Title: Revision to the Gas Safety (Installation and Use) Regulations (GSIUR) 1998. **1.** Introducing flexibility to landlords' annual gas safety checks; **2**. Exempting premises where gas is taken from the mains for compressing/ dispensing to compressed natural gas (CNG) powered vehicles; and **3.** Regularising existing exemption on alternative safety checks **IA No:** **RPC Reference No: RPC-3948(2)-HSE** **Lead department or agency:** Health & Safety Executive **Other departments or agencies:**	**Impact Assessment (IA)** **Date: 07/04/2017** **Stage:** Revalidation of alternative OUT **Source of intervention: Domestic** **Type of measure: Secondary legislation** **Contact for enquiries:** Penny.Taylor@hse.gov.uk Kyran.Donald@hse.gov.uk

Summary: Intervention and Options

RPC Opinion: GREEN

Cost of Preferred (or more likely) Option				
Total Net Present Value	**Business Net Present Value**	**Net cost to business per year** (EANDCB in 2014 prices)	**One-In, Three-Out**	**Business Impact Target Status**
£238.66m	£19.45m excluding housing associations; and £238.66m including them	-£2.5m excluding housing associations; and -£22.7m including them	Yes	Qualifying provision

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

A. Landlords must complete gas safety checks within 12 months of the last check. They tend to begin the process early due to problems gaining access to properties, resulting in 11 checks taking place on average every 10 years, instead of the statutory 10. This extra safety check is potentially placing an unnecessary and unintentional financial burden on landlords.

B. Compressed Natural Gas (CNG) for fueling vehicles is comparatively new technology which, due to the wording of the regulations falls within the scope of GSIUR, forcing businesses to install equipment that has no safety benefit in order to comply.

C. GSIUR requires engineers to check the heat input and/or operating pressure of appliances whenever they work on them; however this is not always possible (e.g. on liquefied petroleum gas (LPG) systems where there is no meter). There is currently an exemption in place that allows alternative safety checks to be carried out. This exemption will be regularised and its scope broadened.

Intervention is needed to introduce some flexibility in the timing of landlords' annual gas safety checks; bring the regulations in line with new technology; and regularise the existing exemption.

What are the policy objectives and the intended effects?

A. Allow flexibility in the timing of landlords' gas safety checks to ensure that the annual gas safety check cycle is not shortened unnecessarily. This may result in significant savings for landlords with large numbers of properties.

B. Exempt CNG filling stations from the majority of the requirements of GSIUR, bringing them into line with other industrial premises. These sites are already covered by existing health and safety regulations that are more appropriate at these sites.

C. Regularise the exemption that allows engineers to carry out alternative safety checks when the requirements to measure heat input and/or operating pressure cannot be met (because there is no meter present) and, broaden the scope of the exemption to include scenarios where it is not reasonably practicable to carry out these tests (meter not accessible, meter display not working etc.).

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

A. **Landlords** - We considered a number of options including: no change; allowing landlords to keep the original due date for the following years if they carry out checks 1 or 2 months before the due date; and clarifying/amending our enforcement policy on landlords' gas safety duties. The stakeholders we approached were clear that regulatory change was the only way to give their members the confidence to change their gas safety check practices and our analysis of landlord practices identified that allowing landlords to keep the original due date if checks take place up to 2 months before the expiry of a current check would deliver the greatest savings (with minimal impact on safety).

B. **CNG filling stations** – GSIUR applies to these activities, but premises where non-domestic CNG refuelling activities are carried out are also covered by other HSE legislation, including the Dangerous Substances and Explosives Regulations, the Pressure Systems Safety Regulations, and the Health and Safety at Work etc Act. There will be no reduction in safety as a result of this change; instead it will provide more clarity for business about the appropriate regulatory framework. The only way to disapply GSIUR to these sites is either by granting of exemptions or amending GSIUR itself. We looked at issuing exemptions on a case by case basis and the possibility of a class exemption. However, given that we had taken this opportunity to identify what could be changed or improved in GSIUR, it made sense to proceed with regulatory change.

C. **Regularise the exemption that allows engineers to carry out alternative safety checks** - The exemption as it currently stands has been in place for 8 years with no concerns that this has resulted in reduced safety of appliances. The options considered were: no change; regularise the existing exemption; regularise the current exemption and consult on broadening its scope; and withdraw the current exemption. The scenarios where the exemption applies (no meter present, LPG installations) still exist so there is a continued need for this exemption or for an alternative safety checking regime. Regularising the existing exemption will provide certainty and clarity as the exclusions will be written into regulation. Evidence presented by some gas suppliers also identified that there were similar scenarios where it would make sense to allow engineers to carry out alternative safety tests, and that there were potentially cost savings to be made by broadening the scope. On that basis we consulted on a proposal to regularise the current exemption and broaden its scope to include scenarios where it is not reasonably practicable for the meter to be read.

Will the policy be reviewed? It will be reviewed. **If applicable, set review date:** 10/2022

Does implementation go beyond minimum EU requirements?		N/A		
Are any of these organisations in scope?	**Micro** **Yes**	**Small** Yes	**Medium** Yes	**Large** Yes
What is the CO_2 equivalent change in greenhouse gas emissions? (Million tonnes CO_2 equivalent)		**Traded:** **N/A**		**Non-traded:** **N/A**

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: Sarah Newton Date: 05/02/18

Summary: Analysis & Evidence Policy Option 2 (see pages 9 & 10)

Description: Amendments to the Gas Safety (Installation and Use) Regulations (GSIUR) 1998

FULL ECONOMIC ASSESSMENT

Price Base Year 2016	PV Base Year 2017	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: 223.67	High: 253.65	Best Estimate: 238.66

COSTS (£m)	Total Transition (£m) (Constant Price)	Years	Average Annual (£m)	Total Cost (£m) (Present Value)
Low	11.8	1	Nil	**11.8**
High	41.7		Nil	**41.7**
Best Estimate	26.8		Nil	**26.8**

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

HSE estimates that private landlords, letting agents and engineers would incur familiarisation one-off costs of around £5.8 million (best estimate); and that private landlords would also incur additional IT costs of around £4.4 million (best estimate). These costs are currently in scope of the BIT.

Social landlords would incur one-off costs of around £200,000 for familiarisation; and around £13 million in IT costs into the BIT. These are not currently in scope of the BIT as housing associations and other social landlords are not currently classified as businesses.

Letting agents would incur a one-off costs totalling around £3.9 million for IT changes. These are not in scope of the BIT as they are indirect.

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

None

BENEFITS (£m)	Total Transition (£m) (Constant Price)	Years	Average Annual (£m)	Total Benefit (£m) (Present Value)
Low	Nil	1	31.0	**265.4**
High	Nil		31.0	**265.4**
Best Estimate	Nil		31.0	**265.4**

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

The proposal to introduce flexibility around the timing of landlords' gas safety checks is estimated to lead to savings for private landlords of around £3.8 million per annum on average; and to companies operating CNG-refuelling sites of around £48,000 per annum. These are in scope of the BIT.

Social landlords would accrue annual savings of around £28 million, or around £230 million in present values over ten years. These are not in scope of the BIT.

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

Companies managing gas meters are expected to accrue benefits from the flexibility of the expansion of the exemption for meter-testing, but it has not been possible to monetise this.

Key assumptions/sensitivities/risks **Discount rate (%)** 3.5

A key sensitivity in the assessment of savings to social landlords is the frequency with which they would see repeated unnecessary gas checks under the baseline – the greater the frequency, the greater the potential savings. We have based our estimates on survey data from CORGI and taken a conservative approach by adopting a method of calculation that errs on the side of generating a longer frequency (and so fewer savings) to fully test the proposals. We have adopted a similar approach to modelling savings to private landlords by adopting the method of estimation that more rigorously tests the savings against the costs.

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual, in scope of the BIT) £m:			**Score for Business Impact Target (qualifying provisions only) £m: -12.5 (-113.5 inc. housing associations)**
Costs: 1.1 (2.4 inc. housing associations)	**Benefits:** 3.6 (25.2 inc. housing associations	**Net:** 2.5 (22.7 inc. housing associations)	

Note on revalidation: HSE originally submitted the validation stage impact assessment (IA) for the proposed changes to the Gas Safety (installation and Use) Regulations (GSIUR) in April 2017 and received a Green opinion on 24th May (RPC reference RPC-3948(1)-HSE).

Many of the impacts of the changes to GSIUR accrued to housing associations in respect of their duties for gas safety as landlords. At the point of submitting the validation stage IA (and at the point of submitting this revalidation IA in November 2017), housing associations were classified as public sector and so their costs and benefits did not score for the Business Impact Target (BIT). This classification by the Better Regulation Executive (BRE) follows the public/ private classification of institutions by the Office for National Statistics (ONS). We are now aware that the ONS has reviewed this classification and that this could lead to a change to the classification under the rules of the BIT.

Prior to the implementation of the BIT in 2015, housing associations had been classified as businesses for the purpose of One In, Two Out, following the ONS classification at the time. HSE understood from the BRE that housing associations could move back into the classification of the private sector for the purposes of the BIT.

In the validation stage IA for GSIUR, and as agreed with RPC, HSE submitted two estimations of the 'OUT' under the BIT: one estimated at £2.5 million with housing associations classified as public institutions, in line with current BIT rules; and another estimated at £25.8 million with housing associations included in the definition of businesses.

The lower OUT of £2.5 million was the headline estimate in line with the BIT rules. However, HSE also asked the RPC to validate the alternative OUT of £25.8 million in case the classification of housing associations under the BIT changed between the point of submission of the IA to the RPC and the point of implementation of the regulations themselves. This would enable HSE to declare the OUT under the prevailing rules at the point of implementation.

However, the RPC disagreed with the HSE's classification of logistical savings to housing associations that employ in-house gas engineers as direct under the BIT rules. As such, the RPC validated the main OUT of £2.5 million, but did not validate the alternative of £25.8 million.

Since then, HSE has sought further information from BRE whether a reclassification of housing associations as private under the BIT would still enable a validated OUT based on their being in scope to be counted according to the rules that will stand at the point of implementation of GSIUR, which is now scheduled for April 2018. BRE indicated that this would likely be the case.

Therefore, this IA seeks RPC validation of an amended alternative OUT based on housing associations being in scope of the BIT; and the logistical savings accruing to them via the work of their in-house gas engineers being indirect and thereby excluded from the OUT.

Please note also that this IA was originally written on the basis that the changes to GSIUR would be made in October 2017. In fact, these changes are now scheduled to be implemented in April 2018. This means that the OUT for these regulations (that stands at the point of implementation) will have to be adjusted slightly to a 2018 PV base year rather than a 2017 PV base year, with which it was originally estimated. This adjustment would lead to a small revision in the OUT if it were converted to a 2015 PV base year, which is used across all estimates in the BIT.

This revalidation IA makes no such adjustment, but instead uses a 2017 PV base year just as the original IA did. This is to limit the edits made to the IA and so make its review by the RPC more straightforward. It is also because the specification of the Business Impact Target under the current Parliament has not yet been finalised and could operate with a different PV base year (as well as other possible changes) so it might be premature to second-guess.

At the point of declaring the changes to GSIUR in the relevant BIT Annual Report, HSE will adjust the OUT that stands at the point of implementation to the appropriate PV year and will submit that report for RPC scrutiny.

Evidence Base

1. Background

1. The Gas Safety (Installation and Use) Regulations 1998 (GSIUR) are domestic regulations that deal with the safe installation, maintenance and use of gas systems, including gas fittings, appliances and flues, mainly in domestic and commercial premises, such as offices, shops, public buildings etc.

2. The Regulations place responsibilities on a wide range of people, including those installing, servicing, maintaining or repairing gas appliances and other gas fittings; as well as suppliers and users of gas, including landlords.[1]

2. Problems under consideration

2.1. Introduce flexibility around the timing of landlords' annual gas safety checks

3. Under regulation 36(3)(a), "...each appliance and flue to which that duty extends is checked for safety…at intervals of not more than 12 months since it was last checked for safety…". In practice, however, landlords can face difficulty in gaining access to carry out these checks. In order to ensure that checks are carried out at intervals of not more than 12 months, many landlords (particularly social landlords) gain access around 5.2 weeks prior to the due date, according to a survey carried out by CORGI Technical Services see Section 8.1.2.1). This can lead to a shortening of the safety check cycle year-on-year. Accordingly, housing associations, on average, carry out eleven annual gas safety checks over a ten-year period (instead of the statutory ten in a ten-year period) and they end up holding a certificate that is supposed to last for twelve months but in reality only lasts for just over eleven months. The types of appliances that landlords are carrying out checks on include central heating boilers, gas fires, hobs, ovens, etc.

2.2. Exempt compressed natural gas (CNG) filling stations from the majority of the requirements of GSIUR

4. Technological advances and the increasing use of more environmentally-friendly fuels have brought about different uses and storage mechanisms for mains gas than were originally envisaged when GSIUR was written. CNG sites take gas from the high-pressure main, compress it, store it and dispense CNG into the fuel tank of vehicles (usually lorries).

5. Regulation 2(4) of GSIUR dis-applies many of the Regulations to the following:
   a. mines and quarries;
   b. factories (as defined under the Factories Act 1961[2]);
   c. agricultural premises;
   d. temporary systems during construction work;
   e. premises used for the testing of gas fittings; and
   f. premises used for the treatment of sewerage.

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[1] Where non-domestic premises (such as public houses or offices) are leased as workplaces, employers' duties may interface with landlords' duties (under section 4 of the Health and Safety at Work etc. Act 1974) for maintenance of heating appliances. In this case the landlord and tenant will come to a clear contractual arrangement to make sure the appliance is serviced and maintained

[2] http://www.legislation.gov.uk/ukpga/1961/34/pdfs/ukpga_19610034_en.pdf

6. The majority of CNG sites fall under one of these exclusions, often because they are defined as a factory. However, where these sites are not processing the gas in any way (other than compressing it), the site does not meet the definition of a factory and thus the whole of GSIUR applies.

7. In these circumstances, non-domestic CNG sites are required to install a regulator, used to match the flow of gas through the regulator to the demand for gas placed upon the system, in order to comply with the regulations. This involves a one-off cost of installing the equipment, as well as ongoing maintenance costs (discussed in paragraphs 171-179). Through work and evidence-gathering with industry, HSE experts are confident that installing a regulator at these sites provides no additional safety benefit. Indeed, there are other health and safety regulations which are applicable at these premises and which are more appropriate.[3]

8. Further, the inconsistent treatment of CNG sites under GSIUR creates confusion as well as placing unnecessary burden on those sites not excluded because of the reasons stated in paragraph 5.

2.3. Regularise and broaden an existing exemption to regulation 26(9)(c)

9. If there is no meter present, engineers are unable to meet the requirements of regulation 26(9)(c)), which are to measure heat input and/or operating pressure. Engineers have to perform these checks and tests to make sure that the appliance and any associated flue that they have carried out work on are safe to use. In certain circumstances, where there is no meter to directly measure the heat input and it is not possible to measure the operating pressure, there is an exemption (first issued in 2008) to the requirement to examine the gas appliances' operating pressure and/or heat input. This exemption allows the use of alternative safety tests. The exemption has worked well and we have intended to regularise it if the opportunity arose.

10. Additionally, in the meantime, evidence presented by some gas suppliers also identified that there were other scenarios where it would make sense to allow engineers to carry out alternative safety tests, such as where the meter cannot be read because of the manner in which it has been installed; or, where the electronic display has failed, but the meter itself continues to work otherwise (this is likely to become a greater issue with the smart meter roll-out).

11. We propose to regularise the existing exemption; and to expand it to cover these additional circumstances where the meter cannot be read and an alternative test is appropriate.

3. Rationale for intervention

3.1. Introduce flexibility around the timing of landlords' annual gas safety checks

12. Under the current regime it is almost impossible for many landlords to comply with the legislation to carry out annual safety checks without shortening the safety check cycle and incurring the associated costs. These costs are being incurred without delivering any additional safety benefits. This is a significant issue for social landlords and housing associations, and has led to

[3] CNG sites will also be governed by other Regulations that manage health and safety at these sites, such as the Dangerous Substances and Explosive Atmospheres Regulations (DSEAR) 2002, the Pressure Systems Safety Regulations (PSSR) 2000, and the Health and Safety at Work etc. Act 1974.

activities on their part such as an ongoing campaign, "The Gas Access Campaign", on the subject of the timing of annual gas safety checks.[4]

13. HSE held a number of workshops with representatives from the industry, where we discussed the health and safety implications of the proposed move to an MOT-style system for gas safety checks (please see section 6 for further detail of research undertaken). An MOT-style system would allow landlords to undertake their annual gas check up to two calendar months prior to the due date without bringing the due date forward; this is similar to the system for MOT checks for cars.

14. Stakeholders agreed unanimously that there would be no detrimental effect or lowering of standards as a result of the extra flexibility.

3.2. Exempt compressed natural gas (CNG) filling stations from the majority of the requirements of GSIUR

15. The requirements of GSIUR were not designed to cover this type of site and the requirements, including absolute duties, are not reasonable in this context, as they do not improve safety. The compression, storage and dispensing of natural gas at CNG fuelling sites was not envisaged at the time the regulations were written and this sort of activity and premises are not reflected in GSIUR (or the exclusions from it). There are a variety of other health and safety regulations that are applicable at these premises (such as the Dangerous Substances and Explosive Atmospheres Regulations, the Pressure Systems Safety Regulations and the Health and Safety at Work etc. Act) and we are satisfied that the health and safety of persons likely to be affected by the exemption are not prejudiced in consequence of it.

3.3. Regularise and broaden an existing exemption to regulation 26(9)(c)

16. The current exemption was introduced to deal with scenarios where engineers cannot meet the requirements of the regulations (to measure heat input and/or operation pressure) because there is no meter present. There continues to be a need for an alternative way for engineers to meet the safety checks. While we could continue to operate with the current exemption, HSE took this opportunity to look across the piece and address a number of concerns relating to feedback from our stakeholders (see paragraph 17) as well as regularising any existing exemptions which are still needed.

17. We were also alerted by industry, to additional scenarios where it is difficult for engineers to carry out 26(9)(c) checks. The regulation will be amended so that if it is not reasonably practicable to carry out the examination of an appliance required by paragraph (9)(c), the person required to carry out the examination may examine instead the combustion performance of the appliance to ensure that it is operating safely.

4. Policy objectives

4.1. Introduce flexibility around the timing of landlords' annual gas safety checks

18. The intention of the amendment to the regulations is that landlords should be able to carry out checks at twelve-month intervals and avoid incurring unnecessary additional costs as a result of meeting this requirement.

[4] http://www.gasaccesscampaign.org.uk/

19. The new flexibility will work in a similar way to MOT checks. Landlords will be able to carry out gas safety checks on their properties up to two calendar months before the date of their current safety check, but retain the original expiry date (as if the check had been carried out on the last day). For example, if the next check is due on 13 April 2017, checks could be carried out between 13 Feb 2017 and 13 April 2017; and the original expiry date, 13 April would be carried over to 2018. This should ensure that landlords are not unnecessarily shortening their annual gas safety check cycle (as is currently the case); and in the case of landlords with a large number of properties there may also be some logistical improvements/ savings that can be made (by scheduling checks on properties that are in proximity to each other to take place at the same time).

20. This is a permissive change. If a landlord is already complying with the law, they are under no obligation to take advantage of this flexibility if they do not wish to. They will be able to continue carrying out checks as they currently do and they will still be complying with the law. HSE was approached by landlords and gas managers to make these changes and the engagement we have had from the sector in producing this IA indicates that landlords will adopt the new system, subject to the exceptions outlined in the estimation of costs and benefits in Section 8.1.2.

21. The main policy objective is to allow landlords to be able to meet their legislative requirements under GSIUR (i.e. to carry out safety checks at intervals of twelve months) with no unnecessary costs, without lowering safety standards.

4.2. Exempt compressed natural gas (CNG) filling stations from the majority of the requirements of GSIUR

22. The suggested changes involve disapplication of the majority of GSIUR for dedicated installations which are primarily used to supply CNG to vehicles and that incorporate one or more compressors having motor ratings greater than 5kW. The main policy objective is to bring these sites in line with other industrial premises, and thereby create a level playing field for all sites, without compromising safety.

4.3. Regularise and broaden an existing exemption to regulation 26(9)(c)

23. We will be regularising the existing exemption to provide an alternative system for engineers to complete commissioning checks when there is no meter present, as well as broadening out this exemption to include other scenarios, for instance, when the meter is either inaccessible or the display not working. This will help to avoid unnecessary repeat visits by engineers when they have carried out work on an appliance and need to complete commissioning checks.

24. The main policy objectives is to reduce unnecessary burdens (repeat visits) on business, whilst ensuring that there is no reduction in safety.

5. Description of options considered (including status quo)

5.1. Packaging of Options

25. The three areas of proposed change to GSIUR relate for the most part to different areas of gas safety management: landlord checks, CNG and meters. The proposed legislative changes are

packaged together as one option because the changes have been requested by industry, developed in conjunction with stakeholders and have received overwhelming support during the formal consultation period. Although the three changes are separate and have different benefits, when packaged together they bring in one overall change to the regulations which is easier for industry to manage.

5.2. Introduce flexibility around the timing of landlords' annual gas safety checks

5.2.1. Option 1: do nothing (status quo)

26. Industry raised valid concerns with us that under the current system it is difficult to comply with the law without shortening the check cycle, and is keen to work with us to produce a satisfactory outcome that would not lead to a lowering of health and safety standards. Doing nothing maintains financial burdens on organisations that have no safety benefits.

5.2.2. Option 2 : introduce flexibility around the timing of annual gas safety checks by allowing landlords' to carry out checks up to 2 calendar months before due date and retain same due date (preferred option)

27. The proposal is to amend GSIUR by adding a new clause to regulation 36(3). The new clause will allow landlords' gas safety checks to be carried out in a window of between 10 and 12 months after the previous check, but to be treated as if they were carried out on the last day of that 12 months validity, thereby preserving the existing expiry date of the safety check record.

28. This would be an option that landlords could take advantage of if they wished. If the current system works for them, they would be under no obligation to take advantage of the new system.

5.2.3. Options considered but not taken forward:

29. Option A3: Introduce flexibility around the timing of gas safety checks by allowing landlords' to carry out checks up to one month before or one month after due date. The proposal would have been to amend GSIUR by adding a new clause to regulation 36(3). The new clause would have allowed landlords' gas safety checks to be carried out in a window of between 11 and 13 months after the previous check, but to be treated as if they were carried out on the last day of that 12 months' validity, thereby preserving the existing expiry date of the safety check record. In effect, the practical effect on check cycles would be much the same as under Option 2. However, this option was quickly dismissed because HSE intended to add flexibility to help people meet the *current* due dates, rather than introduce an extended window that could cause additional disruption in the transition and might appear to be relaxing the current requirement.

5.3. Exempt compressed natural gas (CNG) filling stations from the majority of the requirements of GSIUR

5.3.1. Option 1: do nothing (status quo)

30. The current legislation was made before there was any concept that CNG could be used for filling vehicles. This means that the regulations are not fit for purpose in this instance and that individual companies would continue to incur costs associated with installing a regulator. Since the regulations were being reviewed to look at flexibility for landlords, HSE took the opportunity to consider what else could be changed or improved. This was an area that it made good sense

in legislation, since doing nothing would mean that businesses would continue to incur a cost for no safety benefit.

5.3.2. Option 2: to amend GSIUR to exclude non-domestic CNG sites, from the majority of the regulations, in line with how factories are treated (preferred option)

31. Changing the law would bring the treatment of these premises in line with the treatment of factories without any lowering of health and safety standards. There would be certainty and clarity for businesses as the exclusions would be written into regulation. It would be clear that HSE was supporting the innovation agenda by removing unnecessary legal burdens permanently; and it would avoid the legal risk of broad, ongoing exemptions for individual sites.

5.3.3. Options considered but not taken forward:

32. Option B3: to issue individual exemptions when requested by the site operators. There are advantages for HSE in being able to consider each application on its own merits. As HSE has recently issued an exemption applicable to a single site carrying out these activities that mirrors the amendments proposed here, the precedent has already been set. However, if a number of exemptions were requested from different companies and these had to be considered separately, HSE resource would be unable to deliver.

33. Option B4: to issue a class exemption covering all similar sites. Companies would not have to apply individually thereby reducing burdens on business from reduction in compliance cost and from administrative costs requesting an exemption. It would be quick and easy for HSE to facilitate the two sites that are currently in the planning stage.

34. A class exemption would ensure a level playing field where all such sites were exempt. However, a class exemption could lead to a potential lack of clarity for businesses; HSE would need to ensure the class exemption is communicated to all current and future businesses in scope.

5.4. Regularise and broaden an existing exemption to regulation 26(9)(c)

5.4.1. Option 1: do nothing (status quo)

35. The existing exemption would remain in place; however, this would not address the issue of other instances where the meter is inaccessible or not working, which also causes significant operational issues for businesses.

5.4.2. Option 2: regularise and broaden the current exemption to Regulation 6(9)(c) (preferred option)

36. The arguments for rationalising the existing exemption are as per paragraph 16: by broadening it out to include additional scenarios where it is not reasonably practicable for the heat input and/ or operating pressure to be measured, we would cover other scenarios that have been identified by industry as being suitable for the degree of flexibility allowed by the current exemption.

5.4.3. Options considered but not taken forward:

37. Option C3: remove the exemption. The purpose of the exemption is to allow engineers to carry out alternative safety checks to those prescribed in regulation 26(9)(c) when it is not possible to measure the heat input and/or measure the operating pressure (no meter present and the appliance incorporates a pre-mix burner and a zero set pressure regulator). Taking away the exemption is not a viable option, since there are legitimate scenarios where HSE has

acknowledged that engineers may not be able to meet the requirements of regulation 26(9)(c). The exemption has been in place for eight years and no problems have been encountered with it. HSE took the opportunity whilst reviewing GSIUR to respond positively to stakeholder feedback without lowering safety standards.

6. Research undertaken to inform the IA

6.1. Timing of research

38. CORGI Technical Services conducted a study on the move to an MOT-style system of gas safety checks between 12 December 2013 and 10 January 2014 amongst managers responsible for gas safety in Housing Associations across the UK. The survey received 205 responses, and respondents collectively had responsibility for around 2 million properties.[5]

39. The HSE-led evidence-gathering process ran from March 2016 through to September 2016, with further information gathered and assumptions tested as part of the public consultation, which ran from November to January 2017 and which received just over 200 responses.

40. In addition, we also engaged further with gas engineering companies dealing with meters on the regularisation of the exemption in March 2017.

6.2. Introduce flexibility around the timing of landlords' annual gas safety checks

41. HSE conducted a series of workshops with stakeholders to discuss the impact of the proposed changes to landlords' gas safety check duties.

42. The Landlords Working Group included members of Housing Associations, Trade Associations such as the Association of Gas Safety Managers (AGSM) and the National Landlords Association (NLA), as well as a number of gas contractors.

43. HSE hosted an initial workshop on 2 March 2016 with the Landlords Working Group. The main purpose was to provide an introduction to the proposal, and provide stakeholders an opportunity to comment on the various policy options at the initial phase, as well as to outline the timetable for implementation. One large gas contractor also led a session on the health and safety implications of the extra flexibility in gas safety checks, where they presented the results of a technical assessment of the safety margins of domestic appliances. The Working Group and HSE agreed that there were no health and safety concerns associated with the proposal.

44. HSE economists and social researchers also delivered a presentation on the costs and benefits of the proposal, outlining the Impact Assessment and evidence-gathering process, as well as explaining the necessary clearance procedures and methods for valuing various impacts. We described our assessment of how the proposal could impact on landlords at that stage, based largely on responses to a survey carried out by CORGI Technical Services (outlined in paragraph 38), to check our understanding, as well as highlight any further potential impacts.

45. During the initial meeting the working group validated and challenged responses to the CORGI survey, and identified possible logistical savings as a result of the proposal (please see paragraphs 117-130).

46. Based on discussions during that workshop, we held a number of short follow-up interviews and exchanged emails to clarify any points that were raised during the initial meeting, and inform further questions to send out to the group.

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[5] Further details available at: http://www.agsm.uk.com/mot-style-of-servicing-survey-results/

47. A second workshop was held on 10 May 2016 at the National Landlords Association for the policy team to discuss any outstanding issues, as well as the economists to describe our current cost model and seek any further information.

48. HSE also conducted a survey of private landlords to understand the impact of the proposed changes to GSIUR. Over 500 responses were received, from members of the Residential Landlords Association (RLA), UK Association of Letting Agents (UKALA), and the NLA, among others. The survey sought information on the cost of the current system, how landlords arranged their gas safety checks, the expected impact of the changes, as well as details about the familiarisation process and any IT costs they may incur.

49. Once we had received and analysed all of the responses from the above steps, we sent a final list of assumptions round to the Landlords Working Group outlining our approach to modelling the impact for a sense-check.

6.3. Exempt compressed natural gas (CNG) filling stations from the majority of the requirements of GSIUR

50. HSE hosted a workshop on Monday 18 April with representatives from industry to discuss the potential impact of regularising the site exemption. HSE had received estimates of cost savings from an on-stream refuelling site associated with no longer having to comply with GSIUR, and during the meeting these cost savings were validated by the working group, and broader impacts of the proposal were discussed. HSE economists and social researchers also delivered a presentation explaining the Impact Assessment process.

51. The project team also met with colleagues from the Department for Transport (DfT) and the Office for Low Emission Vehicles (OLEV) to discuss policy options, as well as to share analysis of the current Natural Gas network in the UK and discuss any factors that might influence its growth in the future, for instance the Alternative Fuels Infrastructure Directive.[6]

6.4. Regularise and broaden an existing exemption to regulation 26(9)(c)

52. HSE hosted a workshop on Tuesday 7 June with representatives from the sector to discuss the impact of regularising the existing exemption, and broadening the scope of this to cover other scenarios where it may not be reasonably practicable to measure the heat input and operating pressure of the appliance. The group identified a number of potential benefits of broadening out the existing exemption, including reduced customer disruption from having gas supplies turned off for some time, as well as avoided follow-up visits by gas engineers.

53. HSE also consulted with meter asset management companies, as well as energy providers, to gather evidence on the prevalence of scenarios where it is not reasonably practicable to carry out the checks prescribed in the Regulations.

7. General Assumptions

7.1. Time Horizon, Discounting and Rounding

54. In the consultation stage IA, the analysis of the proposed changes to GSIUR used an appraisal period of twenty-five years for two reasons. First, it was to model the expected savings to private landlords, which are estimated to be equivalent to averting one annual gas safety check every twenty-five years (see paragraphs 107 to 116); and second, it was to set out and consult on our assumptions about the progression in the number of CNG refuelling sites until 2050 (see paragraphs 81 to 83).

[6] http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32014L0094

55. In this final stage impact assessment, we have adopted the more usual ten-year appraisal period for an indefinite legislative amendment.

56. This is because, first, our model of private landlords experiencing savings equivalent to one averted test every twenty-five years reflects an expected reality wherein these landlords will actually potentially experience small savings each and every year. As such, there is no need to use a twenty-five year appraisal period to estimate these savings.

57. Second, while we do expect an increase in the numbers of CNG refuelling sites between now and 2050, the figures available to us are quite uncertain, even following consultation; particularly on the issue of how many such stations would fall into the scope of GSIUR under the baseline. Therefore, we do not believe it appropriate to retain a twenty-five year appraisal period as this might serve to increase the amount of uncertainty in the model in disproportion to the additional impact of the policy that would be captured.

58. We apply a discount rate of 3.5% per annum, consistent with HM Treasury's (HMT) Green Book.[7]

59. We assume that one-off costs and cost savings are borne in the first year of the appraisal period (Year 1, which is 2017, the year of implementation). We also assume that on-going costs and cost savings are borne from each year from Year 1 to Year 10, unless stated otherwise.

60. Please note that many of the cost estimates presented in the following analysis have been rounded to two significant figures, unless stated otherwise. As such, some totals and tables may not appear to sum.

61. All figures presented are in 2016 prices.

7.2. Cost of Time

62. We assume a working week of 37.5 hours, with 7.5 hours in a working day.

63. The following analysis assumes that the value of employee time is the opportunity cost of that time to the employer. This will be equal at the margin to the cost of labour to the employer; that is, the gross wage rate plus any non-wage labour costs that the firm faces, such as national insurance and pension contributions. The rationale for this is that a firm will hire workers up until the point at which the cost of doing so (i.e. the wages plus various non-wage costs paid on employed labour) is equal to the value the firm receives for the output of the additional worker.

64. We assume a cost of time of £13.18 per hour for letting agents and private landlords. This comprises the median hourly wage rate for letting agents of £11.00 per hour as specified ASHE

[7] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/220541/green_book_complete.pdf

(2016)[8], uprated by 19.8% in accordance with HMT Green Book guidance.[9] We use this as proxy for a private landlord's cost of time, in line with other assessments of regulation in this sector.[10]

65. ASHE (2016) also indicates that the median hourly wage rate for functional managers and directors is £28.75.[11] We use this as a proxy for the cost of time of managers responsible for gas safety in social housing. Uprating this by 19.8% to allow for non-wage costs yields a full economic cost of time (FEC) of £34.44.

66. We use a wage of £13.31 per hour for Gas Engineers, also specified by ASHE (2016).[12] Uprating this by 19.8% to allow for non-wage costs gives a full economic cost of time of £15.95

67. We assume a full economic cost of time for a service engineer to be £280 per day. This figure has come from a survey carried out by the Association of Gas Safety Managers (AGSM) which was sent out to their members, validated by the industry working group. Divided by 7.5 hours in a working day, this gives a per-hour FEC of £37.33.

7.3. Number of organisations

7.3.1. Housing stock

68. The total housing stock with gas was calculated by first gathering data, updated in 2016, from the Department for Communities & Local Government (DCLG) on the total number of dwellings by tenure and district in England, Wales and Scotland.[13] A report by the then-Department for Energy & Climate Change (DECC)[14] suggests that in 2014, approximately 10% of households were not connected to the gas network.[15] Accordingly, around 90% of households are

[8] ASHE 2016 (provisional) Table 14.5a – Occupation. Median hourly wage rate for Estate agents and Auctioneers, SOC 3544.
https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/datasets/occupation4digitsoc2010ashetable14

[9] The most recent Eurostat data suggests that non-wage costs are typically 16.5% of total unit labour costs. These are then divided by the proportion of total labour costs made up of wages to estimate non-wage costs as a proportion of gross wages, equivalent to 19.8% (16.5*(100/ (100-16.5))).

http://ec.europa.eu/eurostat/documents/2995521/6761066/3-30032015-AP-EN.pdf/7462a05e-7118-480e-a3f5-34e690c11545

[10] Impact Assessment for the Housing Bill – Private Rented Sector Provisions, Department for Communities and Local Government (2015) http://www.parliament.uk/documents/impact-assessments/IA16-002F.pdf

[11] ASHE 2016 (provisional) Table 14.5a – Occupation. Median hourly wage rate for Functional managers and directors, SOC 113.
https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/datasets/occupation4digitsoc2010ashetable14

[12] SIC 4322 Plumbing, heat and air-conditioning installation

[13] https://www.gov.uk/government/statistical-data-sets/live-tables-on-dwelling-stock-including-vacants

[14] DECC has now been incorporated into the Department for Business, Energy & Industrial Strategy (BEIS).

[15] https://www.gov.uk/government/statistics/lsoa-estimates-of-households-not-connected-to-the-gas-network

connected to the gas network and would therefore fall under the proposed changes.[16] This percentage was then applied to the figures provided by DCLG and are broken down in Table 1 by country and tenure.

Table 1: Total domestic stock with gas (thousands)

	Owner-Occupied	Rented privately	Rented from Housing Associations/ private registered providers	Rented from Local Authorities	Other public sector dwellings	**All Dwellings**
England	13,000	4,200	2,100	1,500	58	**21,000**
Wales	880	180	120	79	Nil	**1,300**
Scotland	1,400	350	250	290	Nil	**2,300**
Total	**15,000**	**4,700**	**2,500**	**1,900**	**58**	**25,000**

Note: totals may appear not to sum due to rounding

69. Social housing includes those rented from Housing Associations (HAs)/ private registered providers (around 2.5 million units in Table 1), Local Authorities (LAs)/ Unitary Authorities (UAs) (around 1.9 million units) and other public sector dwellings (around 58,000 units). Using Table 1 this gives a total social housing stock in GB (connected to the gas network) of approximately 4.4 million.

70. Also as outlined in Table 1, there are approximately 4.7 million privately rented properties in GB connected to the gas network, and therefore in scope of GSIUR

[16] Please note that a small number of the properties not connected to the gas network may still have a gas supply from an alternative source, for instance liquefied natural gas. Accordingly, any rented properties in these areas with gas appliances would also fall under GSIUR; however we expect this number to be minimal, and not likely to affect the overall scale of savings. As such, 90% is taken to be a simplifying assumption.

7.3.2. Number of landlords

71. Table 2 shows the number of social landlords in Great Britain. Providers of social housing include both HAs and LAs. The Homes and Communities Agency provide a list of current registered providers of social housing in England.[17] Table 2: Total number of social landlords in Great Britain

Number of housing associations in England	1600
Number of housing associations in Scotland	190
Number of housing associations in Wales	90
Total housing associations in GB	**1900**
Number of Local Authorities in England	350
Number of Unitary Authorities in Scotland	30
Number of Unitary Authorities in Wales	20
Number of Local Authorities	**400**
Total number of social landlords (GB)	**2,300**

Note: totals may appear not to sum due to rounding

72. The latest data from the Scottish Housing Regulator (2014/15) suggests that there are around 190 HAs in Scotland.[18] [19]

73. The Welsh Government provides a list of current registered social landlords.[20] As of 26 May 2016, there were around 90 social landlords in Wales.[21]

74. The 2016 data from the Homes and Communities Agency (HCA) suggested there are around 1600 HAs in England. [22]

75. HSE's Local Authority Unit holds information on the number of LAs across England, Scotland and Wales. According to the most recent information, there are currently around 400 LAs/ UAs in GB.

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[17] https://www.gov.uk/government/publications/current-registered-providers-of-social-housing

[18] https://www.scottishhousingregulator.gov.uk/publications/charter-data-all-social-landlords

[19] We understand from consultation and from the Association of Gas Safety Managers (AGSM) that social housing contracts in Scotland can include a clause allowing the landlord to gain access to the property for, among other things, the completion of the gas check, even if the tenant has not assented. However, we understand from evidence gathered after consultation with AGSM in Scotland that this clause is not often used by landlords as it is only executable after taking 'reasonable steps' to agree access with the tenant, and that these 'reasonable steps' usually lead to an agreed access before the clause is executed. As such, for simplicity, we shall assume that the situation in Scotland is similar to that in England and Wales.

[20] http://gov.wales/topics/housing-and-regeneration/publications/registered-social-landlords-in-wales/?lang=en

[21] The actual number of registered landlords was 92, however one duplicate was removed.

[22] Data from the Homes and Communities Agency also includes LA providers of social housing in England. To avoid any double-counting, LA providers have been removed from these figures. LA providers are instead estimated using information from HSE's LA unit, as described in paragraph 75.

76. Evidence on the total number of private landlords in Great Britain is limited. The Property Ombudsman (2014) suggests that there are around 1.6 million private landlords in the UK.[23] This figure is in line with estimates used by other Government departments, such as DCLG.

77. The following analysis keeps the size of the current housing stock (both public and private), as well as the number of landlords, constant over the course of the appraisal period. This is a simplifying assumption; however HSE feel this is proportionate for the following reasons.

78. Data from DCLG suggests that in fact the total social housing stock has remained relatively stable over the last 5-10 years, with a slight increase in properties rented from Housing Associations offset by a reduction in local authority housing.[24]

79. Further, the Government is committed to ensuring the availability of social housing, and has announced a series of measures and funds to help increase the supply of affordable homes.[25] Accordingly, holding the stock of social housing constant over the appraisal period is considered a simplifying, but appropriate, assumption.

80. Estimates of the number of landlords are only used when calculating one-off costs of familiarisation and IT changes (see paragraphs 133 to 160). As these are one-off costs, these will not be borne by new entrants to the market, and hence we have not modelled any changes in the number of landlords over the appraisal period.

7.3.3. Number of CNG sites

81. The CNG sector in the UK is still in its infancy, with only around 15 sites known by HSE to be up and running in 2015; this is the latest year for which we have a numerical estimate, although we understand from engagement with the sector that it has continued to grow. A report commissioned by the Low Carbon Vehicle Partnership (completed by Element Energy) identifies which technologies will be needed to comply with the Renewable Energy Directive and the fuels which must be introduced by 2050 to be consistent with the automotive technology roadmaps.[26] One of the fuels considered is CNG. The report provides forecasts for the number of vehicles which will be using CNG up to 2050, and subsequently how many bus- and HGV-filling sites which would be required to support them.

82. The Element Energy report only provides estimates of the number of CNG sites for a select number of years (i.e. 2020, 2030 and 2050). In the consultation-stage impact assessment, we made a number of assumptions in order to estimate approximately how many new CNG sites

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[23] https://www.tpos.co.uk/images/documents/annual-reports/tpo_annual_report_2014.pdf

[24] DCLG. Table 102: by tenure, Great Britain (historical series). Available at: https://www.gov.uk/government/statistical-data-sets/live-tables-on-dwelling-stock-including-vacants

[25] For instance, the Government recently introduced the 'Shared Ownership and Affordable Homes Programme 2016 to 2021', which sets out a number of proposals designed to increase shared ownership and affordable housing. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/517678/SO_and_AHP_prospectus_13_04_16.pdf

[26] http://www.lowcvp.org.uk/projects/fuels-working-group/infrastructure-roadmap.htm

will come on-stream each year of the twenty-five year appraisal period. Working backwards, we assumed linear growth in the number of CNG sites per year in between the key dates- see Table 3 below. For instance, the Element Energy report suggests that there will be approximately 125 bus and HGV filling stations using CNG by 2020; and around 360 by 2030. Given there are were an estimated 15 sites up and running in the UK in 2015, this means that 22 additional sites will come on-stream each year on average to reach this figure. These estimates were tested in consultation with industry and found to be reasonable. Now that we adopt a ten-year appraisal period in our final-stage impact assessment, we have simply taken the first relevant years of this model.

83. However, only a small proportion of these sites will actually be in scope of the current GSIUR as many will already be exempt as they are classed as a factory under the Factories Act 1961 (see section 2.2 for more detail). Currently in the UK only 1 out of the 15 operational CNG sites is in scope of GSIUR. We use this proportion (i.e. 1/15*100 ≈ 6.7%) as a proxy for the number of future CNG sites that will fall under GSIUR, held constant over the appraisal period. It may be the case that as use of this technology grows in the future, we start to see more public filling stations that are not attached to industrial sites (and thus would fall under GSIUR) and evidence from consultation did indicate that some in industry expected this to be the case, too. However, we have not been able to estimate a robust figure for this, and so we will assume that the 6.7% figure is stable for the ten-year appraisal period, which was supported in consultation. Table 3 summarises.

Table 3: Estimated number of CNG refuelling sites over the appraisal period

Year	Number of CNG sites	Number of CNG sites in scope of GSIUR	Number of new CNG sites each year in scope of GSIUR
2015	***15***	***1***	***1***
2016	*37*	*2*	*1*
2017	59	4	2
2018	81	5	1
2019	103	7	2
2020	**125**	**8**	**1**
2021	149	10	2
2022	172	11	1
2023	196	13	2
2024	219	15	2
2025	243	16	1
2026	266	18	2
2027	*290*	*19*	*1*
2028	*313*	*21*	*2*
2029	*337*	*22*	*1*
2030	***360***	***24***	***2***

Note: years in bold indicate years for which we either have a specific data-point (i.e. 2015); or for which we have an estimated number from Element Energy (i.e. 2020 and 2030); other years' data are inferred from a linear progression model. Greyed-out boxes have been used to facilitate modelling, but fall outside of the appraisal period for this IA. The numbers of CNG sites in scope of GSIUR have been rounded to the nearest whole number for use in calculations.

8. Analysis of Costs and Benefits

8.1. Introduce flexibility around the timing of landlords' annual gas safety checks

8.1.1. Option 1 – Do nothing (Baseline)

84. Under Option 1, the current Gas Safety (Installations and Use) Regulations and accompanying ACOP and guidance would remain unchanged. As this represents the baseline, there would be no additional costs and/or benefits.

8.1.2. Option 2 (preferred option) – introduce flexibility around the timing of annual gas safety checks by allowing landlords to carry out checks up to two calendar months before due date and retain same due date

85. Option 2 proposes an alternative way in which gas safety checks could be carried out in the social- and private-rented sector, if the landlord wishes to take advantage of the flexibility. Should the landlord not want to engage with the new scheme they would be under no obligation to do so. The proposal sets out to give landlords greater flexibility when it comes to getting their annual gas safety check[27] and certificate. It would involve moving to an MOT-style system

[27] Gas safety checks are hereafter referred to as gas checks in the interest of brevity.

whereby a landlord can retain the anniversary date of a check and yet carry it out up to two calendar months prior to this date.

86. HSE estimates that this greater flexibility would lead to on-going annual savings to landlords of 'programme slippage' (see paragraphs 88-114) and potential logistical savings (see paragraphs 117-130). There would, however, be some one-off costs of familiarisation and changes to IT systems for landlords. These costs and cost savings are based upon CORGI's survey, HSE landlord surveys and responses from the landlord working group as described in section 6. These assumptions have been further validated through public consultation.

87. It is important to bear in mind that the proposed changes are strictly permissive in nature; landlords may continue with their current system of gas checks and comply with their duties under GSIUR (provided they carry out the check within 12 months of the last). However, should they choose to take advantage of the extra flexibility, any costs incurred (e.g. IT costs) should be considered optional. Insofar as this represents a business decision, one would expect the benefits to the business to outweigh any costs; otherwise they would not do it.

8.1.2.1. Programme Slippage

88. Under the current Regulations, landlords are required to undertake annual gas checks, carried out by a registered gas engineer, on all of their properties. If successful, they then receive a gas safety certificate which will be valid for the following 12 months. This is to conform to the relevant requirements set out in the regulations.

89. In order to ensure that they meet their statutory requirements (i.e. a gas check is carried out no longer than 12 months after the last one), many landlords begin their annual gas check programme early to minimise access issues.[28] For example, if a landlord accesses a property after 11 months rather than at the annual 12 month date, then the following gas safety certificate will be valid for another 12 months, but from the one month earlier date of access. This would lead to landlords losing a month's worth of the value of their gas safety certificate, and causes them to have to undertake the next check at an earlier date. This is hereafter referred to as 'programme slippage'.

90. The new clause would offer landlords greater flexibility. It would allow landlords' gas checks to be carried out in a window of between 10 and 12 months after the previous check, but to be treated as if they were carried out on the last day of that 12 months' validity, thereby preserving the existing expiry date of the safety check record. Therefore, a certificate can be valid up to a maximum of 14 calendar months, although landlords could not move to a regular 14-month cycle.

Social Landlords

91. Social landlords are individually often responsible for many thousands of properties; and collectively many million. A survey by CORGI Technical Services looking at the impact of an MOT-style of servicing for gas safety checks received 205 responses, and these respondents

[28] In a small number of cases, landlords experience difficulty in gaining access to properties for a number of reasons, for instance tenant availability, communication error, etc.

collectively had responsibility for almost 2 million properties.[29] Accordingly, as outlined in paragraph 89, in order to ensure they carry out gas checks at their properties within the required time, they begin their annual access programme early.

92. Those landlords who currently begin their annual access programme on average more than two calendar months, or about nine weeks[30], prior to the expiry date of a certificate will not see the savings of programme slippage as the move to an MOT-style system only gives flexibility up to two calendar months prior to the expiry date. Results from the CORGI survey suggest that around 5.3% of social landlords start their access programme more than nine weeks before the expiry date. Accordingly, we assume programme slippage savings might apply to potentially around 95% of the social housing stock of 4.4 million properties to some extent (see paragraph 69). This is about 4.2 million properties.

93. Of those respondents that first attempt entry less than ten weeks prior to the due date, the CORGI survey asked social landlords how many weeks prior they typically first attempted to gain access to undertake gas checks. As summarised in Table 4, the average number of weeks prior to the due date that the first entry attempt is made is around 5.8 weeks. Given that there are 52 weeks in a year, this implies one additional gas check on average about every nine years on average.

Table 4: Average number of weeks prior to check due date that social landlords first attempt access

Weeks prior to due date that first entry is attempted	Proportion of responses	Weighted average weeks early
1.5	12%	0.2
4	19%	0.8
5	6.0%	0.3
6	23%	1.4
7	8.4%	0.6
8	29%	2.3
9	2.4%	0.2
TOTAL	**100%**	**5.8**

Note: totals may appear not to sum due to rounding. The period prior to the due date of 1.5 weeks is the assumed mid-point of the range 'Less than 4 weeks', as asked in the survey. The proportion of responses is adjusted to remove those answering 'Ten weeks' (5.3% of all respondents); or giving an answer classified by CORGI as 'Other' (6.8% of all respondents).

94. There are random events that could disrupt gas cycle checks in practice, such as the installation of new appliances. However, while these might alter the time of year that the annual gas check might be due for any affected properties, they will not affect the shortening of the cycle thereafter. As the CORGI data is based on the actual observed and recorded cycles of social housing associations, such fluctuations will be accounted for in the data.

[29] http://www.agsm.uk.com/mot-style-of-servicing-survey-results/

[30] The proposal is to allow flexibility of two calendar months, which rounds to nine weeks rather than to eight.

95. However, the survey also asked what proportion of these first attempts at access were successful, i.e. that resulted in a gas check being successfully carried out, as opposed to, for example, finding the tenant was not at home as arranged. The results are summarised in Table 5 and show that on average around 74% of first-time access attempts are successful.

Table 5: Average success rates for first entry attempts

Percentage rate of success at first attempt at entry	Assumed mid-point	Proportion of respondents	Weighted average success rate for first entry attempt
0-9%	4.5%	Nil	Nil
10-19%	14.5%	Nil	Nil
20-29%	24.5%	0.6%	0.1%
30-39%	34.5%	1.8%	0.6%
40-49%	44.5%	2.4%	1.1%
50-59%	54.5%	4.7%	2.6%
60-69%	64.5%	20%	13%
70-79%	74.5%	42%	31%
80-89%	84.5%	18%	15%
90-100%	95%	11%	11%
TOTAL	**-**	**100%**	**74%**

Note: totals may appear not to sum due to rounding.

96. CORGI did not ask about what happened in subsequent attempts, i.e. whether the second or third attempts were successful; or what delay in gaining access resulted. Such a delay in gaining access would reduce the average number of weeks prior to the due date that the gas check takes place down from the 5.8 weeks described in paragraph 93.

97. If a cycle shortened by 5.8 weeks results in an additional test every nine years, we might test the sensitivity of this estimate to possible delays following failure to gain access at the first attempt. For example, how long must the average delay be, for those roughly 26% of cases where the first attempt fails, to push the overall average estimate to an additional test once every ten, eleven or twelve years?

98. This is pertinent to the analysis as the cost-saving will be based in part on the frequency with which the cycle-shortening leads to additional unnecessary tests. If it is reasonable that delays following first-time access failure could push the average repeated test from the ninth year to the tenth, eleventh or twelfth, this will be material to the costs of the repeated tests and so any savings from averting them.

99. To reach an additional test once every ten years on average, the average annual shortening of the cycle would need to be about 5.2 weeks. To reach 5.2 weeks from the first attempt period of 5.8 weeks (a difference of about 0.6 weeks) would require an average delay following first-time access failure of about 2.3 weeks (that is: 0.6 weeks / 26% first-time failure rate = 2.3 weeks).

100. To reach an additional test once every eleven years on average, the average annual shortening of the cycle would need to be about 4.7 weeks. To reach 4.7 weeks from the first

attempt period of 5.8 weeks (a difference of about 1.1 weeks) would require an average delay following first-time failure of about 4.2 weeks (that is: 1.1 weeks / 26% first-time failure rate = 4.2 weeks).

101. To reach an additional test once every twelve years on average, the average annual shortening of the cycle would need to be about 4.3 weeks. To reach 4.3 weeks from the first attempt period of 5.8 weeks (a difference of about 1.5 weeks) would require an average delay following first-time failure of about 5.8 weeks (that is: 1.5 weeks / 26% first-time failure rate = 5.8 weeks).

102. So, to reach one additional test every twelve years would require delays for repeat-visits to take up all of the remaining time until the deadline on average, which is unreasonable and does not concur with HSE's understanding of the sector. Nor is it reasonable, in HSE's understanding of the sector, that the average delay would be around 4.7 weeks, which would be about four-fifths of the remaining time.

103. More reasonable in HSE's estimation, is that the average delay following first-time access failure could be about 2.3 weeks on average, which is about half of the remaining 5.8 weeks until the deadline. So, we will adjust our estimation of the frequency of additional tests from about one every nine years to about one every ten to account for access failures. We have shared this analysis of the CORGI survey data and they agree with our interpretation and conclusions.

104. Results from the CORGI survey, as well as consultation with housing associations, suggests that the cost of a gas check is about £64 on average.[31] For in-house gas checks, this includes an estimate for the administrative work. This is an average across the social housing sector and includes the cost of a 'light touch' service, as well as other gas appliances within the property checked (where applicable). This figure was tested and validated by the industry working group.

105. At a cost of £64 per check, and around 4.2 million properties in scope (see paragraph 92), under the new flexibility this would imply that social landlords would see a saving of around £270 million every ten years. However, we would expect that in reality the flexibility in the proposed system and the preservation of the full value of the gas-check certificate would generate some savings for some social landlords much earlier – we would not expect that the social housing sector would remain as before and then receive one great saving every ten years. Rather, this model serves as a proxy for valuing this ongoing flexibility over the appraisal period, which we estimate using the equivalent annual saving of the £270 million when discounted to the present. This approach has been tested with stakeholders during the workshops, survey and consultation described in Section 6.

106. Over a ten-year appraisal period, this gives an **estimated present value saving to social landlords of around £200 million**. In equivalent annual terms, this is around £24 million.

[31] We assume that the cost of a gas safety check is the same for social housing if done in-house, or by a third-party.

Private Landlords

107. The impact of the changes will be markedly different in the private-rented sector. Rather than being responsible for often thousands of properties (as is the case with many Housing Associations), most private landlords typically own only a handful of properties, with a recent (2015) survey by HomeLet suggesting that over half of private landlords own only one rental property, with only 3% owning six or more.[32] Accordingly, private landlords report much less difficulty in gaining access to their properties than their social counterparts. As a result, in most cases they do not begin their annual access programme as early, and hence do not experience the same shortening of the annual gas check cycle.

108. Evidence from the survey of private landlords (described in section 6) suggested that around half (51%) of landlords carry out the gas check one week or less prior to the expiry date. While these landlords will benefit somewhat from the proposed changes, this will be slight and for modelling purposes, we have excluded them, assuming their savings will be nil. HSE is not aware of high levels of non-compliance amongst private landlords, but we expect that this 51% would include a proportion that goes beyond the twelve-month period under the current requirements.

109. The remaining 49% of private landlords carried out their gas check on average two weeks before the expiry date. Were the current system to continue in stasis, these landlords would therefore end up carrying out one additional gas check every 25 years or so. As discussed in paragraph 105, this is a model for the value of ongoing flexibility and certificate value.

110. Results from the survey suggest that the average cost of a gas safety check in the private rented sector is around £65, which is similar to that for social landlords. This figure was tested and validated by the industry working group as part of the research process.

111. Private landlords fulfil their duties under GSIUR in a number of different ways, for example via a lettings agent, or a gas servicing company (contractor), or arranging the gas check directly with a gas engineer. In the consultation-stage impact assessment, HSE assumed that those landlords who deal directly with the gas engineer would realise savings that would be classified as 'direct' for the purposes of the Business Impact Target (BIT), while those whose duty is discharged by a letting agent or gas servicing company through a contract with the landlord would not. Results from the survey suggest that the majority (around 82%) of private landlords arrange their gas checks directly with a gas engineer.

112. However, upon testing this classification with the Regulatory Policy Committee (RPC), they confirmed that they would consider the savings to be direct, even if intermediated through an agent. Therefore, we have estimated the savings across all of the privately-rented properties to be in scope of the BIT.

113. Given a private-rented housing stock of around 4.7 million as explained in paragraph 70 and that around 49% of landlords carry out their checks 2 weeks or more in advance of the expiry

[32] https://homelet.co.uk/homelet-rental-index/landlord-survey-2015

date, this suggests that approximately 2.3 million properties would benefit from the extra flexibility.

114. At a cost of £65 per check, this implies a one-off saving to the private-rented sector of around £150 million, realised in year 25 of the appraisal period. This is equivalent to a twenty-five year present value of around £65 million, or an equivalent annual saving of around £3.8 million.[33]

115. However, as noted in paragraph 105 we do not expect a large one-off saving to be realised in this way; rather, private landlords would experience small ongoing savings each year through the greater flexibility and the preservation of the full value of their gas check certificates. Therefore, we have used the equivalent annual saving as a proxy for the value of this ongoing saving, which the working group agreed was a reasonable model.

116. Therefore, we estimate only the initial ten years of this model for this final-stage IA's appraisal period. This gives direct savings from the flexibility in the privately-rented sector equivalent to an annual saving of around £3.8 million, giving an **estimated present saving value over ten years of around £33 million**.

8.1.2.2. Logistical Savings

Social Landlords

117. During consultation, industry suggested that the extra flexibility afforded by the new proposal would also lead to some logistical savings. Logistical savings refer to the savings expected as a result of being able to more effectively group gas checks in nearby properties owing to the flexibility afforded by the date.

118. Under the current system, difficulty gaining access to properties combined with the rigidity of expiry dates means that neighbouring or nearby properties often have gas checks due on a range of dates. This leads to gas engineers travelling to and from properties in order to complete gas checks on any given day. Under the proposed system, representatives from the social housing sector suggested to HSE that they will be able to more effectively group their properties in order to minimise this "zig-zagging" effect, thus reducing travel time of gas engineers carrying out gas checks. Any reduced travel time will be a resource saving for housing associations that have their own gas engineers (approximately 25%[34]), or gas contractors that carry out checks on social landlords' behalf.

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[33] We did consider an alternative approach, whereby we took the approximate £150 million occurring in the twenty-fifth years and divided it equally across the period, giving around £6 million per annum, which we would then discount. This would generate a higher net-present value over ten years of around £51 million. However, we assessed that it would be prudent to take the method that generated the lower savings estimate to ensure as a full and thorough a test of the costs and benefits as possible.

[34] A senior member of the Association of Gas Safety Managers (AGSM), which represents managers responsible for gas safety in their organisations, suggested that approximately 25% of all social landlords have in-house gas engineers responsible for carrying out gas checks. The remaining 75% fulfil these duties using contractors or other parties.

119. For social landlords, we estimate these savings to be indirect under the Better Regulations Framework whether they have engineers in-house or use a contractor, in line with RPC advice. For the 25% that have in-house engineers, this would be a second-round effect following the initial response by the housing associations of rescheduling the visits. In the remaining 75% of cases where gas checks are carried out by a contractor we expect these savings to fall in the first instance to the contractor, as opposed to the landlord. In the consultation-stage IA, we interpreted the savings to these gas contractors to be indirect under the BIT and this interpretation was confirmed by the RPC.

120. Based on a social housing stock of approximately 4.4 million properties, and using the 25% of social landlords that have in-house gas engineers as a proxy for the proportion of social housing that is serviced by an engineer employed by the landlord[35], this means that approximately 1.1 million social properties could benefit from logistical savings for in-house engineers.

121. Modelling this "zig-zagging" is, by nature, extremely difficult to achieve with a great degree of confidence. All of the following assumptions have been informed by consultation with industry through the various surveys and workshops described in section 6; and has been further validated through formal consultation.

122. Evidence from the social housing sector gathered as part of the research for the consultation stage IA suggested that under the current system, a gas engineer could carry out on average around six gas checks in any given day.[36] With the proposed flexibility allowing landlords to carry out checks up to two months prior to the date of expiry, thereby improving the grouping of properties, industry have suggested that a gas engineer could expect to complete around seven gas checks in any given day.

123. Evidently, however, not all properties will be able to be grouped more effectively, due to geographical restrictions for instance. Furthermore, social landlords will already be undertaking this style of grouping, and so not all social housing will benefit from further flexibility. Responses from the industry working group suggest that these logistical savings would be applicable to around 60% of the housing stock. Accordingly, we expect that of the 1.1 million properties which are serviced by an in-house gas engineer (see paragraph 120), only 660,000 would benefit from any potential logistical savings.

124. Based on a gas engineer carrying out 6 gas checks per day, this means that a total of approximately 110,000 engineer days are required to complete all gas checks across the 660,000 properties under the current system each year.

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[35] This is a proxy because, while we estimate that 25% of social landlords employ in-house gas engineers, we are not sure how this maps onto the number of actual social properties. However, we believe that applying the assumption of 25% from landlords onto properties as well is reasonable.

[36] The majority of gas safety checks are carried out alongside a service of the relevant appliance, however in the interest of brevity we have referred to this simply as a gas check.

125. Based on a gas engineer carrying out 7 checks per day due to the greater flexibility, this means that a total of approximately 94,000 engineer days are required to complete all gas checks across a housing stock of 660,000 when properties are grouped.

126. In consultation, respondents agreed overall with these assumptions, although several respondents noted that they thought there would be properties that could not be grouped in this way. However, it was not possible to get any firmer quantified data. Given that we have assumed that around 40% of the social housing stock would not accrue these savings, we believe that we have made a reasonable allowance for the minority of consultation responses that thought the savings unlikely to apply to properties in certain circumstances.

127. We therefore estimate that around 16,000 service days would be saved by gas engineers employed directly by social landlords, at a full economic cost of £280 per day (see section 7 for details).

128. Industry also stated that these logistical savings would not be realised immediately, as they spend some time planning the most efficient routes and aligning gas checks in nearby properties. Feedback from the sector suggests that any logistical savings will only start to be realised after two or so years.

129. Based on the assumptions above, HSE expects that social landlords would benefit from annual logistical savings of approximately £4.4 million, modelled to occur from Year 3. Over the ten-year appraisal period, this gives an **estimated direct present value saving of around £29 million**. This gives an estimated equivalent annual saving of around £3.4 million.

Private Landlords

130. In the private-rented sector, the majority of landlords own only one or two properties. Accordingly, the scope for grouping gas checks is limited. Further, through consultation with the sector it has become clear that even larger 'multi-premise' landlords tend to have diverse locations and differing gas safety check timings.

131. Public consultation respondents tended to agree with this assessment, indicating that the logistical savings might be realised only by the very largest private landlords. Given that only 3% of private landlords own six properties or more (see paragraph 107) it is likely that there could only be very few private landlords that would have an estate sufficiently large to experience the types of logistical savings that social landlords are estimated to do. As a result, HSE expects that any logistical savings to private landlords will be minimal, and have therefore been **estimated as nil**. As with logistical savings for social landlords with in-house engineers, any such savings would be indirect (see paragraph 119).

Letting Agents and Gas Servicing Companies

132. Evidence gathered for the impact assessment and tested in consultation does not indicate that letting agents or large gas servicing companies would see logistical savings. For letting agents, a great many of the checks are arranged ad hoc; and gas servicing companies report that they are often already at peak efficiency. We have also been advised by the RPC that any such savings, were they to occur, would be indirect under the BIT as they would be the result of

letting agents and gas companies responding to the demand of landlords for the new gas-check cycle.

8.1.2.3. Familiarisation costs

133. The estimates presented below have been informed by consultation with industry through the various surveys and workshops described in Section 6. They have been further tested through formal public consultation.

134. Through this consultation, HSE sought details of the familiarisation process for landlords (both social and private), and received information on where landlords get information about their obligations, who in their organisation is responsible for understanding this, how they disseminate this throughout the organisation, and how long this whole process takes. HSE recognises, however, that the process by which businesses respond to changes in their regulatory duties is highly variable, and so the following estimates are an average across all businesses, and represent our understanding based on the most recent information.

Social Landlords

135. The timing of annual gas safety checks is the subject of an ongoing campaign involving a large number of social landlords and housing associations.[37] Representatives from the sector have been kept informed of any developments and discussions with HSE, and indeed a number have been involved in the evidence-gathering process.[38] Consequently, HSE expects any familiarisation costs to social landlords to be limited.

136. As summarised in Table 2, there are approximately 2,300 social landlords (LAs/HAs) in GB. HSE feels it is reasonable to expect that all of these businesses would take some time to read and understand the changes.

137. Responses from industry suggest that between 1 and 4 people would spend approximately 1 hour each familiarising with the changes; this would give between around 1 and 4 hours per social landlords, with a best estimate of around 2.5 hours.

138. At an hourly cost of time of £34.12 (as described in paragraph 65), this leads to an estimated range of between £77,000 and £309,000 for familiarisation across all social landlords, with a **best estimate one-off cost of approximately £193,000**. This is a one-off familiarisation cost, occurring in Year 1 of the appraisal period.

Private Landlords

139. Evidence from HSE's survey of the private-rented sector suggests that approximately half of all private landlords would spend time reading and understanding the changes to GSIUR.

[37] http://www.gasaccesscampaign.org.uk/

[38] http://hvpmag.co.uk/news/fullstory.php/aid/4144/HSE_supports_calls_for_an_MOT_style_Landlord_s_Gas_Safety_Record.html

Based on 1.6 million private landlords (see paragraph 76), this means that around 800,000 would take time familiarising.

140. The remainder would essentially 'pick up' the information through routine interactions with lettings agents or gas engineers; or through reading their gas safety certificate once issued, which they would do anyway. They are estimated to incur zero additional cost.

141. Survey responses received from members of the RLA, NLA and UKALA, suggest that it would take private landlords approximately half an hour (30 minutes) to familiarise with the changes. On the basis of 50% of all private landlords spending half an hour reading and understanding changes at a cost of £13.18 per hour (see paragraph 64), this leads to **estimated one-off costs of familiarisation of around £5.2 million**.

Letting Agents

142. As discussed in paragraphs 111 to 112, we have modified our model from the consultation-stage IA by assessing the cost-savings to private landlords who arrange their annual gas checks through a letting agent as direct under the BIT, following advice from the RPC. Also in line with that RPC advice, we must now estimate the familiarisation of those letting agents with the changes.

143. According to the Interdepartmental Business Register (IDBR), there are around 17,000 estate agents in Great Britain.[39] We will assume for simplicity that all of these are involved in the rental market to some extent, rather than only sales.

144. We have assumed in our analysis that the time required for letting agents to familiarise with the changes would be similar to that of the large social landlords; this is based on the fact that they are both organisations that have a good existing level of understanding of the requirements and will both manage large estates. However, we assume that only one person on average would familiarise per letting agent (as opposed to between one and four for housing associations, as described in paragraph 137). This is because letting agents are on the whole smaller than housing associations (69% employ fewer than five people[40]); and, unlike housing associations, lettings agents tend not to have gas engineers on staff, who would likely require additional familiarisation. This gives around 1 hour per organisation, or around 17,000 hours in total.

145. Costed at an FEC of £13.18 per hour (see paragraph 64), this gives **an estimated one-off cost of around £230,000**.

Engineers

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[39] There are 17,795 enterprises in the UK; subtracting the 370 in Northern Ireland takes us to 17,425 for GB only. (http://web.ons.gov.uk/ons/data/dataset-finder/-/q/datasetView/Economic/UKBA01a?p_auth=23fXCIYv&p_p_auth=kqcUy9h7&p_p_lifecycle=1&_FOFlow1_WAR_FOFlow1portlet_geoTypeId=2013WARDH&_FOFlow1_WAR_FOFlow1portlet_UUID=0)

[40] At the UK level, the figures are 12,325 enterprises employing fewer than five out of a total of 17,795. (http://bit.ly/2n6uuoi)

146. Smaller gas engineering companies that offer ad hoc gas safety checks may want to familiarise themselves with the proposed changes, but this would be their own choice as they do not have a duty to discharge, other than to perform a gas operation safely.

147. Larger companies, however, may offer gas check management contracts and would need to familiarise with the changes to ensure their offer remained compliant. It is not clear from HSE's research how many companies might offer such a service; however, it seems reasonable to assume that only the larger companies in the sector would be capable of doing so, given the additional resources needed to manage these contracts. According the IDBR[41], there are around 210 companies in the plumbing, heating and air-conditioning sector that employ more than fifty people (this is around 7% of all such enterprises, the majority of which are micro businesses).

148. It would be an overestimate to assume that all these businesses offered such gas contract management, but this will serve as a useful simplification.

149. Given the nature of the changes proposed and the scale and size of the organisation, we estimate that the time required from such a company to familiarise would be similar to that of a housing association at between around 1 and 4 hours, with a best estimate of 2.5 hours (see paragraph 137).

150. If we assume an FEC per hour for a gas service engineer of £37.33 (see paragraph 67), this gives an estimated one-off cost of engineer familiarisation of between around £7,800 and £31,000, with a **best estimate of around £20,000**.

8.1.2.4. IT Costs

Social Landlords

151. Feedback from industry suggests that in order to take advantage of the benefits of the proposal, landlords would have to make changes to their IT systems (in essence, this involves changes such as the addition of an extra entry into their current database for the date at which the check was carried out, so the system holds this date as well as the expiry date).

152. Survey responses, validated by the working group, suggest that these IT costs would range from between £1,000 and £10,000, with a best estimate of £5,500 per landlord. These costs have been estimated by housing associations to include the costs of engineering the changes, testing them and, in some cases, aligning them with handheld devices carried by the associations' engineers and other workers. The resource to do this would often be contracted in.

153. Assuming all social landlords 2,300 (see Table 2) would be required to make these changes, this leads to one-off IT costs of between £2.3 million and £22.7 million, with a best estimate of around £12.5 million. However, some HAs have suggested that costs associated with regulatory change are already included in the contract with their IT service providers, and

[41] http://bit.ly/2o4IPBe

hence they will only see some portion of these costs. Accordingly, HSE expects these costs to be an upper estimate of the likely impact.

Private Landlords

154. Only a small proportion of private landlords would be required to make such changes to their IT systems, either because they keep a copy of their gas check records elsewhere, or because their systems are less complex. This was supported by responses to the survey HSE sent round to private landlords, of which only a handful suggested that they would incur any costs associated with updating their IT systems.

155. In the consultation-stage IA, we took the proportion of private landlords that own 6 or more properties from the HomeLet survey[42] (3% of the total of 1.6 million landlords) as a proxy for those large private landlords who will be required to make some changes, which suggested that around 48,000 private landlords will incur some one-off IT costs.

156. However, following responses from landlords about the types of systems that landlords are likely to need to have in place to manage their estates, we now estimate that those private landlords managing between six and ten properties are quite unlikely to have a system more complicated than a simple spreadsheet or a calendar-based system. Returning to the HomeLet survey, we now update our estimate of those landlords needing to undertake significant IT changes to just the 1% managing an estate of more than ten properties, which gives around 16,000 private landlords.

157. In the consultation-stage IA, we had assumed that the average IT cost for those private landlords undertaking changes to their IT system would be around £500, based on the survey we sent to private landlords and responses around the costs of brining in IT support to help in some cases.

158. However, based on feedback from consultation, this looks to be at the upper end of the range of costs, as many respondents told us that many of the IT changes that would have to be made would be much simpler than a cost of £500 implied; with several respondents reporting that the cost would be closer to the £30 to £50 mark.

159. Based on this feedback, we have adjusted our estimate of the IT cost for those private landlords incurring it to a range of between around £50 up to £500, with a best estimate of around £280.

160. Across the 16,000 private landlords, this gives an **estimated one-off cost** of between around £800,000 and £8.0 million, with a **best estimate of around £4.4 million**.

Letting Agents

161. Evidence gathered for the impact assessment indicates that letting agents may make updates to their IT systems to account for the changes in the instances where they are monitoring and

[42] https://homelet.co.uk/homelet-rental-index/landlord-survey-2015

recording gas checks; HSE's survey with the RLA indicates that this is the case in around 18% of cases. (This is 18% of landlords, rather than of letting agents, but is should serve as a reasonable estimate of the number of letting agents needing to take significant IT action.) Across the approximately 17,000 letting agents (see paragraph 143), this would give about 3,100 letting agents needing to make IT changes.

162. HSE understands that the IT letting agents have to facilitate the monitoring and booking of gas checks in the instances where they do so is not particularly complicated and that the cost for those letting agents undertaking amendments would probably be at the upper end of that estimated for private landlords: around £500 (see paragraph 158).

163. This gives an **estimated one-off cost of around £1.5 million**. We have been advised by the RPC that this cost would be indirect as it would take place in a market other than the one being regulated, and so that it is out of scope of the BIT.

Gas-Servicing Companies

164. Gas-servicing companies may also amend their IT systems to take account of the additional date needed to monitor the amended check frequency so as to organise the gas checks they undertake in response to the landlords wanting to move to the new check cycle. As discussed in paragraph 147, we estimate that there might be up to around 210 of these companies.

165. We estimate that the costs of this would probably be of a similar order to that of the social landlords: that is, between around £1,000 and £10,000, with a best estimate of around £5,500 (see paragraph 152).

166. An exception to this would be the five very largest companies, some of whom have told us their IT costs could come to around £250,000 each as the changes would have to be incorporated into their existing sophisticated systems.

167. For the smaller companies, this would give a one-off cost of between around £200,000 and £2.1 million, with a best estimate of around £1.2 million. For the larger companies, this would give a one-off cost of around £1.3 million.

168. The total **estimated one-off cost** would be between around £1.5 million and £3.3 million, with a **best estimate of around £2.4 million**. We have been advised by the RPC that this cost would be indirect as it would take place in a market other than the one being regulated, and in response to a change in demand from landlords. Therefore, it is out of scope of the BIT.

8.1.2.5. Unquantified costs/savings

169. An additional benefactor of the increased flexibility may also be tenants, as they have a larger window within which to successfully negotiate with their landlords when to carry out the gas check. It has not been possible to quantify this impact.

8.2. Exempt compressed natural gas (CNG) filling stations from the majority of the requirements of GSIUR

8.2.1. Option 1 – Do nothing (Baseline)

170. Under Option 1, the current GSIUR and accompanying ACOP and guidance would remain unchanged. As this represents the baseline, there would be no additional costs and/or benefits.

8.2.2. Option B2 – Amend GSIUR to exclude non-domestic CNG sites, from the majority of the regulations, in line with how factories are treated (preferred option)

171. Option 2 sets out to amend GSIUR to exclude non-domestic CNG sites from the majority of the regulations, in line with how factories are treated, and is the preferred option. The preferred option would create savings to business as they would no longer have to install or maintain a regulator.

172. CNG fuelling sites take gas from the high pressure main, compress it, and dispense CNG into the fuel tank of vehicles (usually lorries). The proposal set out is to exempt non-domestic CNG sites, depending on their size, to bring them in line with the treatment of factories.

173. In order to comply with the regulations, existing CNG sites currently have to install a regulator. A regulator's primary function is to match the flow of gas through the regulator to the demand for gas placed upon the system. A regulator is not necessary for these businesses, however, as it has no effect on health and safety standards.[43]

174. Under the proposal, CNG sites covered by the exemption would no longer be required to install a regulator. Evidence from an on-stream CNG site suggests that the cost of installing a regulator is approximately £25,000. This estimate was validated by industry during the CNG workshop hosted by HSE.

175. In order to estimate the savings of the proposal, we have had to estimate the number of CNG sites that are likely to be constructed over the course of the appraisal period (i.e. up to 2026).

176. Evidence on the number of CNG sites in the UK is limited. Currently, there are only a small number of CNG filling stations in GB (around 15); and we expect that only around 6.7% would be in scope of GSIUR. This is discussed in more detail in Section 7.3.3.

177. As can be seen in Table 6, below, this means that between 1 and 2 additional CNG sites are expected to fall under GSIUR per year. Under the proposal, all of these sites would save the one-off cost of installing a regulator, estimated to be around £25,000.

178. Installing a regulator would also lead to ongoing costs associated with maintaining and servicing the equipment. At the CNG workshop, industry agreed that these costs would be, on average, around £750 per regulator per year (relating to engineer time and general maintenance activities). Under the proposal, all of the new sites in scope of GSIUR would save the ongoing cost of maintenance.[44]

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[43] Indeed, feedback from industry during the CNG workshop was that installing a regulator may actually reduce health and safety standards at each site by increasing the opportunity of a gas leakage.

[44] Those sites that have already installed a regulator prior to the proposed change in the regulations may not be in a position to subsequently remove it or to stop maintaining it once the requirements are changed. The

179. Therefore, the total savings as a result of the proposal (associated with no longer installing and maintaining a regulator) across the CNG sites expected to fall under GSIUR are estimated to be approximately £410,000 (10-year NPV), or around £48,000 equivalent annual. Table 6 shows a breakdown of these savings.

Table 6: Breakdown of CNG costs using 10 year appraisal period

Year	Total CNG sites in UK	Total CNG sites in scope of GSIUR (rounded)	New CNG sites each year in scope of GSIUR	*(£ thousands)*		
				Savings from CNG Exemption of the cost of a regulator	Annual Cost of Maintenance	*Total Savings*
2015	**15**	**1**	**1**	**£25**	**£0.8**	
2016	37	2	1	£25	£1.5	
2017	59	4	2	£50	£3.0	£53
2018	81	5	1	£25	£3.8	£29
2019	103	7	2	£50	£5.3	£55
2020	**125**	**8**	**1**	**£25**	**£6.0**	£31
2021	149	10	2	£50	£7.5	£58
2022	172	11	1	£25	£8.3	£33
2023	196	13	2	£50	£10	£60
2024	219	15	2	£50	£11	£61
2025	243	16	1	£25	£12	£37
2026	266	18	2	£50	£14	£64

Note: totals may appear not to sum due to rounding

8.3. Regularise and broaden an existing exemption to regulation 26(9)(c)

8.3.1. Option 1 – Do nothing (Baseline)

180. The exemption would remain in place. However this would not address the issue of other instances where the meter is inaccessible or not working, which might cause significant operational issues for businesses through the use of smart meters.

8.3.2. Option 2 – Regularise the current exemption and broaden its scope (preferred option)

8.3.2.1. Averted re-visits and disconnections

181. The current exemption exists for scenarios whereby gas engineers are unable to carry out requirements in regulation 26(9)(c) of GSIUR to measure the heat input and/or operating pressure of an appliance when no meter is present, allowing them to use an alternative test (flue-gas analysis), to determine the safety of the appliance. Regularising the current exemption is not anticipated to lead to any costs and/or savings to business, as there are no changes in their duties; aside from perhaps granting businesses some certainty that the

maintenance savings for sites estimated to be operating before the requirement would change are included in the estimates in Table 6, but they do not have a great impact on the overall savings.

exemption would not be removed. This was supported by stakeholders during the industry workshop held in June 2016 (see paragraphs 52-53).

182. This exemption is narrow, however, and as part of the consultation process industry have identified a number of other scenarios in which is it not reasonably practicable to measure the heat input and operating pressure of an appliance. These include when:

- an engineer may be unable to read the electronic display screen of a smart meter because it is either faulty, broken or the battery has simply run out;
- where the meter has been installed in such a way as to be impracticable to read;
- where changes to the layout of the building subsequent to the installation of the meter mean that it is impracticable to read, or
- where a single meter serves multiple properties, such as in a converted apartment building.

183. We propose both to regularise the exemption into the regulations; and to broaden it to include these additional scenarios where the meter cannot be easily read.

184. When it is not possible to carry out the tests specified in 26(9)(c) because of a fault with the electronic display or because the meter is otherwise inaccessible or unreadable, the gas engineer has a duty to leave the appliance in a safe state, which in practical terms means shutting off the gas supply until the display screen has been fixed or the meter replaced. They are then required to make a return visit to complete the tests. Insofar as this might begin to affect smart meters following their roll-out (which all have digital displays), this could become a greater issue in the coming years.

185. This process leads to significant disruption to consumers, as they could be left without a gas supply until the meter screen is replaced. Furthermore, there are costs to business, as gas engineers are forced to make an additional visit to the property to complete the test. At a workshop organised by HSE, representatives from industry agreed that each additional visit by a gas engineer costs on average around £50.

186. However, while industry supported the proposed changes in consultation, it was difficult to quantify what the savings might be, whether through engagement with industry before consultation, through questions in the consultation document itself, or through interviews with large meter asset managers following consultation. What evidence we were able to gather, however, indicates that any savings would be limited.

187. For example, on meters suffering a digital screen failure, we were able to get some evidence on the current estate of 'non-smart'[45] meters with digital displays from one company. They reported that they are made aware of around 4,000 such failures each year by their meter-readers, which, given the size of this operator's estate, is very small.

188. In addition, many smart meters are capable of informing the meter asset manager remotely that they are suffering from a fault, including that their screen has failed; this is called a 'last gasp' message. Given that the proposed expanded exemption would apply to meter faults detected at the point of installing and testing an appliance, this 'last gasp' function of smart meters should preclude these faults being detected inadvertently in this manner.

189. As for meters that are unreadable due to the nature of their installation, this was not something that was recorded by the meter asset managers that we spoke with, in part because it is a rare

[45] These meters are referred to as 'dumb' in the industry.

event; and as the smart meter roll-out continues, fewer such meters will remain as they are replaced by new ones that will be accessible.

190. So, our conclusion following this evidence-gathering is that the expansion of the exemption will lead to some savings to businesses through averted visits and also benefits to gas users who would not lose their gas supply temporarily. However, we have not been able to robustly estimate the frequency with which this might happen, nor to accurately quantify the potential savings, except to say that we and industry expect that they would be limited.

191. As such, the **savings of this proposed measure remain unquantified** in this final-stage impact assessment.

8.3.2.2. Familiarisation

192. While we do not expect gas engineers would need to familiarise with the regularisation of the existing exemption, we do anticipate that they would need to take some time to understand the additional circumstances to which the exemption has been expanded.

193. According to our research, gas engineering companies and meter asset managers will divide broadly in their familiarisation approach by size. The very largest companies, which employ several thousand engineers, and manage hundreds of thousands, or possibly several million, meters, will be able to add the proposed changes into routine updates to their staffs as part of regular amendments to their procedural manuals, which would happen anyway several times a year. They have told us that they expect to be able to do this at no additional cost.

194. For the remaining smaller businesses, HSE understand from our engagement with the sector that the majority of the smaller engineers learn of developments in requirements through trade publications as part of their routine familiarisation with changes in the market and in the technology they use. HSE has used these to publicise previous changes in requirements, including notification of the development of the current proposed changes.

195. Based on the length and type of article that HSE has released for similar changes, and which we intended to release for implementation of the current proposal, we have estimated that it might take between around 5 and 10 minutes per organisation to fully understand the additional circumstances, with a best estimate of around 7.5 minutes.

196. According to the Interdepartmental Business Register (IDBR), there are around 32,000 enterprises that undertake heating, plumbing and air-conditioning installation.[46] Not all of these businesses will work with gas, but we will assume for simplicity that they would all need to familiarise. The vast majority, around 93%, employ fewer than ten people.

197. Costed at £37.33 per hour, as described in paragraph 67, this gives **an estimated one-off cost** of between around £98,000 and £200,000, with a **best estimate of around £150,000**.

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[46] SIC Code 4322: http://web.ons.gov.uk/ons/data/dataset-finder?p_auth=80IOodHJ&p_p_auth=cc6zcmHr&p_p_id=FOFlow1_WAR_FOFlow1portlet&p_p_lifecycle=1&p_p_state=normal&p_p_mode=view&p_p_col_id=column-3&p_p_col_count=1&_FOFlow1_WAR_FOFlow1portlet_process=fileDownload&_FOFlow1_WAR_FOFlow1portlet_UUID=0&_FOFlow1_WAR_FOFlow1portlet_geoTypeId=2013WARDH&_FOFlow1_WAR_FOFlow1portlet_collectionId=UKBBb&_FOFlow1_WAR_FOFlow1portlet_context=Economic

9. Costs and Benefits Summary

9.1. Introduce flexibility around the timing of landlords' annual gas safety checks

198. Table 7 summarises the costs and savings of the proposed changes to GSIUR. Overall, there is an estimated net-saving to society of between around £220 million and £250 million, with a best estimate of around £240 million.

199. The business NPV (including both direct and indirect costs and savings) is estimated at between around £15 million and £24 million, with a best estimate of around £19 million.

200. As the rules of the Better Regulation Framework Manual (BRFM) stand at the point of submitting this IA to the Regulatory Policy Committee (March 2017), the social housing sector is out of scope of the Business Impact Target (BIT). This would leave the quantified costs and savings to the private landlords; to letting agents and engineers; in respect of CNG sites; and in respect of the meters exemption in scope of the BIT. In addition, as the IT costs of letting agents and gas-servicing companies are outside of the regulated market, we have classed them as indirect and so out of scope of the BIT, following RPC advice.

201. Excluding housing associations and indirect IT costs, this gives an estimated ten-year net present value saving to business of between around £19 million and £27 million, with a best estimate of around £23 million. This would give an OUT under the BIT of around £2.5 million in 2014 prices and a 2015 PV base year.

202. If housing associations were to count for the BIT, then the BIT would also capture the savings to social landlords from programme slippage, and the costs of social landlords' IT changes and familiarisation. Excluding indirect impacts, this would give an estimated ten-year net present value saving to business of between around £200 million and £230 million, with a best estimate of around £210 million. This would give an OUT under the BIT of around £22.7 million in 2014 prices and a 2015 PV base year.

203. HSE understands that the terms of the BRFM are kept under review to ensure they best reflect the environment for business and Government, and that this might include the classification of housing associations under the BIT, which were counted as within scope of One In, Two Out, the predecessor to the BIT under the last Parliament.

204. As such, we have agreed with the BRE and RPC to request that the RPC validate both of the above figures (i.e. with housing associations counted for the BIT; and without them) so that HSE can report accurately its BIT account according to the prevailing rules in the BIT report due to be published in June 2018.

Table 7: Summary of costs and savings for the proposed changes to GSIUR (present values over ten years, £millions)

	Low	Best Estimate	High
Costs			
Private Landlords: IT Costs [direct]	£8	£4	£1
Private Landlords: Familiarisation [direct]	£5	£5	£5
Social Landlords: IT Costs [direct]	£23	£13	£2
Social Landlords: Familiarisation [direct]	£0.3	£0.2	£0.1
Letting Agents and Engineers: Familiarisation [direct]	£0.3	£0.3	£0.2
Letting Agents and Engineers: IT Costs [indirect]	£4.8	£3.9	£3.0
Meters Exemption: Familiarisation [direct]	£0.2	£0.2	£0.1
Total Costs	**£42**	**£27**	**£12**
Savings			
Private Landlords: Programme Slippage [direct]	£33	£33	£33
Social Landlords: Programme Slippage [direct]	£200	£200	£200
Social Landlords: Logistical Savings [indirect]	£29	£29	£29
CNG Sites [direct]	£0.4	£0.4	£0.4
Meters Exemption: Averted Visits	Unquantified	Unquantified	Unquantified
Total Savings	**£270**	**£270**	**£270**
NET SAVINGS	**£220**	**£240**	**£250**

Note: totals may appear not to sum due to rounding. Note that lowest costs are netted against highest savings (and vice versa).

10. Wider Impacts

205. Wider impacts have been considered and no impacts have been identified for:

- Statutory Equality Duties;
- Human Rights;
- Justice System;
- Rural Proofing;
- Social Impacts;
- Environmental impacts; and
- Sustainable development.

206. We have considered the criteria for wider competition and health and wellbeing impacts and do not consider that there is anything that needs to be addressed.

11. Small and Micro Business Assessment (SaMBA)

207. GSIUR covers a number of different industries and businesses, placing duties on large Housing Associations and other registered providers of social housing as well as individual private landlords owning only a handful of properties who in many cases would be considered a small or micro-sized business.

208. The management of gas – be it at a residential property (for gas safety checks, for example) or industrial site (CNG) – is an intrinsically high-hazard activity, with the potential for major accidents involving multiple casualties. This is not necessarily linked to business size, however, and so it would be inappropriate to grant an exemption to small and micro businesses involved in the activities covered under GSIUR and described within this Impact Assessment.

209. Section 1.6 of the latest draft of the Better Regulation Framework Manual (July 2016) specifies that a SaMBA "*is mandatory for all domestic measures that require clearance from the Reducing Regulation sub-Committee (RRC) unless your measure is eligible for the fast track*." In accordance with this guidance, as a deregulatory measure eligible for the fast track, an in-depth assessment of the impact on small and micro businesses has not been conducted at this stage.

210. However, as a deregulatory measure, HSE expects that all of the proposals described in the above Impact Assessment will be net beneficial to businesses (please see relevant sections above for individual assessment of the savings under each proposal) and we expect, given the make-up of the private-rented sector and the limited scale of most private landlords' estates (see paragraph 154), that a great deal of the savings will accrue to larger enterprises.

Post Implementation Review (PIR) Plan

1. **Review status:** Please classify with an 'x' and provide any explanations below.

	Sunset clause	X	Other review clause		Political commitment		Other reason		No plan to review

2. **Expected review date** (month and year, xx/xx):

1	0	/	2	2

Rationale for PIR approach:

- **Will the level of evidence and resourcing be low, medium or high? (See Guidance for Conducting PIRs)**

Collectively the changes are medium in terms of both impact and risk, and require a medium level of resourcing and evidence (see table below). The area where greater levels of evidence and resourcing may be needed are in quantifying the savings to social and private landlords generated by the move to a 'MOT'-style annual gas safety certificate scheme. Additionally, if there is a significant increase in the number of compressed natural gas (CNG) sites and if there is an increased failure rate for new Smart Meters, greater levels of evidence will be required in those areas. Similarly, potential safety concerns around these issues, whilst minor, suggest heightened evidence and resourcing may be needed. It should be noted, however, that the amendments to GSIUR do not place new duties on businesses, with all changes either being optional or already existing as ad-hoc exemptions. This mitigates against a higher level of evidence and resourcing being needed beyond 'medium' as it would be disproportionate to the impact and risks, and may place an undue burden on affected businesses.

	Background	Impact
'MOT' landlords gas certificate	Potentially affects all private and social landlords. If adopted, significant savings will be generated. There are potential safety implications due to the fact that the dates between annual gas safety checks can be extended beyond 12 months.	Medium to High
Compress natural gas (CNG)	Formalises a current exemption. Applies to only a small number of sites (but this may increase over the lifetime of the regulations).	Low to Medium
Gas testing where meter is not accessible	Formalises and partly expands a current exemption. Is only applicable in a small number of very specific situations.	Low

- **What forms of monitoring data will be collected?**

As the changes do not place new duties on business, it would not be proportionate or appropriate to ask businesses to collect monitoring data. Businesses may, however, collect data for their own purposes which could be used to better understand the GSIUR changes – for example, the number of unreadable smart meters in scope of the expanded exemption. Businesses are also likely to collect data as part of their normal day-to-day operation which will provide proxy data for elements of the changes – i.e. any increase in the failure rates for boilers may be

indicative of safety problems caused by extending the time between annual gas safety checks. It is anticipated that this data will be integrated into the review in order to add context and insight.

- **What evaluation approaches will be used? (e.g. impact, process, economic)**

An impact evaluation will be undertaken, assessing whether the objectives of GSIUR have been achieved and to what extent. Included within this evaluation will be: the realised value of the changes against those predicted in the impact assessment (IA); any unintended consequences; and lessons learned.

- **How will stakeholder views be collected? (e.g. feedback mechanisms, consultations, research)**

A multi-method approach will be used so as to capture the various aspects of the GSIUR Changes (please see table below)

	Target group	Approach
'MOT' landlords gas certificate	Social Landlords	The social housing sector has a high number of properties but a relatively small number of institutional landlords. The majority of these institutional landlords belong to the Association of Gas Safety Managers (AGSM) (the sector's representative body). HSE would work with the AGSM to re-run the survey which supplied the baseline data relating to the long lead-in time to enter properties to undertake an annual gas safety check. In addition, we will work with AGSM to collect data on how the new GSIUR regulations are actually working within the social housing sector.
	Private Landlords	HSE would work with the sector's stakeholders and representative bodies (e.g. Residential Landlords Association [RLA]; Guild of Residential Landlords [GRL]; and National Landlords Association [NLA]) to capture evidence about any realised savings and any emerging safety concerns. In addition, HSE is currently in discussion with the Department for Communities and Local Government (DCLG) to contribute to its Private Landlords survey which is scheduled to launch in mid-2017. This will potentially provide baseline and follow-up data to monitor the changes.
	Gas Companies	Gas companies have worked closely with HSE in providing data and insight into the issues being targeted. HSE would therefore continue to liaise closely with them to monitor any pertinent safety issues and cost implications arising from the GSIUR changes.
	HSE	HSE will continue to monitor the level of compliance regarding annual gas safety checks via its regulatory inspection activities.
Compressed natural gas (CNG)	Gas companies	HSE will again work closely with gas companies to monitor the number of CNG sites and the proportion that would otherwise have been within scope of GSIUR, and any safety issues which arise in the operation of these CNG sites.

Gas testing where meter is not readable	Gas companies	The current low incidence rate (and the fact that there is no compelling evidence that the issue is going to fundamentally increase) means that bespoke monitoring would be a disproportionate burden on gas businesses. As such, data could be collected via the aforementioned ad-hoc research exercise if necessary, with safety data coming to HSE's attention via the current stakeholder channels.