

## Changes to the energy efficiency requirements of the Building Regulations for non-domestic buildings

<b>Lead department</b>	Department for Levelling Up, Housing and Communities
<b>Summary of proposal</b>	The proposal amends the Building Regulations, in particular uplifting minimum energy efficiency performance requirements for new non-domestic buildings and when certain works are undertaken on existing non-domestic buildings.
<b>Submission type</b>	Impact assessment (IA) – 29 October 2021
<b>Legislation type</b>	Secondary legislation
<b>Implementation date</b>	June 2022
<b>Policy stage</b>	Final
<b>RPC reference</b>	RPC-CLG-5128(1)
<b>Opinion type</b>	Formal
<b>Date of issue</b>	25 November 2021

### RPC opinion

<b>Rating<sup>1</sup></b>	<b>RPC opinion</b>
<b>Fit for purpose</b>	The assessment of direct impacts on business, and of impacts specifically on small and micro businesses, are satisfactory. Overall, the evidence used to inform the IA appears to have been improved as a result of the consultation. There are some areas for strengthening, particularly in relation to monitoring and evaluation plans.

### Business impact target assessment

	<b>Department assessment</b>	<b>RPC validated</b>
<b>Classification</b>	Qualifying regulatory provision	Non-qualifying regulatory provision ( <i>de minimis</i> )
<b>Equivalent annual net direct cost to business (EANDCB)</b>	£2.5 million	£2.5 million (2019 prices; 2020 pv base year)
<b>Business impact target (BIT) score</b>	£12.5 million	N/A
<b>Business net present value</b>	-£21.4 million	
<b>Overall net present value</b>	£61.0 million	

<sup>1</sup> The RPC opinion rating is based only on the robustness of the EANDCB and quality of the SaMBA, as set out in the [Better Regulation Framework](#). The RPC rating is fit for purpose or not fit for purpose.

## RPC summary

Category	Quality	RPC comments
EANDCB	<b>Green</b>	The Department appears to have used the consultation to improve the evidence base for its estimates. There is a good discussion of the counterfactual. The IA appropriately classifies impacts on business as direct.
Small and micro business assessment (SaMBA)	<b>Green</b>	The Department engaged consultants to consider disproportionality of impacts and provides a useful summary of this research. The SaMBA would benefit from further discussion of impacts on small business window and door manufacturers.
Rationale and options	<b>Satisfactory</b>	The IA sets out clearly how the proposal fits into the wider Government strategy and usefully describes a number of applicable market failures. The IA would benefit from providing discussion of options or sub-options considered, in particular at consultation.
Cost-benefit analysis	<b>Satisfactory</b>	The IA sets out assumptions and its modelling approach clearly. The IA would benefit significantly from further assessment of risk, uncertainty and undertaking sensitivity analysis.
Wider impacts	<b>Satisfactory</b>	The IA discusses a number of wider impacts, including competition, innovation and trade. The IA would benefit from specifically discussing impacts on the public sector.
Monitoring and evaluation plan	<b>Weak</b>	The IA would benefit significantly from setting out details of the monitoring and evaluation plans, including what data will be collected and the questions the review would address.

## Summary of proposal

The proposal is for an interim uplift to the Building Regulations, in support of the Government's Heat and Buildings Strategy and achievement of its net zero carbon target. The aim is to reduce carbon emissions from buildings by increasing energy efficiency and installing low-carbon heating systems. The proposal applies to new non-domestic buildings and for certain types of works to existing non-domestic buildings. The proposal will affect most non-domestic buildings, including newly constructed offices, warehouses, hospitals, schools, hotels, industrial units, workshops and agricultural buildings. Existing buildings need to comply with Building Regulations whenever work classed legally as 'building work' under this legislation. This will include extensions, replacement of 'thermal elements' (such as windows or doors) and replacement of 'fixed building services' such as major components of heating or cooling systems.

The IA notes that the proposal is an important stepping-stone to the full Future Buildings Standard (FBS), expected to be introduced in 2025. The IA indicates there will be a separate consultation and IA on the FBS.

The IA estimates a cost of £496 million in present value terms, with the large majority accounted for by the uplift in energy efficiency standards for new non-domestic buildings. Benefits are estimated at £556 million, consisting of £418m in energy cost savings and £138 million in carbon savings/air quality savings. This results in a net present value of £61 million.

## EANDCB

For new non-domestic buildings, the capital, transition and installation costs will be incurred by business (private developers). For existing non-domestic buildings, publicly-owned buildings (NHS hospitals and public sector schools) were removed from the business impact target calculations. For both new and existing non-domestic buildings, maintenance costs and energy saving benefits will be realised by building occupiers, which will include businesses. In line with the 2013 Part L Building Regulation IA and RPC guidance, this benefit to business is treated as direct. Overall, the IA estimates an EANDCB of £2.5 million (2019 prices; 2020 present value base year).

### Direct/indirect

The EANDCB appears to be based upon proportionate evidence. The IA appropriately identifies impacts on business and correctly classifies these as direct.

### Counterfactual/baseline

The IA provides a good discussion of the counterfactual (pages 24-29). This takes account of organisations, particularly those that will occupy large office blocks, already demanding standards from private developers above those in the proposal. For smaller office blocks and all other non-domestic buildings, it is assumed that, in the absence of the 2021 uplift, these buildings in the counterfactual would start to converge to the 2021

energy efficiency requirements, rising from 10 per cent in 2021 to 70 per cent in 2030. It also takes account of higher standards set by some local authorities, already this is less common than for domestic buildings. The counterfactual also takes into account changes in standard industry practice and technologies since the last 2013 standards were set. Overall, the approach to the counterfactual appears to be based upon reasonable evidence, including public commitments by bodies such as NHS England and the Greater London Authority. The IA would benefit from clarifying its statement referring to alternative baseline positions being examined and final specifications for the baseline being chosen in conjunction with consultants (paragraph 7.16).

See also comments under ‘cost benefit analysis’ below.

## **SaMBA**

The SaMBA adequately addresses exemption, disproportionality of impacts and mitigation. The IA notes that SMBs affected will be mainly developers, constructors, architects, other technical specialists and some manufacturers, such as of windows and doors. The Department engaged external consultants to consult with key stakeholders and explore the extent to which SMBs would be disproportionately affected. The IA helpfully includes a summary of the findings. The research did not identify significant disproportionate impacts and, as a result, does not set out specific mitigation but the Department has committed to continue to proactively engage with industry, including representatives of SMBs, as the interim uplift is introduced. Given that the IA on the domestic building requirements identified significant impacts on SMB window and door manufacturers, the SaMBA would benefit significantly from explaining why that is not the case here.

## **Rationale and options**

The IA sets out clearly how the proposal fits into the wider Government strategy. It also usefully describes a number of market failures, such as negative externalities, credit constraints and imperfect information, justifying government intervention (pages 13-15). The IA would benefit from explaining more fully how the consultation highlighted these issues and how the proposal will address them.

The proposal is for a target 27 per cent improvement in CO<sub>2</sub> emissions for new non-domestic buildings, compared to the existing 2013 energy efficiency standards target. The IA refers briefly to an alternative option in the Future Buildings Standard consultation of a 22 per cent improvement. The IA would benefit from discussing further this and any other options that were considered at consultation.

The IA would benefit from clarifying further the net cost associated with raising standards for new thermal elements and the rationale for it continuing to be a part of the overall policy (paragraph 7.32).

## Cost-benefit analysis

### Evidence and data

The Department appears to have used the consultation to improve its estimates; the IA describes how the analysis has changed since the consultation stage IA (pages 32-33). The IA would benefit from providing more information on changes to the figures and the information received from the consultation.

### Modelling

The IA describes its modelling approach in high-level terms, with some further technical detail at annex. The IA states that the assessment of costs and benefits has been undertaken using analysis of seven non-domestic building archetypes. The Department commissioned industry consultants to produce modelled estimates of energy consumption and build costs for each type. The IA uses standard values for carbon, emissions factors and air quality damage costs from Treasury Green Book Supplementary Guidance. The IA discusses the net cost associated with the proposals for new non-domestic buildings (paragraph 7.22). This would benefit from further discussion, including how this would vary according to low and high carbon values.

### Risk and uncertainty

The IA would benefit significantly from including a section or appendix on risk, uncertainty and sensitivity analysis. This could address, in particular, uncertainty around the counterfactual, such as the proportion of new non-domestic buildings that are expected to meet the new standards, and the impact of low/high carbon values. In places the IA uses a  $\pm 20\%$  uncertainty on the central estimate and would benefit from explaining the basis for this approach.

### Non-monetised impacts

The IA states that a small number of other policies have been identified which relate to minor changes and/or affect relatively few buildings (paragraphs 7.4 and 7.60). The IA would benefit from providing some further explanation of why it would not be proportionate to monetise impacts, in particular whether the consultation supported the assessment that the impacts would be negligible.

### Appraisal period

The IA provides a good discussion of the appraisal periods chosen for the cost benefit analysis (CBA) and the calculation of the EANDCB (pages 22-23 and 50-51). This explains that a 70-year appraisal period has been used for the CBA for new buildings, reflecting an assumed 60-year life for measures such as building fabric insulation (external walls, floors, roofs) for a new building constructed in year 10. For existing buildings, impacts are incurred over a 40-year period, reflecting the shorter asset life of measures taken. The IA explains that the EANDCB has been calculated over the conventional 10-years, on the basis that over 90 per cent of the costs on business occur during this period. The case for a longer period to calculate impacts

on business for BIT purposes is stronger here than in the domestic building IA, particularly as some of the benefits of the policy are realised by businesses. Overall, the IA's approach, however, appears to be reasonable and provides consistency with the domestic buildings IA. However, the IA would benefit from discussing further the relationship of the assumed ten-year policy implementation period and the expected introduction of the FBS in 2025.

#### Clarification/detail of calculations

The IA is presented clearly and concisely but would benefit from presenting additional information on the calculations behind the estimates in places. The IA would also benefit from providing a greater breakdown of costs. The IA would benefit from describing how the Building Automated Control Systems results in energy savings (paragraph 7.54).

#### Comparison and linkages with the domestic buildings measure

The estimates of impact on business and society of the proposal are strikingly lower than those of the proposal for domestic buildings. This appears to be primarily due to a high proportion of new non-domestic buildings (and 'building work' on existing ones) already meeting the new standards in the counterfactual (see discussion above). In the present case, the EANDCB is further lowered by some of the energy savings being direct benefits to business and thereby offsetting the costs. The IA would benefit significantly from explaining more clearly and fully why estimated impacts here are much lower than for the domestic proposal, given the very wide scope of both proposals.

The IA could more generally compare or draw out the linkages between the two (domestic and non-domestic building) proposals more clearly, such as in relation to the significant costs identified on SMB window and door manufacturers in the domestic building IA referred to in the SaMBA section above. Similarly, the IA could explain why an appendix on sensitivity analysis has not been developed for the non-domestic sector, as it was in the domestic sector IA.

## **Wider impacts**

The IA includes a useful section on wider impacts (pages 54-56). This covers areas such as competition, innovation and trade. (The IA correctly notes that environmental impacts are central to the policy and therefore covered in the main body of the IA.) On innovation, the IA notes that flexibility for developers to choose building technologies to meet standards should encourage innovation among manufacturers. This section includes a useful discussion on the impacts of Covid-19, in particularly a possible continuation of working from home and reduced demand for office space. The IA would benefit from specifically discussing impacts on the public sector.

## Monitoring and evaluation plan

The IA notes that a statutory review clause has not been included in the 2021 uplift since the policy will be monitored and reviewed, with extensive stakeholder engagement, as part of the technical consultation on the FBS planned in 2023 (paragraph 11.3, page 58). However, given the very significant impacts of the 2021 uplifts, the IA would benefit significantly from setting out details of monitoring and evaluation plans, including what data will be collected and the questions the review would address.

## Other Comments

The RPC is aware that there are a number of related interventions across government in the area of energy efficiency, for example on the deployment of low-carbon heating appliances in buildings off the gas grid.<sup>2</sup> The IA would benefit from acknowledgement of there being a suite of regulations in this broad policy area and discussing how they fit together.

The IA refers to additional IAs “...being published alongside this one which include parallel changes to the energy efficiency requirements for new and existing dwellings, changes to the ventilation requirements of all new and existing domestic and non-domestic buildings; and the introduction of new requirement on overheating in residential buildings.” (paragraph 1.7) The first of these has been submitted for RPC scrutiny. It would be helpful if the Department provided information on the other two IAs, such as whether they are considered to be *de minimis*.

## Regulatory Policy Committee

For further information, please contact [regulatoryenquiries@rpc.gov.uk](mailto:regulatoryenquiries@rpc.gov.uk). Follow us on Twitter [@RPC\\_Gov\\_UK](https://twitter.com/RPC_Gov_UK), [LinkedIn](#) or consult our website [www.gov.uk/rpc](http://www.gov.uk/rpc). To keep informed and hear our views on live regulatory issues, subscribe to our [blog](#).

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<sup>2</sup> RPC-BEIS-5053(1) ‘Non-domestic off-gas grid heat regulations’ and RPC-BEIS-5054(1) ‘Domestic off-gas grid heat regulations’.