

Oil and Gas Authority 21 Bloomsbury Street London WC1B 3HF

26th April 2019

Dear

Aurora Energy Resources Limited – Fee and Commitments

Further to your request for information regarding sources of delay and barriers to activity in the UK onshore sector, I am writing to support, in principle, the points made by UKOOG and others on this matter.

Please note, Aurora considers this letter and its contents to be commercial in confidence and directly related to the company's agreements with the OGA.

Whilst a review or waiving of licence fees and work commitments would recognise the difficulties and delays experienced by the industry in the planning, permitting and regulatory spheres, most recently in the reluctance to revise the restrictive TLS system to bring it into line with the regulation of other industries, Aurora would caution against any course of action that would give the impression that the industry was entering another moratorium on activity.

Investors stand ready to back licensees to develop this industry but only if they see the existing wells at PNR and KM8 fully appraised. There is nothing that has been seen to date in the publicly available results to suggest that the current failure to review the TLS is anything other than a failure of nerve on the part of politicians. It is, in our view, the duty of the OGA to put the maximum observed PPV of 0.68 mm/second at PNR into context with respect to the long-standing regulation of ground vibration across all industries and to ensure a level playing field for the onshore oil and gas sector.

Aurora incurred significant additional cost and delay in acquiring its 2016 Formby 3D geophysical survey as an application for ancillary rights under the Mines (Working Facilities and Support) Act 1966, as applied to PEDL licences by the Petroleum Act 1998 was ultimately required. Previously, it had been possible to negotiate access for such surveys with landowners. This may not be the case in future in many areas.

Aurora will shortly submit a planning application for two wells at Altcar Moss in West Lancashire. A full Environmental Impact Assessment has been required for this project despite the small scale and temporary nature of the project. The required studies to support the EIA have significantly added to the cost and time required for the application. As expected, no likely significant environmental impacts have been established. In support of the application at Altcar Moss, Aurora has held public information days to introduce the site and the proposed works to local residents and to highlight the key findings of the EIA. It is hoped that the application will be determined within the statutory 16 weeks from validation.

Aurora Energy Resources Limited Cirrus Building 6 International Avenue ABZ Business Park Aberdeen AB21 0BH In recent years the increased involvement of the Environment Agency in the regulation of onshore oil and gas activities in the deep subsurface through the misapplication of the EU's Water Framework Directive and the Groundwater Directive, and their UK legislative counterparts to the regulation of deep saline groundwaters has been a further source of costs and delay. Aurora plan to request an exemption to any groundwater activity permit at Altcar Moss for operations below the depth at which the salinity of groundwater is equal that of seawater (estimated to be approximately 500 m) thereby excluding any requirement for the Environment Agency to regulate or monitor hydraulic fracture stimulations operations within the Carboniferous section. If successful, this will remove a significant source of cost and delay without adversely impacting on the environment.

Increasingly, when local minerals and waste plans are revised, there is a tendency to seek to add additional restrictions on onshore oil and gas activity. Aurora recently responded to Lancashire County Council's consultation on the draft Joint Lancashire Minerals and Waste Plan. A recurrent theme of our response was that the mineral planning authority should not be formulating policies that unnecessarily restrict the exploration for or development of Petroleum - a nationalised resource - the development of which has been deemed to be in the national interest.

A common thread linking our experience in all the above examples, from achieving access for geophysical surveys to the monitoring of local waste plans, is the need for individual licensees to engage in creating the right environment for investment in the UK onshore oil and gas sector. This is a burden that we feel should be more readily shouldered by BEIS and the OGA.

Notwithstanding the above comments, Aurora recognises the individual efforts and the support of the onshore oil and gas team at the OGA.

On the issue of blanket licence extensions to enable the completion of work commitments, in our opinion, what is needed at this stage is not more time per se but more timely action on the part of Government to support what is the appraisal and development of a potentially significant nationalised resource.

Aurora will approach the OGA with any requests to vary individual licences, at a future date, if required.

If you have any queries regarding any of the above points, please do not hesitate to contact me.

Yours sincerely

Ian Roche Managing Director