The Planning Inspectorate

Appeal Decision

Site visit made on 31 May 2017

by G P Jones BSc (Hons) MA MRTPI

an Inspector appointed by the Secretary of State for Communities and Local Government

Decision date: 28 June 2017

Appeal Ref: APP/Z0116/W/17/3167991
St Philip's Marsh, Feeder Road, Bristol

- The appeal is made under section 78 of the Town and Country Planning Act 1990 against a refusal to grant planning permission.
- The appeal is made by Plutus Energy Limited against the decision of Bristol City Council.
- The application Ref 16/00719/F, dated 10 February 2016, was refused by notice dated 4 October 2016.
- The development is the proposed installation of low carbon, bio-diesel powered generators and associated infrastructure for the provision of a Flexible Generation Facility to provide energy balancing services via the capacity market for the National Grid.

Decision

1. The appeal is dismissed.

Procedural matters

2. The description of the site location differs between that provided on the application form and the Council's decision notice, and consequently I have used that as provided on the application form.

Main Issues

3. The main issues are as follows:

   - The effect of the proposed development on air quality, having particular regard to any effects on human health within the vicinity of the site; and
   - The effect of the proposal on the nearest noise sensitive receptors in the locality.

Reasons

Air quality

4. The appeal site is located within the St Philip's Marsh industrial area and is within an Air Quality Management Area (AQMA). The proposed Flexible Generation Facility (FGF) would run for not more than 200 hours per year and the appellant maintains that based on operational experience elsewhere, would be likely to run for 70 hours per year. In addition, it would not operate for more than 2 hours continuously, and on average would be for less than an hour at a time.

5. The Council's Air Quality Officer (AQO) did not object to the proposal when it was considered by the Council's Development Control Committee B. Subsequently this has been recognised as an error by the AQO, who now believes that locations of neighbouring industrial sites are to be considered relevant for exposure in regard to the 1 hour NO_2 standard. In this regard the submitted Air Quality Assessment predicts that the objective for 1-hour mean NO_2 could be breached at two neighbouring industrial sites. Table A of the appellant's Air Quality Assessment, dated 2 June 2016, indicates that the highest number of probable exceedances of 200 $\mu g/m^3$ for NO_2 would occur at the Albert Road industrial site and would be 7 based on 200 hours per year of operation and low sulphur diesel being used, and 6 if Green D+ Bio-diesel was used.

6. I disagree agree with the appellant's contention that workers at the two industrial sites would not be considered as members of the public on the grounds that they would be there due to paid employment and thus would be subject to occupational exposure limits. In my view the workers at these sites would be exposed to any potential air quality effects for a longer period of time than visitors would be, and the fact that they are in paid employment is not a matter to which I attach any significant weight. Furthermore, I have no cogent evidence that the hours of operation of these industrial sites would not coincide with those of the FGF.

7. The predicted breaches in NO_2 are based on using a 'worst case' conversion rate of 35%, rather than the 15% conversion rate that the appellant has quoted the Environment Agency as finding in its recent dispersion modelling of emissions from diesel generators. It is stated by the appellant that if a 15% conversion rate was used then there would be no breaches predicted. However, I have not been presented with any conclusive evidence regarding the wider applicability of this Environment Agency study that is quoted, and in the absence of this information I consider that the conversion rate figure of 35% to be the more appropriate one.

8. The appellant contends that, despite an initial error in calculations, the Environmental Protection UK (EPUK) guidance on air quality would be met and NOx emissions concentrations would be below the 200 $\mu g/m^3$ objective level at the surrounding sensitive receptors including St Philip's Marsh Nursery School (the nursery) and the Paintworks site. The appellant argues that NOx emissions would be further reduced by the use of bio-diesel in the form of a hydrated vegetable oil. However, no specific emissions information in relation to the use of bio-diesel with the specific engines proposed has been produced to verify this assertion.

9. According to the Council the predicted NOx emissions performance from the proposed FGF of 4.098 kg/MWhe would be three to five times better than the regulatory assessment would expect for this type of standby generator, based on a report by the Environment Agency on typical generator emissions. Residents Against Dirty Energy (RADE) has also expressed concerns about the emissions data, arguing that the calculated NOx emission rate of 0.51g/s appears unusually low for a tier 3 engine, and usual practice would be to model emissions on the limit for a tier 3 engine which is 1.2g/s, or more than double that which the appellant has stated. Furthermore, RADE argues that the effect of the proposal on the annual mean limit of NO_2 within the AQMA also should be assessed. In response, the appellant has confirmed that the engine data

has been provided by the manufacturer. While I accept that this is the manufacturer's data, the evidence presented does not explain why this generator would be so much better than others of a similar type and the evidence does not satisfy me in relation to the matters raised by the Council and RADE.

10. The appellant has stated a willingness to include additional NOx emissions abatement measures in the form of selective catalytic reduction (SCR) and also water injection, and has cited a 'formal letter' dated 16 September 2016 in this regard. Appendix 2 of the appellant's Final Comments contains an e-mail sent on 16 September 2016 from Mr Hannify to the Council. However, this e-mail states that Plutus Energy Ltd " *are offering to trial the SCR and mist injection NOx reduction technology as part of the emissions monitoring programme with Bristol City Council* "

11. I have not been provided with any substantive information to cast doubt on the appellant's assertion that both SCR and/or water injection would be capable of reducing NOx emissions substantially. Neither have I been presented with an argument that implementing such technology would render the proposal economically unviable.

12. The information regarding emissions abatement measures appears to have been offered at a later stage rather than being formally submitted as part of the application. Based on the information that is before me there is not a sufficient level of detail as to how these proposed measures would be incorporated into the proposed development including whether, for example, they would be permanent measures or only enacted on a trial basis. The e-mail of 16 September 2016 seems to refer to the latter option.

13. I accept the appellant's contention that such measures are not normally required for FGFs as they operate on a temporary basis. However, in my view the fact that the appeal site is located within an AQMA sets a high bar in terms of air quality and human health considerations and I give significant weight to this. It therefore follows that in such a location, and where exceedances resulting from the proposal have been identified, the best available technology should be utilised if it is effective in reducing NOx emissions. The appellant considers that such technology would prove effective and I have not been presented with any evidence to dispute this. However, it is my view that as sufficient details have not been provided regarding these abatement measures, they do not form part of the proposal that is before me. Consequently, I cannot impose a planning condition to require that they be implemented on a permanent basis.

14. The Council has raised concerns that there is no assessment of PM_{10} emissions or their impact on health, and has referenced World Health Organisation (WHO) guidelines. However, the Council also states that PM_{10} emissions would be unlikely to cause breaches of national air quality standards. The appellant has calculated that based on the Council's own PM_{10} monitoring emissions arising from the proposal would not give rise to an exceedance of WHO guidelines, and I concur with this and therefore it does not count against the proposal.

15. In addition the Council contends that the background NO_2 is likely to be an underestimate since the likely time in which the generators would mainly operate, ie between 5pm to 7pm in the winter months, would coincide with peak evening rush hour traffic, and thereby increased NO_2 concentrations.

However, the appellant's Air Quality Assessment did apply a variety of background levels and therefore I do not give any significant weight to the Council's argument in this regard. Furthermore, I consider it reasonable to use the meteorological data from Bristol Filton for dispersion modelling as this had been previously agreed with the Council and is consistent with the Council's own modelling methodology.

16. RADE has made reference to another appeal decision[1]. Whilst I do not have specific details of this case, I note that it concerned residential development and it is therefore inevitable that the circumstances would differ from those that are before me. As such I afford only limited weight to this other decision.

17. The remaining uncertainties over the NOx emissions associated with this particular FGF technology and whether the proposed development would utilise SCR and/or water injection abatement measures lead me to conclude that insufficient information has been provided to demonstrate that the proposal would not give rise to significant air quality impacts, particularly for workers at the two industrial sites, that could in turn have an adverse effect on human health.

18. Consequently, it has not been adequately demonstrated that the proposal would accord with the guidance contained in paragraph 124 of the National Planning Policy Framework (the Framework) or with Policy BCS23 of the Bristol Development Framework Core Strategy (CS) adopted 2011, and Policies DM14, and DM33 of the Bristol Local Plan - Site Allocations and Development Management Policies (SADMP), adopted July 2014. Taken together these policies and guidance seek, among other matters, to ensure that development provides a healthy living environment, does not give rise to adverse air pollution and an appropriate scheme of mitigation is provided, particularly in designated AQMAs.

Noise

19. The Council undertook a background noise reading at the nursery, which is located some 250m to the west of the appeal site, the day before the September 2016 Development Control Committee B meeting. This appears to have been limited to the one occasion and details of the specific equipment used have not been provided, which in my view casts doubt on its overall validity as a representative sample of background noise levels. Furthermore, I note that the issue of noise did not form a reason for objection in the submission made by the nursery.

20. As there is not sufficient data available to determine whether or not the generators would be tonal, the appellant has applied a worst case +6dB correction, in accordance with BS 4142:2014. The Council is concerned that based on its own, albeit very limited, assessment of background noise levels that tonal noise would be an issue at the nursery.

21. I note the appellant's comments that the Council did not insist on background noise readings being undertaken at the nursey in their discussions with the appellant at the time of the application, but is now using this as its reason for objecting. Initially the Council's stated position was that a comparison with the

[1] Appeal reference APP/V2255/W/15/3067553

recommended noise levels in Building Bulletin 93[2] could be relied upon, and it was predicted that the noise levels from the FGF in operation would be within the guideline values for both indoor and outdoor spaces at the nursery.

22. The proposed FGF would have its overall operating hours limited to 200 per year and, based on experience of other FGF operations, most of these hours would take place between 5pm and 7pm in the winter months. As such the use of the nursery for at least some of the likely operating hours would be limited to an after-school club at most, and it would be less likely that the windows of the nursery would need to be open in the winter months. Taking all this into account, I therefore consider it unlikely that users of the nursery would experience unacceptable levels of noise.

23. In terms of the criticisms by RADE that the noise assessment did not assess the nearest residential receptors at the Paintworks Phase 3 site I concur with the appellant's assertion that this was considered in the submitted Noise Impact Assessment and that based on the proposed hours of operation, the noise impacts at this location would be acceptable. My view is reinforced by the fact that the Council has not raised objections in regard to the noise effects on residential receptors at either Edward Road or the Paintworks site.

24. Consequently, I consider that the proposed development would comply with the guidance in the Framework, CS Policy BCS23 and Policies DM14 and DM35 of the SADMP which, among other matters, seek to ensure that development does not give rise to unacceptable levels of noise or impact on wellbeing, and an appropriate scheme of mitigation is provided.

Other matters

25. The appellant has submitted an unsigned Unilateral Undertaking (UU) that does not contain an accompanying plan to define the site. The UU would provide a benefit in terms of mitigating the loss of trees that the proposal would entail, but such benefits would not outweigh the other harm that I have identified. Furthermore, as I am dismissing this appeal on other substantive issues I do not consider it necessary to consider the submitted UU in detail.

Planning balance and conclusion

26. In accordance with paragraph 14 of the Framework I have considered this proposal in the context of the presumption in favour of sustainable development. In terms of benefits, the proposal would help to meet fluctuations in energy demand, particularly at times when renewable technologies would be less effective, thus helping to reduce reliance on large-scale installations. In addition, the location in close proximity to an existing substation would have benefits in terms of the efficiency of supply. I acknowledge that a significant amount of air quality information has been provided. Nevertheless, I consider that key elements of the proposal in terms of the use of emissions abatement techniques and the level of emissions specifically associated with this particular FGF technology have not been sufficiently clarified.

27. When taken as a whole, and in the context of paragraph 14 of the Framework, I therefore conclude that it has not been adequately demonstrated that the

[2] Building Bulletin 93, Acoustic Design of Schools: Performance Standard Department for Education, February 2015

impact of granting permission in terms of the potential effects on local air quality and thus human health, within what is already an AQMA, would be acceptable. In the absence of such information I conclude that the potential harm associated with the proposal in terms of the effect on air quality, and which has been identified, would significantly and demonstrably outweigh the benefits. While I have found the proposal acceptable in terms of noise, overall I conclude because of the harm identified to air quality that the proposal would be unacceptable.

28. Therefore for the reasons set out above, and having regard to all other matters raised including other relevant development plan policies, I conclude that the appeal should be dismissed.

GP Jones

INSPECTOR