PRE-APPLICATION ENQUIRY REPORT

Proposed Photovoltaic Solar Farm & Battery Energy Storage Facility
Lands at Rankeilour Estate, Springfield, Cupar, Fife KY15 5GY

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1 INTRODUCTION

1.1 Background

This Report is prepared as a submission to Fife Council – Planning Department, to provide an overview and appropriate detail regarding a solar farm and battery energy storage facility proposal on a portion of lands located within the local authority area. The Report is submitted by RPS (Planning/Environmental Consultants) on behalf of Elgin Energy (Applicant).

It is the intention that the site analysis and project overview contained within this Report will provide sufficient information to inform appropriate feedback from the Council regarding the development potential of the site for the proposed use as a solar farm and battery energy storage. The Report is submitted to Fife Council as part of their established pre-planning procedures.

The site comprises agricultural farmland occupying an area of approximately 109 hectares (c. 269 acres) – see Figure 1.1 below for reference. A concept site layout is provided in Appendix B. It is not intended that the proposed development would occupy all of this land. Rather it is proposed that a preferred area will be identified within the wider landholding through a process of baseline environmental studies, on-site analysis and consultation with the local Council.

Figure 1.1 Proposed Site Location, Rankeilour Estate, Springfield, Cupar, Fife KY15 5GY

1.2 The Applicant

The Applicant, Elgin Energy Esco Ltd 'Elgin Energy' is a leading international and independent solar development Company set up in 2009. Elgin Energy has extensive experience in delivering projects from initial landowner engagement to project completion having initially begun development in the UK in 2011, followed by Ireland in 2015 and Australia in 2018.

As of 2021, Elgin Energy has successfully delivered 230MW of solar energy across 21 projects in the UK, providing the equivalent of 75,000 homes with clean energy on an annual basis. This includes Scotland's largest solar farm at Errol Estate. The company has successfully obtained consent for 1,200MW across 63

projects including Scotland's first Energy Consent Unit (ECU) application at Milltown Airfield. A further 5GW solar + 3GW storage projects are at late stages of development across the UK, Ireland and Australia.

1.3 Proposed Development Overview

When operational the development will have a Maximum Export Capacity (MEC) of greater than 50MW consisting of a Solar PV Farm of approximately 75MW and a Battery Energy Storage Facility of approximately 50MW capacity. Project components are summarised below and described in greater detail within subsequent text:

- Photovoltaic (PV) Solar Panels erected on steel frames in arrays of 24 or 48 panels;
- Battery Energy Storage Facility comprising approximately 50 No. storage units each typically measuring 12.2m (l) x 2.4m (w) x 3.4m (h); together with approximately 25 No. associated inverter units typically measuring 6.1m (l) x 2.4m (w) x 3.4m (h);
- 1 No. Primary Sub-station typically measuring 6m (l) x 3.2m (w) x 3.4m (h);
- Approximately 25 No. Inverter Substation units, associated with the solar farm, typically measuring between 7.5m and 10m (l) x 2.2m and 3m (w) x 2.2m and 3m (h) to be located across the site;
- Perimeter post and wire "deer" fencing (c.2.45m high);
- A number of strategically located CCTV security cameras (c.3m high);
- Access will be off an unnamed road near Ladybank which is immediately west of the site, and off Main Street which is located to the east of the site; and
- Associated internal service tracks.

When operational the site will support a dual renewable/farming use and the overwhelming land area will remain agricultural. Sheep grazing will take place across the entire area and will not be impeded by the proposed infrastructure.

1.3.1 Solar Panels

The proposed panels will measure typically 2.4m by 1.3m. These will be mounted in frame tables at an inclination of up to approximately 25 degrees depending upon localised topography. Each frame table will be supported on steel/aluminium posts/frames that will be pushed or screwed into the ground to depths of approximately 1.5m. The front bottom edge of the panels will be typically 0.8m above existing ground level and within a range of 500mm to 1.2m, again depending on local topography. Overall panel heights from ground level will typically range between 2.4m to 3.2m. The spacing between the arrays will vary between 2 – 8m. All panels placed on the site will be orientated to face south and are fixed in place. They do not move to follow the path of the sun. Panels are opaque in nature and are designed specifically to absorb rather than reflect the sun's rays.

1.3.2 Mounting System

Each frame table will be supported on aluminium and steel posts/frames. Where posts are pushed into the ground this is via typical agricultural methods routinely used to erect fence posts on farms and in the rural area. Depending on ground conditions frames will be fixed to the ground by either:

- Option 1 - Single post ground fixture, which as suggested will be a single aluminium/steel frame driven into the ground (Figure 1.2);
- Option 2 - Table post ground fixtures - where frames will be fixed on duel posts driven into the ground. An indicative cross section is also included in Figure 1.2 below; or

- Option 3 - In cases where it is required to safeguard potential archaeological assets frames can be mounted using a shallow concrete 'shoe' which sits at a maximum of 400mm above ground level. An indicative cross section is included in Figure 1.3 below.

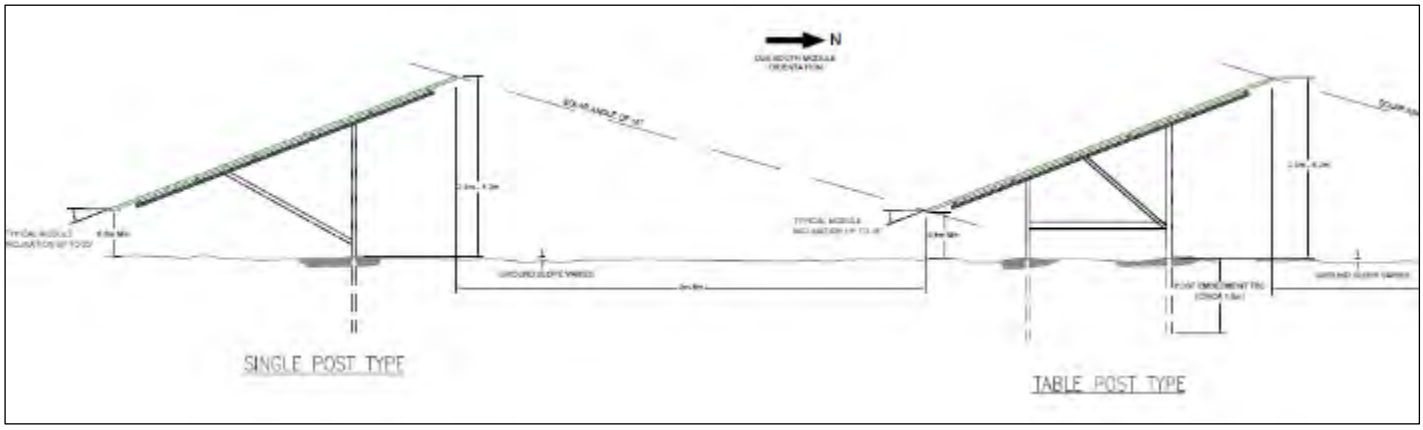


Figure 1.2 Typical Cross Sections - Single Post and Table Post Ground Mounting Systems

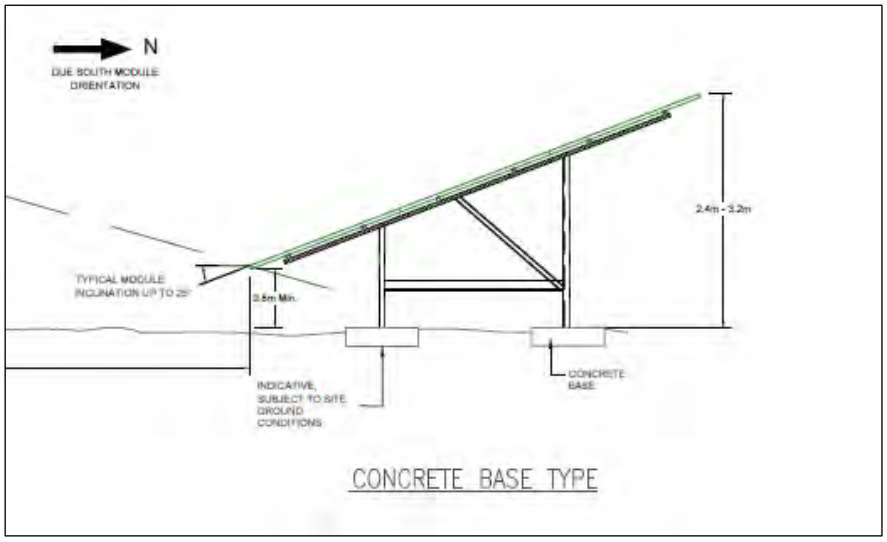


Figure 1.3 Typical Cross Section - Shallow Concrete Base Mounting System

1.3.3 Connecting Cables

As part of the solar PV plug and play system, small connecting cables run along the back of each panel to the end of every row where they connect to the main cables which in turn connect to the inverter stations and primary substation.

1.3.4 Battery Storage

The battery storage facility will have a capacity of approximately 50MW and will comprise approximately 50 No. storage units typically measuring 12.2m (l) x 2.4m (w) x 3.4m (h) set side by side generally 3 metres apart. Each pair of storage units will have an associated inverter substation typically measuring 6.1m (l) x 2.4m (w) x 3.4m (h) set 3m apart from the storage units. The battery storage facility will be set adjacent to the Substation Compound located within the north-eastern portion of the site.

Figure 1.4 Typical Battery Storage Unit

1.3.5 Primary Substation Building

The substation and control building compound will accommodate all necessary equipment to enable the solar farm electrical system to be controlled, monitored, metered and connected to the network.

The control building will take the form of a multi-compartment prefabricated structure atop a concrete foundation and accommodate metering equipment, switchgear, transformers, the central computer system and electrical control panels. SCADA and telecommunications links will also be required at the site for the purposes of metering, remote control and protection communication to the Network Control Centre.

1.3.6 Inverter Stations

Inverter Substation units associated with the solar (25 No. approximately) will be located throughout the development area. These are container like buildings constructed either on a concrete base or on concreate plinths/shoes, typically measuring between 7.5m and 10m (l) x 2.2m and 3m (w) x 2.2m and 3m (h). These stations are connected to the panels by cabling which has been buried underground - as per 1.3.3 above. The stations convert the Direct Current electricity generated by the solar panels into Alternating Current (AC) electricity before being fed into the primary substation and then onward to the local electricity grid network.

1.3.7 Perimeter Fencing

For security purposes the area of development will be enclosed by c.2.45m high post and wire (deer) fencing, see Figure 1.5 below. The materials used are chosen to be in keeping with the landscape. Where hedgerows exist or where planting is proposed the fencing will be located on the internal side of said planting to obscure visual impacts. The fence will be raised approximately 100mm off the ground to allow continued unrestricted mammal access across the site.

Figure 1.5 Proposed Perimeter Fencing

1.3.8 CCTV Cameras

For security purposes there will be CCTV cameras placed strategically throughout the development site. These will be pole mounted to heights of c.3m, be directed along fence-lines and utilise infra-red technology.

This is an essential component of the overall development and is required to monitor the site and detect any unauthorised access.

Cameras are designed to not move either intentionally or unintentionally due to adverse weather conditions or animal activity. Adequate safeguards are in place to ensure that privacy interests are not compromised and the rights of individuals whose personal data may be recorded by the cameras are protected

It is not necessary to floodlight the facility and no permanent lighting is proposed.

1.3.9 Access and Traffic

As per Section 1.3.11 below, the Construction period for the development will last c.16 weeks. There would be a higher level of traffic during Weeks 8 - 15 with the highest cumulative total of deliveries occurring in Week 8 when there will be c.73 HGV deliveries across the entire 1 week period.

Project components will be delivered to site via standard HGV. There will be no oversized loads associated with the development.

Access will be via existing private laneway off the unnamed road near Ladybank which is located to the west of the site, together with another access off Main Street to the east of the site. Junction upgrades may be provided as part of proposals.

1.3.10 Internal Service Tracks

The development will utilise existing agricultural lanes for servicing purposes in so far as is reasonably possible. Access will also be achievable during construction and operation via tractor or 4 x 4 vehicles around the periphery of existing fields where buffers to field boundaries are designed into development proposals. As such the extent of proposed new access tracks is minimised.

Where new tracks are required these will be permeable and of stone construction.

1.3.11 Construction Period

The proposal will be constructed across a 16 week period approximately - not allowing for holiday periods or any potential work embargos placed on construction via any planning conditions during certain periods, should such embargo be required.

1.3.12 Operational Period

It is anticipated that the proposal will have an operating life of 40 years after which all panels, battery storage units and associated infrastructure will be removed and the site reinstated in accordance with a scheme to be agreed in writing with the Planning Authority at that time. This requirement is likely to be attached as a condition of compliance to any notice of planning consent.

The site will remain in agricultural use during the operation of the solar farm and sheep will continue to graze between the panels.

During operation the site will be unmanned and only occasional will be required for maintenance and cleaning purposes (c. 1 x fortnightly).

1.3.13 Panel Cleaning / Maintenance

Professional contractors will undertake panel cleaning using de-ionised water. Cleaning will tend to take place during times of dry weather. As per the specified PV module manufacturer guidelines, no chemicals will be used in the cleaning of the modules ensuring there will be no contaminated run-off from panel washings on.

PV modules are classed as a 'Class 2' electrical component; this means that no touchable part of the panel is capable of causing electrocution, even in the event of internal short circuit.

1.3.14 Decommissioning

At the end of the project's operational life the solar farm and battery storage facility will be fully decommissioned. This will include the substation which will then be obsolete.

All project elements will be removed from site and where possible will be recycled. Any waste generated during the decommissioning process will be removed and transported by a certified and licensed contractor. The site will be restored leaving no permanent visible trace. The solar panels will be removed from the site in the same way they were transported to the site originally. The cables interconnecting the panels to the electricity grid system will be de-energised and removed from the site, with any cable marker signs removed.

Over this time any landscaping associated with proposals and over this period will establish and grow to form mature hedgerows and shrubbery. All landscaping will be retained in situ.

A decommissioning programme will be agreed with the relevant authorities prior to commencement of the required works. An alternative option at the end of the solar farm operational life cycle may be the refurbishment or replacement of components. This action would be dependent upon many factors all of which would combine to inform viability at such future date. Any such proposal would require a new development consent application.

1.4 Design Principles

A set of best practice design principles underpin the Elgin approach to development including:

- Undertaking development proposals within the existing site constraints including field boundaries, existing vegetation and site topography;
- Tree retention across the site and accommodation of development proposals within existing landscape features. Internal access tracks will be facilitated via existing gateways where possible;
- There will be no re-grading of land or cut and fill to facilitate panel placement. Excavation is required to allow cable laying only together with the foundations for the inverter stations Primary substation and the storage facility. Other than these foundations which equate to a negatable percentage of the site area;
- Areas of greatest environmental sensitivity within the wider site are excluded from development and a package of environmental management proposals including landscaping and ecological enhancements will form integral components of the project.

Appendix A of this Report contains sample images of solar farms developed by the applicant.

Appendix B of this Report contains a draft project layout to assist the Council in their consideration of this pre-application submission.

1.5 Need for the Proposed Development

The UK's electricity grid has historically relied on large, centralised power plants. However, old coal power plants are in the process of reducing capacity and closing as they no longer meet the required environmental and performance standards and existing nuclear power plants are reaching the end of their design lives with no new nuclear facilities being planned for Scotland.

The UK is legally bound through the Climate Change Act (2008)[1], as amended by the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019[2] with set targets to reduce Scotland's emissions of all greenhouse gases to net-zero by 2045 at the latest, with interim targets for reductions of at least 56% by 2020, 75% by 2030, 90% by 2040, and through Renewable Energy Directive 2009/28/EC[3] and the revised renewable energy directive 2018/2001/EU[4], to increase electricity consumption from renewable resources. Renewable technologies are intermittent, generating when natural resources are available. As a result, demand and supply are more challenging to balance.

As such, there is a growing demand by network operators for a broad range of services such as storage and management. The Proposed Development is designed to support the flexible operation of the National Grid and decarbonisation of electricity supply. This is required for a number of reasons:

- Electricity Market Reform;
- The Capacity Market; and
- Balancing the Network.

1.5.1 Electricity Market Reform

The UK's electricity grid has historically relied on large, centralised power plants. However, old coal power plants are in the process of reducing capacity and closing as they no longer meet the required environmental and performance standards and existing nuclear power plants are reaching the end of their design lives with new nuclear plants being slow to be realised. In parallel there is the requirement to deliver a greater amount of renewable energy but these technologies (e.g., wind and solar generation) are intermittent, only generating when the wind blows or sun shines. These different factors mean that demand and supply are more challenging to match.

Electricity Market Reform (EMR) is a UK government policy designed to:

- Incentivise investment in secure, low-carbon electricity;
- Improve the security of the UK's electricity supply; and
- Improve affordability for consumers.

It is estimated that over the next decade, the UK will require approximately £100 billion investment in electricity infrastructure to accommodate projected future increases in electricity demand, replace ageing power stations and prevent electricity blackouts. The Proposed Development seeks to respond to the requirement for continuity of supply and storage of electricity, particularly during periods of peak demand and over-supply.

1.5.2 The Capacity Market

The Capacity Market mechanism was introduced by the Energy Act 2013, to ensure security of electricity supply at the least cost to the consumer.

The UK needs not only investment in new generation projects and innovative technologies but to get the best out of existing assets on the network in order to deliver a supply of secure, sustainable and affordable electricity. The Capacity Market aims to deal with both these issues by bringing forward new investment while maximising current generation capabilities.

[1] Available at: https://www.legislation.gov.uk/ukpga/2008/27/contents

[2] Available at: https://www.legislation.gov.uk/asp/2019/15/contents

[3] Available at: https://ec.europa.eu/energy/topics/renewable-energy/renewable-energy-directive_en

[4] Available at: https://ec.europa.eu/jrc/en/jec/renewable-energy-recast-2030-red-ii

The Capacity Market aims to balance the difference between demand and supply and to bring forward investment in new generation projects and innovative technologies, in parallel to maximising the utilisation of the existing generation capacity. The Capacity Market operates alongside the electricity market, which is where most participants will continue to earn the majority of their revenues. The Proposed Development is anticipated to participate in the Capacity Market in addition to providing other balancing services to the National Grid.

1.5.3 Balancing the Network

Balancing the system to ensure demand is met by supply is a key requirement of the National Grid, and it is becoming more challenging as the overall energy mix relies increasingly on intermittent generation, including wind.

The National Grid has a constant supply of ‘extra power’ available for use when the power required by customers is not equal to the power generated and a reserve supply. The Balancing Mechanism is used to ensure that the network is in balance and reserve power is then used when the network comes under ‘stress’.

This is achieved from rapid responding facilities such as that proposed by the Proposed Development which can absorb energy and release it to the grid as instructed.

The proposed development has the potential to create enough clean green electricity to power approximately 15,000 homes or 20,000 electric vehicles making a significant contribution to the net-zero 50 targets. The project will lead to continuous carbon abatement across the duration of its lifetime.

2 SITE CONTEXT

2.1 Site Context

Forming part of the much larger Rankeilour Estate, the site is situated within the Fife Council area, between the village of Springfield (located approximately 0.4km east), and the village of Ladybank (located approximately 2.1km southwest), as identified below at Figure 2.1.

It is well placed between two key transport corridors; the A92 carriageway (2km west) providing connection running through the Council areas of Fife, Dundee, Angus and Aberdeenshire, and the A91 carriageway (approximately 1km north) providing connection from St Andrews to Bannockburn, via Cupar. The A914 Cupar Road runs 1.4km south of the site. The Edinburgh to Aberdeen railway line runs along part of the southern boundary of the site.

Figure 2.1 Proposed Site Location, Rankeilour Estate, Springfield

A number of smaller and largely unnamed roads feed off the A91, A92 and A914, providing connection to farm holdings and scattered dwellings in the surrounding area.

The land is directly accessible from a private laneway via an unnamed road off the A914, and the site is also accessible from Main Street, located to the east of the site. The site is presently in agricultural use and is located within an extended mainly agricultural setting. Pitlair House, a nursing home, is located a short distance northwest of the proposed site. Surrounding residential development is concentrated within Springfield, Stratheden, Ladybank and Cupar, however there are occasional dispersed residential properties within the rural area.

The site boundaries are largely well defined by mature and semi-mature trees and hedgerows.

Figure 2.2 View southeast from Proposed Site Access off unnamed road, Ladybank

Figure 2.3 View southeast from unnamed road located west of the Proposed Site

Figure 2.4 View northwest from Proposed Site Access off unnamed road, Ladybank

Figure 2.5 View east from Proposed Site Access off Main Street

3 BASELINE ENVIRONMENT

3.1 Ecology and Landscape

3.1.1 Internationally Designated Sites

The Proposed Development is not located within, or in close proximity to, an internationally designated site:

- Special Protection Areas are designated under the Birds Directive for their importance as areas for breeding, over wintering and migrating birds. The nearest SPAs to the site are Firth of Tay and Eden Estuary (located approximately 11km to the northeast), and Cameron Reservoir which is located approximately 13km southeast.
- Special Areas of Conservation are designated under the Habitats Directive which requires the protection of certain natural habitats including resting and breeding places that are of importance for the survival of species other than birds. The nearest SAC to the site is Firth of Tay and Eden Estuary which is located approximately 11km to the northeast.
- The nearest RAMSARs to the subject lands are Firth of Tay and Eden Estuary (located approximately 11km to the northeast), and Cameron Reservoir which is located approximately 13km to the southeast.

3.1.2 Nationally Designated Sites

The proposed site is not located within a nationally designated site:

- SSSI are designated under the Nature Conservation (Scotland) Act 2004, as amended. SSSI's are the finest sites for wildlife and natural features in Scotland, supporting many characteristic, rare and endangered species, habitats and natural features. The nearest SSSI to the subject site is Waltonhill and Cradle Den which is located approximately 3.4km to the southeast.
- A National Nature Reserve (NNR) is the land declared under the National Parks and Access to the Countryside Act 1949 or Wildlife and Countryside Act (1981) as amended. The nearest NNR to the site is Loch Leven NNR which is located approximately 19km to the southwest.
- There are no National Parks or National Scenic Areas located close to the subject site.

3.1.3 Locally Designated Sites

The proposed site is not located within, or in close proximity to a locally designated site:

- The nearest Local Landscape Area is Tarvit and Ceres Local Landscape Area located approximately 2km southeast of the site.
- The nearest Local Wildlife Site (LWS) is Springfield Moor LWS which is located adjacent to the southern boundary of the site.

3.1.4 Tree Preservation Orders (TPOs)

Tree Preservation Orders are made by Local Planning Authorities to protect specific trees, groups of trees or woodlands in the interests of amenity. The order aims to regulate and prohibit the cutting down, lopping, topping, uprooting, felling of trees without the Local Council Authority's written consent.

A review of Fife Council's Tree Preservation Order Map indicates that there are no TPOs within or in close proximity to the subject site.

3.1.5 Landscape Designations

3.1.5.1 Scottish Natural Heritage Landscape Character Assessment 2019

There are 390 character areas within Scotland which have been defined as part of an overall assessment of the landscape, biodiversity, geodiversity and economic activity. These character areas are known as Landscape Character Types (LCT) e.g., areas of consistent and recognisable landscape character. The Proposed Development falls within Lowland River Basins LCT 190. The LCT profile states that the lands are '*distinctive features where the river valleys widen to form relatively flat, low lying basins. They contrast with the narrow, steep sided sections of the valleys and the sections of the river which flow through the undulating lowland hills. The Howe of Fife particularly is very flat and very extensive. The basins are contained by the rising land of the Foothills - Fife, volcanic hills and lowland hills and there are, therefore, extensive views of the basins from these hills and the hills form the backdrop to views across the basins*'.

3.2 Flood Risk & Drainage

The SEPA Flood Extent Map for Planning confirms that the site is within an area which is at low probability of flooding. The annual probability of flooding from fluvial sources is classified as less than 0.1% (1 in 1,000 years).

There is a watercourse, Rankeilour Burn, which runs along the central boundaries of the site, between development parcels. There is a small portion of land within the red line boundary which proposes to cross over Rankeilour Burn, in order to access the rest of the site. The Rankeilour Burn and its immediate surrounds are classed as having a high risk of flooding. High risk is defined as 'each year this area has a 10% chance of flooding'.

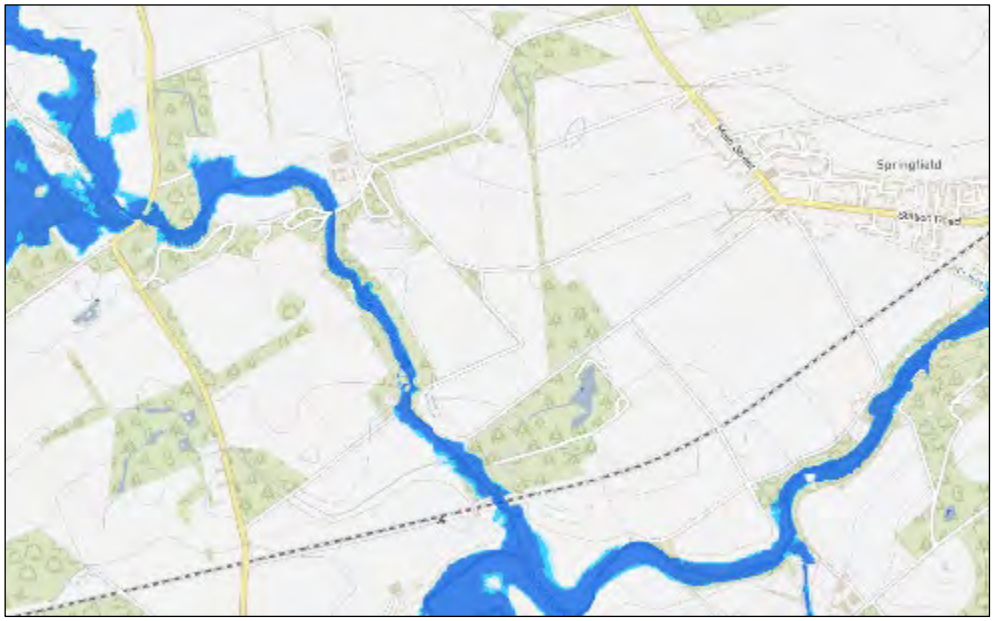


Figure 3.1 Fluvial Flooding Extent (Source: SEPA Flood Map)

The site is not affected by flooding from reservoirs.

The surface water flood extent map identified that there are localised areas across the site which have been identified as being at high risk of surface water flooding. High risk is defined as 'each year this area has a 10% chance of flooding'.

Solar farms are compatible with surface water flooding. As per Section 1.3.1 of this Report, at their lowest (front) edge, panels will be raised off the ground typically by 800mm. Within areas of surface water flood risk this can be raised to at least 1.2 metres to guard against associated flood risk. Additionally, the emerging project design will ensure that any sensitive project components are located beyond these areas.

Surface water or pluvial flooding can be exacerbated by certain types of development therefore it is advisable to find out the existing rates and volumes of surface water run-off generated by the site and how we can prevent run off from the proposed development having an impact elsewhere.

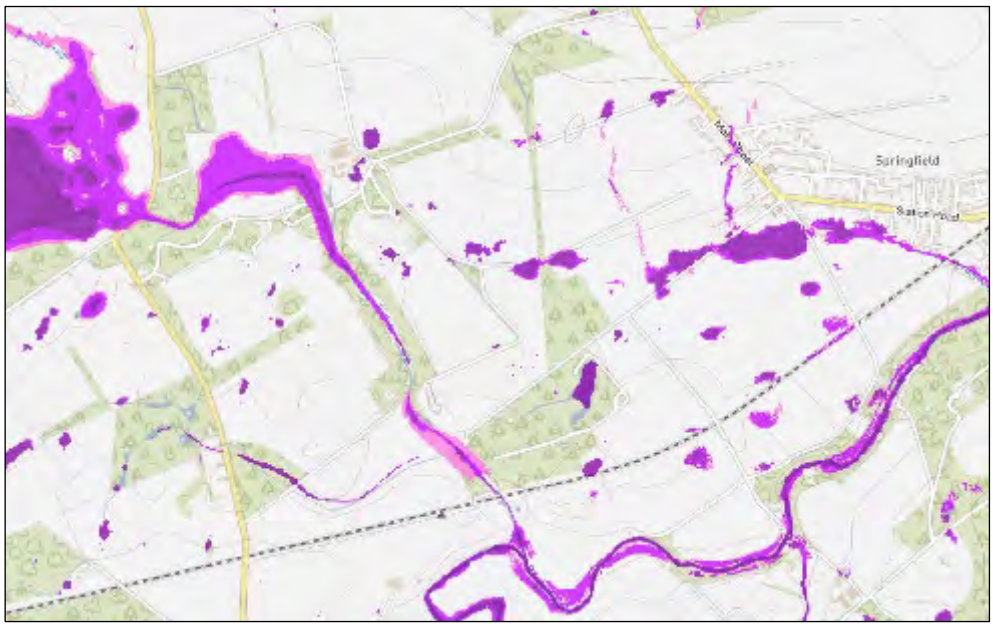


Figure 3.2 Pluvial Flooding Extent (Source: SEPA Flood Map)

The existing site is Greenfield. The proposals for the site will not increase the rate of discharge from the current pre-development run-off rates as there are minimal areas of hard standing associated with the development. The extent of hardstand proposed is inconsequential within the wider site area of 269 acres.

The panels are being installed on the land as it is currently, and therefore there will be no changes made to existing ground levels or ground cover. Therefore, existing surface runoff paths are unchanged. Installation of the panels will have minimal impact on the ground as the posts are embedded into the ground. Rainwater falling on the panels will be directed towards the existing ground as it is now.

There is no other significant infrastructure being installed that will impact on runoff. Stones will be placed on the existing ground surfaces to create access roads. Surface water runoff will soak into the tracks where it will infiltrate into the ground as it does now. The sub-station building will have gutters and downpipes, and rudimentary soakaways will be provided for each pipe (consisting of a stone pit). Small areas of roofs will be created by the inverter stations but these are insignificant in comparison to the size of the site, and any runoff will soak away.

3.3 Archaeology and Built Heritage

A review of Scotland's Historic Environment Map Viewer confirms that there are no designated heritage assets within the subject site.

There are a number of Listed Buildings located within 0.5km of the Proposed Development:

- Category C Listed Bridge over Rankeilour Burn at railway line (LB45596);
- Category C Listed Bridge over Rankeilour Burn at Rankeilour House (LB2495);
- Category B Listed Rankeilour Mains Farmhouse, Steading, Cartshed and Cottage (LB15490);
- Category B Listed Rankeilour Dovecote (LB19135);
- Category B Listed Rankeilour East Lodge and Gatepiers (LB15491); and
- Category C Listed Springfield Village Church, Churchyard Walls and Gatepiers (LB2603).

There are no Scheduled Monuments close to the subject site.

There are no Inventory Garden and Designed Landscapes or Inventory Battlefields close to the subject site.

The nearest Conservation Area is Bow of Fife (CA390) located approximately 1.1km north of the Proposed Development.

4 LEGISLATIVE CONTEXT

4.1 Environmental Impact Assessment

Environmental Impact Assessment (EIA) is the process of compiling, evaluating and presenting all the likely significant environmental effects of a proposed development. The need to undertake an assessment is governed by EC Directive 2011/92/EU as amended by Directive 2014/52/EU. These Directives have been implemented in Scotland under the terms of The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 ('the EIA Regulations'), as amended by The Environmental Assessment (EU Exit) (Scotland) (Amendment) Regulations 2019.

The EIA Regulations set out Schedule 1 and 2 developments and provide thresholds pertaining to each category of developments contained therein. Proposals which breech Schedule 1 thresholds are deemed to be mandatory EIA projects. Those which breech Schedule 2 thresholds require a determination to be made as to the application of EIA.

Schedule 1 of the EIA Regulations does not apply to the development proposal.

The Regulations provide that a Schedule 2 development may constitute EIA development:

The carrying out of development (other than development which is Schedule 1 development) to provide any of the following—

(1) a generating station;

(2) an electric line installed above ground—

(a)with a voltage of 132 kilovolts or more;

(b)in a sensitive area; or

(c)the purpose of which installation is to connect the electric line to a generating station the construction or operation of which requires consent under section 36 of the Electricity Act 1989; or

(3) any change to or extension (including a change in the manner or period of operation) of development of a description listed in schedule 1 or in paragraphs (1) or (2) of this schedule where that development is already authorised, executed, or in the process of being executed, and the change or extension may have significant adverse effects on the environment.

4.1.1 EIA Determination

Regulation 8 sets out that where a screening determination is undertaken, this must take account of inter alia:

- Any information provided by the applicant; and
- Those selection criteria as are relevant to the proposed development.

Selection criteria are set out within Schedule 3 of the EIA Regulations and comprise:

***Characteristics of development** – including*

- Size and design;
- Cumulation with other development;
- Use of resources, land, soil, water and biodiversity;
- Production of waste;
- Pollution and nuisances
- Risk of Major Accidents and Hazards;
- Human Health;

***Location of development** – including*

- Existing and approved land use;
- The natural environment and its capacity to absorb the development;

***Characteristics of Potential Impact** – including*

- Extent, probability and frequency of impacts.

Solar farms are by their nature a passive intervention in the countryside with the primary consideration normally relating to visual impact and any potential impacts on nature conservation and cultural heritage interests. Whilst utility scale battery energy storage developments have only recently been put forward, given their straightforward nature, relatively small footprint, low vertical extent and limited noise effects they have not generally triggered EIA. It is proposed that the S36 application will be supported by a suite of tailored environmental reports that assess the potential impacts on the receiving environment. The extent of these reports is informed by project experience as well as baseline environmental conditions at the site:

Proposed suite of accompanying Reports

- Glint and Glare Assessment setting out the potential impacts of the proposal on surrounding dwellings and road users;
- Ecological Impact Assessment (EcIA) incorporating a Preliminary Ecological Survey of the site and appropriate species and habitat surveys as required. It is proposed that this will be confirmed through initial baseline walkover surveys as well as through consultation with the Council.
- This Report will examine the existing baseline conditions and include additional species, habitats surveys as required. An Ecological Opportunities and Constraints Plan will be included as an integral part of the ecology submission;
- Archaeological Assessment – To establish the existing archaeological resource and the additional archaeological potential of the site. This will include a site visit appropriately informed by initial baseline assessment;
- Landscape and Visual Impact Assessment (LVIA) – To include a series of photomontages, the locations of which will be agreed with the Council, subject to their agreement. The LVIA will examine the existing landscape and visual resource and apply the proposal to this to inform an assessment of significance. The assessment will be undertaken in accordance with established and latest Landscape Institute Guidelines (GLVIA 3). It is accepted that a portion of the site is located in a designated sensitive landscape. Through consultation and engagement with the local authority as well as sensitive landscape analysis, the intention of the applicant is to bring forward a well thought through project which demonstrates that the proposal will not impact on those elements / features that contribute to the designation; and
- Flood Risk/Drainage Assessment – As set out previously whilst it is proposed there will be no flooding or drainage issues associated with the development, these matters will be considered fully within a Flood Risk/Drainage Assessment.
- Based on the characteristics of the site and those of the proposed development, RPS respectfully propose that the application does not need to be accompanied by an EIA Report (EIAR) and that the approach set out is suitable and appropriately robust.

4.2 Hierarchy of Developments

The application will be submitted to the Energy Consents Unit (ECU) under Section 36 of the Electricity Act 1989 and will seek a direction under Section 57(2) of the Town and Country (Scotland) Act 1997 that planning permission for the development be deemed to be granted.

Section 36 of the Electricity Act 1989 (“the Electricity Act”) applies to proposals for the construction, extension or operation of an onshore electricity generating station whose capacity exceeds (or, when extended, will exceed) 50 MW. The Scottish Ministers will have to evaluate whether the Applicant has complied with the statutory duties set out in Schedule 9 of the Electricity Act. The determination will have regard to all relevant material considerations, one of which will be relevant aspects of the statutory Development Plan, which in this case is the Fife Local Development Plan 2017 (FIFEplan).

5 PLANNING CONTEXT

The planning policy applying to the subject site operates under a 'two-tier' system consisting of national policy and local policy: -

National Planning Policy

- National Planning Framework 3 (2014)
- Draft National Planning Framework 4: Scotland 2045 (2021)
- Scottish Planning Policy (2020)

Strategic Planning Policy

- TAYplan Strategic Development Plan (SDP) 2017

Local Planning Policy

- Fife Local Development Plan 2017

5.1 National Planning Policy

5.1.1 National Planning Framework 3 (2014)

National Planning Framework 3 ("NPF3") was published on 23rd June 2014 and sets the context for development planning in Scotland and a framework for spatial development of Scotland as a whole.

It outlines the Scottish Government's development priorities over the next 20 – 30 years and identifies fourteen national developments. It focuses on supporting sustainable economic growth and the transition to a low carbon economy.

NPF3 is a statutory document and is one of the most recent expressions of Scottish Government planning policy. Its findings, including its reiteration of national renewable energy targets, should be afforded significant weight in the determination of planning applications.

Paragraph 3.8 of NPF3 reaffirms the Scottish Government's energy targets and states:

> *"By 2020, we aim to reduce total final energy demand by 12%. To achieve this, and maintain secure energy supplies, improved energy efficiency and further diversification of supplies will be required."*

NPF3 is supportive of energy developments in appropriate locations and the Proposed Development fully accords with these aims and objectives of NPF3. NPF3 also sets out that planning supports business and employment, including the need for sustainable economic growth and for development to deliver economic growth. The Proposed Development is supported in principle by NPF3.

5.1.2 National Planning Framework 4

The Scottish Government published the draft National Planning Framework 4 in November 2021, which sets out a new plan for Scotland to 2045. It acknowledges that Scotland must embrace and deliver radical change to tackle and adapt to climate change, restore biodiversity loss, improve health and wellbeing, build a wellbeing economy and create great places.

The draft NPF4 identifies eighteen national developments and sets out a range of policies for the development and use of land.

Part 1 – National Spatial Strategy reaffirms the Scottish Government's energy targets, stating:

- "*We have set a target of net zero emissions by 2045, and must make significant progress towards this by 2030. This will require new development and infrastructure across Scotland."*

- *"To significantly reduce greenhouse gas emissions more renewable energy generation will be needed, bringing unprecedented opportunities to strengthen local economies, build community wealth and secure long-term sustainability."*

The emerging policy in NPF4 is supportive of renewable energy developments in appropriate locations. NPF4 also sets out that planning supports business and employment, including sustainable economic growth. The Proposed Development is supported in principle by the emerging aims, objectives and policies in draft NPF4.

5.1.3 Scottish Planning Policy

The Scottish Planning Policy (December 2020) ("SPP") is a non-statutory document which outlines the Scottish Government's priorities for land use planning and therefore should be afforded significant weight in the determination of planning applications.

It is clear from SPP that the Scottish Government is committed to further development of energy projects in appropriate locations.

In respect of delivering a *Low Carbon Place*, the SPP outlines Policy Principles that support this development, confirming that the planning system should:

- support the transformational change to a low carbon economy, consistent with national objectives and targets, including deriving:
- 30% of overall energy demand from renewable sources by 2020;
- 11% of heat demand from renewable sources by 2020; and
- the equivalent of 100% of electricity demand from renewable sources by 2020;
- support the development of a diverse range of electricity generation from renewable energy technologies including the expansion of renewable energy generation capacity and the development of heat networks;
- guide development to appropriate locations and advise on the issues that will be taken into account when specific proposals are being assessed;
- help to reduce emissions and energy use in new buildings and from new infrastructure by enabling development at appropriate locations that contributes to: Energy efficiency; Heat recovery; Efficient energy supply and storage; Electricity and heat from renewable sources; and – Electricity and heat from non-renewable sources where greenhouse gas emissions can be significantly reduced.

The Proposed Development is supported in principle by the SPP.

5.2 Strategic Planning Policy

5.2.1 TAYplan Strategic Development Plan (SDP) 2017

The Planning (Scotland) Act 2019 removes the need for the preparation of Strategic Development Plans. Strategic planning matters will be set out in the National Planning Framework 4 which is currently being prepared by Scottish Government. Until this time, the 2017 SDP remains the approved strategic development plan.

Policy 7 Energy, Waste and Resources aims to deliver a low/zero carbon future and contribute to meeting Scottish Government energy and waste targets and prudent resource consumption objectives:

> *"The vision focuses on improving quality of life and the economy without placing unacceptable burdens on planet Earth. This Plan balances our need for heat, power and other resources with the challenges of climate change, resource and energy security and the impacts of these for future generations. There are also business and job opportunities associated with the construction, deployment and operation of this infrastructure."*

5.3 Local Planning Policy

5.3.1 Fife Local Development Plan 2017 (FIFEplan)

FIFEplan is the extant plan for the subject site and sets out the vision and overall development strategy for the Borough, explaining how this will be achieved for the plan period until 2027.

The Plan adopts the vision and aims of the SDP and offers support in principle for renewable energy development if the impacts upon the environment and amenity of the surrounding area can be sufficiently mitigated.

The lands are identified as falling outside of any settlement development limit, see Figure 5.1 below.

The site is not subject to any designations within the FIFEplan.

Figure 5.1 Policies Map Extract (Fife Local Plan Adopted 2017)

In addition, to a number of other policies, **Policy 11: Low Carbon** is applicable to the proposed development. It states:

Development of low carbon energy schemes such as wind turbines, district heating, solar arrays, or energy from waste will be supported provided the proposals do not result in unacceptable significant adverse effects or impacts which cannot be satisfactorily mitigated, giving due regard to relevant environmental, community and cumulative impact considerations.

The assessment of proposals for renewable energy developments will be based on the principles set out in the current Scottish Planning Policy, in particular, for onshore wind developments, the requirements for spatial frameworks (as set out in Table 1). Assessments will include the following considerations:

- landscape and visual impacts, including landscape character;

- all cumulative impacts, including cumulative landscape and visual impact, recognising that in some areas the cumulative impact of existing and consented development may limit the capacity for further development;

- impacts on communities and individual dwellings (including visual impact, residential amenity, noise and shadow flicker);

- impacts on aviation and defence interests, public access, the historic environment (including scheduled monuments and listed buildings, and their settings), tourism and recreation, telecommunications and broadcasting installations, forestry and woodland, adjacent trunk roads and road traffic, hazardous installations (including pipelines), and carbon rich soils (using the carbon calculator);

- effects on the natural heritage (including birds), and hydrology, the water environment and flood risk;

- opportunities for energy storage;

- net economic impact, including local and community socio-economic benefits such as employment, associated business and supply chain opportunities;

- the scale of contribution to renewable energy generation targets, and the effect on greenhouse emissions;

- the need for conditions relating to the decommissioning of developments, including ancillary infrastructure, and site restoration; and

- the need for a robust planning obligation to ensure that operators achieve site restoration.

In applying Policy 11, the Plan goes on to state at paragraph 15 that this policy will apply to proposals for new solar schemes. Visual impact will be an important consideration in assessing these schemes, and rural brownfield land and land outwith green belts, Local Landscape Areas and environmentally sensitive areas are more likely to be suitable locations for such schemes.

The Proposed Development will be assessed against other relevant policies within the Plan, including:

- Policy 1: Development Principles;
- Policy 7: Development in the Countryside;
- Policy 10: Amenity;
- Policy 12: Flooding and the Water Environment;
- Policy 13: Natural Environment and Access.

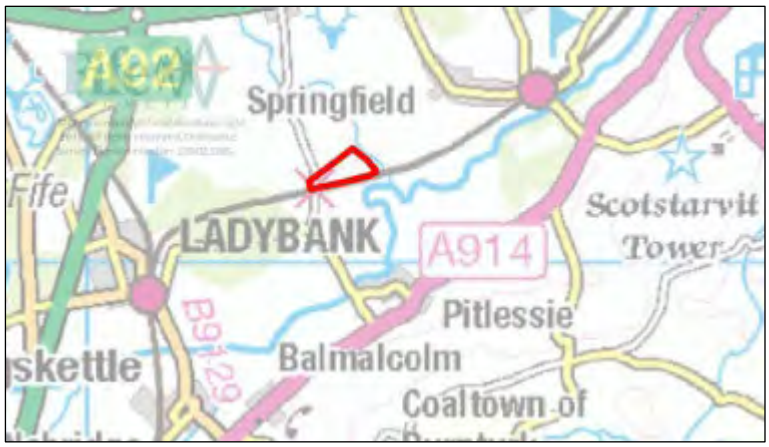
Any forthcoming proposals will also have regard to provisions within the Low Carbon Fife Supplementary Guidance Document (2019).

5.4 Planning History

A review of the Planning history on the subject lands was carried out using Fife Local Authority website to identify if there are any planning permissions on, or in close proximity to the subject site. There were two previous applications for EIA Screening identified on the subject lands:

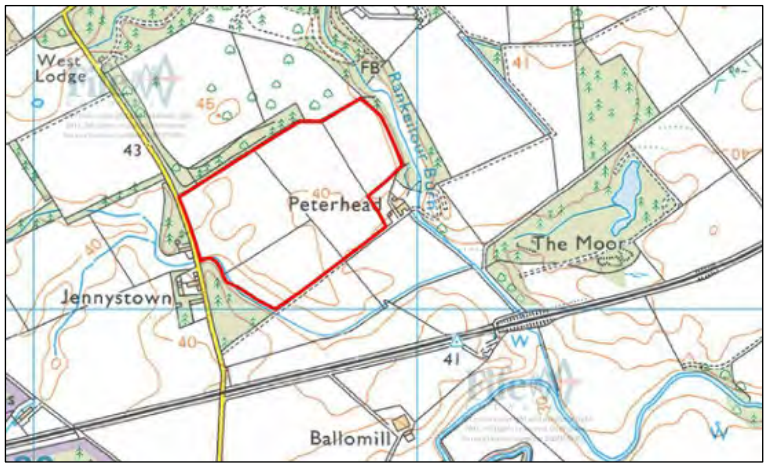
Planning reference: 15/01412/SCR
Location: Rankeilour Estate Rankeilour Bow Of Fife Fife
Development Description: Screening opinion for solar array
Decision: EIA Not Required

This Screening Request was for a 5MW solar farm, and covered the south-western portion of the site:



Planning reference: 15/01821/SCR
Location: Site Adjacent To Jenniston House Jennystown Pitlessie Fife
Development Description: Screening for solar array
Decision: EIA Not Required

This Screening Request was for a 5MW solar farm, and was adjacent to the previous screening submission, located in the western portion of the site:



The following history within 5km is also notable:

Planning reference: 19/02750/FULL
Location: Ferrymuir Energy Storage Stratheden Fife
Development Description: Proposed erection of battery storage compound (49.9MW) comprising of containerised battery storage units and installation of boundary fence and associated works (increase in capacity from 19.99MW permitted under 18/02245/FULL)
Decision: Granted

Planning reference: 19/00050/SCR
Location: Proposed Solar Park Lathrisk Farm Kilwhiss Dunshalt Fife
Development Description: Request for Screening Opinion for proposed 70MWp solar park
Decision: EIA Required

Planning reference: 17/01260/SCR
Location: Land To South Of Halhill Farm Melville Lodges Bow Of Fife Fife
Development Description: Request for Screening opinion for proposed 14MWp solar development
Decision: EIA Not Required

The cumulative impact of the proposal and any approved or constructed solar farms will be considered where appropriate in any assessments prepared to accompany the future planning application.

6 CONCLUSIONS

6.1 Summary

The preceding assessment confirms:

- The site comprises agricultural farmland occupying an area of approximately 269 acres (c. 109 hectares);
- When operational the development will have a Maximum Export Capacity (MEC) of greater than 50MW consisting of a Solar PV Farm of approximately 75MW and a Battery Energy Storage Facility of approximately 50MW capacity;
- When operational the site will have a duel agricultural/renewable use. Farming practices will continue on the site throughout its operational lifespan;
- The proposed development is underpinned by a series of established design principles which collectively help ensure that associated environmental impacts are not significant. These includes retaining and augmenting existing vegetation by working within existing field boundaries, avoiding any requirement for cut and fill or land regrade and avoiding the requirement for significant areas of hardstanding;
- This proposal is in accordance with overarching International and National Climate Change policies and will make a significant contribution to the challenging UK Net Zero 2050 targets;
- The site is not overlapped by any sensitive ecological, landscape or cultural heritage designations;
- Baseline work undertaken to date illustrates the site is free from any sensitive ecological or landscape designations or significant environmental constraints;
- The proposal constitutes a Schedule 2 development as per the EIA Regulations. As such it is accepted that an EIA Determination will be required;
- Based on the characteristics of the site and those of the proposed development, it is respectfully proposed that the application does not need to be accompanied by an EIA Report (EIAR). Rather it is proposed that a more appropriate approach is to supplement the planning application with a range of tailored environmental reports; and
- The proposed development can draw support from National and Local planning policy contained within the National Planning Framework 3, Scottish Planning Policy and the Local Area Plan. Renewable energy development is to be supported providing they are acceptable when considered against relevant environmental issues and further that any significant impacts can be addressed satisfactorily. The Elgin approach to provide a suite of supplementary assessments providing there are no unacceptable impacts is in compliance with the applicable policies contained within these documents.

6.2 Questions to the Council

Elgin would welcome feedback from the Council regarding the principle of the proposed development including those matters listed below:

- Council advice regarding the main issues to be considered within the design and planning lead in process;
- Council view on the proposed suite of environmental assessments that would accompany a planning application as listed above. Do the Council feel any additional assessments may be required to supplement any subsequent application other than those set out?
- Further we would welcome engagement with relevant internal Council members to inform on assessment approach. For example, when proposing viewpoint locations as part of the LVIA;
- Council advice on whether an initial meeting and/or site visit could be arranged at their earliest convenience to discuss this proposal.

We would welcome an opportunity to meet the Council on-site to provide an overview of proposals and to address any clarifications or queries that may emerge.

Appendix A – Solar Farm Images

Solar Farm Images

Proposed Security Fencing

CCTV Cameras

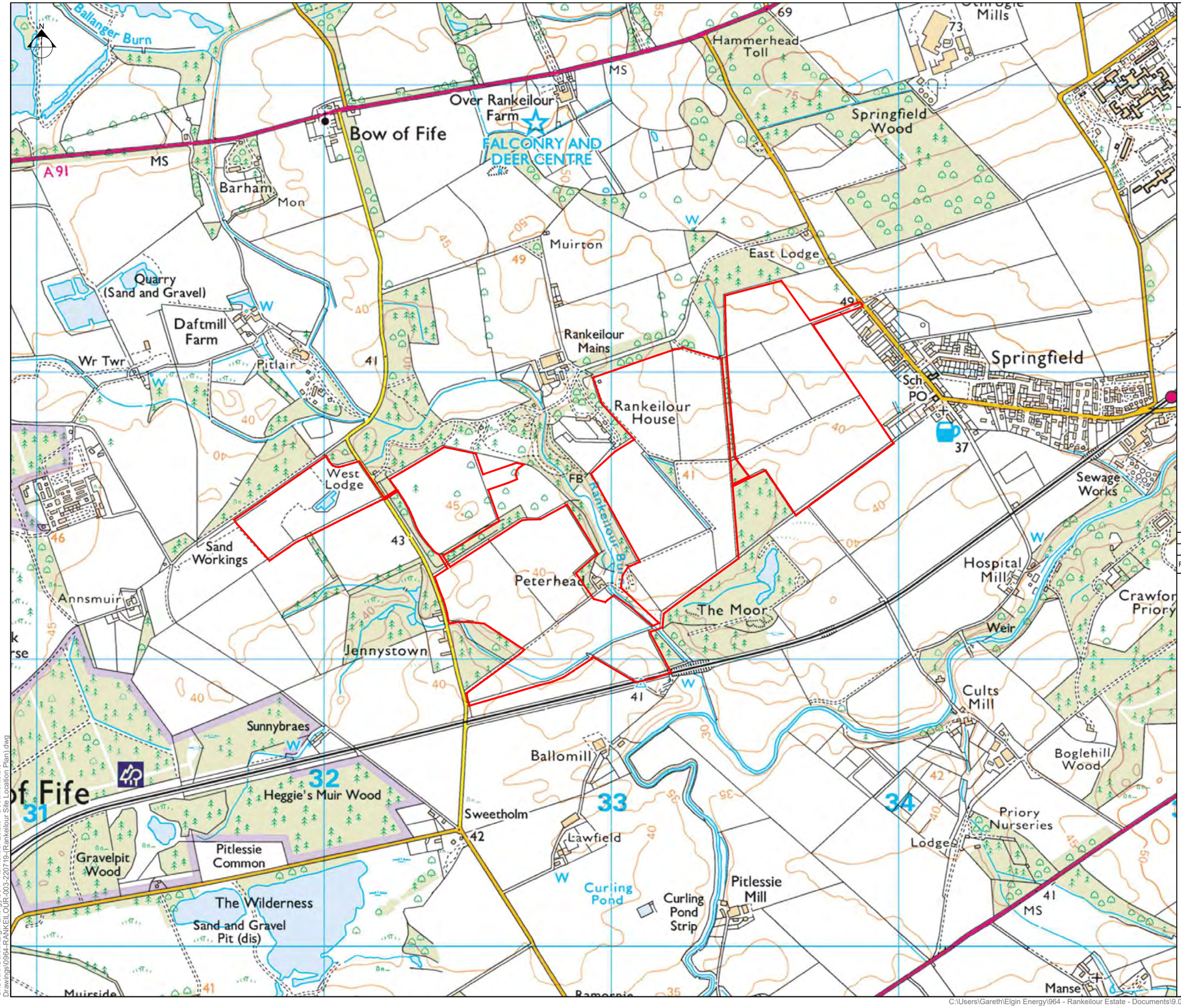
CCTV Cameras

Primary Sub-Station

MAKING COMPLEX EASY

Inverter Sub-Station

Appendix B – Site Location Plan



Notes

1. Verifying Dimensions: The contractor shall verify dimensions against such other drawings or site conditions as pertain to this part of the work.
2. Existing Services: Any information concerning the location of existing services (above and below ground) indicated on this drawing is intended for general guidance only. All services should be checked on site prior to any work commencing.
3. If received electronically it is the recipients responsibility to print to correct scale. Only written dimensions should be used.
4.

Rev	Description	By	CB	Date

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Project RANKEILOUR

Title SITE LOCATION PLAN

Status	Drawn By	PM/Checked by
Planning	Gareth Gardener	RC
Site Ref	Scale @ A3	Original Date Created
0964	1:12,500	19/07/22

Drawing Number 0964-RANKEILOUR-003

Rev -

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C:\Users\Gareth\Elgin Energy\964 - Rankeilour Estate - Documents\9.0 Drawings\0964-RANKEILOUR-003-220719-(Rankeilour Site Location Plan).dwg

Appendix C – Draft Project Layout

N

Notes

1. Verifying Dimensions: The contractor shall verify dimensions against such other drawings or site conditions as pertain to this part of the work.
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4.

LEGEND

- SITE BOUNDARY
- 2 x 12 = 24 MODULE PANEL (12m)
- 2 x 24 = 48 MODULE PANEL (24m)
- 3.5m ACCESS TRACK
- INVERTER
- SECURITY FENCE (Minimum 5m Ecological Buffer)
- CCTV

SCALE BARS (Metres)

0 25 50 100 200

Rev	Description	By	CB	Date
C	Updating inverters and storage layout	GG	RC	19/07/2022
B	Sub station, storage and access amended	GG	RC	12/07/2022
A	Add in storage area to layout	GG	RC	12/07/2022

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Project: RANKEILOUR PV

Title: CONCEPT SOLAR LAYOUT

SHEET 1 of 2

Status	Drawn By	PM/Checked by
DRAFT	Gareth Gardener	Jack V

Site Ref	Scale @ A1	Date Created
0964	1:2500	07/06/2022

Drawing Number: 0964-RANKEILOUR-002

Rev: C

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Primary Substation

Battery and Storage Area

Springfield

Notes

1. Verifying Dimensions: The contractor shall verify dimensions against such other drawings or site conditions as pertain to this part of the work.
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Project: RANKEILOUR PV

Title: CONCEPT SOLAR LAYOUT

SHEET 2 of 2

Status	Drawn By	PM/Checked by
DRAFT	Gareth Gardener	Jack V

Site Ref	Scale @ A1	Date Created
0964	1:2500	07/06/2022

Drawing Number: 0964-RANKEILOUR-002

Rev: C

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