

Defining protected areas - hydraulic fracturing

Department for Energy and Climate Change

RPC rating: Fit for purpose

Description of proposal

The Department's assessment covers the impact of section 50 of the Infrastructure Act 2015. Due to its relatively late insertion, the impact of section 50 was not included in the impact assessment of the Act. Section 50 inserts sections 4A and 4B of the Petroleum Act 1998. Section 4A sets conditions that must be met before hydraulic fracturing (hereafter referred to by the more commonly used term "fracking") consent can be given in respect of an onshore licence in England and Wales. These conditions also ban fracking within protected groundwater source areas and other protected areas. Section 4B requires regulations to be made, by statutory instrument, to define protected areas for the purposes of section 4A of the Act.

Impacts of proposal

The Department assesses the impact of the conditions in section 4A and then, specifically, the provision on protected areas.

Fracking conditions

The Department explains that the section 4A conditions largely mirror existing industry practice or requirements. For example, the conditions include undertaking environmental impact assessments (EIAs). However, the fracking industry has already committed to producing EIAs and planning authorities are already required to take environmental information into account when granting planning permission. The Department, therefore, expects any additional costs, such as extra resource into environmental assessments, to be relatively small. Using advice from the Oil and Gas Authority, the Department's best estimate is that this could be of the order of £50,000 per well. Using assumptions made in recent IAs for the likely number of wells, this is estimated to cost £29.8 million in total (present value over 20 years).

Protected Areas

The Department expects that the designation of protected areas will make very little, if any, difference to shale gas activity. This is because existing regulations and planning policies already prevent shale developments in most of the protected areas. Furthermore, the Environment Agency would not have permitted drilling in groundwater source areas now to be defined as protected. As a result of the proposal, the Department assumes a reduction of 1 per cent in fracking activity. Based upon the method and assumptions used in the recent underground access rights IA, the Department estimates that this will reduce profits in the industry by around £10 million (present value over 20 years).

The Department, therefore, estimates the business impact of section 50 of the Infrastructure Act 2015 to be around -£40 million in present value terms. This translates into an equivalent annual net cost to business of £1.98 million (2009 prices).

Environmental impacts

The IA includes a discussion of the possible wider impacts of the proposal, in particular those relating to the environment and public health (pages 13-14). This refers, in particular, to a Royal Academy of Engineering and Royal Society independent review which concluded that the risks associated with fracking for shale gas can be managed effectively in the UK, provided that operational best practices are implemented and enforced through regulation. The proposal would not lessen any of the existing robust regulations currently in place, for example to prevent water contamination and mitigate seismic activity.

Quality of submission

The Department has provided sufficient evidence that the impact of the proposal will be very limited. The conditions on fracking mirror existing industry practice or requirements. The introduction of protected areas has little or no impact on fracking activity because it was already assumed that fracking would not happen in those places, not least because of the controls that are already in place. The Department's specific cost estimates are based upon limited information and, therefore, subject to uncertainty. The impact assessment would have benefited from a more detailed breakdown of the cost of complying with the fracking conditions. The assumed 1% reduction in fracking activity is particularly uncertain, although the equivalent annual net cost to business is not particularly sensitive to this (a doubling to 2% would only increase the EANCB to £2.5 million). The Department has undertaken sensitivity analysis around the key assumptions used, including gas prices, and includes an option where the definition of protected areas is broader (which has a business NPV of around -£81 million). Overall, the Department's assessment is, on balance, sufficient and proportionate. It addresses satisfactorily a gap in the assessment and scoring of the impact of the overall regulatory package related to fracking.

The IA would be improved by further discussion of the potential environmental and public health impacts, in particular the differences between the preferred option and the option with a broader definition of protected areas.

Small and micro-business assessment (SaMBA)

Due to the UK fracking industry still being in its infancy, the Department is unable, at this stage, to provide an estimate of the number of small and micro businesses. However, the Department explains that hydraulic fracturing is unlikely to be undertaken by small and micro-businesses, although they could be involved as a

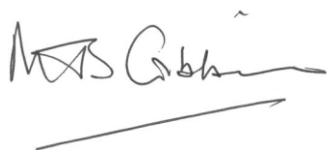
co-venturer. Small and micro-businesses are, therefore, unlikely to be disproportionately affected by the proposal. Any environmental or public health risks are unlikely to be proportionate to the size of the business. The Department does not, therefore, consider there to be a rationale for exempting small and micro-businesses from the proposal. This appears reasonable.

Initial departmental assessment

Classification	IN
Equivalent annual net cost to business (EANCB)	£1.98 million
Business net present value	‑£40.0 million
Societal net present value	‑£40.0 million

RPC assessment

Classification	IN
EANCB – RPC validated	£1.98 million
Small and micro business assessment	Sufficient



Michael Gibbons CBE, Chairman