

Mandatory lodgement of air conditioning inspection reports

Impact Assessment

Department for Communities and Local Government
Eland House
Bressenden Place
London
SW1E 5DU
Telephone: 0303 444 0000
Website: www.communities.gov.uk

© Crown Copyright, 2010

Copyright in the typographical arrangement rests with the Crown.

This publication, excluding logos, may be reproduced free of charge in any format or medium for research, private study or for internal circulation within an organisation. This is subject to it being reproduced accurately and not used in a misleading context. The material must be acknowledged as Crown copyright and the title of the publication specified.

Any other use of the contents of this publication would require a copyright licence.

Please apply for a Click-Use Licence for core material at www.opsi.gov.uk/click-use/system/online/pLogin.asp, or by writing to the Office of Public Sector Information, Information Policy Team, Kew, Richmond, Surrey TW9 4DU

e-mail: licensing@opsi.gov.uk

If you require this publication in an alternative format please email alternativeformats@communities.gsi.gov.uk

Communities and Local Government Publications
Tel: 030 0123 1124
Fax: 030 0123 1125

Email: product@communities.gsi.gov.uk
Online via the Communities and Local Government website: www.communities.gov.uk

March 2010

ISBN: 978 1 4098 2306 3

Summary: Intervention & Options

Department /Agency:
**Communities and Local
Government**

Title:
**Impact Assessment: Mandatory lodgement of air
conditioning inspection reports**

Stage: Consultation

Version: 1

Date: 2 March 2010

Related Publications: Consultation Paper: Extending the scope of Energy Performance Certificates and Making Better Use of Energy Performance Data

Available to view or download at:

<http://www.communities.gov.uk>

Contact for enquiries: Eve Martin

Telephone: 0303 444 2704

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

Policy decision on whether to extend the scope of the Energy Performance of Buildings (Certificates and Inspections) England and Wales) Regulations 2007 (hereafter referred to as the 2007 Regulations) to make lodgement of air conditioning reports on the England and Wales non-domestic EPC register mandatory. It is currently mandatory to have air conditioning installations inspected but not to lodge the report on the England and Wales non-domestic EPC register.

What are the policy objectives and the intended effects?

The objectives are to encourage owners or occupants of buildings which feature air conditioning installations to improve the energy efficiency of their buildings, leading to reduced carbon emissions and potentially, fuel costs to the individuals. The 2007 Regulations currently require owners or occupants of buildings featuring air conditioning installations over 250 kW to have had them inspected by January 2009 and above 12 kW by January 2011. Air conditioning installations account for approximately one third of all energy consumed in the buildings in which they are installed. There is currently no central record of all air conditioning inspections carried out by accredited air conditioning inspectors in accordance with the requirements of the 2007 Regulations. Making lodgement of air conditioning reports on the England and Wales non-domestic EPC register mandatory would improve compliance with the need for inspections to be carried out. It would also provide better information to support policy making and the development of appropriate and effective responses by Government, researchers and business to improving the energy efficiency of buildings. A central record would also enable Trading Standards Officers to enforce more effectively the requirements of the regulations.

What policy options have been considered? Please justify any preferred option.

We have considered two main options:

1. do nothing – maintain current Regulations whereby it is not mandatory to lodge reports generated from inspections of air conditioning installations;
2. change the Regulations to make it mandatory to lodge all reports generated as a consequence of air conditioning installations being inspected in line with the 2007 Regulations.

When will the policy be reviewed to establish the actual costs and benefits and the achievement of the desired effects?

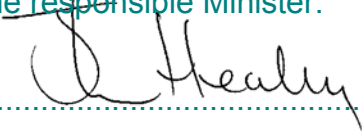
This policy will be reviewed 18 months after its implementation by interrogating the England and Wales non-domestic EPC Register.

Ministerial Sign-off For

Impact Assessments:

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:



.....Date: 26 February 2010

Summary: Analysis & Evidence

Policy Option: 2	Description: Change the Regulations to make it mandatory to lodge all reports generated as a consequence of air conditioning installations being inspected in line with the 2007 Regulations
-------------------------	---

C O S T S	ANNUAL COSTS		Description and scale of key monetised costs by 'main affected groups' There are no exact figures for the number of air conditioning units. For the purposes of this calculation it is assumed that there are between 66,000 and 197,000 air conditioning units above 12 kW. An average of 131,000 units was used in the cost calculations. The requirement to obtain an air conditioning report is already in place, this policy will make lodgement in the England and Wales non-domestic EPC register mandatory. It is assumed that the fee for lodgement will be £5.36 in line with the fees charged for voluntary lodgement of air conditioning reports.
	One-off	Yrs	
	£ 65,000	30	
	Average Annual Cost (excluding one-off)		
	£ 140,000		
		Total Cost (PV)	£ 2,900,000
Other key non-monetised costs by 'main affected groups'			

B E N E F I T S	ANNUAL BENEFITS		Description and scale of key monetised benefits by 'main affected groups' There are no monetised benefits; all benefits for the policy option are non-monetised. However, the associated consultation is primarily an information gathering exercise – (see evidence base for full details). The data gathered once analysed will enable us to quantify some of the benefits (i.e. energy savings and fuel costs) in monetary terms.
	One-off	Yrs	
	£	30	
	Average Annual Benefit (excluding one-off)		
	£ 0		
		Total Benefit (PV)	£ 0

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

There are a number of non monetary benefits including:

- the provision of a central database of information about the number of buildings which feature air conditioning installations that are caught by the regulations;
- the amount of energy that is consumed by air conditioning installations;
- the amount of energy that could be saved if air conditioning installations were used more efficiently;
- providing Trading Standards Officers with the information needed to ensure that building owners or occupants are complying with the requirements;
- an incentive for owners or occupants of buildings to meet the Regulations and thus encourage them to improve the energy efficiency of their buildings, leading to reduced carbon emissions and potentially, fuel costs to the individuals; and
- the provision of a sound basis for developing policy initiatives aimed at reducing carbon emissions generated by air conditioning installations.

Key Assumptions/Sensitivities/Risks

Assumptions:

- 131,651 air conditioning units above 12kW.
- Cost to lodge an air conditioning report in the England and Wales non-domestic EPC register is £5.36.
- An air conditioning inspection will need to be renewed every 5 years.
- Total costs, benefits and the net benefit have been calculated over a 30 year time period.

The sensitivity testing was performed for the number of air conditioning units. For the minimum number of units, 66,000 the NPV is -£1,400,000; and for the maximum number of units, 197,000 the NPV is -£4,300,000.

Price Base Year 2009	Time Period Years 30	Net Benefit Range (NPV) £ -4,300,000 to - 1,400,000	NET BENEFIT (NPV Best estimate) £ -2.900.000
-------------------------	-------------------------	--	---

What is the geographic coverage of the policy/option?		England and Wales		
On what date will the policy be implemented?		TBA		
Which organisation(s) will enforce the policy?		LWMAs		
What is the total annual cost of enforcement for these organisations?		£		
Does enforcement comply with Hampton principles?				
Will implementation go beyond minimum EU requirements?		No		
What is the value of the proposed offsetting measure per year?		£ 0		
What is the value of changes in greenhouse gas emissions?		£ 0		
Will the proposal have a significant impact on competition?		No		
Annual cost (£-£) per organisation (excluding one-off)	Micro	Small	Medium	Large
Are any of these organisations exempt?	N/A	N/A	N/A	N/A
Impact on Admin Burdens Baseline (2005 Prices)				(Increase)
Increase of £ 0	Decrease of	£ unknown	Net Impact	£ 0

Key:

**Annual costs and benefits:
Constant Prices**

(Net) Present Value

Rationale for Government Intervention

The Climate Change Act 2008 commits the UK to a statutory target to reduce its carbon emissions (from all sources) by 80% by 2050. Buildings account for almost 50% of the UK's carbon emissions, and air conditioning accounts for approximately 30% of all energy consumed in buildings which feature air conditioning installations.

The European Union (EU) introduced the Energy Performance of Buildings Directive (EPBD) in December 2002 requiring among other things regular inspections of and recommendations about improving, the energy performance of Air Conditioning installations. The relevant articles of EPBD were implemented into law in England and Wales through the Energy Performance of Buildings (Certificates and Inspections) (England and Wales) Regulations 2007 (the 2007 Regulations), which require inspection of air conditioning installations above 250 kW by January 2009 and above 12 kW by January 2011.

There is currently no requirement and therefore no incentive for reports produced as a result of air conditioning inspections to be lodged on the England and Wales non-domestic EPC register. This information failure has led to a number of consequences. The Government is not able definitively to say how many air conditioning inspections have been carried out as required by the 2007 Regulations. There is no centrally held information upon which to base estimates of the number of buildings which feature air conditioning installations that are caught by the regulations, no information about the amount of energy that consumed by air conditioning installations, or information about the amount of energy that could be saved if air conditioning installations were used more efficiently or development of policy initiatives aimed at reducing the amount of energy consumed as a consequence of air conditioning installations.

Policy Objectives and Intended Effects

The intention is to make it mandatory for reports generated as a result of air conditioning inspections to be lodged on the England and Wales non-domestic EPC register, which is operated by Landmark on behalf of the Secretary of State. This would provide a central database of information about the number of buildings which feature air conditioning installations that are caught by the regulations, the amount of energy that consumed by air conditioning installations or the amount of energy that could be saved if air conditioning installations were used more efficiently. It would also provide Trading Standards Officers with the information needed to ensure that building owners or occupants are complying with the requirements of both the EPBD and the 2007. Mandatory lodgement would also provide an incentive for owners or occupants of buildings which feature air conditioning installations to have air conditioning installations inspected in line with the 2007 Regulations and thus encourage them to improve the energy efficiency of their buildings, leading to reduced carbon emissions and potentially, fuel costs to the individuals. It would also provide a sound basis for developing policy initiatives aimed at reducing carbon emissions generated by air conditioning installations. A full list of benefits is presented below in the illustrative costs and benefits section.

Options Considered

We have considered two main options:

- i. Do nothing – maintain current Regulations whereby it is not mandatory to lodge reports generated from inspections of air conditioning installations. This would limit the ability of Trading Standards Officers to identify cases of non-compliance and take appropriate enforcement action as a result, and would not provide a central source of information on the number of buildings which feature air conditioning installations that are caught by the regulations, the amount of energy consumed by air conditioning installations or the amount of energy that could be saved if air conditioning installations were used more efficiently.
- ii. Change the Regulations to make it mandatory to lodge all reports generated as a consequence of air conditioning installations being inspected in line with the 2007 Regulations. This would enable Trading Standards Officers to identify cases of non-compliance and take appropriate enforcement action as a result, and would provide a central source of information about the number of buildings which feature air conditioning installations that are caught by the regulations, the amount of energy that consumed by air conditioning installations or the amount of energy that could be saved if air conditioning installations were used more efficiently and will increase compliance with the requirements of the directive.

Risks and Uncertainties

Air conditioning inspections are often complex which can make it difficult to carry out inspections or produce reports in standardised formats. However, requiring mandatory lodgement would need reports generated from air conditioning inspections to contain standardised elements. This would be necessary for two main reasons:

- to enable meaningful aggregated information to be produced about things like the number of buildings that have air conditioning installations, the amount of energy consumed by those installations and the amount that could be saved by operating them more efficiently; and
- to enable reports to be lodged on the EPC register in a format that would allow information from them to be generated along the lines already described.

We will need to develop a standard data collection model which is relevant for the purposes set out above and which is also able to accommodate a range of technical specifications used by the industry.

Air conditioning reports cover system components inspected and key recommendations in terms of system efficiency, capacity and cooling bands, improvement options, alternative solutions and other recommendations. It is assumed that, if users and owners have an incentive to lodge reports on air conditioning systems centrally, then the information that becomes available for analysis will, over a period of time, demonstrate that energy savings can be made quite easily by implementing the low cost/no cost measures recommended by the report.

There is no agreement within industry as to the number of air conditioning units over 12 kW. As such the estimated number of units is quite a wide range between 66,000 and 197,000.

Estimate of costs for preferred and alternative options

OPTION 1

There are no additional costs for this option as it proposes to maintain current Regulations whereby it is not mandatory to lodge reports generated from inspections of air conditioning installations.

OPTION 2

As this option changes the Regulations to make it mandatory to lodge all reports there will be a cost to lodge the report in the England and Wales non-domestic EPC register. The cost of

lodgement has been assumed to be in line with those for non-domestic EPCs, £5.36 per lodgement. Industry estimates of air conditioning units that will be caught under the Regulations range from 66,000 to 197,000. An average of 131,000 was used in the figures below.

Number of inspections	Average annual costs over 30 years	Total costs (present value)
1 inspection	£1	£22
131,000 inspections	£140,000	£2,900,000

An air conditioning report is required every five years and as such the costs will only apply at these five year intervals. In the table above the average annual costs has been spread out evenly throughout the 30 year period. The average annual cost to the consumer it will be less than £1, with the total cost over 30 years of £22.

Monetised Costs and Benefits

It is proposed that the fee charged by the assessor for completion of the report will include a fee for lodging the report on the central database. This would be a very small part of the overall fee and in line with other fees charged. There are no monetised benefits that can be quantified in the immediate future although the data once gathered and analysed would enable us to quantify some of the benefits (i.e. energy savings and fuel costs) in monetary terms. Also, it is likely that the responses to the consultation will help us to gather more evidence on this point to feed into the final impact assessment. In addition, there are several non-monetised benefits as discussed below.

Non-monetised Costs and Benefits

The associated consultation is primarily an information gathering exercise. The non-monetised benefits of this policy apply to option 2, which would make it mandatory for reports generated as a result of air conditioning inspections to be lodged on the England and Wales non-domestic EPC register. This would facilitate:

- Ease of management and associated low cost: Electronically lodged reports are simpler to administer, audit and are lower cost than paper based alternatives. Any paper based alternative will be more expensive, complex to administer and more open to fraud.
- Verification: Introducing a requirement that each air conditioning report should be lodged in a secure register by the accreditation body to which the energy assessor who produced it belongs, reduces the risk of forgery or fraud. It also provides a simple method of verification at a later stage if any concerns about the authenticity of the air conditioning report were raised.
- Replacement: Inevitably, some air conditioning reports will be lost over time. It would be a significant extra cost for the consumer to have to replace these by having a further air conditioning energy assessment. A register of air conditioning reports allows the quick and cheap recreation of any mislaid report.
- Benchmarking: Although the nature of benchmarks is not defined in the Directive, to be relevant and effective they will require the collation and analysis of information about the data that has led to the creation of air conditioning reports. Given the number of air conditioning reports involved and the degree of analysis that will be required, anything other than the electronic storage and manipulation of information is impracticable. A register of air conditioning reports and associated input data provides the basis for the analysis of information to establish benchmarks.
- Quality Control: It will be easier to quality audit reports if there is a standard reporting template which would be required for lodgement in a central register.

- Achieving energy and carbon reductions: With a register of air conditioning reports, it will be possible to identify the amount of energy that is consumed by air conditioning installation and the amount of energy that could be saved if air conditioning installations were used more efficiently. When repeat inspections have been completed it may be possible to determine if energy and carbon savings have been made. It will encourage owners or occupants of buildings which feature air conditioning installations to have air conditioning installations inspected in line with the 2007 Regulations and encourage them to implement the simple low cost/no cost measures from the report. Implementing these measures may lead to increased energy efficiency of their buildings, leading to reduced carbon emissions and potentially lower fuel costs to the air conditioning system owner or user.
- Better information to national and regional planners: The information available from a register of air conditioning reports could be of significant value to national and regional planners in, for example, making decisions about the targeting of improvement grants allied to energy improvements.
- Better information to the energy industry: Aggregate information about the energy assessments of air conditioning installations would help industry to assess the extent of the market for energy efficiency improvement products. This could lead to the development of new products and/or more efficient marketing of existing products, again contributing to the achievement of energy and carbon reductions.
- Compliance tool: This will provide Trading Standards Officers with the information needed to ensure that building owners or occupants are complying with the requirements of both the EPBD and the 2007 Regulations. It is expected that this cost will be absorbed by Trading Standards. However, this is likely to be offset by efficiency savings.

Consultation Process

This impact assessment accompanies a consultation paper; the consultation period runs between 2nd March and 25th May and is carried out in line with current best practice guidance. We are seeking views on this Impact Assessment and would invite respondents to submit any evidence that may be relevant to the consultation proposals and this Impact Assessment.

Enforcement and Compliance

Trading Standards Officers in local authorities are responsible for the enforcement and compliance for air conditioning inspections. Failure to obtain an inspection if a system meets the minimum size threshold will result in a £300 penalty.

Monitoring and Review

This policy will be reviewed 18 months after its implementation by interrogating the EPC Register.

Wider Impacts

Competition assessment: Lodging air conditioning reports on the England and Wales non-domestic EPC register will not produce any competition issues.

Small Firms Impact: The proposal will leave the SME sector generally unaffected; but where they are affected, the effect will be positive. Air conditioning inspections and reports are currently produced by small firms of around two or three practitioners.

Legal Aid: The proposal does not have any Legal Aid implications.

Environmental Impact: Lodging a report will not have a direct impact but occupiers adopting any of the cost-effective recommendations accompanying the report will reduce carbon emissions.

Health Impact: We don't expect this policy to have any adverse effects on health.

Equalities and Social Impact: An Equalities Impact Assessment screening has been completed, covering race, age, health, disability and gender equality issues. The proposals will not affect any Departmental equality issues.

Human Rights: The proposal does not have any impact on human rights.

Rural Proofing: It is recognised that rural buildings are less energy efficient than their urban counterpart. Adopting the recommendations would improve that efficiency.

Specific Impact Tests: Checklist

Type of testing undertaken	<i>Results in Evidence Base?</i>	<i>Results annexed?</i>
Competition Assessment	Yes	No
Small Firms Impact Test	Yes	No
Legal Aid	Yes	No
Sustainable Development	Yes	No
Carbon Assessment	Yes	No
Other Environment	Yes	No
Health Impact Assessment	Yes	No
Race Equality	Yes	No
Disability Equality	Yes	No
Gender Equality	Yes	No
Human Rights	Yes	No
Rural Proofing	Yes	No

