

APPENDIX 2 – SUMMARY OF APPLICANTS SUPPORTING INFORMATION

Alternative Site Assessment

This Alternative Site Assessment focusses on a search area of 3km radius from the point of connection of the development (Laird Brothers Forfar). It identifies a number of constraints affecting site selection and suggests that ideally alternative sites on lower quality agricultural land or on previously developed land would be sought.

It considers four alternative sites including (1) land east of Forfar Golf Club; (2) Land west of Pitscandly; (3) Land East of Dundee Road; and (4) land southwest of Lownie Moor. It also indicates that the quarry west of Laird Brothers Forfar was also explored but was discounted due to undulating topography and the aspect of the site with a north facing slope making it unsuitable for solar development.

Land east of Forfar Golf Club (site 1) is described as having good access for construction traffic, close to the proposed grid connection point, and with favourable topography. That site is discounted as a viable alternative because a small part of that area is prime quality land, because there are listed buildings and areas of ancient woodland close to the site, because an area of the site towards the eastern site boundary is subject to flood risk, and because of its proximity to residential receptors. Sites 2 and 4 are described as the least favourable alternatives, as they predominantly comprise prime quality agricultural land, with flood risk, the presence of cultural heritage features, and construction traffic access described as factors which make those sites less favourable. Site 3 is described as the most appropriate alternative, but is discounted as it contains prime quality agricultural land, is distant from the grid connection and is less preferable for construction access.

The alternative site assessment suggests that it has demonstrated that there are very limited alternative sites for the development of a 30MW solar farm within the search area. This is due to the presence of several environmental, ecological and heritage constraints, along with unfavourable topography and aspect for a large proportion of the search area. The search for alternative sites has also sought to avoid prime agricultural land (that within Classes 1 – 3.1) wherever possible.

Archaeological And Heritage Statement

This statement describes the significance of designated and non-designated heritage assets potentially affected by the proposals. The statement indicates that there are no designated heritage assets located within the boundary of the site nor along the cable route. It notes that within the eastern area of the site there are three non-designated heritage assets comprising the location of former cottages all of which are now demolished. It also notes the location of the disused former Caledonian Railway to the east of the western parcel where solar panels are proposed. In respect to archaeology, the assessment has found potential for post medieval archaeological remains within the site through visible cropmarks. It indicates that archaeological potential appears to be restricted to the eastern half of the site and anticipates the remains would be of low (local) significance only.

The statement indicates that there is no evidence to reasonably indicate the potential for the presence of archaeological remains which would preclude development. It indicates that consultation with the archaeologist resulted in the advice that no archaeological mitigation would be required. Therefore, it anticipates that no further works are required at this stage.

This assessment also considers the indirect impacts to the cultural significance of heritage assets as consequence of changes associated with the proposals. No adverse impacts have

been identified and the statement opines that the proposals are therefore in accordance with national and local planning policy on heritage grounds.

Badger Survey Report

A dedicated badger survey was undertaken by a qualified and experienced ecologist following best practice guidance. The survey involved a systematic search of the site and 30m study area for field signs to indicate the presence of badger. For badgers, field signs include setts, latrines, paths and foraging. No badger setts were recorded within the site or study area for both the solar farm and cable route. The report includes a number of recommendations noting that badgers are a highly mobile species. They include a pre-construction badger survey is undertaken before the commencement of any works.

Solar Farm Benefits Consultation Leaflet

This is a single page leaflet which identifies bullet points under the headings fighting climate change, biodiversity net gains, supporting local employment, battery energy storage system, and socio-economic benefits.

It indicates that a 30MW solar farm would provide the equivalent of powering 13,103 homes annually and would save 8,322 tonnes of CO₂ annually. It indicates that the proposal would result in 3km of new native hedgerow, 57 hectares of new meadow grassland, 100 trees and a new wildlife pond. It indicates that the proposal would support 80 jobs and would create 8 more jobs at Laird Aggregates block making plant. It indicates that Laird Aggregates has the ambition to be the first 100% renewable powered block making plant in the UK.

Biodiversity net gain technical note

This document indicates that no irreplaceable habitats or statutory designated sites are impacted by the proposed development. The site is currently mainly composed of intensively managed cereal crop (winter stubble) and non-cereal crop, and is of low biodiversity value and low - medium distinctiveness. There is an area of moderate condition neutral grassland and very small areas of broadleaved and mixed woodlands, which are both poor quality. There are priority hedgerows within the site, and these will be retained. There is a small area of mixed dense scrub which is in poor condition and very small area of ruderal/ephemeral habitat. The loss of low biodiversity value cereal crop is not significant, as it will be replaced with species-rich grassland with newly planted hedgerows. These new habitats will achieve a higher condition and be of much higher biodiversity value.

The proposed habitats include the planting of native species and species listed under the qualifying criteria for priority habitat status.

The current proposal will result in a net gain of habitat units (+215.38%) and hedgerow units (+257.58%). While the Angus Council Local Development Plan does not state a requirement for a net gain in biodiversity, the NPF4 states local development plans should protect, conserve, restore and enhance biodiversity. The current proposal achieves at least the 10% that is generally recommended. The current proposal additionally satisfies the trading rules that low distinctive habitats (-116.56) will be offset by a large increase in created medium distinctiveness habitats (+386.85).

The landscape design is not yet finalised, and so accordingly, this calculation will require updating once finalised species schedules are available.

It is recommended a Landscape and Ecology Management Plan is produced to confirm the habitat creation, management measures and monitoring requirements, over the 40-year

management period. It should also include proposed biodiversity enhancements within the development.

Breeding bird survey

Breeding Bird Surveys on the site of a proposed solar farm and cable route development were carried out. This comprised both a desk study and site survey comprising four visits between May and July 2022. A total of 39 species were recorded within the site of which 24 species were likely to have held breeding territory on site. The site is considered to currently support a breeding bird assemblage of local value.

Breeding yellowhammer and chaffinch were recorded on site along with other probable/possible breeding farmland species such as skylark, linnet, and whitethroat. Woodland species including willow warbler and song thrush were also recorded. A good diversity of bird of prey species such as sparrowhawk, kestrel and tawny owl were recorded but were considered unlikely to breed directly on-site. Retention and enhancement of grassland and hedgerow networks is recommended, where possible, to ensure that the site remains viable for the recorded assemblage. To manage the grassland around the solar arrays, all or part of the solar farm is re-sown with a diverse wildflower and fine grass seed mix. Where applicable grasslands are to be managed for ground nesting birds. Installation of species-specific bird of prey nest boxes in nearby woodlands is recommended to enhance the breeding potential for species such as kestrel, sparrowhawk, and tawny owl.

Climate change assessment

The report identifies that the importance of climate change mitigation and adaptation has never been more relevant as the world seeks to keep the global average temperature rise under 1.5 degrees. It indicates that solar energy is a key player in supporting the transition to a low carbon future and is a growing part of the UK's energy mix.

This report focused on two distinct sections. The first assessed how the proposed development would contribute towards climate change mitigation. It was found that the solar PV farm would generate around 1528 GWh of electricity over the lifespan of the development and save a total of 221,791 tonnes of CO₂e when compared to a natural gas energy supply.

The second section reviewed the effects of climate change and how these impact on the proposed development. It was found that with embedded mitigation in place, the development is deemed to be resilient to climate change impacts that are forecast to occur over the proposed 40-year lifetime.

Flood risk assessment

The proposed development is described as being at a very low to low risk of flooding from fluvial, surface water, groundwater and underground drainage sources. Although it is understood, anecdotally, that localised surface water flooding does occur during extreme storm events in this area.

It indicates that the proposal comprises a series of solar arrays mounted above ground on driven poles with no requirement for any concrete foundations and spaced approximately 5m apart. The assessment indicates that rain falling onto the panels will run off on to the ground beneath the downslope panel and disperse as per the existing scenario. It suggests that underground field drainage shall be investigated to confirm that it remains operational and any damaged drainage infrastructure would be replaced.

The proposed development will cause a minimal increase in impermeable ground within the large site area and, therefore, a minimal increase in the rate and volume of surface water runoff generated during storm events. Vegetated swales would be incorporated into the layout of the site to intercept and retain any increased runoff downstream of impermeable areas and allow this to disperse naturally without flowing off site. Whilst solar panels will not increase the rate and volume of surface water runoff, swales will also be included along all downslope field boundaries to intercept runoff as a precautionary measure. This would provide betterment to the existing scenario where surface water runoff flows beyond field boundaries at an unrestricted rate.

The report concludes that the risk of flooding to surrounding areas will not increase as a result of the proposed development and that the site is suitable for the proposed development.

Glint assessment

This glint assessment seeks to demonstrate the possible effects that reflected sunlight from the proposed solar farm would have on receptors in the vicinity, such as residential properties, roads, and national trails.

The reflectivity of solar panels is considerably less than many other common materials seen in the built or natural environment, and the overall potential for glint at receptors within the vicinity of the site is low.

Glint is theoretically possible for many receptors before taking screening into account but is only visible to a few receptors after screening is accounted for. The assessment found that, before accounting for any screening, but allowing for localised weather conditions, glint will occur for no more than 0.89% of a daylight hour at any of the receptors and considerably less than this in most cases. For each receptor, glint effects will occur at various times of the day and year. For Observation Points (OPs) 1 to 4, located to the north of the PV arrays, the proposed screening measures, which include trees and hedgerows, in addition to the existing screening will prevent visibility to the panels capable of causing glint effects.

In the absence of screening, Observations Points 16 to 21 are predicted to experience varying lengths of effect at different times of the year, but glint will only be possible in the late afternoon due to these receptors lying to the east of the PV arrays. Again, the existing screening and provision of new planting, means that visibility to the PV arrays will be very limited, if there is any at all.

Some of the properties represented by OPs 1-4, and 16-22 may theoretically overlook elements of screening due to their elevated position. If this is the case, visibility is expected to be restricted to views from upper floor windows.

Most of the other receptors in the local area are too distant or have no direct visibility to the panels and, given the topography of the land, the level of intervening vegetation and other screening, and the onsite mitigation being proposed, observation of glint will not be possible. This onsite mitigation includes the enhancement of existing vegetation to allow it to grow out and the planting of new vegetation such as hedgerows and trees. Any glimpses of glint that did remain visible would be no worse than seeing a sunlight reflection off a window or still water.

Road 1 (B9128), which passes down the western side of array 1 and then along its southern side, will be well screened with the existing and proposed planting. Road 2 (C51), to the north of the PV arrays, will similarly be well screened by the topography, existing screening and the introduction of the proposed planting.

Roads 3 (U518 Lownie Moor), 5 (C55) and 6 (C55) are not predicted to experience any glint due to vegetation and the proposed 3m high hedgerows. Roads 7 (U462) and 8 (U462) are predicted to experience glimpses of glint while planting matures, which will not have a significant effect on road users, after which there will be no visibility at all.

Taking into account some of the existing vegetation that surrounds each array and the proposed mitigation measures including the planting of 3m hedgerows and trees around the arrays, visibility to the glint-producing panels will be very limited, and largely restricted to entrance gaps in the hedgerows. Since these roads will be mostly occupied by car users, given the speed that vehicles typically move, drivers are not likely to experience glint from these gaps for more than a couple of seconds.

Land capability for agriculture report

A land capability for agriculture survey was carried out on 58.9ha of agricultural land. It is indicated that an informed assessment has been undertaken using a combination of professional judgement, guidance, legislation and statutory policy.

The desk study identified that the detailed land capability maps identify the site as being Class 2 prime land to the north and Class 3.1 prime land to the south. It indicates that Class 2 agricultural land can produce a wide range of crops whereas Class 3.1 is more suited to use as a cereal and grass land farming, with the option to rotate with potatoes, seed rape and bean crops.

The field survey considered a number of factors including soil depth, drainage, climate, gradient, wetness, erosion and flood risk. It indicates that the overall agricultural land classification across the site is of prime agricultural land which comprises 22.22 ha of Class 2 (38.2%) and 35.00 ha of Class 3.1 (61.8%).

The policy assessment makes reference to NPF4 5(b) which relates to soils and ALDP Policy PV20 which relates to soils and geodiversity and notes that those policies offer support for the use of prime quality land for renewable energy development.

Landscape and visual appraisal

The effects on the landscape character of the site and the immediate surrounding area resulting from the proposed Solar Farm and BESS development would be up to moderate to substantial adverse in the short to medium term due to the current lack of enclosure of the solar farm site. Effects on the wider landscape character of the Low Moorland Hills LCT would not exceed moderate adverse overall and would be within approximately 1km of the site. This is due to the gently sloping landform of the site and presence of intervening vegetation limiting perception of the development at greater distances. Effects would reduce in the longer term as the proposed tree and hedgerow planting to the site boundaries and within the site establishes and grows to screen views into the development.

Views of the proposed solar farm and BESS development from the range of visual receptors: properties, settlements, users of the transport and rights of way network and recreational receptors have been appraised.

The most noticeable effects experienced by residential receptors would be by the residents of properties adjacent to the solar site, which include Hillend, Lownie, Station House, Cotton of Lownie, Silverhillock, Newlands and Whiteburn Cottage, and from the small settlement of Craichie. In the medium to long term (5 - 10 years), hedgerows will have grown out and are likely to screen more of the view, therefore, the long-term effect would be moderate adverse.

The solar farm development would not be visible from Forfar and there may just be some limited glimpses of the BESS site from the southern edge of Forfar. Views from Kingsmuir would be limited to oblique views from the properties on the southern edge of the village, which would be screened by site boundary planting as it establishes.

In terms of the users of the transport and Core Paths network throughout the study area, users of the B9128 would have views of the development from Tulloes in the south-east and Kingsmuir in the north-west due to the lack of boundary hedgerows to the site, there would be close and open views of the solar farm from the roads that runs along the northern boundary of field C and between fields A and B, and from the Core Paths at Kingsmuir and Lownie. Effects would reduce with time as proposed planting establishes.

In conclusion, the proposed development would result in some substantial and moderate adverse landscape effects and visual effects within approximately 1km of the solar farm site. However, the introduction of new hedgerow and tree planting to all the site boundaries and within the solar farm site would reduce the level of effects as it establishes. At the end of the development's design life, the site will be dismantled and restored to its pre existing condition. The effects of the scheme are therefore reversible, and there would be no residual adverse landscape or visual effects as a result. The beneficial impacts of the proposed planting would be retained and permanent.

Landscape and visual appraisal (addendum)

The main change to the development that would reduce the landscape and visual impacts would be the removal of the development in Field A. The additional viewpoints and photomontages provided further illustrate the landscape and visual effects described and assessed in the submitted LVA, in particular for Field C, they do not change the conclusions of the submitted LVA with regards to Field C. It would also remain the case that the introduction of new hedgerow and tree planting to all the site boundaries and within the solar farm site would reduce the level of effects as it establishes.

Noise assessment

The proposed development is for a solar photovoltaic (PV) farm with a capacity of up to 30MW and associated infrastructure. The potential noise associated with the proposed development has been assessed at the nearest existing noise sensitive receptors.

A noise survey of existing levels was undertaken at 8 noise monitoring locations surrounding the proposed site and noise predictions were undertaken for the proposed development.

The construction phase activities associated with the proposed development have the potential to generate short term increases in noise levels at sensitive receptors. The scale of the proposed development means that only light infrastructure will be built, and the construction period will be relatively short and is expected to last approximately 20 weeks. Details of 'best practice' management and control measures are recommended to ensure that any potential noise impacts are minimised during the five-month construction phase.

An assessment of the noise generated by the operational phase of the proposed development has been carried out in accordance with the Scottish Government's Planning Advice Note (PAN) 1/2011: planning and noise, Technical Advice Note (TAN) on Noise, and British Standard 4142 'Methods for rating and assessing industrial and commercial sound' (BS 4142). The assessment is based upon noise emission data for pieces of equipment which have been assumed for the proposed development, from indicative design information provided by the client.

When considering the site in context according to the full BS 4142 process, it was found that the operational noise generated by equipment associated with the development will be relatively low. During the more sensitive night-time period identified in the initial estimate of BS 4142, it has been found that sound from the solar farm is very unlikely to reach the predicted levels as solar PV operates in daylight, so development would not be audible to the residents. The full BS 4142 assessment indicates that there is a Low likelihood of an adverse impact at all the nearest ESRs and all time periods. Accordingly, no noise mitigation measures will be required during the operational phase.

In regard to PAN and TAN, the magnitude of impact from the proposed development at sensitive receptors can be rated as Moderate for the most sensitive receptors, and therefore in accordance with TAN noise not likely to be a key decision-making issue.

Outline construction environmental management plan

The outline construction environmental management plan provides background information and outlines the purpose and structure of the OCEMP, it provides a brief description of the site and proposed development, outlines the roles and responsibilities of those involved in the construction phase, relevant legislation and regulations, training strategies, and communication methods; details the non-environmental operations that would be implemented as part of the construction phase; and details those environmental factors that are key to the site and development, what construction operations would affect them and, if necessary, how impacts would be mitigated.

It indicates that the construction hours would be Monday to Saturday 0700-1900 with no construction activity on Sundays or public holidays. Delivery hours would be limited to 1000 to 1600 Monday to Friday and 0900-1300 on Saturdays.

Pre-application consultation report

The report indicates that pre-application consultation has been undertaken in accordance with national and local policy considerations in order to engage with the local planning authority, the local community, and other interested parties at the earliest opportunity.

The consultation process ensured key interested parties are aware of the scheme and it has given the community the opportunity to express their views to the applicant.

Wide-scale community engagement took place in the form of two physical public consultation events and an interactive website, which received a number of comments and opinions. The applicant and design team have considered all comments and responded to any requests for clarification on any particular point. It is considered that this was an effective way of engaging with the community by not only receiving feedback, but responding to questions or concerns they may have.

All comments have been considered as part of the application, including those with constructive feedback or concerns. As a result of the feedback, the proposed development has been amended and improved, resulting in a better scheme.

Preliminary ecological appraisal

The aim of the Preliminary Ecological Appraisal is to provide ecological baseline information for the site and to identify the likely presence of potential ecological receptors within or near to the site that could be subject to adverse effects arising from the proposed development.

The desk study and field survey confirmed that the site has potential to support the following protected or notable species: bats, badgers, red squirrel, reptiles and nesting birds. EDNA Surveys confirmed that great crested newts are absent from the site.

A further transect survey may be required for red squirrel prior to construction works if the woodland adjacent to the Site will be impacted by the proposed development. Pre-construction checks should be undertaken for badgers and, if vegetation clearance is required between March - August, nesting birds.

A series of recommendations have been made to outline the avoidance, mitigation and enhancement measures that should be considered as part of the proposals for the Site. By following these recommendations, the proposed solar farm and battery energy storage system development will not result in the loss of, or serious damage to any significant ecological features and will not have a negative impact on ecological diversity in accordance with the requirements of local plan policy. The proposals have the potential to result in a biodiversity net gain through the implementation of measures including the installation of bat and bird boxes, bee banks, and reptile hibernacula across the Site (to be secured via a LEMP). The application is therefore compliant with relevant ecology policy and should therefore be approved on this basis.

Preliminary ecological appraisal (cable route)

The Preliminary Ecological Appraisal (PEA) of the cable route records and map the habitats present within the site, and determine the likely / potential presence of protected and/or notable species.

This report describes the methods used to gather and record habitat baseline information for the site, summarises the findings of the desk study and provides details of the field investigation. The appraisal indicates that the proposal would not impact on any designated nature conservation sites. The appraisal includes recommendations and mitigation and includes a requirement for further species-specific surveys and/or habitat retention and enhancement strategies.

Planning design and access statement

The importance of climate change mitigation and adaptation, as well as the need for affordable and secure energy, has never been more relevant. Solar energy is considered to be a key player in supporting the transition to a zero-carbon future and is a growing part of the UK's energy mix. To support and fast track the transition, it is proposed to install a solar farm on land south east of Forfar, with a small battery energy storage system located on former quarrying land at Auchterforfar Quarry – an underground cable would connect these two together. The renewable energy produced by the solar farm would be transferred to Laird Aggregates, a concrete block making facility, in order to help achieve their ambition of becoming the first concrete block plant in the UK to operate from 100% green electricity, with any surplus energy being exported to the wider distribution network. The solar farm would also help safeguard 80 local jobs and will allow for the creation of eight additional ones.

The success of solar in Scotland has been highly regarded in recent strategies, with aims now to maximise the contribution that solar can make in contributing towards Scotland's legal obligation to achieve net zero emissions by 2045. As part of the proposals, three miles of hedgerows, as well as tree planting, scrub, extensive wildflower meadows and a wildlife pond are being proposed. This would result in substantial biodiversity enhancements while supporting targets to reduce carbon emissions, addressing the joint Climate Change and nature crises recognised both at a national and local level. Soils also play an important role in mitigating against Climate Change, as long as they are healthy. Temporary solar

development on agricultural fields can support good soil management by allowing the soil to rest, thereby enhancing the ability of the land to store carbon and continue helping to mitigate against Climate Change. Food production could continue by means of sheep grazing, as part of a carefully managed grazing regime.

The proposed solar farm would be operational for a temporary period of 40 years, after which it would be decommissioned, and the site restored to its current agricultural use, retaining all biodiversity enhancements. During this period, the solar farm would offset 8,322 tonnes of CO₂ emissions per year.

The Planning, Design and Access Statement describes the site and proposed development, including showing how the design and access arrangements are a suitable response to the site and its setting. The development is considered to be compliant with the policies in the statutory Development Plan, with other material considerations, such as Scottish Government net zero targets and strategies, also largely supporting the proposed development.

Soil management plan

The Soil Management Plan (SMP) indicates that the site comprises a parcel of land, 58.9 hectares (ha) of predominantly agricultural land. The soils across the agricultural land on site are imperfectly drained in nature and have a very light (sandy loam or loamy sand) or medium (clay loam) texture. The main risks to the soil quality associated with these soils is erosion and compaction.

The main recommendations for sustainable soil management are:

- Topsoil and subsoil are to be stripped and stored separately to avoid mixing and to maintain both soil quality and applicability for reuse.
- Only low ground pressure is used and traffic is limited to dedicated haul roads where possible.
- If any adverse damage is done to the soils during construction, this should be ameliorated prior to seeding.
- Topsoil is not to be replaced to a depth of greater than 300mm.

Transport statement

The statement assesses the transport implications of the proposed development during its construction and any subsequent operational traffic impact.

Construction and primary maintenance and operational access to the proposed development will be provided via introduction of a priority-controlled T-junction on B9128, Dunnichen Road at the west of the site. Access to the smaller fields are via existing field accesses which are to be improved as part of the proposed development. Visibility splays of 2.4m x 160m appear to be achievable in both directions at the primary site access, subject to minor vegetation clearance.

The impact of the proposed level of construction traffic on B9128, Dunnichen Road during the anticipated five-month construction period is expected to have no significant adverse impact on the operation of the local highway network, with an estimated maximum of 70 daily traffic movements comprised of 58 cars or vans and 12 HGVs. The route identified for construction traffic is from the A90(T) Glamis junction, via Forfar town centre and through Kingsmuir. The primary means of controlling construction vehicular traffic will be through an approved Construction Traffic Management Plan.

The wider road network within the immediate vicinity of the site is not subject to any weight or height restrictions, and suitable to accommodate all types of vehicles including maximum articulated delivery vehicles.

The proposed access routes are therefore considered suitable for use by the relatively low number of HGVs that will be associated with the temporary construction period.

The only requirement for staff to visit the site during the operational phase will be for maintenance purposes. No staff will be based at the site and there will be no daily staff-related trip generation. Such traffic movements will have no material impact on the local road network.

The initial measures outlined within this report are based on experience of similar projects and current knowledge of the site. It is recognised that the contents of the CTMP and final measures will be formed through engagement with Angus Council in advance of construction.