Volume 1 - Non-Technical Summary

West Springfield Solar EIA Report

TRIO West Springfield Solar LLP

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1. Purpose of the EIA Report

1.1.1 The West Springfield Solar and Battery Energy Storage System (BESS) project is being proposed by TRIO West Springfield Solar LLP and is located near Cupar in Fife (refer to **Figure 1 Site Location Plan**). The development comprises a 49.9 megawatt (MW) solar photovoltaic (PV) array and a 35MW BESS, designed to generate and store renewable electricity, contributing to Scotland's transition to net zero.

1.1.2 The application is supported by an Environmental Impact Assessment (EIA) Report prepared in line with the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017. This Non-Technical Summary (NTS) provides an accessible overview of the key findings of that assessment.

1.1.3 The Proposed Development covers approximately 101 hectares across twelve land parcels and the Site is currently in agricultural use. The solar array and supporting infrastructure will be installed to ensure minimal environmental impact, with decommissioning planned after a 40-year operational life.

1.1.4 The project is expected to generate approximately 60,300 megawatt hours (MWh) of electricity per year. This is equivalent to the annual consumption of around 23,000 average Scottish homes. A co-located BESS will enable energy to be stored and supplied when most needed, improving the resilience of the grid and supporting renewable integration.

1.1.5 The EIA identifies the likely environmental effects from construction, operation, and decommissioning, and proposes mitigation to reduce or avoid impacts. The findings demonstrate that, with mitigation in place, the Proposed Development is not predicted to result in significant adverse effects on the environment.

2. Site Selection and Design Evolution

2.1.1 The site at West Springfield was identified as a suitable location for a solar and battery energy storage project following feasibility studies and engagement with landowners. A range of environmental, technical and planning considerations were assessed, including landscape sensitivity, proximity to dwellings, grid connection potential, topography, and existing infrastructure. The site comprises approximately 101 hectares of primarily agricultural land, located south west of Cupar, Fife.

2.1.2 The design of the project followed an iterative approach informed by detailed environmental surveys, consultation with stakeholders, and community engagement. The goal was to balance optimal energy generation with minimising potential environmental and visual effects.

2.1.3 Three principal layout stages were developed:

Layout 1 (September 2022)

2.1.4 Layout 1 was informed by preliminary desktop environmental studies, and was the layout presented at initial community consultation events in 2022. This layout represents maximum coverage of the Site with solar photovoltaic (PV) panels based on maximising generating capacity of the Site whilst taking consideration of known Site constraints.

Layout 2 (February 2025)

2.1.5 Layout 2 was informed by baseline survey work, pre-application consultation with Fife Council, and feedback from community engagement, including a public exhibition. This layout reflects changes to the red line boundary with increased setback in the east from residential properties at Springfield, to reduce visibility of the Proposed Development from this area. Offset of the solar PV modules from the Site perimeter was increased to allow for sufficient space for maintenance access and hedgerow planting. The BESS compound was relocated further west to a well-screened land parcel, away from the east boundary to minimise visibility, and increase distance from potential noise sensitive receptors in Springfield.

Layout 3 (March 2025)

2.1.6 Layout 3 is the layout which is subject to the application for Section 36 consent (refer to **Figure 2 Site Layout**). Layout 3 was refined based on consolidated constraints from further Site surveys and baseline assessments including:

- Preliminary Ecological Appraisal (i.e. with a focus on bats and other protected species including badger, red squirrel, pine marten and buzzard);
- hydraulic modelling of Rankeilour Burn (i.e. mapped worst case flood risk extents);
- archaeological protection buffers;
- potentially buried (unknown) pre-historic assets;

- noise monitoring results;
- Site access requirements (i.e. proximity to core path, visibility splay extents);
- viewshed of Zone of Theoretical Visibility; and
- proposed planting and vegetative screening.

2.1.7 This iterative design process has helped ensure the final layout responds sensitively to both the site context and environmental considerations.

3. Proposed Development Description

3.1.1 The Proposed Development comprises a 49.9-megawatt (MW) ground-mounted solar photovoltaic (PV) array and a co-located 35MW Battery Energy Storage System (BESS), situated approximately 2.7 kilometres south west of Cupar in Fife.

3.1.2 The Site comprises of twelve distinct agricultural fields enveloped by mature woodland to the north, south and west. The existing land use is predominantly agricultural (arable) interspersed with woodland blocks. The Rankeilour Burn transects the Site from north to south but is mainly outside the Site boundary.

3.1.3 The PV array will consist of rows of panels mounted on frames fixed into the ground using steel piles. These rows will be spaced to allow access and avoid shading, with panels reaching a maximum height of 2.67 metres above ground. Inverters and transformers will convert the electricity generated for export to the local network.

3.1.4 The BESS will be housed in containerised units within a secure compound and will allow electricity generated during the day to be stored and discharged when demand is higher. Additional infrastructure includes a substation, customer compound, spares and communications buildings, access tracks, fencing, and CCTV.

3.1.5 Construction is expected to take 9 to 12 months and will include the installation of access roads, security fencing, cable trenches, solar mounting frames, and electrical infrastructure. A Construction Environmental Management Plan (CEMP) will be implemented to minimise impacts such as noise, dust, and pollution.

3.1.6 Once operational, the solar and BESS installations will require limited maintenance and will operate for an estimated 40 years. At the end of this period, the site will be fully decommissioned and restored to agricultural use. A detailed Decommissioning and Restoration Plan will be agreed with Fife Council before construction begins.

3.1.7 The development has been designed to connect to the electricity network via Cupar substation, and while the grid connection works are not part of this application, they will be consented separately.

3.1.8 The project has also considered potential cumulative impacts with other solar and energy storage developments in the area. These have been assessed within the Environmental Impact Assessment where appropriate.

4. The Proposed Development

4.1.1 The Environmental Impact Assessment (EIA) process for West Springfield Solar project has been carried out in line with relevant legislation, guidance and best practice. Its purpose is to identify potential environmental effects from the development and to propose measures to avoid, reduce or mitigate them. The EIA also supports informed decision-making by the Energy Consents Unit and other stakeholders.

4.1.2 The Proposed Development qualifies as a Schedule 2 development under the EIA Regulations. Although a formal scoping process was not undertaken, all relevant environmental topics were voluntarily scoped into the assessment to ensure a robust and transparent process.

4.1.3 The assessment considered the construction, operation and decommissioning phases, as well as the likely evolution of the environment if the project does not proceed. Each environmental topic was assessed for potential impacts, both in isolation and cumulatively with other nearby developments. Where necessary, mitigation was identified and incorporated into the project design or management plans.

4.1.4 Topics assessed include landscape and visual effects, ecology and biodiversity, cultural heritage, noise, traffic and access, glint and glare, and flood risk and hydrology. Consultation with stakeholders and the public helped shape the final design, and a separate report details the consultation process.

4.1.5 The EIA was supported by a team of qualified experts, with assessment methods tailored to each topic. Baseline surveys were carried out from 2024 into early 2025, and professional judgement was used to account for uncertainties and assumptions.

4.1.6 The results of the assessment are presented in the EIA Report, and this Non-Technical Summary provides a concise overview of the findings.

5. Landscape and Visual

5.1.1 A Landscape and Visual Impact Assessment (LVIA) has been undertaken to assess how the West Springfield Solar project may affect the surrounding landscape and views. This included consideration of both landscape character and visual amenity, using recognised guidance and consultation with Fife Council.

5.1.2 The Proposed Development has been designed to integrate the solar farm with associated infrastructure into its landscape context. The solar panels and associated infrastructure will be sensitively located within the existing field structures and away from the existing hedgerows and trees - maintaining buffers to allow vegetation to establish and mature. This includes the set back of PV panels from the site boundaries; alongside the careful placement of the substations, BESS facility and water tanks within a location that minimises their visibility from the landscape beyond the Site.

5.1.3 The Proposed Development also includes for landscape and biodiversity enhancements as part of the layout design. New planting of hedgerows, specimen trees, woodland, scrub planting, and species-rich grassland suitable for grazing is proposed across the Site. This planting is proposed in conjunction with the careful management/ augmentation of the existing onsite vegetation as part of the comprehensive landscape strategy, details of which are shown on the Landscape Mitigation Plan. The objective of this landscape strategy is to further help integrate the Proposed Development into its surrounding landscape, minimise potential adverse landscape and visual effects, and enhance the existing landscape structure, amenity value and biodiversity.

5.1.4 It is concluded that in landscape and visual terms, the Proposed Development is in line with FIFEplan Policies 1, 7, 10, 11, 13 and 14 and the principles of the Making Fife's Places Supplementary Guidance Document.

Landscape Effects

5.1.5 Effects on landscape character would be greatest within the Site and its immediate context where the present land use would change from an agricultural landscape to a solar farm development. Effects would reduce with distance from the Site, as the Proposed Development would be increasingly screened by a combination of vegetation, landform and buildings in the intervening landscape.

5.1.6 Medium term effects on the landscape character of the area would at most be Minor and not significant within the local landscape context. Overall, it is judged that effects would be Minor/negligible and not significant in long term and Neutral.

5.1.7 It is concluded that there would be no significant effects on landscape character as a result of the Proposed Development.

Visual Effects

5.1.8 Visual effects arising as a result of the Proposed Development would be at their greatest for visual receptors located along the western edge of the village of

Springfield, and users of the Core Path/ Cycle Way, which lines the Site's southern boundary.

5.1.9 Upon residents on the western edge of the village of Springfield, the effects attributable to the Proposed Development would at most be Moderate and significant on completion. With the proposed mitigation planting, the effects would reduce to Negligible and not significant long terms effects.

5.1.10 In relation to the section of the rural shared use path between Ladybank and Springfield, along the Site's southern boundary, the effects would occur within a few sections of the route resulting in Moderate and significant effects in the medium term, and Minor/negligible and not significant in long term given the planting enhancements proposed.

5.1.11 With distance from the Site in all directions, visual effects would reduce and be largely contained to within an area 0.5 km from the Site. Beyond this area, visual effects would at most be Minor/negligible and Neutral.

6. Ecology and Ornithology

6.1.1 An assessment of the potential ecological and ornithological effects of West Springfield Solar project was carried out through a combination of desktop study, field surveys, and consultation with key stakeholders. The study area included the development Site and its surroundings, focusing on habitats, protected species, and designated nature conservation sites.

6.1.2 The results of the field surveys indicated that the Site and surrounding area provide suitable habitat to support protected terrestrial and aquatic species, including:

- bats: one confirmed bat roost and numerous buildings, trees and structures with roost potential;
- otter: field signs indicating use of Rankeilour Burn;
- badger: field signs indicating use of the Site;
- freshwater fish: suitable habitat for multiple protected fish species and brown/sea trout and lamprey observed during the field survey;
- nesting birds: suitable habitat for nesting birds present;
- wintering geese: suitable foraging habitat for wintering geese present.

6.1.3 Multiple designated sites, particularly Ancient Woodland Inventory woodlands and sites designated for ornithology features, were present within the wider study area.

6.1.4 The assessment identified the potential for impacts to protected species including, injury and/or mortality, temporary or permanent habitat loss and/or fragmentation, degradation of habitats through pollution events and disturbance and/or displacement. Most effects were not significant, but some significant effects were identified for more sensitive species/groups, in the absence of mitigation measures.

6.1.5 In light of assessment results, the design of the Proposed Development avoids high quality and sensitive habitats such as woodlands, watercourses and hedgerows, where possible. Mitigation measures will be implemented including employment of an ECoW during construction works, avoiding sensitive periods for fish species, undertaking nesting bird checks, adhering to pollution prevention measures, adhering to good practice construction practices to minimise potential impacts to protected species (e.g., no nighttime working, limited speeds, avoiding sensitive habitats for temporary compounds and material storage).

6.1.6 In summary, when taking mitigation measures into account, no significant ecological impacts were identified. No cumulative impacts to any important ecological features were identified for the Proposed Development.

6.1.7 Biodiversity enhancements have been proposed (outlined in detail in the Biodiversity Enhancement Plan (RPS, 2025)) which will result in significant improvement of the habitat within the Site for key species such as breeding and

nesting birds, bats and barn owl. Enhancements include planting a species rich mix over land that is currently arable cropland (with low ecological value) and strengthening green networks and connecting key habitats (e.g., woodlands) through corridors comprising woodland and hedgerow planting. The latter will improve connectivity between woodlands within the Site for species such as bats, red squirrel, pine marten and badger.

7. Archaeology and Cultural Heritage

7.1.1 Cultural Heritage and Archaeology refers to assets which contribute to the historic environment. The cultural heritage and archaeological assessment was completed in two parts; direct physical impacts upon non-designated heritage assets and direct impacts upon designated heritage assets' setting.

7.1.2 A study area of 1.5km from the Site boundary was used to procure non-designated cultural heritage data and designated cultural heritage assets. The assessment used a desk-based approach to review known and potential archaeology within the Site and designated heritage assets coupled with data obtained during a blanket archaeological walkover and setting assessment.

7.1.3 The Site and surrounding area contain several prehistoric assets, including a ring ditch within the Site and various burial and domestic remains nearby. No Romano-British assets are within the Site, and medieval assets are limited but include references to the village of Pitlessie and nearby estates. Numerous post-medieval assets are associated with nearby estates, including Nether Rankeilour and Over Rankeilour, reflecting agricultural and domestic use. Modern assets primarily relate to World War I and II, including war memorials and defensive structures.

7.1.4 The design process has incorporated measures to ensure that both designated and non-designated heritage assets within the Site boundary are not directly impacted. An assessment of archaeological potential has concluded that there is a negligible potential for unknown Romano-British and modern assets and a low potential recorded for unknown medieval and post-medieval remains to be present. There is a high potential for unrecorded prehistoric remains to be present within the Site, which could include domestic or funerary remains. These are considered to have medium cultural heritage significance. Further mitigation measures have been suggested for non-designated heritage assets that might be impacted. A full mitigation scheme will be agreed with Fife Council.

7.1.5 Within the 1.5km study area there are two Scheduled Monuments. There are a total of 53 listed buildings within the study area, of which three are A Listed, 27 are B Listed and 23 are C Listed. There is one Conservation Area (CA390), namely the Bow of Fife. There are no Inventoried Battlefields or Inventoried Gardens and Designed Landscapes within the study area. In agreement with Fife Council, five designated heritage assets were scoped in for assessments on the effects of the Proposed Development on their settings.

7.1.6 An assessment for the potential of the Proposed Development to impact the setting of any designated cultural heritage assets within the study area was carried it. It demonstrated that no such effects would result from the proposals, including in relation to 'Park House, round house 320m NNW of' (SM8316), 'Ramornie Mains, roundhouse 650m ENE of' (SM8317), Rankeilour Dovecote (LB19135), Rankeilour Mains Farmhouse, Steading, Cartshed and Cottage (LB15490) and Over Rankeilour House, octagonal enclosure, and garage and gatepiers (LB15486).

7.1.7 The archaeology and cultural heritage assessment has not identified anything that would preclude development within the Site or result in any significant effects in relation to cultural heritage. The proposals would ensure compliance with the provisions of national and local planning policy.

8. Flood Risk and Drainage

8.1.1 The Flood Risk Assessment (FRA) has considered flood risks to the Proposed Development, including the access and egress routes from all potential sources. The FRA shows that the Proposed Development Site is not at any significant risk of flooding, including allowing for the effects of climate change, and that flood-free access/egress routes are available in line with national policy guidance. The development would not make flood risk worse elsewhere.

8.1.2 The Drainage Impact Assessment (DIA) demonstrates that the proposed BESS infrastructure can be suitably drained via a sustainable drainage system (SuDS) design that mimics natural drainage pathways. The SuDS design accounts for the storage of firewater (i.e. runoff of water used in the unlikely event of a fire) from the proposed BESS development. The DIA also sets out key maintenance requirements for the proposed SuDS design (i.e. inspections for blockages, vegetation and sediment management etc).

9. Noise

9.1.1 A noise assessment was undertaken to consider potential noise impacts from the Proposed Development on nearby noise sensitive receptors (NSRs). Noise impacts were assessed against the criteria outlined in the relevant British Standards and Local Authority guidance.

9.1.2 A baseline noise survey was conducted at four noise monitoring positions and determined that the baseline noise environment is generally quiet, with limited influence from anthropogenic noise sources.

9.1.3 Operational noise from the Proposed Development has been predicted using noise modelling software which found that the worst-case operational noise level at nearby houses would be below current daytime background levels. Therefore noise impacts are not significant, and no additional mitigation is required.

9.1.4 Operational noise from the Proposed Development is less than 5 dB above current night-time background levels and therefore noise impacts are not significant, and no additional mitigation is required.

10. Site Access and Transport

10.1.1 A Transport Statement supports the application for the Proposed Development. It shows that the Proposed Development would have satisfactory vehicle access from surrounding main roads during both operation and construction.

10.1.2 During construction, best practice measures for construction traffic would be implemented including sheeting of HGVs to prevent dust and requiring all HGVs leaving the Site to utilise the wheel wash to reduce the risk of dust, mud or other debris being deposited on the public road.

10.1.3 The Transport Statement presents estimates of vehicle movements during construction, which are expected to result in modest temporary increases in traffic levels on the surrounding roads. There would be very few vehicle movements during the Proposed Development's operation, with only a handful of vehicle movements expected during a typical month - as staff arrive and depart to inspect and carry out routine checks and maintenance.

10.1.4 The Proposed Development is capable of being accessed by a range of transport modes, as it connects to the existing footway and Core Path network. A Construction Traffic Management Plan will be provided by the Applicant in agreement with Fife Council. The CTMP will confirm details on accessibility of associated core paths, including those diverted during construction. All paths will remain once the Proposed Development is operational.

11. Glint & Glare

11.1.1 A glint and glare (G&G) assessment was carried out to evaluate potential effects from sunlight reflecting off the solar panels during the operation of the Proposed Development. This considered impacts on surrounding homes, roads, and aviation receptors.

11.1.2 The G&G assessment identified limited potential impacts on properties and transport routes surrounding the Proposed Development. Of the 30 assessed properties, only one is predicted to experience potentially significant effects, primarily due to the absence of any intervening vegetation. However, these impacts are likely overestimated due to conservative modelling assumptions and the current orientation of the residence's windows, and targeted vegetative screening is recommended to mitigate the effect. Other receptors are expected to experience only very minor glare, or none at all, with no health or safety implications.

11.1.3 For transport routes, the minor road to the west of the Site and the nearby trainline may experience intermittent glare during low sun angles in the early morning or evening. These results are also based on conservative assumptions, and real-world impacts are expected to be lower. Planned screening measures, including 3m-high hedgerows, will reduce any glare impacts even further.

11.1.4 Mitigation has been incorporated into the Site design through the Indicative Landscape Management Plan, which includes tree and hedge planting to provide physical screening.

12. Summary of Mitigation

12.1.1 Mitigation and enhancement measures for the construction and operation of the Proposed Development are set out in each technical chapter and relevant technical appendices and presented in Chapter 8 of the EIA Report. A short summary of the proposed mitigation is set out below:

- An outline Construction Environmental Management Plan to incorporate general mitigation and other relevant plans (i.e. Construction Traffic Management Plan (CTMP), and Site Waste Management Plan (SWMP)) as identified prior to construction;
- Appointment of an Environmental Clerk of Works (EnvCoW);
- Appointment of an Ecological Clerk of Works (ECoW);
- Delivery of a Landscape Mitigation Plan;
- Delivery of Species Protection Plan(s);
- A programme of archaeological works to be agreed with Fife Council; and
- Implementation of best practice measures for construction traffic including sheeting of HGVs to prevent dust and requiring all HGVs leaving the Site to utilise the wheel wash to reduce the risk of dust, mud or other debris being deposited on the public road.

13. Next Steps

13.1.1 The Applicant recognises the need to present the findings of the EIA Report as a matter of public record and in the interests of public engagement and transparency has sought to make the EIA Report available in digital format at the following web address:

https://www.blcenergy.com/projects/west-springfield/

13.1.2 Digital copies of complete application submissions are available free of charge on CD. Hard copies of the application documents may be obtained at a reasonable charge reflecting the cost of making the application(s) available.

13.1.3 To request a copy of the application submission please contact:

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Appendix A Non-Technical Summary Supporting Figures