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Dorset Council  
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5 August 2025  
Our Ref: 2025.BPN.416  
Your Ref: P/ESC/2025/04275

Dear Sirs

**Request for Screening Opinion by Rivan Industries – Synthetic Fuel Facility and Solar PV Expansion  
Rudge Hill Farm, Rivers Corner, Sturminster Newton, Dorset, DT10 2AE**

We write on behalf of our client, the owner and occupant of Woolhouse Farm, previously referred to as Hole House Farmhouse, a Grade II listed property located directly adjoining the application site. We have reviewed the Screening Opinion request submitted by Rivan Industries under the Town and Country Planning (Environmental Impact Assessment) Regulations 2017.

The submission is materially deficient in several respects. In our view, the development is clearly likely to give rise to significant environmental effects. Under Regulation 5(1) of the 2017 Regulations the Council is therefore under a statutory duty to issue a positive Screening Opinion requiring the submission of an Environmental Statement.

This is our initial response. We reserve the right for further submissions should the applicant provide further information in response to our reasoned inquiries below.

**Heritage**

Our client's principal concern is the impact of the proposed development on the setting and significance of Hole House Farmhouse (now called Woolhouse Farm, as it will be so referred for the rest of this letter). The building is of late seventeenth-century origin, with early nineteenth- and twentieth-century alterations, and was listed in 1983.

The listing description is as follows:

*“Farmhouse, probably late C17 origin with alterations in early C19 and C20. Coursed rubble and ashlar, slate roof, hipped to the east, gabled to the west. South facade: C19 ashlar reface. 2 storeys, 3 bays: Segmentally arched window openings with 3-light casements. Centre first floor window blocked. Ground floor left hand; C20 French window. Left gable wing projecting. North facade has the remains of a 4-light timber mullioned window with ovolo moulded mullions.”*

The listing description begins with the word “Farmhouse” – an immediate and clear indication that its historic function and rural setting are central to its significance. The site lies only 100 metres west of the proposed development.

The Heritage Screening Assessment submitted by the applicant acknowledges the proximity of the listed building, and states that it "may" have views of the development. Despite this, and without even any illustrative layout or indication of likely configuration or massing, the Screening Matrix concludes that there would be no significant effects, relying on a desk-based study and deferring fieldwork. That is wholly inadequate. The Framework requires the local planning authority to assess whether the setting contributes to the significance of the asset. That question has not been answered, and cannot be until site visits and proper assessment are carried out.

Moreover, the site lies in a shallow bowl formed by the confluence of streams, with the listed farmhouse occupying the lowest ground. This basin-like topography may limit intervisibility from some vantage points, but it accentuates the experience of enclosure and rural seclusion, which is an intrinsic part of the heritage character. The industrialisation of the surrounding upper slopes – through containerised structures, solar panels and fencing – is likely to cause substantial harm to this character. It is not possible to rule out less than substantial harm to significance – and on the contrary, such harm appears likely.

In addition, the site lies within the theoretical visual catchment of two scheduled monuments: Sturminster Castle and Banbury Hill. No Zone of Theoretical Visibility (ZTV) analysis has been provided, and no assessment has been made of the potential for cumulative or indirect harm to these heritage assets. The site clearly lies within the theoretical visual catchment of the Scheduled Monument at Banbury Hill, a locally prominent hillfort situated at approximately 110m Above Ordnance Datum (AOD). The applicant asserts that the monument is "very difficult to see" from the southern part of the site and "not visible" from the north side of Gipsy's Drove; however, this claim has not been substantiated by a Zone of Theoretical Visibility (ZTV) analysis, nor has any structured assessment of setting or intervisibility been provided. Our client has visited the hillfort and confirms that there is clear intervisibility with the existing solar farm, and that the proposed development site is readily appreciable from the monument. These views will be significantly more exposed during the winter months, when the screening effect of deciduous hedgerows and trees is lost. In the absence of a rigorous setting assessment or cumulative visual impact analysis, the applicant cannot credibly dismiss the potential for harm to the significance of this nationally important heritage asset.

### **Landscape and Visual Impact**

The Screening documents repeatedly assert that the landscape is already compromised by the existing solar farm, and that further development will not result in significant harm. That position is unsustainable. The appeal decision for the existing solar array found moderate to major harm even after a reduction in scale. This new proposal, whilst not yet illustrated at all in plan form or in terms of vertical parameters, involves a significant intensification of development, with additional solar panels, hydrogen production equipment, service enclosures and associated infrastructure.

The applicant's own Landscape Screening Note concedes that the scheme would result in a "change of significance" to the landscape character. That change, in a tranquil rural valley identified as part of the South Blackmore Vale landscape character area, cannot be regarded as negligible.

The area is crossed or adjoined by at least fifteen public rights of way. Visual impact on users of those routes is likely to be substantial, particularly given the scale and industrial character of the new installations. Yet the Screening Matrix appears to treat visibility as a binary matter – the site is either visible or not, with little discussion of visual sensitivity, magnitude of change, or the cumulative impact of infrastructure in open countryside.

The applicant has sought to rely on a flawed assumption, asserting that the existing smaller solar farm has already industrialised the landscape and thus the harm caused by another much larger energy site would be less. On the contrary, even if a part of the landscape has been industrialised, that makes the area more sensitive to further inappropriate development of energy sites. The Inspector has already

found this to be a sensitive location in the appeal for the existing site; we note that a substantial reduction in size of what was proposed was necessary to achieve a consent at that time. The applicant has not demonstrated to any standard why the proposed larger solar farm caused a high level of harm, but why the current proposals to expand it would not. It is clearly not a sustainable position for the applicant to take.

The NPPF is clear that valued landscapes should be protected, and that landscape harm may trigger the need for EIA. The applicant admits that the proposals “will likely represent a negative landscape character change” and it is unreasonable to argue that this would not be a significant impact. We consider it difficult to see how the acknowledged harm set out in the applicant’s own materials could reasonably be regarded as below the threshold of significance.

### **Water**

The application fails entirely to address the likely environmental consequences of the project’s primary input: water. Hydrogen electrolysis requires substantial volumes of purified water. The Screening Matrix simply states that no significant resource use is anticipated. That assertion is baseless.

There is no information on how much water is needed, what quality of water is required, where it will come from, or what infrastructure or licensing is needed to supply it. If the mains supply is to be used, what works are needed to support it? If abstracted, where from, and what is the ecological impact on nearby watercourses? What are the implications for the hydrology of the valley and the downstream effects on landscape, ecology and heritage?

According to publicly available data from the MAGIC Map resource published by DEFRA, part of the application site falls within an area classified as having high vulnerability to groundwater pollution. This classification indicates that the underlying groundwater may be particularly sensitive to surface contaminants due to the permeability of soils and the shallow depth to the water table. Despite this, the applicant has not addressed this constraint within the submitted material, nor provided any assessment of potential risk to groundwater resources arising from the proposed development. This is a significant omission, particularly in light of the nature and scale of the proposals, which include potentially contaminating activities. In the absence of a robust hydrogeological assessment, it cannot be demonstrated that the development will not result in harm to controlled waters, contrary to the precautionary principle and relevant requirements under national planning policy.

### **Pollutant byproducts**

Nor is there any consideration of byproducts. Electrolysis releases oxygen, and there is no indication as to whether this will be vented, used, or bottled for commercial purposes. The applicant should be asked to clarify whether oxygen will be transported from the site by vehicle, and if so, in what quantity and frequency. Likewise, trace minerals and impurities within the water will be concentrated during the process. The nature and risk profile of these residues will depend heavily on the source of the feedwater. If drawn from surface or groundwater, the water may contain naturally occurring substances such as iron, manganese, sulphates, nitrates, and silicates, which could accumulate and require regulated disposal. If tap water is used, additional chemical treatments common in potable water – notably chlorine, chloramine, and fluoride – could result in hazardous byproducts or interfere with the electrolysis equipment. These risks, and the potential need for pre-treatment, waste handling and emissions control, have not been assessed.

### **Feasibility of large scale Carbon Capture**

We also understand that Rivan Industries intend to source CO<sub>2</sub> through direct air capture. While this ambition may align with longer-term technological goals, the feasibility of atmospheric carbon capture at scale remains questionable. The process is typically energy-intensive and requires specialised chemicals or sorbents to isolate and extract CO<sub>2</sub> from ambient air. These chemicals can themselves be environmentally hazardous, and the process as a whole is not without emissions or residues. Has the applicant demonstrated that atmospheric capture is technically viable and environmentally neutral in

this location? What substances are used in the scrubbing process? Will those need periodic replacement, and how are they to be stored, transported or disposed of? None of these questions are addressed.

In the absence of a workable or proven atmospheric capture system, the applicant may instead need to import CO<sub>2</sub> from external sources. If so, what would be the environmental impact of that importation? What volume of deliveries would this entail, what form would the CO<sub>2</sub> take, and how would it be stored on-site? The potential for fallback to road-based CO<sub>2</sub> delivery has not been acknowledged, let alone assessed. None of this is addressed.

### **Noise**

The applicant seeks to suggest that because solar panels are passive energy producers, they do not produce any noise during operation. This is patently untrue; inverters and transformers emit a constant hum or tonal sound. Some inverters use cooling fans for active cooling, which will produce periodic fan noise. There is likely to be a battery energy storage system required, in order to balance the energy production for use on site, which can raise noise concerns as well. Noise impacts will diminish rapidly over a relatively short distance, but a BS4142 assessment is usually undertaken where residential receptors are within 150m of the noise generating equipment. Woolhouse Farm is less than 100m from the boundary of the proposed site, in a tranquil environment, and there is no information or indication where any noise generating equipment will be located.

It is also the case that the applicant is unable to demonstrate that substantial highways transport movements would not also be generated from the development. As a result, local residents must also take into account the impact of large goods vehicles in terms of noise and vibration. Multiple planning inspectors have found that the risk of vibration from LGVs to listed buildings is sufficient to justify a refusal. As such we would consider this to be a significant environmental impact.

### **Potential for Harm to Protected Habitats**

Upon reviewing the MAGIC Map resource produced by DEFRA, it is evident that the site includes a range of habitat types beyond arable agricultural land, contrary to the applicant's assertion that the site is "just agricultural." The mapped data identifies areas of acid, calcareous or neutral grassland, as well as improved grassland and scrub. In addition, parts of the site include deciduous woodland, which is designated as a priority habitat under Section 41 of the Natural Environment and Rural Communities Act 2006. These habitat types may support protected or notable species and contribute to wider ecological networks. No ecological assessment has been provided to determine the extent, condition or biodiversity value of these habitats. In the absence of such information, the screening report fails to establish any reliable baseline for assessing ecological impacts and cannot demonstrate compliance with national policy requirements for the conservation and enhancement of biodiversity.

### **Potential for Harm to Protected Species – Brown Hairstreak butterfly**

DEFRA's MAGIC Map identifies the application site as lying within a designated area for *Priority Species for Countryside Stewardship Targeting*, with specific reference to the Brown Hairstreak butterfly (*Thecla betulae*). This species is of conservation concern and is known to be highly dependent on blackthorn hedgerows and areas of scrub for breeding. It is particularly sensitive to habitat loss and fragmentation, and its presence is often associated with well-connected, structurally diverse landscapes. No assessment has been undertaken to determine the presence or suitability of habitat for this species within the site, nor to evaluate the potential impacts of the proposed development on its lifecycle or habitat connectivity. In the absence of species-specific survey work or mitigation proposals, the proposal cannot be said to accord with national policy requiring the protection and recovery of priority species, nor does it demonstrate a precautionary or evidence-led approach to biodiversity.

### **Potential for Harm to Protected Species – Great Crested Newts**

The applicant has failed to properly assess or account for the likely presence of great crested newts (GCNs), a European Protected Species. The site comprises extensive agricultural land, but its peripheral areas include transitional and edge habitats more likely to support amphibian foraging, dispersal and sheltering behaviour. We understand that GCNs are known to be present in the surrounding area, including in ponds and watercourses within the wider landscape; photographic evidence can be provided on request. Given the species' reliance on terrestrial habitat up to 500 metres from breeding ponds, and the presence of suitable connective features such as hedgerows, grass margins and field boundaries, it is highly probable that parts of the site fall within the functional range of a local population. No ecological survey or Environmental DNA (eDNA) testing appears to have been submitted. In the absence of this, it cannot be safely concluded that the proposal will not result in harm to protected species or contravene the requirements of the Conservation of Habitats and Species Regulations 2017.

### **Flood and Drainage**

The application site lies within a valley landscape and exhibits surface water flood risk in several return periods, as identified on the Environment Agency's Flood Map for Planning. Although the site is not within Flood Zone 2 or 3, it is clearly vulnerable to overland flow, with ponding and channelisation likely in the event of exceedance. The nature and scale of the proposed development, comprising impermeable surfaces and operational infrastructure, has the potential to materially increase off-site flood risk unless comprehensively mitigated. No detailed sustainable drainage strategy appears to have been provided at this stage, and there is no evidence that residual risk, including under future climate scenarios, has been assessed. In light of the locational sensitivity of the site, flood risk and drainage concerns are plainly material to the EIA Screening process and should be given full and proper consideration.

### **Transport**

The screening report fails to provide any breakdown of operational vehicle movements associated with the proposed facility. The development appears to involve a water-intensive industrial process, potentially including the export of bottled oxygen or other by-products. While the applicant indicates an intention to use direct air capture technology for CO<sub>2</sub>, no assessment is provided of any fallback scenario. Should atmospheric scrubbing prove unviable or insufficient, it is reasonable to assume that the facility would instead require the importation of liquefied or pressurised CO<sub>2</sub> by road, with consequential impacts on traffic volume and infrastructure capacity. No information has been provided on delivery frequency, routing, access strategy, or vehicle type.

Access to the site is severely constrained. While some roads may seem wide enough, the reality is that on street parking significantly reduces carriageway widths in Rivers Corner. The only other available routes are via narrow single-track rural roads, which are unsuitable for larger goods vehicles and only marginally passable by small vans or cars. There are no alternative access points to the site boundary. Notwithstanding this, the applicant maintains that the proposal will not require regular staff attendance or any access by large vehicles. This assertion is wholly implausible and does not withstand even the most basic scrutiny.

In the absence of detailed information on anticipated water deliveries, the possible importation of CO<sub>2</sub>, the form and frequency of material exports, or the number and type of vehicles during construction and operation, the transport effects of the development cannot be meaningfully assessed. The transport report provided to support the screening request can be given little weight unless the design parameters that it is based on are explained in detail. The Local Planning Authority must require clarification on these matters as a minimum, including the expected number of HGV movements, their routing, and their compatibility with local highway conditions and the proximity of Public Rights of Way. Without this, the transport and access impacts cannot be screened out as insignificant for the purposes of EIA.

### **Risk Management**

The proposal relies on a significant energy input to operate its electrolysis process. The documents refer to the adjacent solar array, but there is no assessment of whether the existing 11kV grid connection is sufficient to support the facility, especially in periods of low generation. Nor is there any clarity as to the presence, scale, or implications of battery storage.

If the 11kV line were to fail or prove insufficient, it is unclear whether the facility has sufficient backup power arrangements to maintain the safe operation of the electrolyser, gas compression equipment, and any safety-critical systems. Given the nature of the substances involved – hydrogen and synthetic methane – it is essential that the Council understands what fallback systems are in place. When dealing with flammable gases and high-pressure systems, the backup protocols should themselves be backed up. Any interruption to containment, ventilation, cooling, or monitoring functions due to a power outage could have catastrophic consequences. This risk is not explored at all in the Screening submission.

In addition, there is no risk assessment for the storage and handling of hazardous gases. Is the volume of hydrogen storage above the COMAH threshold? Will gas be stored under pressure, and if so, what safeguards are in place? What happens in the event of failure of power, cooling, or containment? These are not remote technicalities. They are essential questions, and the absence of answers cannot reasonably be ignored.

### **Conclusion**

For the reasons set out above, the proposed development is clearly capable of giving rise to significant effects on the environment within the meaning of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017. The Screening submission is materially deficient, and fails to provide sufficient information on a wide range of relevant environmental factors, including but not limited to: heritage impact on a Grade II listed farmhouse and nearby scheduled monuments; adverse landscape and visual effects; water demand and groundwater vulnerability; pollutant by-products and residue handling; technical feasibility and environmental implications of direct air capture; noise and vibration impacts; harm to priority habitats and protected species; surface water flood risk; traffic and access implications; and risk management of hazardous gases.

In combination, these factors plainly indicate that the project has the potential to result in significant environmental effects that warrant proper assessment. The deficiencies in the Screening submission, and the applicant's failure to engage with the site's evident environmental sensitivities, further reinforce the need for formal scrutiny through the EIA process. Accordingly, we respectfully urge the Local Planning Authority to adopt a precautionary and proportionate approach by issuing a positive Screening Opinion, thereby requiring the submission of a full Environmental Statement.

We reiterate that this is our client's initial response. Should the applicant choose to supplement its submission with further information or clarification, our client reserves the right to make additional representations in due course.

Yours faithfully

*Norton Taylor Nunn Limited*

**Benjamin Paul Norton LLB MRTPI**

Director



