exports.
342. Imports on the other hand may be impacted negatively. Mandatory requirements to products sold in the UK and used in UK construction will have to be complied with by imported products as well. The requirement to follow the necessary process and incur associated costs may deter competitors to enter, or induce them to exit the UK market. There has been evidence of this leading to negative impacts on imports in other sectors⁵⁰, for instance in the agriculture and food market.⁵¹

13. Monitoring and Evaluation

343. The entire system will be subject to independent periodic reviews to assess its effectiveness. We propose to legislate to place a requirement on the Secretary of State to appoint an independent person to carry out a review of the regulatory system.
344. The purpose of the review would be to consider the effectiveness of the overall regulatory system – both the new system we are establishing in the Bill and the existing legislative framework, and the Building Safety regulator, and to make recommendations as to how the system and the Building Safety Regulator can be improved. The Secretary of State will be required to publish the report.
345. In addition, the Building Safety Regulator will have an ongoing duty to provide oversight of building safety and performance system (for all buildings). To fulfil this role, the Building Safety Regulator will commission research and collect data, and will:
 - Advise the Government on changes to the building regulations and Approved Documents;
 - Publish reports on the performance of Building Control Bodies; and
 - Advise on current and emerging risks to building safety and performance.

⁴⁶ Based on the estimate that the total UK architectural and construction industry services exports total £1.8 billion (gross valued added) per annum.

⁴⁷ Swann, 2010. International Standards and Trade: A Review of the Empirical Literature, OECD Trade Policy Papers 97, OECD Publishing.

⁴⁸ *ibid.*

⁴⁹ Moenius, 2004. Information versus Product Adaptation: The Role of Standards in Trade. International Business & Markets Research Center Working Paper, Northwestern University

⁵⁰ Swann, 2010. International Standards and Trade: A Review of the Empirical Literature, OECD Trade Policy Papers 97, OECD Publishing.

⁵¹ Ana M Fernandes, Esteban Ferro, John S Wilson, Product Standards and Firms' Export Decisions, The World Bank Economic Review, Volume 33, Issue 2, June 2019, Pages 353–374

Annex A: Benefits estimates methodology

Appraisal period and discount rates

1. The benefit estimates set out here have been calculated over a 75-year appraisal period. This includes benefits experienced in the 15-year policy appraisal period (equal to that used to estimate costs) and benefits that may persist over the life-span of a building, assumed to be 60 years. This is to best capture all the benefits and reflects the Green Book guidance on 'persistence' of benefits. For example, benefits associated with residents' engagement are likely to last the 15-year policy period (or for a brief period thereafter), while improvements in the construction quality of new builds will likely last the life-span of the building.
2. For the first 30 years of the appraisal period, a discount rate of 3.5% has been applied to costs and non-health related benefits and 1.5% to health-related benefits. For the subsequent 45 years, 3% and 1.29% discount rates has been applied respectively. This is in line with guidance in HM Treasury's Green Book - Appraisal and Evaluation in Central Government.⁵²

Reducing the risk of fire incidents

Overview

3. It is expected that the Building Safety Bill proposals will reduce the risk of fire spreading within and across in-scope buildings and therefore the human and material costs of such fires. This section sets out the methodology used to estimate the scale of this benefit.
4. In essence, this analysis rests on estimates of the risk of fire incidents in the counterfactual, the expected cost of such incidents, and the extent to which the Building Safety Bill proposals will mitigate this. This can be summarised as follows:
5. Expected avoided costs of fire incidents of type *i* in year *j* = (I) Expected frequency of fire incidents of type *i* in year *j* in the counterfactual * (II) Expected cost per fire incident of type *i* in year *j* * (III) Expected percentage reduction in fire incidents of type *i* in year *j* caused by the activity of the Building Safety Regulator.
6. The results are summed across types to calculate the annual impact, then discounted and summed over time to give the present value benefit over the appraisal period.

Expected frequency of fire incidents in the counterfactual

7. We examined published statistics⁵³ and a series of case studies to understand the historical frequency of fires of varying severities in in-scope buildings. Through a combination of statistical analysis⁵⁴ and judgment, we then made initial high, medium and low estimates of the frequency with which fires of a range of severities would be expected to occur in the absence of the Building Safety Bill proposals.
8. The historical evidence we referred to is unlikely to fully capture the impact of recent developments in this area, including policy measures already taken that have the effect of reducing the risk of fire in in-scope buildings. The impact of each of these measures on the risk of fires has been considered and a judgment made of the aggregate impact of these measures on the expected frequency of fires. This judgment was then applied to the frequency estimates based on the historical data discussed above to derive high, medium and low estimates of the frequency with which fires of varying severities would be likely to occur if the Building Safety Bill proposals were not introduced.

⁵² https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/685903/The_Green_Book.pdf

⁵³ <https://www.gov.uk/government/collections/fire-statistics>

⁵⁴ Modelling the occurrence of larger scale (and less frequent) fire incidents as a Poisson process.

9. This analysis does not account for any future trends in the frequency of fire ignitions. The frequency of fire ignitions could, for example, be affected by changes in the quality and safety of household appliances used in flats, but it was not considered proportionate to model the profile of this technological change.

Impact of fire incidents

10. Through case studies and industry knowledge, and taking into account developments following the Grenfell tragedy (e.g. the introduction of waking watch in some high risk buildings and changes to FRS policies regarding evacuation), high, medium and low estimates have been made of the expected impact of fires of varying severities in in-scope buildings.
11. Impacts considered include casualties and fatalities (valued using DfT TAG figures⁵⁵), mental health impacts, property loss, demolition and operational costs.
12. Combining the estimated frequency of fire incidents in the counterfactual with the estimated impact of each type of incident gives an estimate of the expected impact of fires over the appraisal period in the absence of the Building Safety Bill proposals.
13. Potential future changes which could affect the impact of fire incidents, such as emergency services' response to fires, changing demographics of residents of in-scope buildings, and changes in the ability to treat the physical and mental harm caused by fires have not been modelled.

Effectiveness of the Building Safety Regulator in preventing fire incidents

14. It is then necessary to make an assumption on the extent to which the Building Safety Bill proposals will reduce the risk of fire incidents in in-scope buildings (and how this would vary over time). In the absence of data relevant to these specific circumstances, judgments were made as to reasonable high, medium and low estimates of risk reduction. Feeding into this judgement were estimates of the rate of new building and refurbishments that will be subject to the Building Safety Bill proposals (and so the proportion of the total building stock that these will make up), and the anticipated profile of safety case reviews and subsequent remediation works in the existing stock. It is further assumed that the Building Safety Regulator will have a lesser impact on the frequency of less severe fires, as a proportion of these are more likely to be caused by factors that cannot be effectively addressed by a regulator.
15. As discussed above, this impact assessment estimates benefits that will arise from a 15-year policy period as a result of safer buildings. Some of the benefits are expected to persist over the life of a building (typically 60 years) and as a result, a proportion of the benefits are anticipated to persist (for example, benefits resulting from improved build quality will persist for the life-span of the relevant building). Conversely, for various reasons one would expect that the impact of the actions of the Building Safety Regulator during the policy period on the frequency of fires is likely to decline as the end of the appraisal nears (that is, the quality of engagement with residents and the safety benefits resulting from this may decline over time if it was no longer mandated).
16. However, given that the regulatory regime introduced by the Building Safety Bill will have a number of interconnected aspects, the effects of which might be expected to persist for different periods of time, it is disproportionate to attempt to quantitatively disentangle the effect of each of these aspects on the evolution of the expected frequency of fires over the appraisal period. Therefore, assumptions as to the rate at which the impact of the Building Safety Regulator on the expected frequency of fires will decline over the appraisal period have been based on judgment, having regard to the range of aspects of the functions of the Building Safety Regulator, the profile of the building stock over time and so on.

⁵⁵ £2.0m per fatality and £230k per casualty (2019 prices)

Conclusion

17. As set out above, these estimates of the benefits of the Building Safety Bill proposals in reducing the risk of fires are subject to a great deal of uncertainty. They rely on several assumptions, some of which are driven in whole or in part by judgment. It is hoped, however, that the suggested range of benefits, £39.0m - £146.6m per annum, can provide some insight into the likely scale of the impact of the Building Safety Bill proposals in this area.

Avoided costs of resolving systemic issues

18. The use of unsafe building products or practices in the construction and refurbishment of buildings can make them unsafe and subject to risk. In some cases this can occur across a wide portfolio of buildings (when poor practice is systemic), and when identified, the issues need to be addressed through remediation, incurring potentially substantial cost (cost of putting in place interim protection measures, cost of investigation, cost of remediation works etc.). These costs are in addition to the costs incurred if these products or practices result in a fire or structural incident. For example, the installation of ACM cladding on buildings has, in addition to the human and wider costs caused by fires, led to significant expenditure required to mitigate the risk posed by such cladding (for example, waking watch) and ultimately to remove and replace the cladding.
19. It is expected that the Building Safety Bill proposals will reduce the probability that unsafe products or practices are used in buildings constructed or refurbished during the policy period. This would mean that costs of mitigating or remediating the systemic use of such products or practices would be avoided, representing a benefit to society.
20. It is assumed that this benefit will only apply in respect of new in-scope buildings and buildings undergoing major refurbishments (the Building Safety Regulator cannot retrospectively prevent past systemic poor construction in the existing stock, although it can identify and mitigate the risks posed by them).
21. We cannot know the exact nature and scale of future potential systemic issues, therefore in this assessment we have assumed a future issue would be similar in terms of number of buildings effected and scale of cost to that of the ACM issue (i.e. affecting 400 buildings, which equates to 3.4% of the stock, at an average cost of £3.5m per building⁵⁶). Therefore, in the counterfactual, it is assumed that 3.4% of new buildings or those undergoing major refurbishments would be subject to issues that would later (over the next twenty years) require mitigation and remediation (it should be noted this approach of making an estimate based on a single historical example is subject to significant uncertainty).
22. It is not certain that the Building Safety Bill proposals will prevent, at the time of construction or refurbishment, all future potential systemic issues. For example, problems with certain materials or construction processes, currently deemed compliant, may only be identified after buildings start failing. Reflecting this, it is assumed that the Building Safety Bill proposals would reduce the risk of such issues arising in new buildings or buildings subject to major refurbishment during the policy period by 60%. This is based on a judgment. Due to the lack of evidence to support a specific range or confidence interval on this estimate of risk reduction, sensitivities of +/- 30%, applied to the mid-point estimate of the benefit value, have been tested. This same approach was taken with respect to the benefits discussed in the following sections.
23. The methodology and assumptions set out above, inform our suggested benefit of £37.9m - £75.9m of reducing the cost of resolving systemic issues.

⁵⁶ The estimated cost per building was based on industry knowledge and a set of three case studies.

Other avoided costs

24. The additional scrutiny of plans and construction works due to the Building Safety Bill is expected to result in reduced defects both during and at the end of construction and reduced latent defects identified during occupation. This will result in the avoidance of costs incurred to remedy such defects. Following the introduction of the proposed regime, reducing defects that are typically identified and resolved during construction are assumed to have an average cost saving of £37,500⁵⁷ per new building whilst defects identified at the end of construction are assumed to have an average cost saving of £40,000 per new building and avoiding latent defects identified during occupation are expected to lead to a cost saving of £37,500 in rework costs per building.
25. Other indirect benefits to the construction industry are estimated to arise from:
- Reduced design rework costs, as a result of Planning Gateway one requirements. It is assumed that greater design certainty following planning consent being granted will reduce design rework during the detailed design stage. Such costs are assumed to be avoided in 10% of new buildings, saving 75 hours of work per building on average.
 - The requirement for pre-approval of works by the Building Safety Regulator at Gateway two is expected to reduce construction rework costs. The requirement to have approval for works before they commence is expected to avoid instances where products or systems that are not approved are installed or delivered to site and subsequently have to be replaced. This is assumed to apply to 15% of new buildings with an average saving of £80,000.
 - The requirement for a digital record at Gateway three has the potential to reduce asset management and invasive survey costs. An accurate record of building layouts and installed systems products is expected to facilitate more efficient asset management, with 37.5 hours per annum per new building assumed to be saved in asset management time, while one invasive survey per new building is assumed to be avoided every five years, at an average cost of £5,000.
 - Safety cases combined with other aspects of the Building Safety Regulator's operations will improve early identification of faulty balconies and windows. This will enable the cost-effective replacement of such features before an incident occurs. Given the exceptional nature of such an incident, this is assumed to apply to 0.002% of the building stock with an average annual saving of £900,000 (based on an average replacement cost per building following an incident of £2.4m).
 - Similarly, safety cases combined with other aspects of the Building Safety Regulator's operations are likely to identify wider structural issues within buildings enabling these to be addressed before a major incident occurs, such as a full or partial building collapse. The avoidance of such major incidents is assumed to apply to 6 in every 10,000 buildings, with a saving per building of £11.4m, giving an expected annual cost saving across the building stock of £2.1m.
 - Improvements to product testing and declarations of product performance could lead to time saved in analysing test results and establishing the performance of products at the building design stage. This is assumed to apply to all new buildings and major refurbishment products, with time savings of 3.75 and 7.5 hours respectively.
 - Product marking could lead to time savings in product checking during both the construction process and safety case review.
26. Estimating the sum of the total indirect benefits to the construction industry and building owners, suggests an annual benefit in the range of £42.1m-£78.2m.

⁵⁷ These figures are based on subsidiary assumptions as to the number of such defects that would be expected in the counterfactual, what each one would be expected to cost, and how many would be avoided as a result of the Building Safety Bill proposals. These assumptions are in turn based on a combination of case studies and judgment.

Wider benefits

27. Potential wider benefits of the proposals have been identified in the form of providing a spur to innovation and increased export potential.
28. Based on a combination of live project experience and judgement, it has been assumed that the Building Safety Bill will encourage and nurture innovation in the construction technology industry resulting in a 1% reduction in costs passed on to UK consumers (after building up for four years). It is further assumed that such innovation will drive a 1% increase in total UK architectural and construction industry services exports.
29. We estimate that these benefits could be worth £18.5m-£34.4m per year.

Reassurance of residents of in-scope buildings: switching values

30. This impact assessment calculates switching values with respect to the benefit of providing reassurance to residents of in-scope buildings (which have not been monetised). The main assumption underlying calculation of these values is on the number of residents of in-scope buildings.

Estimating the number of residents of in-scope buildings

31. We do not have access to a definitive count of the population of residents of in-scope buildings. For this reason, we present a range of estimates based on two separate data sources (the ACORN dataset, and internal MHCLG analysis of dwelling numbers combined with English Housing Survey estimates of residents per high-rise dwelling). To reflect the uncertainty around this question we use a range of 0.9 million to 1.0 million residents in our analysis.
32. For the sake of simplicity, we assume that the benefit of reassurance applies to all and only residents of in-scope buildings. In reality, very young children, for example, will not be in a position to understand the relative safety of their homes, while other residents will be unaware of the risk of their homes. Conversely, some non-residents of in-scope buildings would be reassured by the proposals (for example, friends and family members of residents of in-scope buildings).

Calculation

33. The calculation divides the relevant estimate of NPV by the relevant estimate of the population of residents of in-scope buildings. The following switching values have been estimated based on the best estimate NPV and low, medium and high estimates of the resident population of in-scope buildings:

Table 38: Additional benefit per resident required for total benefits to equal costs (over the 15-year policy period)

	Present Value	Equivalent Annual Benefit
Low (high NPV, high resident population)	£200	£10
Medium (best estimate NPV, mid-point resident population)	£3,300	£250
High (low NPV, low resident population)	£6,900	£510

34. In practice, the reassurance benefit would be unlikely to be experienced equally across the population of residents. Some residents would experience no or only a small benefit (for example, because they already feel safe in their home, or because they do not believe the Building Safety Bill proposals and consequent actions will make it safer). This would mean that other residents would

need to experience greater reassurance for these averages to be achieved. This should be borne in mind when interpreting these figures.

35. To put these values in context, DfT's TAG data book values the human cost of a slight casualty at £13,918 (in 2020 prices and values), which is substantially higher than the switching values calculated here. This is based on a stated preference study and reflects the willingness of an individual to pay to avoid the pain, grief and suffering of a slight accident to the casualty, their relatives and friends.

Annex B – Industry workforce capacity and impacts

1. This annex provides a qualitative and quantitative assessment of the impact to the construction sector's workforce resulting from changes to the regulations around multi-occupied residential buildings of 18 metres or more in height, or more than six storeys. As such, the professions analysed in this section are representative of those working through design, construction, management and maintenance of the buildings in scope. The section is organised as follows:
 - Qualitative evidence – this sets out the current landscape of labour and skills in the built environment. It draws primarily from the full review of the shortage occupation list produced by the Migration Advisory Committee (MAC);
 - Modelling – this section reports the outputs from modelling the impacts, such as job creation and the supply of appropriate talent, for roles such as Principal Designer, Principal Contractor, Designer, Contractor and Building Safety Manager; and
 - Industry Competence Survey – this section reports the findings from an industry survey conducted by MHCLG in partnership with PRP and Adroit Economics. This provides additional qualitative evidence of the current and expected scenario to complement the findings from the literature review and modelling.

Qualitative evidence from MAC

2. This section sets out the qualitative evidence of recruitment difficulties and skill shortages in the professions that are relevant to the buildings in scope. It should be noted that there is no widely accepted measure of shortage across the current available literature, therefore the shortages set out are high-level indicators. For the purpose of this study, the approach taken by the Migration Advisory Committee (MAC) in the Shortage Occupation List has been followed.⁵⁸ This employs a pragmatic approach towards assessing labour market shortages by using a combination of employer, price, volume and imbalance indicators. A shortage indicator in MAC's analysis that is pertinent to this study is the 'vacancy rate'.⁵⁹ It should be noted that evidence was not available for some professions.
3. Some of the major professions that are identified to be working in high rise residential buildings are categorised below:
 - Procurement – such as project managers and directors in construction amongst other roles;
 - Engineering – such as civil, mechanical, electrical, electronics, design and development, quality control and planning engineers, etc.;
 - Building designers – such as architects, surveyors (quantity and chartered), etc.;
 - Project Management – such as construction project managers, contractors, site supervisors, etc.; and
 - Trades & Installers – such as plumbing and heating, ventilation, and air conditioning (HVAC) trades, etc.
4. Overall, the evidence suggests that across the four major profession groups identified, there will be moderate recruitment challenges arising from increasing demand and current skill shortages in certain areas. The evidence from the review points to two professional groups with marked shortages: Engineering and Architecture. We would expect key roles such as Principal Designers and Fire Engineers to be drawn from these groups. Further research into these two roles has been undertaken and can be found in the modelling and industry competence survey sections below.

⁵⁸ [Full Review of the Shortage Occupation List](#), Migration Advisory Committee, 2019

⁵⁹ The vacancy rate is calculated as employer-reported vacancies divided by employment in a given occupation. The median across occupations is used as a measure of average vacancy rate.

5. The professions identified in construction procurement are buyers and procurement officers, project managers and directors in construction, and purchasing managers and directors. Generally, procurement in construction had an above average vacancy rate in 2018. Qualitative evidence from the MAC survey suggests that filling these roles might become increasingly difficult in the medium term due to skill shortages.
6. The professions identified under the engineering category are civil, mechanical, electrical, fire, structural, electronics, design and development, and quality control and planning engineers. Evidence from the survey for the civil engineering profession suggests that it is facing increasing recruitment difficulties, skill shortages and remains in the 'above average vacancy rate' category in the UK. Moreover, the high prevalence of overseas staff (especially from outside EU/EEA area) indicates that this profession is facing challenges to expansion. The main drivers of shortages in engineering professions include a low pool of applicants, unsociable hours, shift work, lack of STEM specialist teachers, and increased workload of existing engineers. In addition, there is competition from other industries in attracting talent, a historical lack of investment in engineering skills, an ageing workforce, etc. among other factors. There was insufficient evidence for fire and structural engineers.
7. The building design profession category is mainly comprised of architects, quantity surveyors, chartered surveyors and construction project managers. Architects rank high in the shortage indicators, with vacancy rate above average. MAC evidence suggests that main issues are skill shortages, low applicant numbers and long periods of time taken in filling roles, especially the senior ones. Due to these difficulties, firms often turn to freelancers and consultants to perform a proportion of the work. Quantity and chartered surveyors experienced a vacancy rate above the average in 2018. Recruiters in quantity surveyor professions are facing skill shortage issues while there wasn't enough evidence for chartered surveyors. Anecdotally, one organisation mentioned that they have been encouraging older workers to remain in the industry to retain skills for longer.
8. Professions in the project management category are mainly comprised of construction project managers, contractors and site supervisors. Construction Project Managers, despite an average vacancy rate, ranked highly in MAC's list of other shortage indicators. However, there is insufficient qualitative evidence for this occupation to determine why this is the case. There was insufficient evidence for other professions in this category.
9. Professions in the trades & installers category are welding trades, pipe fitters, steel erectors, bricklayers, plumbers, carpenters, floorers, etc. There is insufficient evidence for this category to comment further but limited evidence for welding trades is available.

Modelling

10. To reflect the Building Safety Bill, this section analyses the roles of Principal Designer, Principal Contractor, Designer, Contractor and Building Safety Manager. Bar the Building Safety Manager, the competence framework of these roles is an ongoing exercise. Therefore, the impacts have been evaluated by capturing an approximate pool of professionals that would potentially qualify to work in the mandated roles. A 15-year appraisal period has been used. Please note these impacts do not consider the effects of Covid-19.
11. To calculate the supply of Full Time Equivalent (FTE) staff, an estimate of the number of people currently working in high rise buildings was calculated by using 2018 Annual Population Survey/Labour Force Survey as the baseline. This estimation was performed for all the professions identified as those that work on buildings in scope, and as appropriate, were combined to form the supply estimate for each of the five previously mentioned roles. For each year over the 15-year appraisal period, a 3% increase in supply has been assumed for each role. This is based on the assumption of the same level of growth in the number of buildings per annum.
12. To calculate the demand for FTEs for the five roles, wherever applicable, the annual projected demand for additional FTE staff is generated from the estimated hourly requirements for Gateways,

Dutyholder, Golden Thread, Safety Cases, Mandatory Reporting, Residents Voice, and Sanctions polices, as detailed above. A 65% utilisation rate is applicable to the FTE count across all roles.

13. Furthermore, for modelling purposes, it is assumed that the Principal Designer and Designers would be chosen from the same pool of people, although with differing skills, knowledge, experiences and behaviours. But they may not necessarily be limited to this pool as there could be other routes to becoming a PD/Designer. The same holds for Principal Contractor (PC) and Contractors. The cost estimation, including training, recruitment and salary of these roles can only be captured precisely after the skills, knowledge, experiences and behaviours are better-defined at a later stage.
14. The Principal Designer would usually be employed from a pool of qualified designers. The role of a Principal Designer can either be undertaken by an individual or a team. The modelling assumes the general expectation of PDs being a team of specialists led by a lead designer. This pool of designers is assumed to come from mainly engineering and or architectural professions. In 2021, it is estimated that a supply pool of 11,445 designers would exist, from which Principal Designers will be employed. This pool will rise to 17,311 by 2035/36. From the activities arising directly from the new regulatory framework, the additional Principal Designer FTE demand is expected to increase from around 51 in 2021/22 to 359 in 2035/36. The additional demand as a percentage of corresponding supply is expected to range from 0-2%. The pool of lead designers may be smaller relative to additional demand.
15. For Designers, this labour pool is made up of general designers, engineers, architects and contractors in the construction industry, the same pool as described for Principal Designers. In this pool, there are 11,445 designers estimated to exist in 2021, rising to 17,311 by 2035. The additional Designer and Principal Designer FTE demand generated by the regulatory framework is expected to increase from around 73 in 2021/22 to 420 in 2035/36. The additional demand as a percentage of corresponding supply is expected to range from 1-3%, meaning cumulative demand on this pool of 1-5%
16. The Principal Contractor would usually be employed from a pool of qualified contractors. In the modelling, this pool of contractors is assumed to come from construction project managers, production managers and directors, construction and building trades supervisors, and construction workers' (usually trades & installers) professions. In 2021, it is estimated that principal contractors would be employed from a supply pool of 7,440 contractors. This pool will rise to 11,253 by 2035/36. The additional FTE demand for Principal Contractors is expected to increase from 26 in 2021/22 to 78 in 2035/36. The additional demand as a percentage of corresponding supply is expected to range from 0-1%. The demand for Principal Contractors is expected to be generated from Gateways, Dutyholder, Mandatory Reporting and Sanctions requirements, with most of the demand arising from Dutyholders and Sanctions. In sanctions, the role of the Principal Contractor is to engage and fix any issues around non-compliance which the regulator might identify through the course of their investigation and this applies to new builds and existing stock of buildings.
17. For Contractors, this pool is the same as that detailed in the Principal Contractor section and is broadly made up of site inspectors and other contractors, mostly comprising site managers. The site inspectors would work for either PD, PC or the Client. As described in the PC section, a supply pool of 7,440 contractors is estimated to exist in 2021, rising to 11,253 by 2035. The additional Contractor and Principal Contractor FTE demand generated is expected to increase from 26 in 2021/22 to 575 in 2035/36. The additional demand as a percentage of corresponding supply is expected to range from almost 0-5%. The demand for site inspectors is expected to be generated only by Gateways from 2022/23 onwards. There is estimated to be a requirement of 159 site inspectors in 2022/23 increasing to 488 in 2035/36. Site managers would be required in the Gateways phase and additional demand would rise from 4 FTEs in 2022/23 to 9 in 2035/36.
18. Building Safety Managers are expected to comprise of the following SOC professions, with some upskilling required:
 - Property, housing and estate managers,
 - Housing officers,
 - Residential wardens, and

- Residential, day and domiciliary care managers and proprietors.
19. These professions would supply a pool of 5,924 individuals in 2021/22 growing to 8,960 in 2035/36. The additional FTE demand generated for Building Safety Managers is expected to increase from 1,085 in 2021/22 to 3,801 in 2035/36. The additional demand as a percentage of corresponding supply is expected to range from 18-46%. The FTE demand for Building Safety Managers is required across duties carried on behalf of the Accountable person such as Golden Thread, Safety Cases, Mandatory Reporting and Residents Voice. A substantial part of the demand is expected to come from safety cases. This time is comprised of tasks such as preparing Safety Case Reports, safety case updates, refurbishment Safety Case Report, etc.

Industry Competence Survey

20. MHCLG commissioned the Adroit Consortium, comprised of Adroit Economics and PRP, to carry out a full review of the impact of enhanced competence requirements for safety critical disciplines working on buildings in scope.
21. As part of this exercise, an industry competence questionnaire was designed and deployed in order to gather industry responses to establish the baseline for industry competence, with a view towards projecting the impact of the enhanced competence requirements on safety-critical disciplines, and on critical roles.
22. The survey went live on the 13th of April 2020, and up to the close of survey on 26th May, we have had 67 total responses from which we can analyse and provide anecdotal insights for selected professions affected by the new regime. Whilst the survey was completed by individuals, most of the responses were from industry representatives who had data to hand that represented their particular industry.
23. The professions covered in the survey can be roughly categorised into the following groups:
- Management and Procurement – such as project managers and directors in construction, site supervisors, principal contractors, amongst other roles;
 - Engineering – such as civil, mechanical, structural, electrical, electronics, design and development, quality control and planning engineers, etc.;
 - Architectural/Building Design – such as architects, principal designers, architectural technologists, etc.;
 - Fire-safety related – such as fire engineers, fire risk assessors and fire safety enforcing officers;
 - Building-safety related – such as building standards professionals, building safety managers, etc.;
 - Trades & Installers – such as installers of safety-critical systems, welders, plumbing and heating, ventilation, and air conditioning (HVAC) trades, bricklayers, etc.; and
 - Products – professionals/organisations that are involved in the manufacturing of products used in construction of buildings, such as building materials, sprinklers, etc.
24. The majority of the respondents belonged to the 'Fire-safety related' and 'Products' categories. The former category received 14 responses while there were 8 responses for the latter. There was limited evidence in other professions.
25. Among the 14 responses in 'Fire-safety related' category, there were 9 representatives for Fire Risk Assessors, 4 for Fire Engineers and 1 for Fire Safety Enforcing Officers. It should be noted that Fire Engineers usually work on high-rise residential buildings in the design phase, while Fire Risk Assessors usually perform their functions in the inspection and management stages. Among the 8 responses in 'Products' category, the respondents were scattered across design, procurement, management and construction phases of working in high-rise residential buildings.
26. Five case studies have been set out below. These are namely Fire Engineers, Fire Risk Assessors, Principal Designers/Architects, Installers of safety-critical systems and Products manufacturers.

Fire Engineers

27. For fire engineers, the survey estimates a total of 400-500 fire engineers currently in England, spread across 3 competency levels. Out of these, approximately 50% of fire engineers currently work on high-rise residential buildings that will be in scope for the new regime and respondents anticipated that future work will require at least a 50% increase in their capacity.
28. Broadly, the overall number of fire engineers is falling. The sector attracts between 3-5% new entrants per annum at each of levels 1 and 2 and at 20% at level 3. However, it is also losing between 5-15% per annum, suggesting a net loss of between 2%-10% per annum. Moreover, the assessment of competence of fire engineers takes several months and can cost between £500-£1000 per person.
29. Additionally, the survey respondents estimated that vacancy rates are low for fire engineers at 5%. However, they reported that even this level of vacancies is having an impact on quality of work (including pressure to use less competent people) and delays in delivering projects.
30. Furthermore, the survey reported a lack of incentive to join the profession resulting in a low number of applicants with appropriate skills. Availability of training (there are only 6 relevant degree courses) and the cost of training are also reported as a challenge for recruitment alongside competition within the sector.
31. Wage increases and raising the profile of the profession are the main strategies for retaining staff. The respondents also noted that recruitment needs to increase significantly to meet the required capacity for the new regime (by at least 50% over the next 5 years) and they envisage that:
 - Additional recruits would come from a combination of graduates and apprenticeships
 - Additional recruitment will be achieved through a combination of more spending on recruitment and advertising to attract entrants to the profession. The mandatory deployment of registered engineers is also expected to help incentivise recruitment and retention.

Fire Risk Assessors

32. Based on the survey responses, four competency levels were identified for fire risk assessors, with an estimated total of 54,000 in England across all four competency levels:
 - 90% are estimated to have competency level 1
 - 500-800 fire risk assessors were estimated to have competency level 4, the minimum benchmark standard for working on higher-risk buildings.
33. Currently, up to 25% of fire risk assessors across all competency levels (c.1,100), are estimated to work on high-rise residential buildings. The anticipated minimum requirement for working on buildings in scope of the new regime include applying third party accreditation to the fire risk register process leading to FRAs on the register also achieving EngTech status, or being registered with organisations accredited by the UK Accreditation Services (UKAS). Assessors are also expected to have at least 3-5 years of experience.
34. The survey suggested that an additional 50% of level 4 fire risk assessors would be required to work on buildings in scope in the future, with an increase of 10% across the other competency levels. Currently it is estimated that only 10% of the current level 4 fire risk assessors meet the requirements to work on buildings in scope.
35. The survey found that vacancy rates are at 10% for competency levels 1-3, but at over 75% for competency level 4. It is also thought that the proportion of all assessors leaving the sector, through retirement of experienced assessors in particular (currently at 20% pa), is increasing because assessors do not wish to work on high-rise residential buildings due to issues of liability and risk. There was a deep concern that fire risk assessors are becoming the individuals expected to absorb most of the extensive risk presented in areas like high-rise residential building external walls, an activity which usually requires a team.

36. Recruitment rates of the profession are currently around 10% p.a. with new entrants typically being drawn from the wider profession and via school leavers entering apprenticeship schemes. Although recruitment rates are expected to increase, they are not anticipated to match vacancy rates or the anticipated future demand for those with level 4 competencies. The main challenge is the low number of applicants with the required skills and the cost of training.
37. The current approach to increase net recruitment is the offer of increased training and access to indemnity insurance, and it is anticipated that wages will also have to increase in order to attract more recruits. New competency standards across the sector are expected to help career progression within the industry.

Principal Designers/Architects

38. The survey response for Building Designers/Architects and Principal Designers indicates that there is only a single grade or competency band for the profession, with an estimated total of 41,000 qualified architects. This number does not include other types of building designers outside the remit of a professional architectural organisation, such as the Royal Institute of British Architects (RIBA), such as architectural technicians, or Part 1/Part 2 qualified professionals. The data for Principal Designers (PDs) included in this category pertain to PDs who have entered the profession via the architectural route.
39. Currently, only 5% of architects are estimated to be working on high-rise residential buildings. Another 5% of the profession are working on buildings in scope in the capacity of Principal Designers. Because of the prescriptive requirements for registration to become an architect, 100% are assumed to meet the competency criteria required for architecture, which includes Registered/Chartered Architect status, up to date records of continuous professional development, two years of professional experience, and adherence to professional codes of conduct and practice. Of this total pool of architects, 10% are additionally considered to have the potential to meet the additional competence requirements for Principal Designers which will be developed with industry. In terms of upskilling, due to the CPD requirement in order to maintain a license to practice, it can be assumed that 100% of qualified architects are engaged in upskilling activities at some point every year.
40. The survey indicates that up to 10% more architects will be required to work on high-rise residential buildings in the future, and that up to 5% more Principal Designers will be required to work on high-rise residential buildings in the future.
41. The survey found that the profession in general has 5% leavers per year, which is set to increase by 5 percentage points (p.p.) in five years' time, in anticipation of ageing workforce reaching retirement age. This does not seem to be a cause for concern however, as there is a fairly healthy pipeline of architects in the education and training phase of their career currently. This may change if this pipeline of graduates are not able to find training places this year due to Covid-19 impacts.
42. Recruitment rates for architecture are currently around 5% per annum and are expected to decrease by 5 p.p. due to disruption, such as Covid-19, in the industry. The recruitment rate for Principal Designers is similar at 5%, however the forecast is for this figure to remain stable in future years. The main recruitment strategy for the profession is to increase wages, and it was also pointed out that the negotiation of mutual recognition agreements on architectural education with the EU, US, and Australia/New Zealand would help contribute to widening the candidate pool, and hence aid recruitment. The profession is currently heavily dependent on EU migration for its supply of new architects (facilitated by current mutual recognition arrangements that are set to end at the end of the transition period). While there are currently no shortages in the profession, the most cited anticipated challenges to recruitment include an ageing workforce, the cost of education, uncertainty, and Covid-19.
43. Regarding Covid-19 – the profession sees this as having a major impact on workload and revenues for architectural practices over the next 3-6 months, with graduates encountering great difficulties in obtaining training places this year, which in turn will impact on the number of entrants to the profession.

Installers of safety-critical systems

44. The survey response for Installers of safety critical systems indicates that there is only a single grade/competency band for these professions, including 20,000 installers of fire and security systems (of which 10% are working on high-rise residential buildings), 3,000 installers of smoke control systems (of which 70% are working on high-rise residential buildings), and 135,000 installers on the Gas Safe Register, and 190,000 ECA members (of which 10% are working on high-rise residential buildings). The highest level of future demand is from the smoke control system installers, where they say they will need up to 50% more in order to work on high-rise residential buildings in the future, probably due to the relatively small size of their current industry, whilst the others (fire and security systems, gas appliances, and electrical installations) need only up to 10% more for working on high-rise residential buildings in the future. The smoke control system industry anticipates that they only have about 10% recruitment per year and a vacancy rate of 12%. The shortages in this industry have the potential to negatively impact on the quality of service and increase instability in service due to having to rely on temporary staff. There is also a shortfall in the fire and security system and electrical installation industries, where they only have 3% recruitment per year. These shortages have the potential to lead to several impacts, including negative impacts on the quality of service, productivity, delivery times, staff wellbeing (leading to loss of morale and absenteeism), overall costs, and stability. The lack of qualified, competent installers could also equate to risks to building safety.
45. For smoke control installers, the current requirements include a site card, site-based qualifications, electrical qualification and industry-based experience. In the future, a Level 3 or 4 certificate in smoke control systems will be required in addition to the above. Assessments are mainly centred around interviews and on-the-job assessments.
46. For individuals on the Gas Safe Register, they currently need certificates of gas safety competence and an awareness for flues penetrating external walls. The Standards Setting Body (SBS), which is responsible for determining competency, base their requirements on normative standards, guidance or regulations, and the current perception is that standards specific to high-rise residential buildings are currently very limited. For this industry, they are planning to react to any requirements when these are published, however at the moment they are unable to prescribe any proposed changes to the required skills, knowledge and experience for gas safety engineers until more clarity on these requirements is provided.
47. For electrical installers, the current requirements include competence around the skills requirements of the Electrotechnical Apprenticeship standards. No specific experience unique to high-rise residential buildings is required. In the future, there could be a requirement for additional fire and structural safety awareness training, as well as additional skills and behavioural training around customer service. Electricians are required to complete either AM2S or AM2E, a 2.5-day robust timed practical skills assessment and knowledge test, taken in an independent test centre. AM2S is for those completing the electrotechnical apprenticeship standard; AM2E is for experienced workers (from July 1, 2020). Currently, for installers of smoke control systems and electrical installations, 60% meet the above competence criteria for working on buildings in scope. For installers of fire and security systems the number is much lower, with only 10% meeting the above potential competency criteria for working on high-rise residential buildings. In terms of upskilling, the largest percentage of upskilling activity comes from the fire and security system installers group, with 50% of individuals engaged in upskilling activity per year. This number goes down to 30% for electrical installers, 25% for smoke control systems installers, and 20% for individuals on the Gas Safe Register.
48. The percentage of leavers per year for this sector is relatively low. For smoke control system installers, the percentage of leavers per year is 7%, and they anticipate this to decrease by 5 p.p. over the next five years. As a retention strategy, they have indicated that improved benefits packages (at an estimated cost of £5,000 per individual, per annum) would help to improve retention. For gas safety engineers this percentage is 5%, although they anticipate this to increase by 10% due to an 'industry training gap' due to a British Gas decision to stop training apprentices for 10 years.

49. No retention figures were provided for the fire and security system industry, although a stronger move towards rigorous, regulated qualifications, exemplified by the apprenticeship and (in due course) the experienced worker assessment, as well as legislative support for only properly qualified personnel to work as fire systems technicians., has been cited as key strategies for retaining individuals. This was echoed by the response from the electrical installer sector, where legislation for establishing minimum qualification requirements to practice as an electrician was cited as a key to enabling better industry retention.
50. In terms of recruitment, the fire and security system industry has a 5% rate of recruitment per year, and they are expecting this to grow by 10 p.p. in five years, due to the successful take-up of the newly created apprenticeship programme, which is anticipated to lead to the professionalisation of the sector, hopefully to be underpinned by legislation requiring qualified status as precondition for working as fire systems technician. The main sources of recruitment for this sector are school leavers, as well as entrants from the wider industry and beyond. They see a key challenge to recruitment as being the current lack of legislative support for qualifications and resulting free for all with unqualified/ under-qualified installers.
51. Another industry experiencing challenges to recruitment is the electrical installer sector, with a 4% rate of recruitment per year, set to grow by 20 p.p. in five years due to the increasing demand for electrical skills, linked to green energy, digital technologies and (potentially) building safety requirements. The actual increase in demand is closer to 30%, but industry may struggle to meet this. Current lack of legislative support in UK for proper installer qualifications (in contrast to other jurisdictions in Europe, Americas and Australasia) also a drag on the industry's ability to recruit and retain. Similar to the situation for the fire and security system installers, they see this as a key issue for their sector.
52. Recruitment for the smoke control system installer industry is estimated at 10% per year, and this is likely to remain constant over the next five years with no expectation for major growth. The cost of recruitment per entrant is currently £5,000, with improved offer packages, e.g. holiday allowances, benefits and bonuses being cited as a key strategy for increasing recruitment into the sector. The recruits into this sector come from a wide range of sources, from school leavers, to graduates and apprentices, from the wider profession and outside the profession. The main challenges to recruitment are competition amongst employers, low numbers of applicants with the required skills or behaviours, and the working hours.

Products Manufacturers

53. Entrants to the industry come from a range of sources, including graduates, apprentices, graduate designers, installers from the wider construction industry, and even outside the wider profession. According to survey respondents, there are 3 bands of competency, with 300 working at entry level, 100 working at mid-level and 200 working at the highest competency band. Of these, an estimated 50% at each competency band are working on high-rise residential buildings at any given time, with an estimate of over 50% more per band needed to work on high-rise residential buildings in the future.
54. There are currently no skills, knowledge, experiences and behaviours requirements for individuals at construction stage for dealing with the supply and manufacture of these products. However, in future, the requirements could be for these individuals to have a Design L3 certificate, Supervisory Role L2 certificate, or an NVQ L2 in Passive Fire Protection, depending on their functional role. In addition, they might also need to have at least 5 years of experience to be able to work unsupervised and be a member of a third-party certification scheme as an installer or manufacturer, with all the products likewise needing third party certification. Estimates of competency against these potential future requirements are at 90% for entry level, 2% for mid-level and 4% for the highest competency band.
55. Competence is currently assessed using web- or paper-based skills assessment tests of half a day's duration (costing £50-500) and a face-to-face telephone interview, several months' training on a foundation course with a final assessment (costing £2,500-5,000), a CV review, and samples of work/case studies. Companies employing these individuals will also need to hold third party certification. The industry estimates that they gain 2% new high-rise residential building competent

individuals at mid-level and another 2% new high-rise residential building competent individuals at the higher level, per year. At any given time, upskilling activities are being carried out by 50% of individuals at entry level, 90% of individuals and mid-level, and 90% of individuals at the highest level.

56. Leavers account for 10% of the profession per year, and this is estimated to increase by 20 p.p. in the future due to Covid-19 impacts. Retention strategies could include increasing wages, increasing spending on the training of existing staff, improvement of benefits packages and increasing the status and importance of passive fire protection products. The anticipated costs to improving retention are estimated to be around £5,000 per individual. Recruitment accounts for 10% of entrants into the profession per year, with an anticipated decrease by 10 p.p. in the future due to Covid-19 impacts. The cost of recruitment per entrant is estimated to be £1,500. Potential recruitment strategies include increasing wages, increasing recruitment spend, improved offer packages and using different channels for advertising vacancies. The combined anticipated cost of these measures is estimated to be £5,000. The key recruitment challenges are the low number of applicants with the required skills, the cost of education/training, and an ageing workforce.
57. There were two key impacts identified as a result of staff shortages – productivity, and reliance on temporary staff (leading to instability and uncertainty). The reduction in quality of installed passive fire protection systems was also cited.
58. Regarding Covid-19, in addition to the impact on leavers and entrants above, the profession has suffered from a significant reduction in work being done. Staff on furlough have been unable to train, and it is anticipated that training budgets will inevitably be further squeezed following the easing of lockdown. However, trade associations have taken the opportunity to set up e-learning courses for L2 and L3 qualifications, however there is a worry that training budgets will be limited once employees go back to work.