

# Impact Assessment, The Home Office

**Title:** The Fire Safety (England) Regulations 2022

**Date:** 18 May 2022

**IA No:** HO0398

**RPC Reference No:** N/A

**Stage:** FINAL

**Other departments or agencies:** N/A

**Intervention:** Domestic

**Measure:** Secondary legislation

**Enquiries:**

FireSafetyUnitconsultations@homeoffice.gov.uk

**RPC Opinion:** N/A

**Business Impact Target:** Non qualifying regulatory provision (NQPR)

## Cost of Preferred (or more likely) Option (in 2021/22 prices)

Net Present Social Value NPSV (£m)		Business Net Present Value BNPV (£m)		Net cost to business per year EANDCB (£m)	
	-390.8		-230.6		25.5

### What is the problem under consideration? Why is government intervention necessary?

As part of Government's building safety reform and following the Grenfell Tower Inquiry Phase 1 report (GTI P1), legislative changes are required to ensure proportionate standards of fire safety in high-rise and other multi-occupied residential buildings. Government intervention is necessary to implement the Inquiry's specific recommendations which require a change in the law through regulations made under Article 24 of the Regulatory Reform (Fire Safety) Order 2005 (the FSO).

### What is the strategic objective? What are the main policy objectives and intended effects?

**Strategic objective:** Improve public safety and reduce the harm caused by fires through fire reform which is informed by the GTI P1 report.

**Policy objectives:** Implement the majority of the GTI P1 recommendations and deliver meaningful improvements to fire safety in high-rise and other multi-occupied residential buildings. This will help ensure that residents feel safe and are safer in their homes, and also help assist Fire and Rescue Services (FRS) in their response to fire incidents.

### What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

**Option 0:** (do-nothing). This does not meet the Inquiry recommendations nor the objectives.

**Option 1:** Deliver the majority of the GTI P1 report's recommendations in a practical way, ensuring that certain fire-safety information for high-rise residential buildings is available to FRSs and imposing new duties to improve fire safety in multi-occupied residential buildings, especially those which are high-rise. This is **the Government's preferred option** as it meets the Government's objectives.

### Main assumptions/sensitivities and economic/analytical risks

**Discount rate (%)**

3.5

The best available data is used in the analysis, but some assumptions are made. The most uncertain assumptions are the number of buildings over 11 metres in scope of the proposals, and the costs of the building plan proposal. Sensitivity analysis has been conducted on these assumptions. If the number of buildings were to rise by 10 per cent to 95,700, from the current estimate of 87,000, then the central NPSV could fall by 6.6 per cent. There is little data on benefits, therefore the NPSV does not accurately represent the benefits of this policy.

**Will the policy be reviewed?** It will be reviewed. **If applicable, set review date:** October 2026

*I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.*

Signed by the responsible Minister : Greenhalgh Date: 18 May 2022

# Summary: Analysis & Evidence

# Policy Option 1

**Description:** Deliver the majority of the GTI P1 report's recommendations in a practical way

## FULL ECONOMIC ASSESSMENT

Year(s):	Price Base	2021/22	PV Base	2022/23	Appraisal	10	Transition	1
Estimate of Net Present Social Value NPSV (£m)						Estimate of BNPV (£m)		
Low:	-255.0	High:	-526.0	Best:	-390.8	Best BNPV	-230.6	

COSTS, £m	Transition Constant Price	Ongoing Present Value	Total Present Value	Average/year Constant Price	To Business Present Value
Low	95.0	159.9	255.0	28.3	153.8
High	187.0	339.0	526.0	58.6	306.1
Best Estimate	<b>139.4</b>	<b>251.4</b>	<b>390.8</b>	<b>43.6</b>	<b>230.6</b>

### Description and scale of key monetised costs by 'main affected groups' (Option 1)

Businesses, the public sector, and FRAs incur costs. Year 1 estimated transition cost lies in a range of £95.0 to £187.0 million, with a central estimated of **£139.4 million**. Estimated ongoing cost lies in a range of £159.9 to £339.0 million (PV), with a central estimate of **£251.4 million (PV)** over 10 yrs. Estimated total costs are £255.0 to £526.0 million (PV) with a central estimate of **£390.8 million (PV)** over 10 yrs. Business costs are estimated at **£230.6 million (PV)** over 10 yrs.

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

It is expected that some business costs to Responsible Persons (RPs) may be passed to individual leaseholders and tenants. The potential impact of this on individuals is costed but is highly uncertain as what agreements are in place in contracts or leases is unknown. Some residents, especially in lower height buildings may be their own RPs and so bear costs from the legislation.

BENEFITS, £m	Transition Constant Price	Ongoing Present Value	Total Present Value	Average/year Constant Price	To Business Present Value
Low	0.0	0.0	0.0	0.0	0.0
High	0.0	0.0	0.0	0.0	0.0
Best Estimate	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

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

It has not been possible to monetise benefits for these proposals. Breakeven analysis has been conducted which shows that 189 fatalities and 1,685 injuries need to be prevented over 10 years for the policy to breakeven.

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

The policy aims to improve the fire safety of residents in high-rise and other multi-occupied residential buildings. This will potentially reduce the number of fire-related injuries and fatalities within these buildings, and make residents feel safer within their homes. The policy also aims to improve the operational response of FRSs to incidents within these buildings.

## BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m: (cost- benefit)										
Cost, £m	25.5	Benefit, £m	0.0	Net, £m	25.5					
Score for Business Impact Target (qualifying provisions only) £m:					N/A					
Is this measure likely to impact on trade and investment?					N					
Are any of these organisations in scope?			Micro	Y	Small	Y	Medium	Y	Large	Y
What is the CO <sub>2</sub> equivalent change in greenhouse gas emissions? (Million tonnes CO <sub>2</sub> equivalent)					Traded:	N/A	Non-Traded:	N/A		

## PEOPLE AND SPECIFIC IMPACTS ASSESSMENT (Option 2)

Are all relevant Specific Impacts included?	Y	Are there any impacts on particular groups?	N
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# Evidence Base

## A. Strategic Objective and Overview

### A.1 Strategic Objective

This legislation fits within the Home Office's overarching strategic objective to improve public safety and security. The policy aims to reduce the harm caused by fires by improving the protection against fire risks through the delivery of fire reform, considering the findings of the Grenfell Tower Public Inquiry's Phase 1 (GTI P1) report.

### A.2 Background

The Grenfell Tower Fire (14 June 2017) was a national tragedy that resulted in the greatest loss of life in a residential fire since the Second World War. Following the fire, a full public inquiry into it was commissioned. The Inquiry was split into two phases. Phase 1, which has now concluded, focussed on the events and actions taken on the night of the fire, including the emergency response.

The Government is determined to learn lessons from the fire and ensure that others do not suffer the loss and trauma that the Grenfell community have faced as a result of the events in June 2017. This is reflected in the actions taken in the years that have passed since the fire. These have included:

- Setting up and acting on the recommendations of Dame Judith Hackitt's independent review of building and fire safety.
- Commissioning the Grenfell Tower Public Inquiry.
- Establishing a remediation programme supported by £5 billion investment in building safety (including £3.5 billion announced on 10 February 2021) to fully fund the cost of replacing unsafe cladding for all leaseholders in residential buildings 18 metres (m) and over in England.
- Announcement of a financing scheme for the removal of unsafe cladding from buildings of 11-18m, under which leaseholders will contribute no more than £50 per month.
- Establishing a Fire Protection Board, chaired by the Chair of the National Fire Chiefs Council, which is leading a programme of work, supported by £10 million of government funding, to ensure that all high-rise residential buildings in England are inspected or reviewed by the end of 2021.
- Undertaking a public consultation on Fire Safety in 2020 which was open for 12 weeks.
- Legislating to reform the regulatory system through the Fire Safety Act 2021 (FSA 2021) and clauses in the Building Safety Act 2022 to update and amend the FSO following the Fire Safety Consultation.
- Undertaking a public consultation on Personal Emergency Evacuation Plans (PEEPs) in 2021 which was open for six weeks.

On 30 October 2019, the GTI P1 report was published<sup>1</sup>. It included a number of recommendations largely related to improvements in the way that high-rise residential buildings are constructed, refurbished and managed, and in the way that FRSs respond to fires in such buildings. These recommendations were accepted in principle by the Government on the day of the report's publication. These included several recommendations, related to improving fire safety in high-rise residential buildings, which required a change in the law to implement.

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<sup>1</sup> Available at <https://www.grenfelltowerinquiry.org.uk/phase-1-report>

Since the recommendations of the report were accepted in principle by the Government, work has been ongoing to develop proposals which can implement the Inquiry recommendations in a practical, meaningful way. The Fire Safety Consultation<sup>2</sup>, set out the Government's initial proposals to implement all of the Inquiry recommendations.

The regulations will impose new duties on responsible persons (RPs) of high-rise residential buildings to collect and share specific information relating to the fire safety of the building for which they are responsible with their local FRS.

Responsible Persons (RPs) for high-rise residential buildings will be required to:

- Provide the FRS with up-to-date building floor plans via electronic means. This information will also need to be placed in a suitable secure information box installed on the premises, alongside a single page plan of their building which identifies the location of essential fire-fighting equipment and other information of use to the FRS (the environs of the building, its use, access points, and dimensions).
- Provide FRSs with information relating to the design and composition of their building's external wall systems and the risk they pose (and any steps taken to mitigate these risks) and information relating to the functionality of any lifts provided for the use of fire-fighters and essential fire-fighting equipment on an exceptions basis.
- Install wayfinding signage in their building's protected stair wells, stair lobbies and in those lift lobbies onto which lifts used by fire fighters open.

Those RPs with responsibility for multi-occupied residential buildings with storeys above 11 meters in height will be required to:

- Undertake quarterly checks on all fire doors located in the common parts of their building and (on a 'best endeavour' basis) undertake an annual check of flat entrance doors.

Also, RPs for all multi-occupied residential buildings will be required to:

- Provide residents with relevant fire safety instructions and information on the importance of fire doors in relation to fire safety.

Article 24 of the Regulatory Reform (Fire Safety) Order 2005 (the FSO) will be used to deliver this change in law and implement the recommendations by making regulations setting out precautions which will need to be taken, or observed, by those on whom such duties are conferred. The FSO places fire safety duties on persons with control of non-domestic premises (RPs) and on others (duty holders) to the extent of their responsibilities under the FSO. The FSO applies to all premises (except those expressly excluded) including workplaces and the non-domestic parts of all multi-occupied residential buildings and the FSA 2021 makes clear that a building's external walls and flat entrance doors are included in the scope of the FSO. Regulations made under Article 24 of the FSO can apply to new requirements to RPs and duty-holders, including building owners and building managers with control of premises.

Using the FSO to implement the Inquiry's recommendations fits with their underpinning intention, which is to ensure that those responsible for relevant buildings take relevant steps to ensure that residents are safe. The responsibilities and requirements imposed on RPs (and/or duty-holders) will generally be linked to matters over which they have control. The RP will need to demonstrate that they have done all they can, to avoid committing an offence. Fire and Rescue Services (FRSs) will be able to take enforcement action against any relevant RP (or duty-holder) who does not comply with these requirements and failure to comply with regulations is a criminal offence, where doing so places one or more relevant persons at risk of death or serious injury in case of fire. The relevant RP could be subsequently prosecuted and if found guilty could be liable to an unlimited fine, imprisonment or both.

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<sup>2</sup> Section 2 of the Fire Safety Consultation [Fire safety \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk)

### A.3 Groups Affected

This legislation will impact the following groups

- **Enforcement authorities:** These include FRAs as the leading enforcement authority under the FSO. These proposals are relevant to inform their operational decisions in relation to enforcement activity under the FSO and their role in commenting on plans for building work. As much of the information collected as a result of these proposals will be sent to FRSs, they will be further impacted as they need to review this information. This may impact their operational response. Where relevant, other enforcement authorities will have an interest such as the Crown Premises Fire Safety Inspectorate as well as Local Authorities (LAs) in relation to their powers under the Housing Act 2004 (HA 2004).
- **Responsible Persons (including local authorities) and Duty Holders:** a number of new requirements are proposed for RPs (for example, a building owner or building manager) as, where relevant, they will be responsible for complying with them. This will affect both the private sector and the public sector (local authorities). This will also include both DHs (for example, a leaseholder or tenant) might also be affected in that their responsibilities would be linked to the extent of their control of the premises.
- **Residents:** a number of the recommendations arising from the GTI P1 report include reference to residents, including in relation to flat entrance doors which rely on co-operation between residents and RPs/DHs.

### A.4 Consultation

#### Within Government

The Home Office engaged with several government departments and devolved administrations as part of the consultation, including:

- Department for Business, Energy and Industrial Strategy (BEIS).
- Department for Levelling Up, Housing and Communities (DLUHC)
- Ministry of Justice (MoJ).
- The Welsh Government.
- The Scottish Government.
- Northern Ireland Executive.
- Health and Safety Executive (HSE).

#### Public Consultation

The Government consulted on the proposals to implement the recommendations made by the Inquiry as part of the Fire Safety Consultation (FSC) which began on 20 July 2020<sup>3</sup> and closed on 12 October 2020. The Government's response was published on the 17 March 2021.

It is intended to implement the GTI P1 recommendations by laying regulations under the existing power in Article 24 of the FSO. Article 24 places a statutory duty on the Secretary of State to consult ahead of laying any regulations.

Section two of the FSC related specifically to the GTI P1 recommendations which required a change in the law. There was broad support from those who responded to the FSC for all of these proposals, and these regulations will seek to implement them.

These regulations, however, do not seek to implement all of the GTI P1 recommendations. The FSC contained proposals relating to evacuation plans and PEEPs. The consultation responses to the

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<sup>3</sup> [Fire safety - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/consultations/fire-safety)

FSC triggered further discussions with stakeholders and additional research, which resulted in a new consultation specifically on this issue<sup>4</sup>. The PEEPs consultation ran from 8 June to 19 July 2021, with the formal Government response due for publication as soon as possible. In formulating that response, it was decided that the two GTI Phase 1 recommendations related to PEEPs and the recommendation related to evacuation plans should proceed together, on a separate timeline from the rest of the Fire Safety Regulations. Policy proposals related to these recommendations will be subject to a new public consultation. In addition, the proposals on fire doors set out in the regulations differ from the proposals which were consulted on the FSC, the proposals included in the regulations relating to the inspection of fire doors will implement the GTI P1 recommendations in a practical manner by taking a risk-based approach to such inspections. Proposal 31 in the FSC proposed that the Government go further than the GTI P1 recommendation on wayfinding signage and create a regulatory requirement for responsible persons for all multi-occupied residential buildings 11 metres and above in height to install signage, a position that would align with the recommendation in the Building Regulations: Approved Document B<sup>5</sup>. However, in light of the statement made by the Secretary of State for Levelling Up, Housing and Communities on re-setting the Government's approach to building safety<sup>6</sup> it has been decided to limit the legal requirement for such signage to high-rise residential buildings only. This position still goes further than the Inquiry recommendation (which did not recommend making this a legal requirement) whilst ensuring that a pragmatic, proportionate approach to fire safety measures in residential buildings is maintained.

## **B. Rationale for intervention**

The Grenfell Tower Fire and the GTI P1 report indicate that there is more to do to improve the safety of residents in multi-occupied residential buildings, especially those which are high-rise and to support the operational response of FRSs.

The GTI P1 report identified several areas in which improved knowledge of the design and construction of high-rise residential buildings could have assisted the FRSs in their response to the Grenfell Tower fire. Proposals will require RPs, who under the FSO are responsible for the overall fire safety of their buildings, to ensure that information on a building's external wall systems is available and can be used by an FRS as part of their operational planning. In addition, these proposals will address concerns raised by the Inquiry about FRS knowledge of the layout of buildings and the availability of building floor plans by making these available to FRSs to assist with both advance planning and onsite response during a fire incident. The proposals will also ensure that FRSs are aware of any defective essential fire-safety equipment in high-rise residential buildings, another area of concern highlighted by the GTI P1 report.

The proposals will also follow the recommendations within the GTI P1 report to try and improve the safety of residents, and ensure they feel safe within their homes. The proposals related to fire doors aim to help protect residents by helping to ensure that compartmentation is maintained in multi-occupied residential buildings above 11 metres in height. The proposals will also require RPs to share with residents relevant fire-safety instructions which will improve resident engagement in fire safety matters relevant to the buildings in which they live and improve overall levels of fire safety.

For context, in the year ending December 2021 fire and rescue services attended 27,015 dwelling fires<sup>7</sup>, of which 2,663 occurred in purpose built, medium (4 – 9 storeys) or high-rise (10+ storeys) flats (9.9% of all dwelling fires). There were 16 fire-related fatalities in purpose built, medium (4 – 9

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<sup>4</sup> [Personal Emergency Evacuation Plans - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/consultations/personal-emergency-evacuation-plans)

<sup>5</sup> [Pg. 105 ADB Vol1 Dwellings 2019 edition inc 2020 amendments.pdf \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/105483/ADB-Vol1-Dwellings-2019-edition-inc-2020-amendments.pdf)

<sup>6</sup> [Government sets out new plan to protect leaseholders and make industry pay for the cladding crisis - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/news/government-sets-out-new-plan-to-protect-leaseholders-and-make-industry-pay-for-the-cladding-crisis)

<sup>7</sup> Home Office (2022): FIRE STATISTICS TABLE 0205a: Dwelling fires attended by fire and rescue services in England. 4 to 9 storeys and 10 + storeys used to provide context as the Home Office does not publish data on dwelling fires in 18m+ high-rise flats.

storeys) or high-rise (10+ storeys) flats in the year ending December 2021<sup>8</sup> (7.6% of all fire-related fatalities in dwelling fires) and 181 non-fatal casualties requiring hospital treatment<sup>9</sup> (9.6% of all non-fatal casualties requiring hospital treatment in dwelling fires).

To implement these recommendations as set out in the GTI P1 report, legislative changes are required, which can be achieved by new regulations via Article 24 of the Fire Safety Order (FSO). The new regulations will also ensure that those required to comply with, or enforce against, the FSO are clear about their roles and responsibilities, and that those affected by it feel safe and are safe in their homes.

These proposals create no new duties or offences. They clarify existing duties with respect to high-rise buildings. The coverage will be England.

## C. Policy objective

The policy objective is to implement the GTI P1 recommendations, which were accepted in principle by the Government on 30 October 2019 and deliver overall improvements to fire safety in high-rise and other multi-occupied residential buildings.

The legislation aims to improve the safety for residents, specifically those in high-rise buildings, which should reduce the number of fire-related injuries and fatalities and help ensure these individuals remain safe from fire in their homes. It will also assist FRSs in their response to fire incidents by providing them with important information regarding high-rise residential buildings, such as the composition and risk posed by the building's external wall system and the layout of the building's floors including the location of key fire-fighting equipment and allow FRSs to plan should this equipment not be operational at the time of a fire. The regulations will also ensure that FRSs are aware ahead of attending a fire if any of the essential fire-fighting equipment provided for their use in a high-rise building is not working. It will also ensure RPs provide FRSs with hard copies of building floor plans for high-rise residential buildings kept in a secure information box which is accessible by the FRS, alongside the single page building plan, which can be used during a fire emergency. Setting out a regular programme for checks on fire doors in both a building's common parts and for flat entrance doors will assist in ensuring that a relevant building's compartmentation is maintained and offers the correct level of protection to residents.

Ensuring that fire-safety instructions, information on fire doors and regarding checks on fire safety equipment and lifts are passed on to residents, will improve levels of engagement and reassurance for residents, as well as helping to improve fire safety for all. This aims to make residents feel safer in their homes.

The policy also aims to ensure that:

- Residents in high-rise residential buildings can feel reassured that government has learnt lessons from the Grenfell Tower tragedy and has taken the appropriate steps to ensure their safety so that they feel safe and are safer in their homes.
- The Government delivers on its commitment to implement the Inquiry's recommendations in principle.

Guidance will assist RPs (including building owners and managers) and duty holders understand their roles and responsibilities to ensure compliance with the FSO and protect the safety of relevant persons, including residents.

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<sup>8</sup> Home Office (2022): FIRE STATISTICS TABLE 0205b: Fatalities in dwelling fires attended by fire and rescue services in England, by dwelling type. 7.6 per cent figure calculated by dividing 16 by the 210 fatalities.

<sup>9</sup>Home Office (2022): FIRE STATISTICS TABLE 0205c: Non-fatal casualties in dwelling fires attended by fire and rescue services in England, by dwelling type and severity of injury, England. 9.6 per cent figure calculated by dividing the 181 by the 1,894 non-fatal casualties requiring hospital treatment.

## D. Options considered and implementation

A non-regulatory approach to encourage improved fire safety without legislating would not meet the recommendations or the Government's objectives, so is not considered here.

### **Option 0: To take no action and make no legislative changes (do-nothing).**

Under this option there would be no legislative changes and no implementation of any of the GTI P1 recommendations. This option does not meet the Government's objectives. The Inquiry was specific in making recommendations "*required by law*," therefore, this option does not meet the Inquiry recommendations either.

### **Option 1: Deliver the majority of the GTI P1 report's recommendations in a practical way.**

Under this option, legislative change is undertaken to implement the GTI P1 recommendations. It is intended that regulations implementing the proposals will be made by the Secretary of State under Article 24 of the Regulatory Reform (Fire Safety) Order 2005 (the FSO). The regulations will impose precautions on RPs for specific premises to ensure the safety of residents whilst also ensuring that FRSs have the information they need to provide an effective operational response in the event of a fire in a high-rise residential building, and to provide residents of multi-occupied residential buildings with the instructions they need to know how to remain safe in event of a fire. The proposals within this option are set out below:

#### **High-rise residential buildings**

- **External Walls:** RPs will be required to provide to their local FRS, in a standard format sent electronically, information about the design and materials of a high-rise building's external wall system and to inform the FRS of any material changes to these walls. RPs will also provide information in relation to the level of risk that the design and materials of the external wall structure gives rise to and the associated mitigating steps, where in place.
- **Building Plans:** RPs will be required to provide their local FRS with up-to-date electronic building floor plans and to place a hard copy of these plans, alongside a single page building plan which identifies essential firefighting equipment, in a secure information box on site. The RPs will also be required to keep these plans up to date.
- **Information Boxes:** RPs will be required to install and maintain a secure information box in their building. This box should contain the name and contact details of the RP and hard copies of the building floor plans.
- **Lifts and Essential Firefighting Equipment:** RPs will be required to undertake monthly checks on the operation of lifts intended for use by firefighters in their building and check the functionality of other important pieces of firefighting equipment. The RPs will be required to report any defective lifts or equipment to their local FRS within 24 hours of detection on an exception basis. They will be required to record the outcome of checks and make them available to residents.
- **Wayfinding Signage:** RPs will be required to install signage visible in low light or smoky conditions that identifies flat and floor numbers in the stairwells, stair lobbies and those lift lobbies onto which a lift used by fire-fighters opens of relevant buildings.

#### **Multi-occupied residential buildings with storeys 11 metres and above in height**

- **Fire Doors:** RPs for multi-occupied residential buildings will be required to undertake annual checks of flat entrance doors and quarterly checks of all fire doors in the common parts.

#### **All multi-occupied residential buildings**

- **Instructions to Residents:** RPs will be required to provide relevant fire safety instructions to their residents, which will include how to report a fire and any other document which sets out what a resident must do once a fire has occurred.



These proposals will implement 8 of the 11 recommendations made by the GTI P1 Inquiry which require a change in the law. Two other recommendations, which relate to personal emergency evacuation plans (PEEPS) and one relating to evacuation plans, are not being implemented through these regulations.

### **Preferred option and implementation plan**

**Option 1** is the Government's preferred option as it aims to achieve all of the Government's objectives. These include reducing the harm caused by fires, improving the safety of residents of multi-occupied residential buildings (especially those which are high-rise), and making residents feel safer within their homes.

The regulations in **Option 1** will also impose duties on RPs of high-rise residential buildings which require them to share information on their building directly with their local FRS. This information sharing aims to give FRSs better access to the information they need to provide an effective operational response, and should ensure that FRSs are better prepared, and can respond more effectively to fire incidents in high-rise residential buildings. Other regulations within **Option 1** also aim to assist fire fighters during fire incidents.

It will take time for RPs and for the FRS to be compliant with and ready to enforce these regulations. Guidance will be provided ahead of commencement in order to assist RPs with their planning. There was a ministerial commitment to lay these regulations ahead of the second anniversary of the GTI P1 report (October 2021) however their laying was delayed due to the requirement for the Fire Safety Act 2021 to have fully commenced first. This has delayed the publication of supporting guidance which will follow later in 2022 and in order to allow sufficient flexibility to those who the regulations will impact on to be ready it is intended for the regulations to commence on 23 January 2023.

## **E. Appraisal**

The following sections present analysis on the additional costs and benefits of the proposals within **Option 1**, compared to the do-nothing option.

A consultation IA on all of these proposals was published on 9 July 2020<sup>10</sup> as part of the Fire Safety consultation. This section has been altered and improved following this IAs to include updated and improved data, and accurately account for the final legislative proposals in response to each GTI P1 recommendation. The methodology in this section is more analytically robust than the previous IAs as additional information has been obtained from a wide range of stakeholders. This has allowed assumptions to be refined. The cost calculations also include additional analysis which more accurately considers when costs are likely to fall. This has been done by considering ongoing refurbishment spend and the impact of new builds.

### **General assumptions and data**

The best available data has been used for this IA. Costings for the appraisal section are based on data primarily from the NFCC, DLUHC, industry experts and the Home Office.

The appraisal period for measuring the impact of the proposals is 10 years (2022/23 to 2032/33) in line with HM Treasury, Green Book (2020) guidance<sup>11</sup>. A social discount rate of 3.5 per cent is used to discount future values to present values. All costs and benefits are in 2021/22 price base year (PBY), with a 2022/23 present value base year (PVBY). Transition/set-up costs are assumed to occur in year 1 only, and ongoing costs are expected to occur from year 2 of the policy onwards unless otherwise stated.

The main assumptions used in this IA are listed below:

1. The legislative changes will apply to multi-occupied residential buildings covered by the FSO in both the private and social sector. The majority of the changes apply to "high-rise

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<sup>10</sup> [Impact Assessment \(publishing.service.gov.uk\)](https://publishing.service.gov.uk)

<sup>11</sup> HM Treasury; [The Green Book \(2020\) - GOV.UK \(www.gov.uk\)](https://www.gov.uk)

*residential buildings*” which are defined as buildings 18 metres or more in height for the purpose of this analysis. Where changes apply to buildings of a lower height, this is clearly noted. The volume of in-scope buildings by height, is outlined in Table 1. The 11-18m and over 18m residential building numbers used in this IA are the most recent published figures by DLUHC in their October Building Safety Programme Monthly Data release.<sup>12</sup> These contain an element of uncertainty due to some data quality issues identified in the OS ® Building Height Attribute Data which is used to calculate the estimates<sup>13</sup>. The impact of changing these figures is shown in the sensitivity analysis within Section G: Risks.

**Table 1, Volume of buildings in scope of the proposals, by height, England, 2021.**

Height (m)	0–11	11–18	18-29	30+
<b>Volume of buildings</b>	1,596,000	75,000	8,160	3,840

Source: Volume of buildings; 0-11m sourced from Fire Safety Consultation IA<sup>14</sup>, 11-18m and 18m+ from the October building safety programme monthly data release<sup>15</sup>

2. A number of wage assumptions are used within this analysis. These are presented in Table 2. The FRS wages are taken from the most recent pay settlement<sup>16</sup> and uplifted to account for non-wage costs<sup>17</sup>. All other wages are taken from the Annual Survey of Households and Earnings (ASHE) 2020<sup>18</sup>, also uplifted to include non-wage costs and modified for the price base year using HM Treasury’s GDP Deflator<sup>19</sup>.

**Table 2, Total labour cost per hour, £, 2021 prices.**

Occupation	Labour cost per hour (£)
<b>Watch Manager</b>	21.94
<b>Building Safety Manager</b>	20.68
<b>Admin Processing</b>	15.33

Source: Competent B Watch Manager wages used. Median wage of Property, housing and estate managers taken as proxy for Private Building Safety Managers. Average median wage of receptionists and office managers taken as proxy for Private Sector Admin processing wages. Total labour cost per hour referred to as wages throughout this IA.

3. It is estimated that the number of in-scope buildings within each height category increases by three per cent a year as a result of new-build residential properties being built<sup>20</sup>.
4. It is estimated that four per cent of in-scope buildings will undertake major refurbishment work or projects each year<sup>21</sup>.
5. Many of the legislative changes require information to be provided to FRSs by RPs. When this occurs, it is assumed this takes approximately 30 minutes per building. This is a central estimate in a low-high range of between 15 minutes and 45 minutes.

<sup>12</sup> Page 11-12 [Building Safety Programme: Monthly data release - October 2021 \(publishing.service.gov.uk\)](https://publishing.service.gov.uk)

<sup>13</sup> Page 10 [Building Safety Programme: Monthly data release - October 2021 \(publishing.service.gov.uk\)](https://publishing.service.gov.uk)

<sup>14</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/901866/20200708\\_Fire\\_Safety\\_Order\\_2005\\_Uplift\\_Consultation\\_IA.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/901866/20200708_Fire_Safety_Order_2005_Uplift_Consultation_IA.pdf)

<sup>15</sup> DLUHC estimates page 9. Of the 12,500 high-rise multi-occupied buildings of 18 metres or more, 12,000 are flat dwellings and therefore in scope. Of the 12,500 buildings, 8,500 (68%) are 18-29m, and 4000 (32%) are 30m+. These proportions are applied to the 12,000 in scope buildings to find a height split. [Building Safety Programme: Monthly data release - October 2021 \(publishing.service.gov.uk\)](https://publishing.service.gov.uk)

<sup>16</sup> <https://www.fbu.org.uk/pay-rates/pay-settlement-2020>

<sup>17</sup> Eurostat data, 2018, 18% of UK labour costs are non-wage costs. Therefore, a 22% uplift is applied to the hourly wage.

[Wages and labour costs - Statistics Explained \(europa.eu\)](https://economy.fairtrade.europa.eu/)

<sup>18</sup> ASHE: Earnings and hours worked, occupation by four-digit SOC: ASHE Table 14 - Office for National Statistics (ons.gov.uk)

<sup>19</sup> HM Treasury: <https://www.gov.uk/government/statistics/gdp-deflators-at-market-prices-and-money-gdp-march-2021-quarterly-national-accounts>

<sup>20</sup> DLUHC estimates for Building Safety Bill IA. Paragraph 11. <https://publications.parliament.uk/pa/bills/cbill/58-02/0139/BuildingSafetyBillImpactAssessment.pdf>

<sup>21</sup> DLUHC estimates for Building Safety Bill IA. Paragraph 246. <https://publications.parliament.uk/pa/bills/cbill/58-02/0139/BuildingSafetyBillImpactAssessment.pdf>

6. It is assumed that approximately 17 per cent of the costs to RPs in buildings under 11 metres fall to the public sector, with the remaining costs falling to business.<sup>22</sup> In buildings over 11 metres, it is assumed for most proposals that 50 per cent of the costs fall to the public sector, and the other 50 per cent of the costs fall to businesses. This is based off the assumption that there are 12,000 high-rise residential buildings in England, of which 6,000 are in the social sector, and 6,000 are in the private sector<sup>23</sup>. The same split between private and social sector buildings is also assumed for buildings 11 to 18 metres as a reasonable proxy<sup>24</sup>. The exception to this is the Fire Door proposal. For this, it is assumed that approximately 50.4 per cent of costs to RPs fall to business, and 49.6 per cent of costs fall to the public sector. This is based on the assumption that there are 2,320,000 dwellings in residential buildings above 11m in England, of which 1,151,000 are in the social sector (49.6%) and 1,169,000 (50.4%) are in the private sector<sup>25</sup>.

## Appraisal

### COSTS

#### **Option 0: To take no action and make no legislative changes (do-nothing).**

This is the do-nothing option and so no costs have been monetised. In this option, no legislation is undertaken and so there is no impact of the proposals. This is the baseline against which Option 1 is measured.

#### **Option 1: Deliver the GTI P1 Report's recommendations in way that is both effective and practical.**

Under this option, legislative change is undertaken to implement the GTI P1 recommendations. This option contains all proposals outlined within Section D: Options. For clarity, the costs of each proposal are presented separately.

### Familiarisation

#### **Set-up costs**

It is expected that there will be a private and public sector familiarisation cost of reading the guidance in year 1 only. This cost will fall to RPs and members of the FRS. Reading tables<sup>26</sup> were used to estimate these costs where allowances are made for different reading speeds and different comprehension rates (taking into account no reading impediment, dyslexia and where English is not the first language). Only HM Government guidance is considered here (any other guidance is voluntary). Familiarisation with the guidance is a person-centred activity, therefore estimates of volumes of people are made to calculate familiarisation costs from various sources and the volume of buildings is not used (there may be RPs who are responsible for multiple buildings).

It is expected that the guidance for these proposals will be included amongst general guidance to abide by the FSO. A number of policies will be completely new to individuals (such as information boxes), and so most individuals and organisations will need to read and be familiar with these new proposals. Other policies are altering existing practices, and so will not require much familiarisation, and some aspects of the guidance, which deals with specialist areas, will only need to be read by specialists in these fields. The level of familiarisation will also differ depending on the building height

<sup>22</sup> Based on 2018 data on proportion of individuals living in social housing: <https://www.ethnicity-facts-figures.service.gov.uk/housing/social-housing/renting-from-a-local-authority-orhousing-association-social-housing/latest>

<sup>23</sup> DLUHC estimates, page 11. [Building Safety Programme: Monthly data release - October 2021 \(publishing.service.gov.uk\)](https://publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/901866/20200708_Fire_Safety_Order_2005_Uplift_Consultation_IA.pdf)

<sup>24</sup> DLUHC estimates, page 13. [Building Safety Programme: Monthly data release - October 2021 \(publishing.service.gov.uk\)](https://publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/901866/20200708_Fire_Safety_Order_2005_Uplift_Consultation_IA.pdf)

<sup>25</sup>DLUHC estimates, page 11 estimates that there are 347,000 dwellings in high-rise residential buildings in the private sector, and 344,000 in the social sector. Page 12 estimates that there are 1,629,000 dwellings in buildings 11 to 18 metres, and page 13 estimates that of these, 822,000 are in private sector buildings. Summing these gives the total private and social sector buildings over 11 metres. [Building Safety Programme: Monthly data release - October 2021 \(publishing.service.gov.uk\)](https://publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/901866/20200708_Fire_Safety_Order_2005_Uplift_Consultation_IA.pdf)

<sup>26</sup> Source : <http://www.readingsoft.com/> and Home Office estimates aligning with methodology used in consultation IA – see page 38

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/901866/20200708\\_Fire\\_Safety\\_Order\\_2005\\_Uplift\\_Consultation\\_IA.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/901866/20200708_Fire_Safety_Order_2005_Uplift_Consultation_IA.pdf)

an individual or organisation is concerned with. All proposals apply to high-rise residential buildings, so an RP of one of these buildings will need to familiarise themselves with all proposals, however only some proposals apply to buildings 11 to 18 metres, or under 11 metres in height. An RP of one of these buildings would need to familiarise themselves in detail with fewer proposals. It is not possible to split out individuals and organisations who would need to familiarise themselves by height, so ranges are provided to account for this uncertainty.

It is expected that the amount of guidance that needs to be read by the average individual is approximately 25 to 100 pages, central estimate 50 pages. The guidance is expected to have between 200 to 300 words per page (central estimate is 250 words). It is expected that the guidance will include 5,000 to 30,000 words, central estimate 12,500, which will take 6 to 71 minutes to read (central estimate 22 minutes). All familiarisation costs occur in year one because there is no need to re-read after year one. The cost is estimated as:

$$\text{Total volume of individuals} \times \text{time (hrs)} \times \text{wage (£/hr)}$$

### Responsible Persons (RPs)

RPs will need to familiarise themselves with the proposals within this legislation. The number of RPs in England is highly uncertain, so the best available proxies have been used.

It is likely that many of the in-scope buildings will leasehold, and so will be managed by residential managing agents or be under another form of self-management. The number of business RPs has been estimated using data from the Association of Residential Managing Agents (ARMA) and the ONS. The ARMA estimate that approximately 25,000 individuals are employed in residential management<sup>27</sup>. By uprating these figures to account for individuals that may be employed under another form of residential management, for example landlords, residential management companies and right-to-manage companies, it is assumed that 43,400 individuals could be in scope of these proposals and need to familiarise themselves with guidance<sup>28</sup>. This is used as the low estimate. The high estimate is calculated using the number of property, housing and estate managers in the annual population survey published by the ONS<sup>29</sup>. This figure is reduced by 25 per cent to account for individuals that may not manage residential properties, to give an estimate of 121,275 individuals. This is used as the high estimate, with the average of the two estimates (82,300) used as a central estimate. The wage for RPs is assumed to be the same as a Building Safety Manager, so £20.68 per hour (see General Assumption 2).

This estimate is highly uncertain as some of these individuals may not manage any high-rise, or multi-occupied residential buildings. In addition, some buildings, especially those under 11 metres in height, may be self-managed by residents and so some familiarisation cost may fall to individuals instead of businesses. It is hard to quantify this cost, and so it has not been monetised in this IA.

The estimated familiarisation cost to business RPs in year one only is estimated to be between **£0.1 to £3.0 million**, with a central estimate of **£0.6 million** (2021/22 prices).

There will also be a familiarisation cost to RPs in the public sector. In line with the consultation IA, the number of social landlords is taken from the current registered providers of social housing, Regulator of Social Housing, August 2021<sup>30</sup>, and is given as 1,621. The social housing sector is a very concentrated sector (LAs, charities and trusts etc.) and each registered social landlord may have a number of RPs to look after the multiple properties in their ownership. There is no definitive data on this so an assumption of two, five and ten RPs per social landlord is taken to check the potential familiarisation costs to this group, estimated using the volume of buildings. Using rounded figures (to the nearest 100), the estimate of RPs in social landlord properties is given as: low = 3,200,

<sup>27</sup> ARMA : Page 6 : [https://arma.org.uk/downloader/tx7/ARMA\\_Overview\\_of\\_Block\\_Management\\_Sector.pdf](https://arma.org.uk/downloader/tx7/ARMA_Overview_of_Block_Management_Sector.pdf)

<sup>28</sup> ARMA analysis shows that 25,000 individuals are employed over 870 firms and 2.33 million leasehold units. Uprating this figure to the 4.02 million units in the private sector is calculated to be 43,400 using the equation:  $25,000 * 4.02 / 2.33$

<sup>29</sup> ONS: Annual Population Survey – Employment by Occupation, Category 1251, Property, housing, and estate managers used. England data only, survey period of April 2020 to March 2021. 161,700 individuals in this category. Available at <https://www.nomisweb.co.uk/datasets/aps168/reports/employment-by-occupation?compare=E92000001>

<sup>30</sup> Regulator of Social Housing: Count of providers in spreadsheet available at <https://www.gov.uk/government/publications/current-registered-providers-of-social-housing>

central = 8,100 and high = 16,200. The wage for these RPs is also assumed to be the same as a Building Safety Manager.

The estimated familiarisation cost to RPs in the public sector in year one only is estimated to be between **£7,000 to £396,000**, with a central estimate of **£61,000** (2021/22 prices).

### FRA (Public sector)

There will also be a level of familiarisation cost for FRAs. It is FRS staff that will need to familiarise themselves with guidance, but the FRA hold the budget for the FRS, therefore the cost of familiarisation will fall to them.

It is assumed that only wholetime staff, of Watch Manager role or senior, will need to familiarise themselves with the guidance so they are aware of the changes, and are able to use this information to inform protection and enforcement activity, especially audits. This activity is usually undertaken by those at these grades. It is likely that some staff will require a lot of familiarisation, and need to be aware of all the guidance, whereas others, who undertake less frequent protection and enforcement activity, or work in FRSs which contain few high-rise residential buildings, will need to do little or no additional familiarisation.

It is assumed the 75 per cent of wholetime Watch and Station Managers, and 50 per cent of more senior managers, need to familiarise themselves with the legislation. The total number of staff is taken from Fire Statistics Table 1102a<sup>31</sup> and the total number in scope is therefore 4,046, These staff will require the same amount of familiarisation time as other individuals (6 to 71 minutes, central estimate 22 minutes)) and wage assumptions are taken from the competent A level in the most recent pay settlement<sup>32</sup> and uplifted to account for non-wage costs<sup>33</sup>. Table 3 presents familiarisation costs by role.

**Table 3: FRA familiarisation costs, year one, 2021 prices, £.**

Role	Number of staff (FTE)	Wage assumption (£)		Familiarisation cost (£)		
		London	Non-London	Low	Central	High
Watch manager	2,736	23.55	20.61	5,800	21,267	68,634
Station manager	928	33.32	23.51	2,297	8,424	27,185
Group manager	234	37.98	27.07	674	2,470	7,971
Area Manager	87	49.96	31.78	297	1,088	3,511
Brigade Manager	62	69.87	69.87	433	1,588	5,126
<b>Total</b>	<b>4,046</b>			<b>9,501</b>	<b>34,836</b>	<b>112,427</b>

Source: Number of staff is those who will read the guidance (75% and 50% adjustments applied). HO internal estimates based on published Fire statistics table 1102a for Wholetime staff in the year ending March 2020. Most recent pay settlement (Competent A) used throughout, therefore watch manager costs will not match general assumption 2.

<sup>31</sup> Available within FIRE1102 at [Fire statistics data tables - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/fire-statistics-data-tables)

<sup>32</sup> <https://www.fbu.org.uk/pay-rates/pay-settlement-2020> for Non-London wages up to Brigade Manager. Brigade manager wages sourced from [NJC for BM - Pay Survey Report 2019 - Final CIRCULAR.pdf \(local.gov.uk\)](#) Page 3 – DCFO salary taken as central estimate for brigade managers. This is uprated using the GDP deflator and converted to hours using the assumption of 2,190 hours worked per year. These figures are for the whole of the UK, not just England. London estimates sourced from LFB.

<sup>33</sup> Eurostat data, 2018, 18% of UK labour costs are non-wage costs, therefore 82% are wage costs. To work out how to adjust wage costs to total costs, the equation  $18 / 82 * 100 = 22\%$  is used. Therefore, a 22% uplift is applied to the hourly wage.

[Wages and labour costs - Statistics Explained \(europa.eu\)](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1)

The familiarisation cost to FRAs within the public sector in year one only is estimated to be between **£10,000 to £112,000**, with a central estimate of **£35,000** (2021/22 prices).

## Total

**Total familiarisation costs** are estimated to be between **£0.1 million to £3.5 million**, with a central estimate of **£0.7 million** (2021/22 prices) and occur in year one only.

## External Walls

This proposal is to legislate to require RPs of high-rise residential buildings to provide to their local FRS, in a standard format sent electronically, with information about the design of their high-rise residential building's external walls as well as details of the materials they are constructed from and to inform the FRS of any material changes to these walls. RPs will also provide information in relation to the level of risk that the design and materials of the external wall structure gives rise to and the associated mitigating steps where in place.

### Set-up costs.

It is expected that RPs will already be aware of the design and materials of their external wall systems. Cost arises from putting this information into a bespoke format suitable for the FRS and then sharing the information with the FRS. All existing high-rise residential buildings will need to complete this in the first year that the legislation is introduced.

It is estimated that it will take between 15 and 30 minutes to put the information into the bespoke format, with the midpoint (22.5 minutes) as a central estimate. This is then added to the time to provide the FRS with information (see General Assumption 5). The total time is estimated to be 52.5 minutes, in a range of 30 to 60 minutes.

It is assumed that the tasks are performed by administrative staff. Therefore, the private sector admin processor wage is used.

The calculation is as follows:

$$\text{Volume of multi-occupied high-rise residential buildings} \times \text{time (hrs)} \times \text{wage (£/hr)}$$

The set-up cost is estimated to be **£161,000**, in a range of **£92,000 to £230,000** (2021/22 prices) and occurs in the first year of the appraisal period only.

### Ongoing and total costs

As new multi-occupied high-rise residential buildings are built, they will also have to submit information about their external walls to the FRS. The costing method is the same as in the set-up costs, however, the volume of buildings is the volume of buildings built in each year of the appraisal period (see General Assumption 3)

There is an additional ongoing cost associated with structural changes to the building. When a building undergoes significant refurbishment work that affects the external wall systems, RPs must put this new information into a bespoke format, and inform their local FRS. The DLUHC estimate that four per cent of high-rise buildings undergo this type of work in a given year (see General Assumption 4). This ongoing cost is calculated as:

$$\text{Total volume of multi-occupied high-rise residential buildings} \times 4\% \times \text{time (hrs)} \times \text{wage (£/hr)}$$

The **total ongoing cost** for external walls is estimated to be **£96,000 (PV)**, in a range of **£55,000 to £137,000 (PV)** between the second and tenth years of the appraisal period.

The **total cost** for external walls is estimated to be **£257,000 (PV)**, in a range of **£147,000 to £367,000 (PV)** across the 10 year appraisal period. The average annual cost is estimated to be **£27,500**, in a range of **£15,700 to £39,400**.

The cost of external walls will apply to RPs in both the private and public sector. As the cost external walls is related to building numbers, and only applies to high-rise buildings, it is assumed that the costs are split equally across both sectors (see General Assumption 6 for further information).

The **total cost** of external walls to the private and public sector is estimated to be **£129,000 (PV)**, in a range of **£73,000 to £184,000 (PV)** across the 10-year appraisal period. The average annual cost is estimated to be **£13,800**, in a range of **£7,900 to £19,700**.

### Building Plans

This proposal is to legislate to require RPs of high-rise residential buildings to provide their local FRS with up-to-date electronic building floor plans and to place a hard copy of these plans, alongside a single page building plan which identifies essential firefighting equipment, in a secure information box on site. RPs will also be required to keep these plans up to date.

#### Set-up costs.

This measure only applies to multi-occupied high-rise residential buildings. It is assumed that buildings can be split into three categories: a) those with plans in the correct format, b) those with plans but the format needs changing, and c) those with no plans at all.

Following discussions with external consultants who supported the completion of the Building Safety Bill (BSB) IA<sup>34</sup>, it has been assumed that the proportion of buildings that already have completed plans, and therefore will not need to do anything as a result of this measure, is 50 per cent, in a range of 40 to 60 per cent. There is no cost accruing to these buildings. This proportion is highly uncertain and based on *industry intelligence and so has been tested in the sensitivity analysis (see Section G)*.

The proportion of buildings that have no building plans at all is estimated to be 40 per cent, in a range of 35 to 45 per cent. It is estimated that it will cost approximately £4,000 (with a range of £3,500 to £4,500) with an additional £200 for quality assurance to complete plans for these buildings. This totals £3,700 to £4,700, central estimate £4,200.

The proportion of buildings estimated to have some sort of plan which will need converting into the correct format is 10 per cent, in a range of 5 to 15 per cent. In this case, there will be a requirement to update the plans into the correct format, which is estimated to cost £300 to £400, central estimate £350.

The calculation is then

$$\text{Volume of buildings} \times ((\% \text{ buildings with no plan} \times \text{price of complete plan (£)}) + (\% \text{ with some plan} \times \text{price to modify format (£)}))$$

There is also a time cost associated with RPs sharing the plans with their local FRS. This is calculated using the same method as it is in External Walls, applying the admin processing wage and time assumptions from General Assumption 5. All buildings will need to provide their plans.

The set-up cost for building plans is estimated to be **£20.7 million**, in a range of **£15.8 to £26.2 million** (2021/22 prices) and occurs in the first year of the appraisal period only.

#### Ongoing and total costs

New buildings are required to create building plans in the specified format under the safety case report. Therefore, there are no associated costs for creating plans for new builds. However, there are costs to update plans for all buildings (both current and new-builds) that undergo major refurbishment. It is estimated that four per cent of high-rise residential buildings undergo major refurbishments each year. The impact of the major refurbishment work on building plans will likely vary by building, so the average of the cost of updating plans (£300 to £350), and the cost of completing new plans (£3,700 to £4,700) is used. The ongoing cost from year two is calculated as:

<sup>34</sup> [Impact Assessment template \(parliament.uk\)](https://www.parliament.uk)

*Total volume of buildings (incl. new builds) x 4% x average cost of updating or completing plans (£)*

These new building plans will then also have to be shared with the FRS, as detailed in the set-up costs.

The **total ongoing cost** for building plans is estimated to be **£9.3 million (PV)**, in a range of **£8.2 to £10.5 million (PV)** between the second and tenth years of the appraisal period.

The **total cost** for building plans is estimated to be **£30.0 million (PV)**, in a range of **£24.0 to £36.7 million (PV)** across the 10-year appraisal period. The average annual cost is estimated to be **£3.2 million**, in a range of **£2.6 million to £3.9 million**.

The cost of building plans will apply to RPs in both the private and public sector. As the cost of building plans is related to building numbers, and only applies to high-rise buildings, it is assumed that the costs are split equally across both sectors (see General Assumption 6 for further information).

The **total cost** of building plans to each of the private and public sector is estimated to be **£15.0 million (PV) each** over the 10-year appraisal period, in a range of **£12.0 million to £18.4 million (PV)**. The average annual cost is estimated to be **£1.6 million**, in a range of **£1.3 million to £1.9 million**.

### Information Boxes

The RPs of existing high-rise residential buildings will be required to install a secure information box in their building. This box should contain the name and contact details of the RPs and hard copies of the building floor plans.

#### Set-up costs.

The provision for all high-rise residential buildings to install information boxes applies to existing buildings only. New builds are captured in the BSB.

After assessing available online products, there are generally two types of information box products available to RPs which could be purchased. These are general metal fire document cabinets, available at a number of online retailers, or much higher quality, and therefore more expensive, security boxes. These will both vary in cost depending on brand used and security specification. A market assessment of the cabinets including five online retailers<sup>35</sup> and seven different boxes was carried out with the average cost of box across these suppliers (£49) being used as the low estimate for the cost of an information box. Discussions with FRSs, who install some boxes currently, suggests that RPs may choose to purchase a higher quality box despite the proposals not requiring them to do so. The best estimate from FRSs for the cost of these boxes is £650, which is used as the high cost per box. It is unknown what proportion of RPs may choose to purchase which type of box, and so the midpoint between these estimates (£350) serves as the central estimate.

It is expected that some high-rise residential buildings will already have premises information boxes installed, in which case they are not required to install another. The proportion of in-scope buildings that already have an information box is estimated to be 10 per cent, in a range of five to 20 per cent. Information provided by the FRS suggests that this is likely to be a conservative estimate and that in some areas most high-rise residential buildings might already have an information box fitted.

The set up cost for purchasing information boxes is then:

$$\text{Cost of box (£)} \times \text{volume of buildings} \times \% \text{ without an information box installed}$$

There will also be fitting costs for the boxes, which will vary depending on the box type. High security boxes are heavier, and may require two maintenance workers (with an average wage of £25 per hour) to fit. The lower cost security boxes will likely be fitted by a building safety manager (wage of £20.68 per hour). Fitting time is estimated to be two hours, and the total time to install the boxes is

<sup>35</sup> Boxes available on Amazon. Screwfix, Fire Protection Shop, Fire Safety.UK and Risk Assessment products used as examples for boxes which could be purchased by RPs. Average cost of seven boxes across these 5 providers used.



estimated to be two hours in the low estimate and four hours in the high estimate, with a central estimate of three hours. The cost of fitting the boxes is calculated as:

$$\text{Time (hrs)} \times \text{wage (£/hr)} \times \text{volume of buildings} \times \% \text{ without an information box installed}$$

As a sense check, this means that in the high scenario, the cost to fit a box is approximately £100, in the low it is £40 and the central estimate is the midpoint at £70.

The set-up cost for information boxes is estimated to be **£4.5 million**, in a range of **£0.9 to £8.6 million** (2021/22 prices) and occurs in the first year of the appraisal period only.

### Ongoing and total costs

There are no ongoing costs associated with this recommendation. This is because new builds are covered under different legislation and it is assumed that the boxes are of a high enough quality to not require maintenance over the appraisal period. The cost for updating and maintaining the documents stored within the box is captured in the other recommendations.

The **total cost** for information boxes is therefore assumed to be equal to the set-up costs.

The cost of information boxes will apply to RPs in both the private and public sector. As the cost of information boxes is related to building numbers, and only applies to high-rise buildings, it is assumed that the costs are split equally across both sectors (see General Assumption 6 for further information).

The **total cost** of information boxes to the private and public sector is estimated to be **£2.3 million each** in year one the appraisal period only, in a range of **£0.4 million to £4.3 million** (2021/22 prices).

### Lifts and Essential Fire Fighting Equipment

This proposal is to legislate to require RPs of high-rise residential buildings to undertake monthly checks on the operation of lifts intended for use by firefighters in their building and check the functionality of other essential pieces of firefighting equipment. The RPs will be required to report any defective lifts or equipment to their local FRS on an exception basis. They will also be required to record the outcome of checks and make them available to residents.

#### Set-up costs.

All costs resulting from lifts and essential and firefighting equipment are defined as ongoing for the purpose of this IA. Inspections will occur monthly, over the 10- year appraisal period, with no specific additional set-up costs.

#### Ongoing and total costs

The ongoing costs come from the time it takes to undertake inspections of lifts and firefighting equipment, as well as the time required to record these results, and provide FRSs with information when an inspection is failed. As all costs of this proposal are ongoing, these equal total costs.

It is assumed that inspecting lifts and firefighting equipment will each take RPs between 10 to 30 minutes (central estimate 20 minutes). The recording of the outcome of these checks so they are available for residents is presumed to take an extra 5 to 15 minutes, central estimate 10 minutes. It is assumed that the inspections will be undertaken by a Building Safety Manager with an hourly wage of £20.68, and the recording of results will be undertaken by an admin processing staff member, with an average wage of £15.33 (see General Assumption 2). These checks will occur every month over the 10-year appraisal period, and so the annual costs will increase as new builds enter the housing stock. The equation below is used to estimate the annual cost of each of the three activities.

$$\text{Volume of buildings} \times \text{time (hrs)} \times \text{wage (£/hr)} \times \text{frequency of checks (12)}$$

When a lift or piece of equipment is defective, RPs will have to report this to their local FRS. Following discussions with the NFCC, it is assumed that in year one of the appraisal period, 10 to 20 per cent of checks uncover faulty equipment (central estimate 15 per cent). It is assumed that from year two

onwards, defective equipment will have been replaced and the frequent checks will lead to better functioning lifts and pieces of equipment. Only 3 to 7 per cent of checks (central estimate 5 per cent) will uncover defective lifts or equipment. When a check finds faulty equipment, this will have to be reported to the RP's local FRS. In line with General Assumption 5 in this IA, it is assumed that it will take 15 to 45 minutes (central estimate 30 minutes) for RPs in high-rise residential buildings to provide their local FRS with this information. The task will be undertaken by admin processing staff. The equation below is used to estimate this annual cost.

$$\text{Volume of buildings} \times \text{time (hrs)} \times \text{wage (£/hr)} \times \text{frequency of checks (12)} \times \text{failure rate (\%)} = \text{Annual cost (£m)}$$

Table 4 presents estimates for the costs of this proposal

**Table 4: Total costs of lifts and essential firefighting equipment (£ million), 2022.**

Lift inspections	Year 1 (£m)	Year 2 onwards £m	Total cost (PV) £m	Annual average cost (over 10 years) £m
Low	0.5	0.5	<b>4.9</b>	0.6
Central	1.0	1.0	<b>9.7</b>	1.1
High	1.5	1.5	<b>14.6</b>	1.7
<b>Equipment inspections</b>				
Low	0.5	0.5	<b>4.9</b>	0.6
Central	1.0	1.0	<b>9.7</b>	1.1
High	1.5	1.5	<b>14.6</b>	1.7
<b>Record results</b>				
Low	0.2	0.2	<b>1.8</b>	0.2
Central	0.4	0.4	<b>3.6</b>	0.4
High	0.6	0.6	<b>5.4</b>	0.6
<b>Provide FRSs with information</b>				
Low	0.1	0.0	<b>0.2</b>	0.0
Central	0.2	0.1	<b>0.7</b>	0.1
High	0.3	0.1	<b>1.3</b>	0.2
<b>Total</b>				
Low	1.2	1.2	<b>11.7</b>	1.4
Central	2.5	2.5	<b>23.7</b>	2.8
High	3.9	3.8	<b>35.9</b>	4.2

Source: Home Office, own estimates, 2021.

The total cost of lifts and essential firefighting equipment is estimated to be **£23.7 million (PV)** over the 10-year appraisal period, in a range of **£11.7 million to £35.9 million (PV)**. The average annual cost is estimated to be **£2.8 million**, in a range of **£1.4 million to £4.2 million**.

The cost of lifts and essential firefighting equipment will apply to RPs in both the private and public sector. As the cost of lifts and essential firefighting equipment is related to building numbers, and only applies to high-rise buildings, it is assumed that the costs are split equally across both sectors (see General Assumption 6 for further information).

The **total cost** of lifts and essential firefighting equipment to the private and public sector is estimated to be **£11.8 million (PV) each** over the 10-year appraisal period, in a range of **£5.9 million to £17.9 million**.

**million (PV).** The average annual cost is estimated to be **£1.4 million**, in a range of **£0.7 million to £2.1 million**.

**Fire Doors**

This proposal is to legislate to require RPs in multi-occupied residential buildings 11m and above to undertake annual checks of flat entrance doors and quarterly checks of the fire doors in the common part. The costs resulting from this legislation include the time required to inspect doors and their self-closing mechanisms as well as the financial burden of replacing faulty self-closing mechanisms.

**Assumptions**

It is assumed that all buildings 11m and above will have self-closing devices in place on fire doors on individual flat entrances (between domestic and non-domestic parts) and doors located in the common parts.

The number of flat entrance doors in scope of these proposals is shown in Table 5. These have been calculated using the number of in-scope buildings (Table 1) and DLUHC data on the number of dwellings and floors per building.

**Table 5: Estimated number of flat entrance doors in scope of the proposals, per height range**

Height range	Number of buildings	Dwellings per building	Doors
11-18m	75,000	22	1,629,000
18-29m	8,160	47	380,000
30m+	3,840	81	311,000

Sources: [Building Safety Programme: Monthly data release - October 2021 \(publishing.service.gov.uk\)](https://publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1000000/building-safety-programme-monthly-data-release-october-2021) Page 12 estimated 22 dwellings per building 11-18m, and therefore 1,629,000 dwellings. Page 11 of the same data release estimated 691,000 dwellings in buildings over 18m. The February release is used to split out the number of dwellings by 18-29m and 30m+ buildings. Number of doors rounded to the nearest 1,000.

The number of doors in the common parts is shown in Table 6. These have also been calculated using the number of in-scope buildings (Table 1) and assumptions on the number of floors per building and fire doors per floor. It has been assumed that an 11-18m building has on average 5 floors, an 18-29m building has on average 8 floors, and an over 30m+ building has on average 15 floors. It assumed that the ground floor of each building has four fire doors, and all other floors have three doors.

**Table 6: Estimated number of common parts fire doors in scope of the proposals, per height range**

Height range	Number of buildings	Doors per building	Doors
11-18m	75,000	16	1,200,000
18-29m	8,160	25	204,000
30m+	3,840	46	177,000

Source: Internal HO assumptions developed with DLUHC.

**Set-up costs.**

Costs from this proposal comes from inspections and replacements. All inspection costs are ongoing, so are described in the ongoing costs section.

It is assumed that RPs will incur cost to repair or replace faulty self-closing devices on doors following a failed inspection. In year 1, it is expected that 5 per cent of doors will fail an inspection (low estimate 3.5%, high estimate 6.5%). This proportion is expected to fall over time, as initial inspections in year

1 may involve doors which have not been inspected for an extended period of time. It is assumed that it costs £106.15 to replace a self-closing mechanism when it is faulty<sup>36</sup>.

The set-up cost for replacing faulty self-closing mechanisms is calculated as:

*Volume of doors x Failure Chance (percentage) x Unit cost of replacing self-closing mechanism*

The set-up cost for replacing faulty fire doors is estimated to be **£20.7 million**, in a range of **£14.5 million to £26.9 million** (2021/22 prices) and occurs in the first year of the appraisal period only.

### **Ongoing and total costs**

There will be ongoing costs resulting from the time required to inspect each door in scope of the proposals. It is assumed that flat entrance doors will be checked annually, and that each check will last on between three to five minutes, with a central estimate of four minutes. This assumption has been developed with operational experts, and accounts for the time it takes to undertake an inspection, and gain access to flat. Common parts fire doors will be checked quarterly, and checks are assumed to last for two to four minutes, with a central estimate of three minutes, as no additional access is required. It is assumed that the checks will be undertaken by a Building Safety Manager with an hourly wage of £20.68 (see General Assumption 2). Annual costs are not constant over the period, they increase by three per cent annually as a result of new-build residential properties being built (see General Assumption 3).

The calculation each year is therefore:

*Volume of doors x Inspection time per door (hours) x Annual number of checks x Hourly wage (£)*

The ongoing cost from inspections is estimated to be **£95.3 million (PV)** over the 10 year appraisal period, in a range of **£66.1 million to £124.4 million (PV)**. The average annual cost is estimated to be **£11.2 million**, in a range of **£7.7 million to £14.6 million**.

There will also be an ongoing cost from replacing faulty self-closing devices which fail inspections each year. It is estimated that approximately 3.5 per cent of doors fail an inspection in year 2 of the appraisal period (low estimate 2.3%, high estimate 4.8%) and that 2 per cent of doors fail an inspection each year thereafter (low estimate 1%, high estimate 3%). Annual costs are also not constant over the period, they increase by three per cent annually as a result of new-build residential properties being built (see General Assumption 3).

The ongoing cost of replacing faulty self-closing mechanisms is calculated each year as:

*Volume of doors x Failure Chance (percentage) x Unit cost of replacing self-closing mechanism*

The ongoing cost from replacements is estimated to be **£78.9 million (PV)** over the last nine years of the appraisal period, in a range of **£41.5 million to £116.3 million (PV)**. The average annual cost is estimated to be **£10.3 million**, in a range of **£5.4 million to £15.3 million**.

The **total cost** of replacements is estimated to be **£99.6 million (PV)** over the 10-year appraisal period, in a range of **£56.0 million to £143.2 million (PV)**. The average annual cost is estimated to be **£11.4 million**, in a range of **£6.3 million to 16.4 million**.

Table 7 presents the total costs of the fire doors proposal.

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<sup>36</sup> NFCC Assumption with fire safety consultation IA (Page 32)

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/901866/20200708\\_\\_Fire\\_Safety\\_Order\\_\\_2005\\_\\_Uplift\\_Consultation\\_IA.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/901866/20200708__Fire_Safety_Order__2005__Uplift_Consultation_IA.pdf)

**Table 7: Total cost of the Fire Doors proposal (£ million)**

	Year 1	Year 2	Year 3 onwards*	Total cost (PV)	Annual average cost (over 10 years)
<b>Inspections</b>					
Low	6.7	7.0	7.2	<b>66.1</b>	7.7
Central	9.7	10.0	10.3	<b>95.3</b>	11.2
High	12.7	13.1	13.5	<b>124.4</b>	14.6
<b>Replacements</b>					
Low	14.5	9.6	4.4	<b>56.0</b>	6.3
Central	20.7	14.9	8.8	<b>99.6</b>	11.4
High	26.9	20.3	13.2	<b>143.2</b>	16.4
<b>Total</b>					
Low	21.2	16.6	11.6	<b>122.1</b>	14.0
Central	30.4	25.0	19.1	<b>194.9</b>	22.5
High	39.6	33.4	26.7	<b>267.7</b>	31.0

\*Costs increase by 3 per cent annually from year 3.

The **total cost** of fire doors is estimated to be **£194.9 million (PV)** over the 10-year appraisal period, in a range of **£122.1 million to £267.7 million (PV)**. The average annual cost is estimated to be **£22.5 million**, in a range of **£14.0 million to £31.0 million**.

The cost of fire doors will apply to RPs in both the private and public sector. As the cost of fire doors is related to dwelling numbers, as opposed to buildings, it is assumed that approximately 50.4 per cent of costs to RPs fall to business, and 49.6 per cent of costs fall to the public sector (see General Assumption 6 for further information).

The total cost of fire doors to the private sector is estimated to be **£98.2 million (PV)** over the 10-year appraisal period, in a range of **£61.5 million to £134.9 million (PV)**. The average annual cost is estimated to be **£11.4 million**, in a range of **£7.1million to £15.6million**.

The total cost of fire doors to the public sector is estimated to be **£96.7 million (PV)** over the 10-year appraisal period, in a range of **£60.6 million to £132.8 million (PV)**. The average annual cost is estimated to be **£11.2 million**, in a range of **£7.0 million to £15.4 million**.

### Instructions to Residents

This proposal is to legislate to require RPs of all multi-occupied residential buildings to provide relevant fire safety instructions in a communal area and to their residents, which will include instructions on how to report a fire and any other document which sets out what a resident must do once a fire has occurred. RPs will have to re-provide these instructions on an annual basis or where there has been a change to the instructions. RPs will also have to provide these instructions to the resident once that resident newly occupies the premises as soon as is practicable.

### Set-up costs.

The costs resulting from this legislation are the time required for RPs to prepare the fire safety instructions and disseminate them to residents. The majority of the cost will be incurred in the first year of the appraisal period as this is when RPs will be required to prepare the instructions.

It has been assumed that all multi-occupied buildings, regardless of height, are in scope of these proposals, and in all buildings, instructions will need to be created, prepared, and provided to

residents. Some buildings may already have these instructions, and some RPs which are responsible for multiple different buildings may be able to use similar information for different buildings, so this cost is expected to represent the maximum expected cost of providing instructions to residents. It is assumed that instructions it will take approximately two hours to create the instructions and provide them to residents (low estimate, 1.5 hours and high estimate, 2.5 hours). The high estimate accounts for additional time that may be required for pictorial information in some scenarios. It is assumed that the instructions will be put together by a Building Safety Manager with an hourly wage of £20.68 (see General Assumption 2). These instructions will also have to be provided directly to residents; however this cost is expected to be negligible so has not been included in the analysis.

Set-up costs are calculated using the equation:

$$\text{Volume of buildings} \times \text{time (hrs)} \times \text{wage (£/hr)}$$

The set-up cost from providing instructions to residents is estimated to be **£69.6 million**, in a range of **£52.2 to £87.0 million** (2021/22 prices) and occurs in the first year of the appraisal period only.

### Ongoing and total costs

The ongoing costs of this legislation will be incurred when RPs have to create and provide instructions to residents in new build properties, and when RPs have to update instructions that they created in the first year of the appraisal period.

In new build properties, it is assumed that creating the instructions each year will also take two hours (low estimate 1.5 hours, high estimate 2.5 hours), and that they will be put together by a Building Safety Manager. By multiplying these figures by the number of new builds built annually (outlined in General Assumption 3), the total annual cost of providing instructions can be calculated. This annual cost will increase each year by three per cent, in line with the new build rate.

The ongoing cost from instructions to residents in new builds is estimated to be **£17.8 million (PV)** over the last nine years of the appraisal period, in a range of **£13.4 million to £22.3 million (PV)**. The average annual cost is estimated to be **£2.4 million**, in a range of **£1.8 million to £2.9 million**<sup>37</sup>.

It is assumed that the RPs will have to update instructions following major refurbishment work, or when something in the instructions requires changing. It is assumed that four per cent of buildings undertake major refurbishment work each year (see General Assumption 4) however, it is uncertain what proportion of buildings may require their instructions to be slightly modified each year. It is unlikely that instructions following major refurbishment work would require the same amount of time to create as those which have been completed brand new, but to calculate ongoing costs for the purposes of this IA it is assumed that they do. This over-estimation is the best proxy to account for the time that it takes to both update instructions following a refurbishment, and for any other updates to instructions that may be required in other buildings. It is assumed that these changes will be completed by a Building Safety Manager, so by multiplying their wage with the number of in-scope buildings each year, and the time assumption, each annual cost can be calculated. This cost increases each year to account for the rising building stock.

The ongoing cost from updating instructions to residents following major refurbishment work, or when something in the instructions requires changing is estimated to be **£23.7 million (PV)** over the last nine years of the appraisal period, in a range of **£17.8 million to £29.7 million (PV)**. The average annual cost is estimated to be **£3.1 million**, in a range of **£2.4 million to £3.9 million**<sup>38</sup>.

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<sup>37</sup> This cost increases each year by 3 per cent, from an initial figure of £1.6 to £2.6 million (central estimate £2.1m) in year 2 of the policy, to £2.0m to £3.3m (central estimate £2.6m) in year 10. The year 2 figures are equal to 3 per cent of the set-up costs.

<sup>38</sup> This cost increases each year by 3 per cent, from an initial figure of £2.1 to £3.5 million (central estimate £2.8m) in year 2 of the policy, to £2.6m to £4.4m (central estimate £3.5m) in year 10. The year 2 figures are equal to 4 per cent of the set-up costs.

The total ongoing cost of providing instructions to residents is estimated to be **£41.6 million (PV)** over the last nine years of the appraisal period, in a range of **£31.2 million to £47.5 million (PV)**. The average annual cost is estimated to be **£5.5 million**, in a range of **£4.1 million to £6.3 million**<sup>39</sup>.

The total cost of updating instructions to residents is estimated to be **£111.2 million (PV)** over the 10-year appraisal period, in a range of **£83.4 million to £134.5 million (PV)**. The average annual cost is estimated to be **£11.9 million**, in a range of **£8.9 million to £14.4 million**.

The cost of updating instructions to residents will apply to RPs in both the private and public sector. As the cost of updating instructions to residents is related to building numbers, it is assumed that approximately 83 per cent of costs to RPs fall to businesses in buildings under 11m, with the remaining 17 per cent falling to the public sector. In buildings over 11 metres, it is assumed that the costs are split equally across both sectors (see General Assumption 6 for further information).

The total cost of updating instructions to residents to the private sector is estimated to be **£90.4 million (PV)** over the 10-year appraisal period, in a range of **£67.8 million to £109.3 million (PV)**. The average annual cost is estimated to be **£9.7 million**, in a range of **£7.3 million to £11.7 million**.

The total cost of updating instructions to residents to the public sector is estimated to be **£20.8 million (PV)** over the 10-year appraisal period, in a range of **£15.6 million to £25.2 million (PV)**. The average annual cost is estimated to be **£2.2 million**, in a range of **£1.7 million to £2.7 million**.

## Wayfinding Signage

The RPs of all high-rise residential buildings will be required to install signage visible in low light or smoky conditions that identifies flat and floor numbers in the stairwells of relevant buildings

### Set-up costs.

Only existing buildings are in scope of this legislation, as new builds are captured in existing DLUHC legislation. This IA follows a similar, but updated, method to the one used by DLUHC in their published IA on sprinklers and other fire safety measures in new build high-rise blocks of flats, published in 2020<sup>40</sup>. The costs for the reflective vinyl signs required are presented in Table 8.

**Table 8: Signage installation costs (£), England, 2021**

Location	Stair landing	Stair lobby	Lift lobby
Cost (£)	98.64	42.47	84.94

Source: DLUHC modelling for 2020 IA. Costs assumed to be equivalent in 2021 prices.

The number of floors and stairwells has been estimated using industry knowledge, see Table 9.

**Table 9: Number of floors and stairwells per building, England, 2021**

Building part	18-30m	30m+
Floors	8	15
Stairwells	2	2

Source: Industry knowledge and Home Office own estimates, 2021.

It is assumed that a sign is installed in each stair landing and stair lobby of every floor of each building. It is also assumed that signage is installed in each lift lobby of every floor, and that there is just one lift per building.

The cost for installing signage in stair landings is:

$$\text{Volume of buildings} \times \text{no. of floors} \times \text{no. of stairwells} \times \text{cost of signage for stair landings (£)}$$

<sup>39</sup> This cost increases each year by 3 per cent, from an initial figure of £3.7 to £5.6 million (central estimate £4.9m) in year 2 of the policy, to £4.6m to £7.1m (central estimate £6.2m) in year 10.

<sup>40</sup> Available at [Impact Assessment \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk)

The cost for installing signage in stair lobbies is:

*Volume of buildings x no. of floors x no. of stairwells x cost of signage for stair landings (£)*

The cost for installing signage in the lift lobbies is:

*Volume of buildings x no. of floors x no. of lifts x cost of signage for stair landings (£)*

These are summed to get a total cost for installing wayfinding signage.

Some buildings will already have wayfinding signage installed and consequently are not required to install it again. However, the proportion of buildings that already have signage is highly uncertain. A large range has been used to capture this uncertainty. It is assumed that between 25 and 75 per cent of buildings already have wayfinding signage installed, with a central estimate of 50 per cent. Total costs are therefore calculated as:

*Total cost for installing signage in all buildings (£) x (1-% that have signage installed already)*

The set-up cost from installing wayfinding signage is estimated to be **£22.6 million**, in a range of **£11.3 to £33.8 million** (2021/22 prices) and occurs in the first year of the appraisal period only.

### **Ongoing and total costs**

There is a small ongoing cost associated with maintaining the signage. It is estimated that the maintenance cost will be approximately one per cent of the cost of the original installation in the remaining nine years of the appraisal period.

The total ongoing cost for wayfinding signage is estimated to be **£1.7 million (PV)**, in a range of **£0.9 to £2.6 million (PV)** over the 10-year appraisal period. The **total cost** for wayfinding signage is estimated to be **£24.3 million (PV)**, in a range of **£12.1 to £36.4 million (PV)** across the 10-year appraisal period. The average annual cost is estimated to be **£2.5 million**, in a range of **£1.2 million to £3.7 million**.

The cost of wayfinding signage will apply to RPs in both the private and public sector. As the cost of wayfinding signage is related to building numbers, and only applies to high-rise buildings, it is assumed that the costs are split equally across both sectors (see General Assumption 6 for further information).

The total cost of wayfinding signage to the private and public sector is estimated to be **£12.1 million (PV) each** over the 10 year appraisal period, in a range of **£6.1 million to £18.2 million (PV)**. The average annual cost is estimated to be **£1.2 million**, in a range of **£0.6 million to £1.8 million**.

### **Additional costs to FRSs**

It is expected that there will be some additional costs to FRSs from reviewing the information provided to them as a result of all of the proposals. It is FRS staff that will need to review the information, however the FRA hold the budget for the FRS, therefore this cost will fall to them.

#### **Set-up costs.**

All the set-up costs occur in year 1, and are time costs from additional FRS activity. The additional activity falls into two categories, with different times required for each.

The first is the time required for FRSs to review the main information sent to them by RPs. This information includes building plans and EWS information, but not lift and essential firefighting equipment information. It has been assumed throughout this IA that this information on every high-rise residential building will need to be submitted to FRSs in year one. It is assumed that it will take 45 minutes (low estimate 30 minutes, high estimate 60 minutes) for FRSs to review this information. All costs of reviewing this information is assumed to be incurred by someone of Watch Manager grade, as they will be best qualified to assess the information provided. The current wage assumption for this grade nationally, including non-wage costs, is £21.94 per hour (see General Assumption 2



competent B estimate), and in London is £23.55 per hour (see familiarisation section)<sup>41</sup>. The London weighting is applied to 61 per cent of buildings, as this is the most recent published estimate for the proportion of high-rise buildings in London. The total cost is therefore given as :

*Volume of buildings x time to review (hours) x hourly wage (£, including London weighting)*

There will also be a cost to FRSs from them reviewing information on lifts and other firefighting equipment. It is expected that lifts and firefighting equipment will be inspected monthly by RPs, as per the lift proposal within the policy. When an inspection is failed, the RP will need to notify their local FRS and submit this information to them. This requirement on RPs to review this information, store it, notify control staff, and potentially adjust pre-determined appliance numbers will lead to a cost.

It is assumed that inspections are undertaken by RPs monthly, and that in year one, 15 per cent (range of 10% to 20%) of buildings will have a lift or equipment that fails an inspection each month. Reviewing this information is expected to take 30 minutes, in a range of 15 to 45 minutes, and will also be carried out by a Watch Manager. The total cost of this is given as

*Volume of buildings x time to review (hours) x failure rate (%) x inspection frequency (12) x hourly wage (£, including London weighting)*

It is uncertain how much information FRSs currently have on these buildings, and how frequently RPs may currently provide FRSs with information. Therefore, costs accruing from all buildings have been included. This is possibly an over-estimate as some building information may be known to FRSs, so this is the maximum possible cost of the proposals.

The set-up cost from FRSs reviewing information provided them is estimated to be **£0.5 million**, in a range of **£0.2 to £0.8 million** (2021/22 prices) and occurs in year 1 only.

The FRSs will use their IT systems to store this information, and this is not expected to lead to an additional cost burden on FRSs. It is expected that each FRS will load the relevant information onto their central server, or an alternative means of storage, ensuring the information is available on appliances and mobile data terminals during incidents. It is expected that FRSs will use existing IT systems to do this, and so no cost for this has been monetised in this IA.

### **Ongoing and total costs**

There will also be ongoing costs from FRSs reviewing information that is provided to them on buildings from year two onwards. The costs are again split between the cost of reviewing the main information, and the cost of reviewing information on lifts and firefighting equipment. Within these areas, costs come from new builds and changes to the current stock of building.

The impact on FRSs from reviewing main documents is expected to be much lower from year two of the appraisal period. RPs will need only need to submit information to FRSs again if there is a material change to the building. It has been assumed that four per cent of buildings will undertake major refurbishment work or projects each year (see General Assumption 4), and so will be required to re-send this information to FRSs. New builds from year 2 onwards will also have to submit this main information to FRSs each year. It is estimated that the number of high-rise buildings will increase by three per cent a year as a result of new-build residential properties. The cost of reviewing main documents is therefore seven per cent of the initial set-up costs in year two and increases by three per cent annually thereafter.

There will also be an ongoing cost to FRSs from them reviewing information on lifts and other firefighting equipment over time as inspections are failed. From year two onwards, it is assumed that five per cent of high-rise buildings (range of 3 to 7 per cent) will have lifts or equipment which fail inspections each month. The failure rate is lower from year two onwards as it is expected that after a year of checks, much of the defective equipment will have been replaced and the frequent checks will lead to better functioning lifts and firefighting equipment. This was agreed with the NFCC, and

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<sup>41</sup> £19.30 per hour base assumption used, with a 22 per cent uplift to account for non-wage costs.

matches the assumption in the lift and essential firefighting equipment section of this IA. New build residential properties will also require checks, but all other assumptions on frequency of inspections, and time required per inspection, are unchanged from the set-up cost section.

The total ongoing cost of this legislation on FRSs is estimated to be **£0.8 million (PV)** over the last nine years of the appraisal period, in a range of **£0.3 million to £1.7 million (PV)**. The average annual cost is estimated to be **£112,000**, in a range of **£40,000 to £223,000<sup>42</sup>**.

The total cost of the legislation on FRSs is estimated to be **£1.3 million (PV)** over the 10-year appraisal period, in a range of **£0.5 million to £2.5 million (PV)**. The average annual cost is estimated to be **£146,000** in a range of **£58,000 to £278,000**.

### Summary of Total Costs

Costs, £m	Set-up			Ongoing			Total		
	Low	Central	High	Low	Central	High	Low	Central	High
<b>Proposal</b>									
<b>Familiarisation (inc. FRS)</b>	0.1	<b>0.7</b>	3.5	0.0	<b>0.0</b>	0.0	0.1	<b>0.7</b>	3.5
<b>External Wall Systems</b>	0.1	<b>0.2</b>	0.2	0.1	<b>0.1</b>	0.1	0.1	<b>0.3</b>	0.4
<b>Building Plans</b>	15.8	<b>20.7</b>	26.2	8.2	<b>9.3</b>	10.5	24.0	<b>30.0</b>	36.7
<b>Information Boxes</b>	0.9	<b>4.5</b>	8.6	0.0	<b>0.0</b>	0.0	0.9	<b>4.5</b>	8.6
<b>Lifts and Essential Firefighting Equipment</b>	0.0	<b>0.0</b>	0.0	11.7	<b>23.7</b>	35.9	11.7	<b>23.7</b>	35.9
<b>Fire Doors</b>	14.5	<b>20.7</b>	26.9	107.6	<b>174.2</b>	240.7	122.1	<b>194.9</b>	267.7
<b>Instructions to residents</b>	52.2	<b>69.6</b>	87.0	31.2	<b>41.6</b>	47.5	83.4	<b>111.2</b>	134.5
<b>Wayfinding Signage</b>	11.3	<b>22.6</b>	33.8	0.9	<b>1.7</b>	2.6	12.1	<b>24.3</b>	36.4
<b>Additional Costs to FRS</b>	0.2	<b>0.5</b>	0.8	0.3	<b>0.8</b>	1.7	0.5	<b>1.3</b>	2.5
<b>Total cost (PV)</b>	<b>95.0</b>	<b>139.4</b>	<b>187.0</b>	<b>159.9</b>	<b>251.4</b>	<b>339.0</b>	<b>255.0</b>	<b>390.8</b>	<b>526.0</b>
<b>Annual per year</b>							<b>28.3</b>	<b>43.6</b>	<b>58.6</b>

Source: Home Office, own estimates, 2022.

The total set-up costs for all of the GTI recommendations is estimated to be **£139.4 million**, in a range of **£95.0 to £187.0 million** and occurs in the first year of the appraisal period only.

The total ongoing costs are estimated to be **£251.4 million (PV)**, in a range of **£159.9 to £339.0 million (PV)** over the 10 year appraisal period.

The total cost for all of the GTI recommendations is estimated to be **£390.8 million (PV)**, in a range of **£255.0 to £526.0 million (PV)** over the 10 year appraisal period. The estimated total cost to the public sector is **£160.3 million**, in a range of **£101.1 to £219.9 million (PV)** across the appraisal period. The estimated total cost to the private sector is **£230.6 million**, in a range of **£153.8 to £306.1 million (PV)** across the same period. This is fully broken down in Section H.

<sup>42</sup> This cost increases each year by 3 per cent, from an initial figure of £35,000 to £198,000 (central estimate £99,000) in year 2 of the policy, to £44,000 to £250,000 (central estimate £126,000) in year 10.

## BENEFITS

It has not been possible to monetise any benefits from these proposals due to a lack of information on their impact. Numerous potential non-monetised benefits of these options have been identified, which are outlined below.

- Improved safety of residents in multi-occupied residential buildings, especially those which are high-rise. It is hoped that if these proposals are successful, they will improve the level of fire safety in buildings, and potentially reduce the number of fire-related injuries and fatalities which occur within these buildings.
- FRSs should become better informed about different buildings. This will occur through the creation of building plans which are shared with FRSs, RPs notifying FRSs on their building's EWS, and RPs notifying FRSs on issues with lifts and essential firefighting equipment. This should support and improve the operational response of FRSs when dealing with incidents within in-scope buildings.
- Improved operational response of FRSs once they reach incidents should also be facilitated by these policies. The use of wayfinding signage and information boxes may help FRSs deal with fire incidents when they arrive at a building.
- Fire spread may fall within in-scope buildings as a result of the fire doors legislation which aims to increase the compartmentalisation of fires and prevent spread. This may reduce the severity of fires within in-scope buildings.
- Residents are expected to be better informed on and have a greater awareness of fire safety. This should reassure residents on the safety of their homes from fire, and potentially reduce their fear of fire. The most recent English Housing Survey found that 5 per cent of individuals felt unsafe in their home and feared that a fire would break out<sup>43</sup>. Those who lived in flats were more likely to feel unsafe (11% in low-rise flats, and 21% in high-rise flats) than those in other dwelling types (2-6%). This legislation to improve fire safety is hoped to reduce these percentages.

The monitoring and evaluation of these proposals will assess whether it is possible to quantify, and monetise, any of these potential benefits. It has not been possible to monetise benefits in this IA.

### Breakeven analysis

It is standard practice in cost-benefit analysis (CBA) to carry out appraisal comparing costs against benefits. It has not been possible in this case to quantify the benefits of the proposals. A breakeven analysis has been completed to assess **Option 1** and illustrate the magnitude of benefits required in order for this legislation to have a positive Net Present Social Value (NPSV).

To do this, DfT's value of a road traffic fatality or serious casualty is used as a proxy for the cost to life in fire<sup>44</sup>. The value for a fatality (over a lifetime) used is £2,078,115, and the value for an average casualty is £231,977 (2021/22 prices).

Dividing the estimate of the total cost of **Option 1, £390.8 million (PV)** over 10 years, by the value of a life illustrates that **189 fire related fatalities need to be avoided**. Using the low and high cost estimates in this calculation produces a range of 123 and 254 fire related fatalities that need to be avoided.

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<sup>43</sup> Data available at <https://www.gov.uk/government/statistics/english-housing-survey-2019-to-2020-feeling-safe-from-fire/english-housing-survey-2019-to-2020-feeling-safe-from-fire>

<sup>44</sup> Department for Transport (2021) Tag Data Book, July 2021, Tab A4.1.1, Average value of prevention of a casualty, (2010 prices uprated to 2021 prices and values) including lost output, human costs, and medical/ambulance cost. 2010 figures used are £1.65m and £184,500 respectively. Figures uprated to 2021 prices using GDP deflator for consistency with rest of the IA. Conversion factor of approximately 1.26 used. Figures available at: <https://www.gov.uk/government/publications/tag-data-book>

Similarly, **1,685 fire related casualties requiring hospital treatment need to be avoided**. Using the low and high cost estimates in this calculation produces a range of 1,100 and 2,268 fire related casualties requiring hospital treatment that need to be avoided.

For context, in the year ending December 2021, fire and rescue services attended 2,663 dwelling fires in purpose built, medium (4 – 9 storeys) or high-rise (10+ storeys) flats<sup>45</sup>. Over the last three years, from the year ending December 2019 to the year ending December 2021, there have been 35 fire-related fatalities in these buildings<sup>46</sup>, an average of 12 per year. Over the last three years, from year ending December 2019 to the year ending December 2021, there were 556 fire related non-fatal casualties requiring hospital treatment in purpose-built medium or high-rise flats<sup>47</sup>, an average of 185 per year.

The breakeven analysis demonstrates the number of fatalities and casualties requiring hospital treatment required for **Option 1** to breakeven. This number is large, especially when compared to current dwelling fire statistics. However, there are a number of additional potential sources of benefits, as described in the benefits section above. The proposals aim to improve the safety of residents in multi-occupied residential buildings which may help prevent other injuries, as well as fatalities or casualties requiring hospital treatment. FRSs should also become better informed about different buildings which will assist their operational response and potentially reduce the damage from fires and, finally, residents are expected to be better informed on and have a greater awareness of fire safety. It is hoped that this will reassure residents on the safety of their homes from fire, and potentially reduce their fear of fire.

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<sup>45</sup> Home Office (2022): FIRE STATISTICS TABLE 0205a: Dwelling fires attended by fire and rescue services in England. Medium and high-rise flats used for context as the Home Office does not publish data on dwelling fires in 11m+ or 18m+ flats.

<sup>46</sup> Home Office (2022): FIRE STATISTICS TABLE 0205b: Fatalities in dwelling fires attended by fire and rescue services in England, by dwelling type.

<sup>47</sup> Home Office (2022): FIRE STATISTICS TABLE 0205c: Non-fatal casualties in dwelling fires attended by fire and rescue services in England, by dwelling type and severity of injury, England.

## NPSV, BNPV, EANDCB

The Net Present Social Value (NPSV), Business Net Present Value (BNPV) and the net direct cost to business (defined as the EANDCB<sup>48</sup>) of **Option 1** are presented in Table 10.

**Table 10: Summary table of Monetised Benefits and Costs of Option 1 (NPSV, BNPV and EANDCB), 2021/22 prices, £ million**

Proposal	Low	Central	High
Familiarisation (inc. FRS)	0.1	0.7	3.5
External Wall Systems	0.1	0.3	0.4
Building Plans	24.0	30.0	36.7
Information Boxes	0.9	4.5	8.6
Lifts and Essential Firefighting Equipment	11.7	23.7	35.9
Fire Doors	122.1	194.9	267.7
Instructions to residents	83.4	111.2	134.5
Wayfinding Signage	12.1	24.3	36.4
Additional Costs to FRS	0.5	1.3	2.5
<b>Total cost (PV)</b>	<b>255.0</b>	<b>390.8</b>	<b>526.0</b>
<b>Annual per year</b>	<b>28.3</b>	<b>43.6</b>	<b>58.6</b>
<b>Total benefits</b>	0.0	0.0	0.0
<b>NPSV</b>	<b>-255.0</b>	<b>-390.8</b>	<b>-526.0</b>
Of which, is public	-101.1	-160.3	-219.9
<b>BNPV</b>	<b>-153.8</b>	<b>-230.6</b>	<b>-306.1</b>
<b>EANDCB</b>	<b>17.0</b>	<b>25.5</b>	<b>33.9</b>

Source : Home Office, own estimates. Totals may not sum due to rounding.

The **total cost of Option 1** is estimated in a range of **£255.0 to 526.0 million (PV)** over 10 years, with a central estimate of **£390.8 million (PV)** over the same time period.

No benefits have been monetised for this policy, so the **Net Present Social Value (NPSV)** is estimated to be in the range of **-£255.0 to -£526.0 million (PV)** over 10 years, with a central estimate of **-£390.8 million (PV)**.

<sup>48</sup> The net direct cost to business is defined as the Equivalent Annual Net Direct Cost to Business (EANDCB) and is used by the Regulatory Policy Committee (RPC) to compare impacts on business across a range of analyses and departmental impact assessments. The economic impact of each Qualifying Regulatory Provision will be measured according to the Government's chosen metric, the EANDCB. This is the annualised value of the present value of net costs to business.

The **Business Net Present Value (BNPV)** is estimated to be in the range of **-£153.8 to -£306.1 million (PV)** over 10 years, with a central estimate of **-£230.6 million (PV)**. The **net cost to business per year** expressed as the **(EANDCB<sup>49</sup>)** is **£25.5 million**. In the high scenario the net cost to business increases to **£33.9 million** per year, and in the low scenario it is **£17.0 million** per year.

### Value for money (VfM)

For a policy to be considered value for money (VfM), it must meet its strategic and policy objectives.

**Option 0** does not meet any of these objectives as it does not improve public safety and reduce the harm caused by fires through fire reform or deliver improvements to fire safety in high-rise and other multi-occupied residential buildings. **Option 0** has no costs or benefits associated with it. This means it has an NPSV of zero which is higher than the NPSV for **Option 1**, which could suggest that it is better VfM. However, it does not deliver any of the non-monetised benefits associated with **Option 1**, and as no benefits are monetised in this IA. The NPSV cannot be used as an accurate VfM metric. **Option 0** would not have any impact on the number of fatalities or casualties in high-rise residential buildings, it would not improve the operational response of FRSs and it would leave them lacking information about high-rise residential buildings. **Option 0** would also do nothing to reassure residents or reduce their fear of fire. If this option was undertaken, concerns will remain on the standard of fire safety, and the potential for harm from fire, in high-rise and other multi-occupied buildings. Residents may even feel more unsafe in their homes and have a greater fear that a fire would break out as no changes would be made and they would continue to not be informed or reassured on fire safety.

**Option 1 is considered the best VfM option** as it meets both the strategic and policy objectives. **Option 1** strives to improve public safety and reduce the harm caused by fires through fire reform which implements the GTI P1 recommendations and delivers improvements to fire safety in high-rise and other multi-occupied residential buildings. There is little data available on the potential benefits of these proposals and so benefits have not been monetised. **Option 1** is considered VfM because of its potential for a large amount of *non-monetised* benefits, which **Option 0** cannot achieve. These are explained in detail in the benefits section of the IA. The non-monetised benefits of the policy include improved fire safety for residents in multi-occupied residential buildings, especially those which are high-rise, which could potentially reduce the number of fire-related injuries and fatalities which occur in these buildings. The policy may also prevent other injuries and aims to ensure FRSs become better informed about buildings which will assist their operational response and potentially reduce the damage from fires. Finally, residents are expected to be better informed on and have a greater awareness of fire safety in their building. It is hoped that this will reassure residents on the safety of their homes from fire, and potentially reduce their fear of fire. The level of non-monetised benefits associated with Option 1 mean, that despite it having a lower NPSV, it is considered the VfM option in this analysis.

All costs in **Option 1** accrue to RPs and the FRS, with benefits accruing to residents and the FRS. RPs may indirectly benefit if residents feel safer in the in-scope buildings because of the proposals as there may be an increase in demand for homes in high-rise residential buildings.

### Place-based analysis

This measure does not have any specific spatial objectives; however the impact will be greater in urban areas (cities) compared to rural because urban areas have a higher volume of multi-occupied high-rise residential buildings. This is inevitable for legislation of this type which targets buildings of a certain height. London contains approximately 61 per cent of all high-rise residential buildings, the highest concentration of any region<sup>50</sup>. It is likely that this legislation will have a disproportionate impact on London compared to the rest of England. Other areas such as the South East (10% of all

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<sup>49</sup> Defined as the Equivalent Annual Net Direct Cost to Business.

<sup>50</sup> DLUHC Page 9 [Building Safety Programme Monthly Data Release, England: 30 November 2021 \(publishing.service.gov.uk\)](#)

high-rise residential buildings), the North West (7%) and West Midlands (6%) have a larger amount of high-rise residential buildings, and so will also have a greater associated cost than other areas.

However, these areas will also reap the benefits of the proposal. The aim of the policy is for improve fire safety in in-scope buildings, which could lead to an increase in social welfare.

### **Impact on small and micro-businesses**

These proposals are expected to lead to costs to business, some of which will be small and micro-businesses. Business costs will be incurred by those who act as RPs, such as residential managing agent firms, residential management companies, right to manage companies or landlords. These businesses are varied, and there is limited available data on the residential block property management sector, especially when specifically looking at high-rise multi-occupied buildings. However, it is likely that the vast majority of firms will be small or micro-businesses.

The DLUHC estimate that 50 per cent of residential buildings over 11 metres in height are private sector residential, and that these buildings contain solely leasehold dwellings<sup>51</sup>. It is expected that many of these leasehold dwellings will be managed by a residential managing agent firm, who will act as the RP. The Association of Residential Managing Agents (ARMA) undertook analysis of their members<sup>52</sup> and found that “*the managing agent industry is dominated in terms of number of firms by smaller businesses.*” It is likely that most residential managing firms have between 10 to 49 employees, as on average a residential managing agent firm employs 28.9 individuals. So, they would be defined as a small business<sup>53</sup>. Over 80 per cent of ARMA member firms manage fewer than 4,000 units, and so would likely be small businesses. Only the top ten firms in the industry are very large, managing 500,000 units between them. This data is only available for all ARMA members, who manage leasehold dwellings of all heights and is considered the best available proxy for the industry as it is not possible to adjust these figures to only account for businesses which manage high-rise multi-occupied buildings. It is also acknowledged that not all managing agents in ARMA will manage high-rise buildings, and so the proportion of small and micro-businesses managing these buildings may be different. There is limited evidence on the size of other businesses that may act as RPs, however by nature, right to manage and residential management companies are likely to be small or micro-businesses. There is not enough accurate data to robustly estimate the proportion or volume of overall cost that would fall to small and micro-businesses, but it is likely that the *majority of businesses impacted* will fall into this category.

It is not expected that small or micro-businesses will be disproportionately impacted by these proposals as any additional burdens imposed on these businesses would also fall on larger businesses. The costs to each business from this legislation will be proportionate to the number of buildings they manage, as each policy proposal will have to be undertaken for each building. Businesses which act as the RP for more buildings are likely to also employ more staff, so it is likely that costs will be broadly proportional to the number staff employed, preventing any disproportionate burdens. Small and micro-businesses which employ fewer staff, and manage fewer buildings, will incur fewer costs. This means that *although the majority of businesses which incur costs may be small or micro, the majority of overall costs will likely fall to larger businesses, as they manage a larger proportion of buildings and employ more staff.*

The costs per building in this IA are assumed to be equal, regardless of who the RP is. However, it is recognised that some larger businesses which manage multiple buildings may be able to reduce their cost per building through specialisation and economies of scale. The RPs which manage multiple buildings may become more specialised and practiced in following certain regulations, so may be able to complete building plans, or lift inspections, faster than RPs in small and micro-businesses who act on the legislation less frequently. Other larger companies may also be able to communicate with FRSs more easily or be able to purchase goods (such as information boxes and

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<sup>51</sup> DLUHC: Building Safety Programme: Monthly data release - October 2021 ([publishing.service.gov.uk](https://publishing.service.gov.uk)). Page 11.

<sup>52</sup> ARMA : Page 4-5 [https://arma.org.uk/downloader/tx7/ARMA\\_Overview\\_of\\_Block\\_Management\\_Sector.pdf](https://arma.org.uk/downloader/tx7/ARMA_Overview_of_Block_Management_Sector.pdf). Note that ARMA covers England and Wales, whereas this legislation only covers England.

<sup>53</sup> RPC Guidance : Page 2 [RPC Small and Micro Business Assessment SaMBA August 2019.pdf](https://publishing.service.gov.uk) ([publishing.service.gov.uk](https://publishing.service.gov.uk))

wayfinding signage) at cheaper bulk costs. This may mean that they can operate with costs nearer the lower range of the estimates in this IA, whereas small and micro businesses may operate nearer the higher end of the estimates. However, there is limited evidence to suggest that this would be the case. Any commercial benefits that larger businesses have over small or micro-businesses will likely exist regardless of these regulations, and any potential disproportionate impacts are likely to be negligible or small. Any large disproportionate impacts that arise following the commencement of these proposals will be noted and considered to minimise disadvantages for small and micro-businesses. Potential impacts may also be assessed as part of the monitoring and evaluation of this legislation.

Given the number of impacted businesses which are small or micro, the likely lack of many disproportionate impacts on them, and the importance of these changes for fire safety, it is not possible to give small and micro-businesses an exemption from these measures whilst still achieving the policy and strategic objectives. Any exemptions for small and micro-businesses could compromise fire safety in multi-occupied buildings, especially those which are high-rise, and could potentially create loopholes in the legislation. Business RPs already work in a highly regulated industry and are subject to some fire safety regulations, and any properties owned are already subject to the FSO. These proposals build on this legislation, and many businesses will already be taking steps to make sure fire and building safety measures are up-to-date and comply with the latest regulation and best practice guidance

## **F. Proportionality.**

The analysis in this IA contains best estimates for the cost and benefits of the proposed policy. Every effort has been made to ensure the analysis presents the best possible estimate of the likely impact of the preferred option, given the time, resource and data available. These have been quantified where data is available, and the main assumptions have been tested in the sensitivity analysis section (G). Therefore, the level of analysis in this IA is considered proportionate to appraise the impact of the proposed fire safety legislation related to the GTI P1 recommendations.

## **G. Risks.**

### **Number of buildings above 11 metres in height**

The exact number of buildings above 11 metres in height is published by DLUHC, however these estimates remain relatively uncertain and fall within a confidence ratio. As the number of buildings in scope of these proposals is one of the main cost drivers within this analysis, the potential uncertainty within the figures should be considered as changes to the number of buildings could have a large impact on the NPSV of the policy

To account for this uncertainty, sensitivity analysis has been conducted. Table 11 shows the impact on the central estimate of the NPSV for **Option 1** when the number of buildings above 11 metres changes by a varying percentage.



**Table 11: Sensitivity analysis on the number of buildings above 11 metres in height (NPSV over 10 years, £million)**

Percentage change from central estimate	-10%	-5%	0%	+5%	+10%
Number of buildings 11 to 18m	67,500	71,250	<b>75,000</b>	78,750	82,500
Number of buildings over 18m	10,800	11,400	<b>12,000</b>	12,600	13,200
<b>NPSV</b>	-365.1	-377.9	<b>-390.8</b>	-403.7	-416.6

Source: Home Office, own estimates, 2021. Central estimates and assumptions used

This demonstrates that the NPSV is relatively sensitive to the number of buildings above 11 metres in height. Currently, the central estimate is that there are **87,000 buildings of this height**. However, if the true number is 95,700 (which is a 10% increase) then this decreases the NPSV by 6.6 per cent<sup>54</sup>. This is important as if the number of buildings is under-estimated, then costs could be somewhat higher than the current central estimate. However, the sensitivity analysis demonstrates that an increase in above 11 metre buildings leads to a less than proportional decrease in the NPSV. The policies which apply to buildings above 11 metres will increase proportionally to this change, however, one policy (instructions to residents) impacts buildings under 11 metres, where there is a very large number of buildings and so a large cost.

#### **Proportion of high-rise buildings which currently have no, or some form of, building plans**

The proportion of high-rise buildings which currently have building plans is also highly uncertain. There is no single source of published data which shows what proportion of high-rise buildings may already have building plans, and so the analysis in this IA has used the best available industry intelligence. This suggests that approximately 40 per cent of buildings have no building plans, with a range of 35 to 45 per cent, and that 10 per cent of buildings, with a range of 5 to 15 per cent, have some sort of plan which will need converting into the correct format. It is possible that this combination of percentages may be higher or lower than these estimates. Table 12 presents sensitivity analysis showing the impact of changing these proportions.

**Table 12: Sensitivity analysis on the proportion of high-rise buildings which currently have no, or some form of, building plans (NPSV over 10 years, £million)**

Proportion of buildings with no, or some form of plan		Total cost of proposal	Total NPSV of all proposals
No plan (%)	Some form of plan (%)	£ million (PV)	£ million (PV)
10	0	14.5	-375.3
20	2.5	19.6	-380.4
30	5	24.8	-385.6
<b>40</b>	<b>10</b>	<b>30.0</b>	<b>-390.8</b>
50	15	35.3	-396.1
60	17.5	40.4	-401.2
70	20	45.6	-406.4

Source: Home Office internal calculations. Central estimate used for all calculations, with just percentage of buildings changed. Bolded estimate should match current central estimate.

This demonstrates that the PV cost estimate is sensitive to the proportion of buildings which currently have no, or some form of, building plans. Increasing the proportion of buildings to 70 per cent with

<sup>54</sup> The percentage change is estimated as  $(-416.6 \text{ minus } -390.8) / -390.8 = -25.8 / -390.8 = 0.066 \times 100$ , which is 6.6 per cent.

no plans, and 20 per cent who need to convert their plan increases the PV cost of the proposal to £45.6 million from £30.0 million, an increase of 52 per cent. As the cost of the building plan proposal is 8 per cent of the total NPSV of all proposals, this change has a low impact on overall NPSV, taking it from -£390.8 million to -£406.4million, a change of 4 per cent.

## H. Direct costs and benefits to business calculations

**Table 13: Summary of costs to business for Option 1 (PV over 10 years, £million)**

<b>Proposal</b>	<b>Low</b>	<b>Central</b>	<b>High</b>
<b>Familiarisation</b>	0.1	0.6	3.0
<b>External Wall Systems</b>	0.1	0.1	0.2
<b>Building Plans</b>	12.0	15.0	18.4
<b>Information Boxes</b>	0.4	2.3	4.3
<b>Lifts and Essential Firefighting Equipment</b>	5.9	11.8	17.9
<b>Fire Doors</b>	61.5	98.2	134.9
<b>Instructions to residents</b>	67.8	90.4	109.3
<b>Wayfinding Signage</b>	6.1	12.1	18.2
<b>Total cost to business (PV)</b>	<b>153.8</b>	<b>230.6</b>	<b>306.1</b>
<b>BNPV</b>	<b>-153.8</b>	<b>-230.6</b>	<b>-306.1</b>
<b>EANDCB</b>	<b>17.0</b>	<b>25.5</b>	<b>33.9</b>

Source: Home Office, own estimates, 2022.

## I. Wider impacts

### **Leaseholder impacts in buildings over 11 metres**

It is likely that any financial burdens on RPs resulting from these policies will be passed onto leaseholders. The exact amount of this cost will depend on exact terms specified in leases and contracts, however it is likely that leaseholders will be impacted by these proposals.

The cost in this IA includes both economic and financial cost. It is likely that only additional financial burdens on RPs would be passed onto leaseholders, however it is difficult to split these costs out per building. It is acknowledged that there will be differing costs per building. Costs in a building which, for example, already has building plans and wayfinding signage in place would be lower for residents when compared to a building which has neither of these. The costs presented in this section estimate the potential impacts on leaseholders and are the average cost across all buildings.

To quantify the costs on leaseholders it has been assumed that all the costs from policies impacting buildings 11 metres or over will be passed to leaseholders. This is the maximum expected impact on leaseholders. The DLUHC assume that all buildings over 11 metres in height in the private sector are leasehold<sup>55</sup> and so the private costs in buildings over 11 metres have been assessed. To

<sup>55</sup> Page 12 : [Building Safety Programme Monthly Data Release, England: 30 November 2021 \(publishing.service.gov.uk\)](#)

calculate the impact on individual leaseholders, the number of residents and dwellings in these buildings have been used as the best available proxies. It is difficult to estimate the number of buildings below 11 metres which are leasehold, however it is expected that some of the costs falling to these buildings may be passed through to leaseholders or other residents, especially as in these buildings some residents may act as their own RPs. As only one proposal (instructions to residents) applies to buildings under 11 metres, impacts are expected to small.

The DLUHC estimate that there are approximately 1,310,000 residents in buildings 18 metres or over, and 2,930,000 residents in buildings 11 to 18 metres in height<sup>56</sup>. It is estimated that, of these, approximately 658,000 of the residents in buildings 18 metres or over are in private dwellings, and 1,478,500 residents in buildings 11 to 18 metres in height are in private dwellings<sup>57</sup>. It is estimated that of the £230.0 million (PV) annual private cost of the legislation<sup>58</sup>, £74.4 million (PV) would fall to buildings 11 to 18 metres in height, and £68.0 (PV) million would fall to buildings 18 metres or over. By dividing these figures by the number of residents above, an average cost per resident can be calculated. This will be a slight over-estimation of costs to residents, as it does not account for there being a cost on new build residents which are not included in the resident stock above. In addition, these are an average across all residents and costs to individual residents may be higher or lower. Therefore, these figures are purely for illustrative purposes to indicate the scale of potential impact. Using this calculation, the cost per resident in an 11 to 18 metre building over the 10 year appraisal period is estimated to be up to **£50 (PV)** on average in a range of **£32 to £69 (PV)**. For residents in a high-rise residential building (over 18 metres), the same calculation equates to up to **£103 (PV)** on average, in a range of **£63 to £145 (PV)** over 10 years. A large proportion of this cost may fall in year one of the appraisal period, matching the cost profile of **Option 1** overall.

The same calculations are completed using the number of current dwellings, again to indicate the scale of potential impact on leaseholders. The DLUHC estimates that there are approximately 1,629,000 dwellings in buildings 11-18 metres in height, and 691,000 in buildings that are 18 metres or more<sup>59</sup>. It is estimated that, of these, approximately 347,000 of the dwellings over 18 metres are private leasehold, and 822,000 of the dwellings 11 to 18 metres are private leasehold<sup>60</sup>. It is assumed that each dwelling in 11 to 18 metre buildings could incur total costs over the appraisal period of up to **£91 (PV)** on average, in a range of **£57 to £124 (PV)** over 10 years. Each dwelling in a high-rise residential building (over 18 metres) could incur total costs of up to **£196 (PV)** on average, in a range of **£119 to £275 (PV)** over 10 years. It is possible that this cost may fall in year one of the appraisal period.

These represent relatively low potential burdens on leaseholders; however these are average costs. Some leaseholders may experience much lower costs, whereas others could experience higher costs. These costs are expected to be funded by leaseholders, not central government. There is no current fund available for leaseholders to use to fund these costs, as they are seen as reasonable in order to improve the fire safety of buildings. They are therefore not in the scope of other funds for leaseholders.

### **Impact on the supply of new housing**

As per the Consultation IA<sup>61</sup> and the Building Safety Bill (BSB) IA<sup>62</sup>, the potential impact of proposals on the supply of new housing has been assessed. It is not expected that there will be any direct

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<sup>56</sup> DLUHC Page 13 [Building Safety Programme Monthly Data Release, England: 30 November 2021 \(publishing.service.gov.uk\)](#)

<sup>57</sup> DLUHC [Building Safety Programme Monthly Data Release, England: 30 November 2021 \(publishing.service.gov.uk\)](#) estimates show that 347,000 of the 691,000 dwellings over 18 metres are private dwellings. These are all leasehold. There are 1.31 million residents across all 691,000 dwellings and it is assumed that there are the same number of residents per dwelling across all properties. Therefore, it is assumed that there are 658,000 residents in private leasehold dwellings. The same method is used for 11 to 18 metre buildings, where 822,000 of the 1,629,000 dwellings are private leasehold. Using this proportion, an estimate of 1,478,500 residents in private leasehold buildings is reached.

<sup>58</sup> Total excludes familiarisation cost as it is very difficult to disaggregate this cost by building height.

<sup>59</sup> DLUHC Page 11-12 [Building Safety Programme Monthly Data Release, England: 30 November 2021 \(publishing.service.gov.uk\)](#)

<sup>60</sup> DLUHC Page 13 [Building Safety Programme Monthly Data Release, England: 30 November 2021 \(publishing.service.gov.uk\)](#)

<sup>61</sup> Home Office: Page 49 [Impact Assessment \(publishing.service.gov.uk\)](#)

<sup>62</sup> MHCLG (Now DLUHC): Page 76 [Impact Assessment template \(parliament.uk\)](#)

effects from this legislation on housing supply. Most of the changes to the FSO proposed will impact existing buildings that are already covered by the FSO.

Some of the changes will impact new builds. The proposals on external wall systems, building plans, lifts and essential firefighting equipment, fire doors and instructions to residents will require RPs of new build properties to undertake new actions to abide by the legislation. As this has a cost, it is possible that if this cost was seen as too high by developers or residential management agents, it could prevent developers going ahead with new housing projects, impacting the supply of new housing.

The cost incurred (central estimate) by an average new building, over 18 metres, that is completed in year two of the appraisal period, would be approximately **£5,300 (PV)** over 9 years. The majority of this cost comes from the fire doors and lift policies. It is possible that costs would be higher or lower over the 9 years depending on the level of ongoing cost applying to the building. Some may incur more cost than others. In addition, new builds built later in the appraisal period will incur a lower amount of cost, as their ongoing cost will be measured over a shorter period of time.

This is considered a small cost on developers when considering the value of an average new development, and it is not seen as an amount that would be enough to impact the supply of new housing. The BSB IA completed viability analysis on a £113,000 to £265,000 increase in build cost for buildings 18 metres or more and did not find that this would impact the supply of new housing when considering the impact of this increased cost and current housing prices<sup>63</sup>. It was found in this IA that “*new build developments often sell for a considerable premium relative to the average transaction*”, and so developers would still achieve considerable value by building new build properties, despite the increase in cost. It was also found that it would not be beneficial for developers to reduce the size of planned developments to avoid additional costs because the development value lost from fewer flats would exceed any cost savings. As the costs on new-builds from these policies are considerably lower than those modelled in the BSB IA, it is not expected that these measures will have any impact on housing supply either.

## **J. Trade Impact.**

There are no expected trade impacts from this policy.

## **K. Monitoring and evaluation (PIR if necessary), enforcement principles.**

The new regulations of the FSO secondary legislation are proposed to be introduced in May 2022; with a commencement date of January 2023. The Building Safety Act 2022 will put in place an enhanced safety framework for high-rise and other residential buildings, taking forward the recommendations from Dame Judith Hackitt’s Independent Review of Building Regulations and Fire Safety. These regulations will need to be reviewed when this other legislation comes into force, to ensure the two legislative regimes align.

The Home Office and FRSs collect data on fire safety audits, other FRS activity and incident data. This will be closely monitored following the commencement of the legislation.

The enforcement of this legislative change will be the same as for other issues which are covered by the FSO.

It is likely that this policy will be evaluated under the Post-Implementation Review (PIR) in October 2026.

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<sup>63</sup> MHCLG (Now DLUHC): Page 76-77 [Impact Assessment template \(parliament.uk\)](https://www.parliament.uk)

## L. Annexes

### Impact Assessment Checklist

Mandatory specific impact test - Statutory Equalities Duties	Complete
<p><b>Statutory Equalities Duties</b></p> <p>The EIA considers that overall the impact of the regulations will be positive and improve overall fire safety for all regardless of the nature of any protected characteristic that an RP or building resident may have.</p> <p>As such the EIA concludes that any impact on individual's protected characteristics does not constitute unlawful discrimination, harassment, victimisation, or any other conduct prohibited by the Equality Act.</p> <p><b>The SRO has agreed these summary findings of the Equality Impact Assessment.</b></p>	<p><b>Yes</b></p>

### Economic Impact Tests

<p><b>Small and Micro-business Assessment (SaMBA)</b></p> <p>A SaMBA has been completed and is presented in the "Impact on small and micro-businesses" part of Section E: Appraisal in this IA.</p> <p>It is expected that this legislation will impact small and micro-businesses, however it is not expected that they will be disproportionately impacted compared to any larger businesses also in scope of the legislation. It is not possible to give small and micro-businesses an exemption from these measures whilst still achieving the policy and strategic objectives. This is because of the large number of impacted businesses which are small or micro, the likely lack of disproportionate impacts, and the importance of these changes for fire safety. Any exemptions for small and micro-businesses could compromise fire safety in multi-occupied buildings, especially those which are high-rise, and could potentially create loopholes in the legislation.</p>	<p><b>Yes</b></p>
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<p><b>New Burdens Doctrine</b></p> <p>The new burdens doctrine is part of a suite of measures to ensure Council Tax payers do not face excessive increases. It requires all Whitehall departments to justify why new duties, powers, targets and other bureaucratic burdens should be placed on local authorities, as well as how much these policies and initiatives will cost and where the money will come from to pay for them.</p> <p>Some of the costs noted in this IA will fall on the public sector, specifically local authorities. Policy officials have discussed with DLUHC, and it has been determined that these costs impact the Housing Revenue Account which isn't covered by the New Burdens Doctrine. Work is ongoing to ensure costs which fall to the public sector are considered as part of future Spending Reviews.</p>	<p><b>No</b></p>
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**Social Impact Tests**

<p><b>Justice Impact Test</b></p> <p>The justice impact test (JIT) is a mandatory specific impact test, as part of the impact assessment process that considers the impact of government policy and legislative proposals on the justice system.</p> <p>A JIT has been completed and submitted to MoJ. It is expected that this legislation will have a negligible impact on the justice system (prosecutions, convictions or custodial sentences).</p>	<p><b>Yes</b></p>
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<p><b>Privacy Impacts</b></p> <p>A Privacy Impact Assessment supports an assessment of the privacy risks to individuals in the collection, use and disclosure of information.</p> <p>The DPIA process has been undertaken for the GTI P1 proposals. Following discussions with the Home Office Data Privacy Officer (DPO), a full DPIA is not required due to the nature of information that the proposals require to be stored in the information box. The privacy risk to individuals is assessed to be low.</p>	<p><b>No</b></p>
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