PROF. JEREMY J. RAMSDEN MA DSC FIMMM



National Infrastructure Planning Temple Key House 2 the Square Bristol BS1 6PN

Via e-mail only to MillbrookPower@pins.gsi.gov.uk

Your Ref: EN010068

16 April 2018

Dear Sirs/Mesdames

As a Registered Interested Party, I wish to make the following Written Representation:

1. Need for the capacity of the proposed peaking power generation plant to be 299 MW

The justification for the proposed plant can be found in the general provisions of the National Policy Statements EN-1 and EN-2, but the proposed capacity of 299 MW appears arbitrary until one realizes that the threshold for installing carbon capture and storage (CCS) equipment is 300 MW. It surely cannot have been the intention of those who drafted the Carbon Capture Readiness provisions that their result would be the country dotted with numerous plants, all of 299 MW. Rather, there should be some rational arguments for why the proposed plant should have a particular capacity, and if this capacity exceeds the threshold, then it must be "carbon capture ready" (CCR) when built. Its cost will doubtless be one of the factors entering the calculations to determine the rational proposed capacity.

My suspicions regarding the figure of 299 MW arose from the high precision of operation it implies — by convention, ±1 MW. Therefore, at least sometimes it will actually operate at 300 MW, triggering the carbon capture readiness requirement.

2. Long-term evolution of energy requirements and policy

The proposed gas-fired electrical power generation plant is designed to operate for at least 25 years. Therefore, it is reasonable to assume that National Policy will evolve during that time. Given recent events, that evolution might be quicker rather than slower. In particular, the wisdom of *increasing* national reliance on gas is doubtful. Russia is now Europe's main gas supplier, and the Prime Minister herself recently remarked (on 22 March 2018) that "the challenge of Russia is one that will endure for

years to come". The evolution of the energy scenario, in particular the geopolitical aspects of gas supply, has indeed occurred faster than policy can be changed. It is inconceivable that EN-1 and EN-2 will remain unchanged for 25 years. Inevitably, therefore, the proposed plant will be obsolete with respect to National Policy long before its engineered lifetime.

3. Implications of point 2.

Construction and operation of the proposed plant imply a considerable cost to the amenities in the surrounding area. Even if the plant is fully compliant with all requirements concerning emissions, habitats etc., there remains an enormous, and detrimental, visual and aesthetic impact, both on the permanent human residents of the surrounding area, and on the large numbers of visitors to the adjacent Millennium Park, who use it as a place of recreation and regeneration. These costs can be quantified using the quality-of-life index and compared with the benefits. No such calculation, nor anything like it, is to be found in the application submitted by Millbrook Power Ltd. Therefore we are ignorant of whether the balance of these costs and benefits is in favour of, or against, the proposed plant. If its long-term prospects are anyway unattractive according to point 2., then it is prudent to proceed only if there is an overwhelming balance in favour of the benefits, which does not appear to be the case.

4. Rapid envisaged evolution of the local residential and employment scenario

Although inchoate, the Cambridge-Milton Keynes-Oxford Corridor will, it is hoped, become perhaps the most important component in the regeneration of Britain's economy. As the National Infrastructure Commission has pointed out, in there is a great need for more housing to enable the Corridor to realize its full potential. Siting large power generation plants in the middle of the Corridor with diminish its attractiveness. The proposed plant is especially incongruous in view of the strenuous efforts to convert the brownfield sites of the Marston Vale, after many decades of industrial activity (mainly brickworks) back to a natural environment. The Millennium Park and the associated Marston Vale Forest are examples of these efforts bearing fruition; other plans include the Bedford and Milton Keynes Waterway.

The justification for the proposed power plant lies in EN-1 and EN-2. These policy statements do not, however, specify *where* any particular plant should be constructed. According to EN-1, "applicants are obliged to include in their ES, as a matter of fact, information about the main alternatives they have studied. This should include an indication of the main reasons for the applicant's choice, taking into account the environmental, social and economic effects and including, where relevant, technical and commercial feasibility" (§4.4.2). I do not find convincing information about the alternatives in the application. In §5.2 of the applicant's ES there are a few superficial, even banal, matters discussed. The application is particularly weak regarding social and economic effects.

In summary, it appears to be extraordinarily short-sighted to vitiate the ambitious plans for the Cambridge-Milton Keynes-Oxford Corridor, which include extensive housing development, innovatively combined with forests and waterways, in the area of the proposed plant, by siting it as proposed.

5. Rapid alternative technology development

The purpose of a peaking power generation plant is to work in conjunction with intermittent "renewable" sources such as wind turbines and photovoltaic cells. As the generating capacity of the latter continues to increase, the requirement will rather become one of storing excess energy rather than topping up power on windless, cloudy days. It seems incongruous to propose a plant based on fundamentally old-fashioned technology when advances in electrical storage battery technology, among others, are taking place so rapidly. One can have a very high degree of confidence that long before the expiry of the engineered lifetime of the proposed gas-fired plant, these modern alternatives will be available. This consideration should also inform the planning decision.

Yours faithfully



Jeremy J. Ramsden