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President Mariella Frostrup Chair Hugh Williams Planner Fletcher Robinson

16 July, 2024

To Somerset Council
For attention of: Area South Planning Team
For: Case Officer, Jane Fuller (Specialist)

Dear Planning Team,

24/00352/FUL- Proposed solar farm with PV arrays and battery storage-Land OS 8186, Wayford

CPRE Somerset OBJECTS to this proposal for the following reasons:

<u>Inappropriate location for solar farm or BESS</u>

- 1. The site is an entirely inappropriate location for either a solar farm or BESS facilities. The village of Wayford derives its potable drinking water from private wells, boreholes and springs. The hill slope north of Wayford is the catchment area for all the village water supplies. The development site is located on Source Protection Zones 1 and 2, but this is not acknowledged in the planning application. There are multiple threats of gross contamination of the Wayford water supply arising from these proposals, which are set out in the hydrogeologist's report ('Wayford, Somerset-Risks to the Water Environment arising from a proposed solar farm', 19 June 2024 -Environmental Consulting Ltd). (The Wayford Report).
- 2. The Wayford Report [at 5.] highlights that the planning application does not include any consideration of BESS related pollution risks. The Town and Country Planning (Environmental Impact Assessment 2017) Screening Matrix submitted to, or completed by, the LPA (which the Council has released) shows that questions 1.3, 3.3, and 5.1 asking whether there are underground waters on or near the site that could be affected or potentially contaminated by the project have been incorrectly answered in the negative.
- 3. The Hawkchurch appeal inspector recently dismissed an appeal in similar circumstances which would have lead to unacceptable levels of pollution to aquifers in the vicinity of a proposed solar farm/ BESS [APP/U1105/W/23/3319803]. The present case should be considered in light of that decision.
- 4. The Wayford Report highlights that it is essential that there is no adverse change to the catchment amount of recharge of the water supplies of Wayford, and says that the impermeable solar panels intercept precipitation, and would reduce recharge. In this case, the proposed site is located directly within the catchment area for potable drinking water for the village.

- 5. Furthermore, we would draw the case officer's attention to further likely harmful effects on recharge of the water supplies arising from the impermeability of soil <u>under</u> the panels. A high level of impermeability under solar PV panels is confirmed by the Welsh Government research paper entitled: '2020/2021 Soil Policy Evidence Programme-The Impact of Solar Photovoltaic (PV) sites on agricultural soils and land quality'.
- 6. The Welsh Government research report says that soil compaction is caused during the solar construction phase by a range of machinery including dozer, tracked excavator, wheeled backhoe loader, hydraulic hammer, rotary bored piling rig, and vibrating plates. It says that 'Compaction can extend 1m in depth and persist for thirty years'; and 'Techniques for loosening compacted soils to depths of about 45cm are established but at lower depths correcting problems may not be effective'. Soil compaction at this location would plainly increase impermeability and hence lead to reduced recharge of water supplies.
- 7. The Welsh Government Research also says [at 2.5] that 'there are wider environmental implications of soil compaction relating to water quality'. Such risks are unacceptable in SPZ 1/2.
- 8. The inappropriateness of locating a solar farm in hyper-sensitive water supply Source Protection Zones 1 and 2 is demonstrated by recent academic research highlighting the possibility of potential lead toxicity and leakage issues from types of solar PV cells that have been commonly used for the last decade. In mid-life the solar cells (PSCs) may suffer from mechanical load factors such a wind and snow which may cause micro cracks or breakage to panels, resulting in leakages of lead toxicity into the soil [Meng Ren et al, *Potential lead toxicity and leakage Issues on lead halide perovskite photovoltaics*', Journal of Hazardous Materials, Vol 426, 2022. This article states that lead toxicity can leak from solar cells into the soil when they are damaged, and 'especially from perovskite solar cells '. Thus it would not be an answer to this risk to say that perovskite solar cells will not be used on the site]. Fuel contamination of groundwater from solar installation construction and maintenance machinery is also a well researched risk.
- 9. The Wayford Report explains that fire-fighting water to fight thermal runaway events in BESS facilities can be severely contaminated by heavy metals, fluoride, cyanide, and acid. The huge quantities of fire-fighting water needed to control such events would have to be structurally contained and removed from the site to avoid contamination of Wayford's water supplies. Attenuation structures eg infiltration trenches would provide a direct route to contaminate groundwater below. The slope gradient of 8-9% at this location would exacerbate run-off, and exceeds gradients permitted in other jurisdictions for solar panels.

Use of BMV land/ Inadequate assessment of alternative sites

10. 52% of the site is on BMV land. We would draw the Case Officer's attention to the recent solar farm appeal decision dated 10 July 2024: APP/ P1615/W/23/3329458- Land to the South of Murrells End Farm, Murrells End, Hartpury, Gloucester, GL19 3DE. In that case the appeal inspector reviewed the Written Ministerial Statement (WMS) of 15 May 2024 which sets out that 'the highest quality agricultural land is least appropriate for solar development', and described the WMS as providing 'additional emphasis' to the National Policy Statement for Renewable Energy Infrastructure (EN-3).

- 11. The Appeal Inspector explained that Policy EN-3 sets out that whilst land type should not be a pre-dominating factor determining the suitability of the site location where the proposed use of any agricultural land has been shown to be necessary, poorer quality land should be preferred to higher quality land, avoiding the use of BMV agricultural land where possible.
- 12. The Inspector concluded [at para 118] that 'the evidence before me does not satisfactorily demonstrate that it is necessary to use BMV land for the proposal in this case'. At paras 62/63 the inspector found that: 'The alternative sites assessed do not demonstrate to me that there is no suitable agricultural land of a lesser value that would be suitable for the scheme'.
- 13. There is no substantive evidence in the planning application that alternative sites of lesser agricultural land value, or brownfield land, have been assessed. The applicant has not provided the required 'compelling evidence' to justify the 'necessary' use of BMV land for a solar installation.

Harm to the setting of a listed house / Harm to residential amenity

- 14. There is a listed house- Townsend House on the other side of the narrow lane at the southern end of the site. The site field is elevated above the lane so that solar panels would be at bedroom height. As the LPA will know, section 66 of the Listed Buildings Act 1990 is relevant to the determination of this Application. Under section 66, when considering whether to grant planning permission for development which affects a listed building or its setting, the LPA must have special regard to the desirability of preserving the building or its setting. In our view the open aspect that is integral to the setting of the listed house would be eroded by the placement of solar panels and associated infrastructure opposite, to add a heritage case for refusal, LP policy EQ3.
- 15. There is an important principle of consistency in council decisions at stake in this matter. Somerset Council (Area East) approved on 11 July 2024 a solar farm at Rode (2023/2183/FUL), following a deferral from a previous planning committee meeting on 7 May, in order to allow time for the applicant at the Council's request to pull the panels back by a full field from a listed house. In this application, we understand that the applicant has made a token gesture in pulling panels back by a few yards towards the centre of the field, but they should be removed completely from the bottom field, to be consistent with the Rode decision.
- 16. Furthermore, placing solar panels at the same level as the bedroom of a residential house adds an amenity case for refusal.

Harm to landscape

17. We agree with comments by the landscape officer posted 16 July that five fields marked C or D on the officer's diagram are particularly harmful in terms of landscape and visual impact and should be removed from the scheme; and that the size of the scheme means that the relative change in landscape character is unacceptably high.

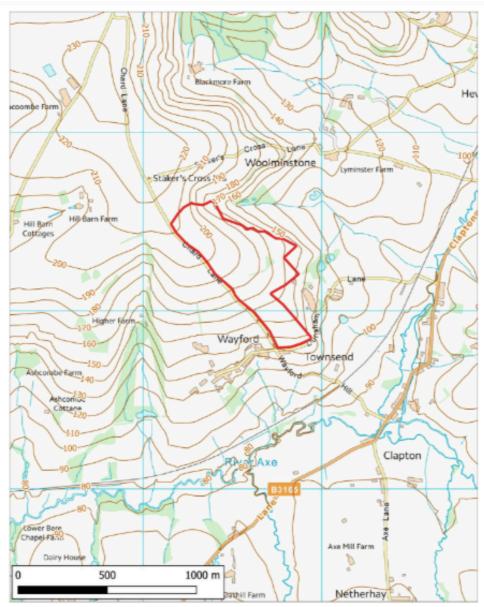
- 18. The photo viewpoints in the LVA appear all to have been taken when trees are in full leaf, and cannot be relied on to give a true picture of the visual and landscape impacts. The LVA also erroneously double counts mitigation measures as enhancements, and over-relies on vegetation to screen views.
- 19. The site lies in the setting of the Dorset National Landscape (DNL), which is at 450m distance. DNL has submitted a detailed objection to this scheme which includes the following comment:
- 'This is a sensitive hillside location that is relatively remote from any substantial development
 The following qualities are particularly susceptible to impacts from the development:
- Uninterrupted panoramic views to appreciate the complex pattern and textures of the surrounding landscape
- Tranquillity and remoteness
- Undeveloped rural character'

The DNL objection highlights NPPF para 182 which says that development in the setting of designated landscapes should be sensitively located to avoid or minimise impacts on the NL, and concludes that this proposal does not accord with those requirements.

- 20. There was an amendment in 2023 to the Countryside and Rights of Way Act regarding s.85. Previously, 'in exercising or performing any functions in relation to, or so as to affect land in an AONB (now NL), a relevant authority shall have regard to the purpose of conserving and enhancing the natural beauty of the AONB'. The underlined words have now been changed to 'must seek to further the purpose of conserving and enhancing the natural beauty of the AONB'. This is a significant change which surely requires that the objection of the Dorset National Landscape to this scheme should be given considerable weight in the planning balance.
- 21. While the Dorset side of the Axe river valley enjoys the status of National Landscape, the Somerset side of the Axe river has the same entirely rural character and appearance as the Dorset side. Both sides of the valley are similar in character and appearance, relatively undeveloped, and characterised by fields, ancient hedges, veteran trees, small farmsteads, ancient hamlets and small villages. Both sides of the valley form a single land-form of river valley, and should be protected from large-scale development as now proposed, the Somerset side by virtue of Local Plan landscape policies, and the Dorset side by virtue of its protected status.
- 22. We consider that the Axe river valley landscape is a single landform which would score highly on the Landscape Institute's criteria for Valued Landscape [see Landscape Institute- Technical Guidance Note TGN 02-21]. We ask the case officer to recommend refusal of this application on landscape grounds, among other reasons as detailed above.

Yours sincerely,

Hugh Williams Chair, CPRE Somerset Fletcher Robinson MSc Planning Trustee and Planner, CPRE Somerset



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Figure 2.1: Location of Wayford and the boundary of the proposed solar farm (in red)

Appendix- map showing the undeveloped nature of the Somerset side of the Axe river valley and the proximity of the site to the Dorset AONB/ National Landscape.

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