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0800 0787 243  
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## PLANNING, DESIGN & ACCESS STATEMENT

PROPOSED SOLAR FARM ON LAND OFF GREEN LANE, MARCHINGTON,  
EAST STAFFORDSHIRE

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## KEY INFORMATION

<b>Project Title</b>	Solar Farm on Land off Green Lane
<b>Description of Development</b>	Solar Farm and Associated Development
<b>Applicant</b>	TGC Renewables Ltd
<b>Site Location</b>	Land off Green Lane, Marchington,
	East Staffordshire
	414839 330919 (Eastings Northings)
<b>Local Planning Authority</b>	East Staffordshire Borough Council
<b>Ward</b>	Crown
<b>Parish</b>	Marchington
<b>Site Area</b>	12.3 hectares
<b>Development Area</b>	10.6 hectares
<b>Power</b>	5.77 MWp
<b>Homes Powered (approximate)</b>	1,530
<b>Community Benefit</b>	Minimum £500, maximum of £1,000 per MW (subject to development costs) for ten years.
<b>Community Ownership/Investment</b>	Opportunity for community investment if local interest and viable.
<b>TGC Contact details</b>	James Jamieson MRTPI TGC Renewables Ltd, TGC House, 10 Duckmoor Road, Industrial Estate, Bristol, BS3 2BJ 07718 190 370 <a href="mailto:james.jamieson@tgcrenewables.com">james.jamieson@tgcrenewables.com</a>

## EXECUTIVE SUMMARY

This Planning, Design and Access Statement (P,DAS) accompanies an application for detailed planning permission for a 5.77MWp solar farm and associated development (the Proposals) on land off Green Lane, Uttoxeter, East Staffordshire (the Site).

The Proposals would generate 5.05GWh of renewable energy each year and supply approximately 1,530 local homes with power. They would support the local energy distribution network, protect agricultural land from development, diversify a rural business, deliver substantial biodiversity enhancements and include community benefit payments of a minimum of £500 to a maximum of £1,000 per MW (subject to development costs) installed on the Site (irrespective of the Parish Council's support or otherwise). There would be supply opportunities for local companies during construction and operation. If there is local appetite and it is viable, there is the opportunity for community investment in the Proposals. Expression of interest forms were available at the pre-application consultant event explaining this and inviting interested parties to engage with TGC Renewables Ltd (TGC).

An EIA Screening Direction was adopted by the Secretary of State on 23 June 2015, whereby it was concluded that the Proposals would not result in significant effects on the environment and that an EIA is not required.

Detailed planning permission is now sought for the Proposals, which would make a substantial, positive contribution to the generation of renewable energy.

Legally binding climate change targets require the UK to increase the generation of renewable energy and the National Planning Policy Framework (the NPPF) notes every community's responsibility to contribute to renewable energy, and that Planning Authorities must consider proposals on their merits.

The Proposals would provide valuable inward investment into the local community, agricultural activity would continue on the Site with sheep grazing and the overall economic viability of the agricultural business would be enhanced by the investment.

The Site is considered to be appropriate for the Proposals, as impacts would be acceptable or outweighed by the benefits of the Proposals. Overall it is considered that the Proposals would comprise a sustainable form of development and therefore, in line with Paragraph 14 of the NPPF, there is a presumption in favour of this development.

The Proposals are supported in principle by the adopted East Staffordshire Local Plan – Saved Policies (2006) (the adopted Local Plan) and the emerging East Staffordshire Local Plan (2013) (the emerging Local Plan), as well as the NPPF. The Proposals would also make a positive contribution to meeting the energy targets of East Staffordshire Borough Council (the Council), Derbyshire County Council and national UK Government targets.

The Proposals incorporate generous community benefit payments, would result in significant biodiversity enhancements and benefit from public support as detailed below and in the Community Consultation Report (CCR) which accompanies the application. The Proposals would also support the local electricity network, improving grid reliability and stability, as well as employ and use local contractors and materials where possible during construction and operation.

In terms of land use and the relevant planning tests in national policy and guidance, the need to develop agricultural land has been demonstrated, the Proposals would not result in any loss of agricultural land, the Site would continue to be used for agriculture, the Site is not best and most versatile (BMV) land, is poorer quality agricultural land and there would significant biodiversity enhancements.

The Proposals are appropriate in terms of landscape and visual impacts, and the guidance<sup>1</sup> on landscape capacity has been taken into account when identifying and designing the Proposals. A detailed LVIA has been undertaken, and concludes that the Proposals would result in limited landscape and visual effects and would not result in any cumulative landscape or visual effects. None of the predicted landscape or visual effects would be prominent.

There would not be inappropriate impacts on residential amenity due to the low level nature of the Proposals, the distance from dwellings and the existing and proposed screening especially on the northern boundaries.

The Proposals are acceptable in terms of flood risk as they are protected from flooding through detailed site design, and would not increase the risk of flooding elsewhere.

In terms of ecology and biodiversity, detailed assessments of the habitats and potential species in and around the Site have been undertaken. These have concluded that there would be no inappropriate impacts. Existing trees and hedges would be protected and there would be substantial biodiversity improvements.

In terms of archaeology and cultural heritage, detailed assessment of the potential impact of the Proposals on the surrounding historical landscape has been undertaken. These have concluded that there would be no inappropriate impacts upon identified historical features.

In terms of public access and recreation, an assessment of potential impacts on nearby receptors was undertaken as detailed within the accompanying LVIA. It was determined that no adverse effects on the nearby Public Rights of Way (PRoW) network would occur as a result of the Proposals.

It is noted that there are no tourism assets on the Site and therefore there would be no direct impacts. Furthermore, it is considered that any impacts on nearby heritage assets, which may play a role in tourism in the area, would be less than substantial. As such and overall, no impacts on tourism are anticipated.

**Overall, it is considered that there is strong policy support for the Proposals and that they comply with the Development Plan and national planning policy. Specifically, the Proposals comply with the main policy test for renewable energy development within the emerging Local Plan; Policy 28 'Renewable and Low Carbon Energy Generation', as detailed within this P,DAS. The Proposals would make a substantial contribution to meeting the Council's renewable energy targets as well as a positive contribution to national targets. There are substantial community benefit and rural business diversification benefits, which outweigh the not inappropriate impacts of the Proposals. Taking all of this into account, it is respectfully requested that the planning application which this P,DAS accompanies be approved by the Council.**

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<sup>1</sup> Staffordshire County-wide Renewable/Low Carbon Energy Study (2010)

## 1.0 Introduction

It is proposed to develop a 5.77 MWp solar farm and associated development (the Proposals) on land off Green Lane, Marchington, East Staffordshire (the Site).

The Site currently comprises 12.3 hectares of Grade 4 (poorer quality) agricultural land and is situated approximately 900m east of the settlement of Marchington at its nearest point and directly adjacent to HM Dovegate to the south. It consists of an area of pasture, bounded to the east by similar low lying agricultural land, to the north by a strip of agricultural land which lies south of the main Uttoxeter to Derby Railway line and to the south by buildings comprising HMP Dovegate. It is intended that the Site would be dual-use with sheep grazing throughout the operation of the Proposals. Detailed planning permission is now sought by TGC from East Staffordshire Borough Council (the Council) for the Proposals.

The purpose of this P,DAS is to demonstrate that TGC has fully considered the design and access issues as part of the comprehensive Site design prior to submission of the planning application.

The purpose of the Proposals is to generate electricity from a clean, renewable and sustainable source. This would help to meet the Government's target of 20% of electricity to be generated from renewables by 2020. On 22 January 2014, the European Union committed to reducing its greenhouse gas emissions by 40% by 2030 (compared to 1990 levels) and a new binding target of 27% of energy generation to come from renewable sources from 2030 has been adopted. This is with a view to the EU cutting its greenhouse gas emission by 80-95% by 2050<sup>2</sup>. It is anticipated that future UK energy policy and legislation will reflect these new commitments (refer to Section 5.0 for full details).

The Proposals are expected to generate and export 5.05GWh to the local grid each year. Based on an average house hold consumption of 3,300kWh of electricity per year (based on DECC and OFGEM figures<sup>3</sup>), the Proposals would power approximately 1,530 local homes annually.

There is the opportunity for community investment in the Proposals, subject to local appetite and viability. Expression of Interest in Investment forms were provided at the pre-application consultation event. TGC welcome the opportunity for such community funded investment in the Proposals.

The NPPF recognises every community's responsibility to contributing to tackling climate change<sup>4</sup> and requires Planning Authorities to do the same, as well as consider proposals on their merits. The most recent findings of ongoing research by the Department of Energy and Climate Change (DECC) show strong public support for renewable energy generation and strong support for solar, especially when compared to other forms of generation<sup>5</sup>.

The Building Research Establishment (BRE) recently published the National Solar Centre Biodiversity Guidance for Solar Developments and shows that solar presents an excellent opportunity to enhance local biodiversity. There are a number of options available for

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<sup>2</sup> [http://ec.europa.eu/energy/2030\\_en.htm](http://ec.europa.eu/energy/2030_en.htm)

<sup>3</sup> <https://www.ofgem.gov.uk/ofgem-publications/64026/domestic-energy-consump-fig-fs.pdf>

<sup>4</sup> NPPF, Paragraph 97

<sup>5</sup> <https://www.gov.uk/government/collections/public-attitudes-tracking-survey#surveys>



enhancing biodiversity on solar farms from hedgerows to wild flower meadows to bird boxes and ponds, all of which will help to enhance the biodiversity value of a site<sup>6</sup>.

In addition to helping the local community make a positive contribution to renewable energy targets, the Proposals would be connected and export power to the local distribution network. This would help to support the local electricity network and increase energy security in the local area, a key benefit of the Proposals for the local community. This is in addition to the socio-economic benefits of the Proposals which would be delivered by TGC through proposed community benefit payments, should permission be granted.

The Proposals would be designed to allow the landowner to graze sheep during the operational phase. This ensures no loss of agricultural land and would support this local agricultural business's viability and contribution to the local rural economy, whilst generating clean electricity.

This P,DAS has been prepared in conjunction with the reports which accompany the application and draws on these assessments to set out a planning assessment of the Proposals.

## **2.0 Site Selection and Sequential Test (for flooding)**

This section of the P,DAS sets out details of TGC's site search and selection process, both in terms of its compliance with the National Planning Policy Framework (the NPPF) and the Planning Practice Guidance (the PPG)), and in terms of ensuring that projects are viable and technically feasible. This includes a sequential test as the Site is located in the flood zone.

It is demonstrated that there are no reasonably available sites appropriate for the Proposals in areas with a lower probability of flooding. For details of the need to utilise greenfield land, using poorer quality land, allowing continued agricultural use and enhancing biodiversity, refer to Section 12.0.

England is suitable for the development of viable solar farms due to high solar irradiation levels. With due consideration of the responsibility of all communities to contribute to tackling climate change and generating renewable energy<sup>7</sup>, TGC reviewed planning policy and designations to identify potential opportunities for solar farms in the Staffordshire.

In line with TGC's standard infrastructure adoption policy and commitments to Local Planning Authorities (LPAs) and communities, TGC aim not to actively increase the number/volume of new overhead pole routes across open countryside. This also ensures viability, as TGC considers it necessary to identify sites within proximity of existing overhead power lines and this is a key consideration which should be taken into account when reviewing the following sections and information. Following the identification of potentially suitable areas in terms of grid connection issues, TGC then undertook a detailed planning and environmental filtering site selection exercise. Sites within or directly adjacent to sensitive designations, or where adverse impacts were considered likely to be inappropriate were discounted.

Further considerations included proximity to built-up areas, access and transport issues, topography, existing land use and biodiversity issues and heritage impacts such as impacts on the setting of Listed Buildings and Scheduled Monuments (SMs). Sites which are Grade 1 or 2

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<sup>6</sup> <http://solar-trade.org.uk/media/140428%20STA%20BRENSC%Biodiversity%20Gudelines%20Final.pdf>

<sup>7</sup> The NPPF, Paragraph 97



land were also discounted with the aim of ensuring that the Proposals would be located on land which is poorer quality and not BMV agricultural land.

A number of sites were identified and detailed grid connection and land owner discussions entered into. Two preferred options outside of the flood zone were identified, to the west of Uttoxeter and to the south-east of Doveridge. These were discounted due to grid connection costs leading to the proposed development becoming unviable and lack of landowner interest, respectively. TGC actively pursued alternative options, however this proved unsuccessful.

The proposal to the west of the Site (subject of screening opinion 2015/00113) is not considered suitable as it would result in inappropriate landscape and visual impacts, and affect the setting of the church in Marchington.

It is also worthy of note that recent appeal decisions (APP/E3525/A/14/2218805 and APP/E2530/A/14/2218270) confirm that it is not necessary to undertake a sequential test in order to assess whether more appropriate locations might be available if a detailed site selection process is provided.

*“There is no policy or guidance which refers specifically to the need for a formal sequential test – whereas national policy is quite explicit that such a test is needed for other types of proposal.” (2218805, Paragraph 30)*

*“The Council argues that the Appellants have not demonstrated that other sequentially preferable land is not available and has mentioned the government’s Solar PV Strategy Part 2 which emphasises the priority for utilising south facing commercial roofspace rather than greenfield agricultural land. Whilst the use of commercial roofspace and derelict land is clearly preferable the government’s strategy does not rule out the use of agricultural land for the siting of solar PV schemes to generate renewable energy.” (2218270, Paragraph 6)*

Substantial efforts have also been made to identify opportunities on roof tops and previously developed land. The document ‘TGC Renewables – Rooftop Previously Developed and or Non-agricultural Land Solar Programme - Opportunity Register’ (the Opportunity Register) which accompanies this application sets out details of these ongoing efforts. For example, this included reviewing 10,567 brownfield sites from brownfield registers. This identified 168 of potential suitability and a suitable size, but all of these were allocated or used for alternative uses or already redeveloped. Brownfield sites in the local area were reviewed however these were either actively being used, or allocated for other purposes (so contrary to planning policy and not viable for a solar farm). Reference should also be made to Section 12.0 of this P,DAS for further details regarding land use and the use of agricultural land.

The Proposals are contained by the Site’s surroundings with natural screening afforded by trees and hedgerows. They would allow for continued use for agriculture as they have been designed to be utilised for sheep grazing throughout the operational phase and there are substantial biodiversity enhancements to be gained around the arrays and site margins. The Site is appropriate for a solar development as it is located outside of any sensitive designations and is supported by national and local planning policy (refer to Sections 5.0 and 6.0).

It is worthy of note that a recent appeal decision (APP/E3525/A/14/2218805) determined that it is not necessary to undertake a sequential test in order to assess whether more appropriate locations might be available, if a detailed site selection process is provided.

TGC reviewed planning policy and designations in order to identify potential opportunities for solar farms within East Staffordshire, in line with the NPPFs requirement that all communities must contribute to tackling climate change and generating renewable energy<sup>8</sup>.

A thorough feasibility process was undertaken by TGC before committing to develop a solar farm on the Site. Accordingly, TGC considered a number of locations for the Proposals, taking into account the following:

- Requirement of a site greater than eight hectares to ensure viability;
- A landowner willing to lease the land for solar development and grazing;
- A site that is flat/gently sloping in topography and south facing to maximise the amount of sunlight which can be converted to electricity;
- A site that is screened or enclosed in nature or allows for the successful screening from sensitive viewpoints (i.e. the impacts can be made acceptable as per the NPPF's requirements);
- A site that is outside, not situated adjacent to, a suitable distance from or which will not result in inappropriate impacts on sensitive landscape, heritage and ecological designations including National Parks/AONB's, Conservation Areas, Listed Buildings, Scheduled Monuments or Sites of Special Scientific Interest (SSSIs);
- Suitable access arrangements;
- Utilisation of Grade 3b land or below, (not BMV, on poorer quality land);
- A site outside the floodplain, unless appropriate design solutions are implemented in order to manage and mitigate any increased flood risk; and
- Within close range of a viable National Grid connection.

As well as the above, steep and/or north facing areas and sites near existing settlements or houses (other than the relevant landowner) were discounted.

It should be noted that the Proposals would not take the fields out of agricultural use as the landowner would graze sheep on the land underneath the panels. If planning permission is granted, it would make the Site dual-use and represent an efficient use of land in spatial and environmental terms. Furthermore, the Proposals are completely reversible, and the Site would be reinstated to its current nature following decommissioning. It was decided to proceed with the Proposals at the Site as there is appropriate separation from residential properties and protected buildings/landscapes, there are good access links, there is a viable grid connection and the land owner is a willing development partner.

As such, and taking all of the above into account, the decision was made to pursue the development of the Proposals on the Site, and subsequently submit the planning application which this P,DAS accompanies, as it complies with the relevant policy and guidance and is the

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<sup>8</sup> The NPPF, Paragraph 97

sequentially preferable option in terms of sites and opportunities which are both reasonably and realistically available to TGC and suitable in planning and practical terms.

TGC appointed a range of independent, specialist consultants to assess the grade of the land, the ecological environment, landscape and visual impacts, flood risk and archaeology impacts of the Proposals on the Site. The findings of these supported TGC's consideration that the Site is suitable for the Proposals.

### 3.0 Community Benefits

#### 3.1 Tackling Climate Change and Supporting the Local Distribution Network

The NPPF and the Development Plan recognise the importance of tackling climate change, which is considered to be the biggest threat to communities, primarily as a result of extreme weather and flooding events. 97% of scientists agree that global warming is man-made and there is robust evidence which addresses the arguments put forward by 'climate change sceptics' who remain in disagreement with the overwhelming majority of informed thought and analysis<sup>9</sup>.

The UK Government has also published 'Key Points and Questions' from the latest Intergovernmental Panel on Climate Change (IPCC) publications<sup>10</sup>. Amongst the points made, it is noted that impacts of climate change on the UK will include:

- Increased economic losses and more people affected by flooding in river basins and coasts, as urbanisation continues, sea levels rise and peak river flows increase;
- Increased water restrictions. Significant reduction in water availability from river abstraction and from groundwater resources combined with increased water demand (e.g. for irrigation, energy and industry and domestic use); and
- Increased economic losses and people affected by extreme heat events: impacts on health and well-being, labour productivity, crop production and air quality.

It is also noted that the IPCC's latest findings align with the Government's Climate Change Risk Assessment<sup>11</sup>.

With the Site being located in a rural area and part of the wider agricultural community, it should be noted that it is considered that climate change is likely to result in temperatures rising beyond those which have underpinned all of agricultural history<sup>12</sup>.

The Proposals have the capacity to power approximately 1,530 homes in the local area with clean, renewable energy. The Proposals would also contribute to supporting the local

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<sup>9</sup>[http://blogs.worldbank.org/futuredevelopment/climate-change-myth?cid=EXT\\_WBBlogSocialShare\\_D\\_EXT](http://blogs.worldbank.org/futuredevelopment/climate-change-myth?cid=EXT_WBBlogSocialShare_D_EXT)

<sup>10</sup><https://www.gov.uk/government/publications/ipcc-fifth-assessment-report-working-group-2-report-on-impacts-adaptation-and-vulnerability/key-points-and-questions-ipcc-working-group-ii-report-on-impacts-adaptation-and-vulnerability>

<sup>11</sup>[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/69487/pb13698-climate-risk-assessment.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69487/pb13698-climate-risk-assessment.pdf)

<sup>12</sup> <http://climie.blogspot.ie/2013/04/our-choice-rocket-to-warming.html>

electricity grid as power would be fed into the local distribution network (as opposed to the National Grid).

### **3.2 Community Benefit Payments**

TGC are committed to supporting the local communities which host their solar PV developments. As such, TGC wish to offer a community benefit as part of the Proposals. This is likely to be a minimum of £500 to a maximum of £1,000 (subject to development costs) per installed MW for ten years and would be paid to the Marchington Parish Council (irrespective of whether or not they support the Proposals).

Marchington Parish Council has been notified of the submission of this application and details of the community benefit payments as well as the opportunity to enter into the agreement have been provided.

Such payments reflect the general desire for local communities to benefit more from the projects they host, and the publication of the UK's first Community Energy Strategy on 27 January 2014<sup>13</sup> which draws out the key findings and policy implications for community energy.

### **3.3 Community Funding Opportunities**

The Government has recently introduced a new Infrastructure Act which contains enabling legislation to allow the Government to pass regulation to enforce a community right to buy scheme. The Infrastructure Act was passed on 12 February 2015<sup>14</sup>. TGC recognise the opportunity for members of local communities to benefit from renewable energy schemes.

TGC has engaged with the local community about the potential opportunity for individuals to invest in the Proposals as shown on the 'Investment Expression of Interest' form which accompanies the application. These forms were made available at the consultation event and during public discussions/meetings and invited interested parties to engage with TGC. As noted in the accompanying CCR, two local residents expressed an interest in investment during the public exhibition and TGC will endeavour to encourage this form of investment in the Proposals.

TGC have previously worked with Bath and West Community Energy Co-op (BWCE) to successfully deliver a community funded solar farm in Bath and North East Somerset (refer to planning permission 14/00424/FUL). TGC are open to the idea of a similar funding and development partnership for the Proposals and discussions along these lines have been held.

Overall, TGC welcomes the opportunity for members of the public to express an interest in investing in renewable energy projects. In addition, such opportunities are in line with Commitment 8 of the STA's 10 Commitments, as detailed in Section 6.3.

### **3.4 Local Economic Opportunities**

There are opportunities for local businesses through the supply chain, including aggregates suppliers, security and monitoring during operation, farming and landscaping contractors and other aspects of the construction process such as fencing.

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<sup>13</sup> <https://www.gov.uk/government/publications/community-energy-strategy>

<sup>14</sup> <http://www.legislation.gov.uk/ukpga/2015/7/contents/enacted>

Recent solar farm appeal decision APP/K1128/A/13/2206258 states that solar farms:

*“[...] would provide some support for the construction industry and local contractors/suppliers could be engaged during the construction and eventual decommissioning stages. Some construction workers may also use some local services. Furthermore, the scheme would generate additional income for the landowners, enhancing farm incomes and possibly diversifying some farm businesses. This would accord with the Government’s objective of promoting a strong rural economy. In addition, the development would assist in increasing the security and diversity of electricity supply. **These economic benefits are important considerations that can be given much weight**” (Paragraph 17, emphasis added).*

Therefore it is evident that the economic benefits resulting from the Proposals should not be underestimated and should be given due consideration during the determination of the application.

### 3.5 Educational Opportunities

TGC would be happy to discuss the incorporation of an information board into the Proposals, explaining the benefits of the Proposals including the biodiversity features of the solar farm, situated near to the Site entrance. This could provide an educational tool and could also be undertaken in conjunction with a local contractor/craftsperson, generating economic activity in the area. In addition, it may be possible for school and community groups to visit the Site to be educated on the effects of climate change and the ways in which renewable energy sources can tackle this.

### 3.6 Business Rates

Since April 2013, local authorities have been able to retain 100% of the business rates from new renewable energy installations, compared with 50% for most other development.

The Proposals have the potential to generate up to approximately £21,700 per annum for 25 years, payable to the Council, an overall total of c. £542,500. This would contribute to the Council’s budget and support its services to the local community.

## 4.0 Wider Economic Benefits of Renewables and Solar Power

Detailed analysis of the marginal rural seats which can often decide a general election, and which renewable energy projects are often located in due to the need for rural locations, has identified that *“getting the economy growing and creating jobs”* as well as *“protecting the environment”* are key issues<sup>15</sup>. Well sited renewable energy projects clearly meet these two objectives.

In terms of creating jobs, additional investment of £40 billion is expected in renewable energy generation projects up to 2020. The operational capacity in the UK could double in that time and there is a healthy pipeline of projects in key technologies. It is estimated that

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<sup>15</sup> <http://lordashcroftpolls.com/wp-content/uploads/2013/04/MARGINAL-TERRITORY.pdf>

*“increasing the amount of home-grown renewable energy will boost energy security, reduce reliance on imported fossil fuels, and support up to 200,000 jobs by 2020”<sup>16</sup>.*

In September 2014, the Centre for Economic and Business Research (CEBR) released a report investigating the macro economic benefits of investing in solar power<sup>17</sup>. The report finds that with bold support from Government, by 2030 British solar could provide 60GW of power, enough to supply the equivalent of 18 million homes and support 49,400 jobs. The report carried out detailed analysis on solar farms and found that with bold government backing, by 2030 they could contribute £25.5billion to the UK and put £425million back into consumers’ pockets through reduced energy costs. It could also create 49,900 jobs on average each year, which by STA’s analysis, is nearly twice as many jobs as new nuclear and more than twice as many as onshore wind, per unit of energy generated.

The CEBR Report finds that the solar industry’s reliance on subsidy has plummeted 65% in the last four years. Furthermore, the recent CfD auction results demonstrate how the price of solar has drastically reduced; *“price for solar came in at up to 58% lower than the price would have been without competition”<sup>18</sup>*. Prior to the CfD auctions, solar cost £112/MWh, (levelised cost of electricity (LCOE) over the course of a project’s lifetime), with the cost currently estimated at £79/MWh and expected to fall further by the end of the decade. Offshore wind (round 3) costs £173. Gas costs £78, and as gas prices rise, this will only increase. (LCOE values from Electricity Generation Costs (DECC, 2013 converted to 2014 price equivalent)). Therefore solar can be fairly considered as an economically comparable energy source to gas generation without the market fluctuations.

Solar projects generate electricity at a far cheaper rate than that of offshore wind projects and cheaper electricity rates make British businesses more competitive on an international scale. A mixed energy supply portfolio which includes solar at fixed prices insulates the wider economy from variable gas prices. Homeowners benefit from competitive energy prices by having more disposable income, which will assist the one in four households who live in fuel poverty.

The UK Solar PV Strategy Part 2 (the Solar Strategy) published April 2014, focuses on the DECC ambition for the key market segments, the ways in which they will be realised through innovation and partnership and the benefits that this will bring for jobs and investment in the UK, in addition to vitally important emissions reduction<sup>19</sup>. The Solar Strategy notes *“the importance of solar PV not just for the contribution it can make to decarbonisation”* (Paragraph 135).

Recent National Solar Centre (NSC) research<sup>20</sup>, commissioned by the Government, concluded that there were up to 14,000 direct and indirect jobs supported by the UK’s solar industry at the end of 2013. The research estimates that 3,500 jobs are associated with ground mounted

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<sup>16</sup> <https://www.gov.uk/government/news/record-investments-of-40-billion-in-renewable-electricity-to-bring-green-jobs-and-growth-to-the-uk>

<sup>17</sup> <http://www.cebr.com/reports/solar-powered-growth-in-the-uk/>

<sup>18</sup> <https://www.gov.uk/government/news/world-leading-auctions-to-provide-major-green-electricity-boost>

<sup>19</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/302049/uk\\_solar\\_pv\\_strategy\\_part\\_2.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/302049/uk_solar_pv_strategy_part_2.pdf)

<sup>20</sup> UK Solar PV Employment Initial Assessment, National Solar Centre, Feb 2014

solar farms. This indicates the important economic contribution of the solar industry to the UK economy, especially as it recovers following the recession.

Renewable energy generation plays an important role in the transition from carbon based electricity generation to more environmentally friendly sources of power. However, the impacts on consumers' bills are often misinterpreted.

Ofgem data of 21 August 2014<sup>21</sup> and 29 January 2015<sup>22</sup> shows that 7% of a dual fuel (electricity and gas) bill goes to social and environmental costs including renewable energy incentives such as the Feed in Tariff and Renewables Obligations Certificates.

An older but more detailed breakdown from February 2013<sup>23</sup> shows that 5% of electricity bills (gas bills are not affected) go to The Renewables Obligation and Feed-in-Tariffs, the two main methods of stimulating investment in and development of renewable energy projects.

For a typical electricity bill of £592 (December 2014), this equals around £29.60 per year. This means that for only £2.46 a month, consumers are supporting the transition to more environmental friendly means of generating electricity. The long term benefits of this clearly outweigh the costs of alternative methods of dealing with climate change (such as extensive flood defences and addressing health implications such as air quality related illnesses). This is reflected by Professor Ottmar Edenhofer, the Chair of the IPCC working Group 3 (which published the most recent reports) who states "*mitigation does not mean the world has to sacrifice economic growth*"<sup>24</sup> reflecting the overall, long-term economic benefits of tackling climate change.

Furthermore and specifically in terms of solar power, recent reporting comparing solar power to nuclear power generation at Hinkley Point indicates that solar power prices will undercut nuclear power generated at Hinkley several years before Hinkley becomes operational<sup>25</sup>. Essentially, this means that solar power would be cheaper than nuclear power by 2018, "*some five years before Hinkley Point C is due to be completed*". Furthermore, solar power does not include the long term clean-up costs and associated environmental impacts.

For example, the Nuclear Decommissioning Authority's 2013-2014 annual budget is £3.2 billion, £3 billion of which is for site programme works. The total cost of decommissioning the UK's nuclear generation facilities is estimated at £60 billion<sup>26</sup>. Solar farm sites have no significant reinstatement costs as the value of the recovered materials is greater than the costs.

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<sup>21</sup><https://www.ofgem.gov.uk/information-consumers/domestic-consumers/understanding-energy-bills>

<sup>22</sup><https://www.ofgem.gov.uk/publications-and-updates/charts-outlook-costs-make-energy-bills>

<sup>23</sup><https://www.ofgem.gov.uk/ofgem-publications/64006/householdenergybillsexplainedudjuly2013web.pdf>

<sup>24</sup><http://www.bbc.co.uk/news/science-environment-27008352>

<sup>25</sup>[http://www.solarpowerportal.co.uk/guest\\_blog/solar\\_set\\_to\\_beat\\_nuclear\\_on\\_headline\\_strike\\_price\\_by\\_2018\\_never\\_mind\\_2023](http://www.solarpowerportal.co.uk/guest_blog/solar_set_to_beat_nuclear_on_headline_strike_price_by_2018_never_mind_2023)

<sup>26</sup><http://www.nda.gov.uk/sites/financials/index.cfm>



## 5.0 Policy Context

Renewable energy is one of the key global topics, and there is a consensus at a world, European, and national level that efforts to reduce our reliance upon fossil fuels are of critical importance.

This can be seen from international legislation and policy from the UN and IPCC, numerous aspects of national legislation, Ofgem reports, and National Planning Policies. England now has a requirement to reduce greenhouse gas emissions by at least 80% by 2050, relative to 1990 levels. The Government's current target is to reduce emissions by 30% and generate 20% of electricity demand from renewable sources by 2020.

On 22 January 2014, the European Union committed to reducing its greenhouse gas emission by 40% by 2030 (compared to 1990 levels) and a new binding target of 27% of energy generation to come from renewable sources from 2030 has been adopted. This is with a view to the EU cutting its greenhouse gas emission by 80-95% by 2050<sup>27</sup>. It is anticipated that future UK energy policy and legislation will reflect these new commitments.

Most recently, the IPCC warns that *"increasing magnitudes of warming increase the likelihood of severe, pervasive and irreversible impacts"*<sup>28</sup>. Reports based on 12,000 peer-reviewed scientific studies provide solid evidence that climate change will affect all communities on the planet.

UK Energy Policy have included a range of Energy White Papers which have all recognised the important contribution that the development of renewable energy can make towards addressing climate change and achieving the targets that have been set at an international level.

The most recent Energy White Paper, published in July 2011, *'Planning Our Electric Future: A White Paper for Secure, Affordable and Low-Carbon Electricity'* set out the UK Governments energy strategy. The executive summary states that, *"We must decarbonise electricity generation. It is vital that we take action now to transform the UK permanently into a low-carbon economy. [...] Without reform, the electricity sector would have emissions intensity in 2030 of over three times the level advised by the Climate Change Committee. [...] To meet our decarbonisation targets the majority of this new investment must be in a diverse range of low-carbon generation such as renewable."* The paper outlines the key role renewable energy has in reducing carbon emissions and achieving security of supply. It sets out how the UK Government will encourage investment in renewable energies in the most cost-effective way, explaining that *"by reforming the market, we can ensure future security of supply and build a cleaner, more diverse, more sustainable electricity mix"*. It recognises the contribution that renewable energy has already made to reducing emissions but identifies that there are barriers to development which are currently slowing the rate of renewables development in the UK in both the short and long term and that these need to be overcome if the UK is going to achieve its renewable energy targets.

In an effort to decarbonise electricity generation, the UK Government introduced a tax on fossil fuels used to generate electricity; Carbon Price Floor (CPF), which came into effect on 1

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<sup>27</sup> [http://ec.europa.eu/energy/2030\\_en.htm](http://ec.europa.eu/energy/2030_en.htm)

<sup>28</sup> <http://www.bbc.co.uk/news/science-environment-26810559>

April 2013. This aims to encourage investment in proven low-carbon generation technologies and an electricity market reform, aiming for secure, sustainable and affordable electricity within the UK. The White Paper outlines low-carbon electricity generation will have the effect of making our electricity supply more secure by encouraging a diverse range of new generation capacity and reducing our reliance on energy imports. Furthermore, it details *“renewable electricity is key to our low-carbon energy future and is a vital component of the UK’s diverse energy mix. We recognise the importance of maintaining industry confidence and creating stable conditions for investment, in order to deploy renewable electricity to the levels needed to meet our 2020 targets and beyond”*.

The Climate Change Act 2008 put in place legally binding targets for reducing greenhouse gas emissions by 2050. This includes the requirement of the Secretary of State to *“ensure that the net UK carbon account for the year 2050 is a least 80% lower than the 1990 baseline”*.

The UK Renewable Energy Strategy was published in 2009 by DECC and aims to facilitate a radical increase in the generation of electricity from renewable sources such as solar farms, to meet the ambitious targets relating to climate change and ensure energy security set out in the above national and international legislation. In terms of specific targets, the strategy notes that renewables could meet in excess of 30% of the UK’s energy demand by 2020, with renewables share of electricity generation a record 19.2% in 2014, an increase of 4.3% on 2013<sup>29</sup>.

As a result, it is important that Planning Authorities acknowledge the national and international position in determining planning applications. The planning system *“plays a key role in helping shape places to secure radical reductions in greenhouse gas emissions, minimising vulnerability and providing resilience to the impacts of climate change, and supporting the delivery of renewable and low carbon energy and associated infrastructure”* (NPPF, Paragraph 93). This is a key material consideration and reflects the positive impacts of renewable energy projects in terms of reducing carbon emissions and the reliance upon fossil fuels.

A development’s potential to produce renewable energy should be considered as a significant material consideration in determining any application and substantial supporting weight should be attached to this contribution.

The Proposals would generate 5.05GWh of renewable energy each year. This should be deemed a significant contribution to renewable energy targets, as reflected by recent appeal decision APP/F1610/A/13/2196612 – Proposed Solar Panels at Land at Norton Hall in Cotswold District Council. That development has the potential to power a smaller number of homes (700), and the decision attached *“significant weight to the current proposal’s contribution to help achieve these national policy aims”*. The Proposals (to which this P,DAS relates to) will power approximately 1,530 homes, so it follows that this should be afforded significant weight. Additionally, and as noted above, there is no need to demonstrate the need to pursue the development of renewable energy generation schemes.

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[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/415998/renewables.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/415998/renewables.pdf)

With acknowledgement of the general context set out above, the Proposals are assessed against relevant guidance as well as the NPPF and the Development Plan. Consideration of individual issues is set out as appropriate later in this P,DAS.

## 6.0 National Planning Policy and Guidance Assessment

### 6.1 The National Planning Policy Framework

The National Planning Policy Framework was adopted by Central Government on 27 March 2012. Within the 'Ministerial Foreword' it states, *"the purpose of planning is to help achieve sustainable development"*. Further, noting that *"sustainable means ensuring that better lives for ourselves don't mean worse lives for future generations"*.

The NPPF goes on to state that development that is sustainable should go ahead without delay. The generation of electricity from a renewable source is at the heart of the Proposals, reflecting its role in the wider sustainable development agenda.

Twelve Core planning principles are outlined in the NPPF and one of these addresses renewable energy specifically. Planning should:

*"Support the transition to a low carbon future in a changing climate ... and encourage the reuse of existing resources ... (for example, by the development of renewable energy)"* (Paragraph 17).

Section 10 of the NPPF, 'Meeting the challenge of climate change, flooding and coastal change' is the key section of the NPPF in terms of renewable energy. Paragraph 93 states:

*"Planning plays a key role in helping shape places to secure radical reductions in greenhouse gas emissions, minimising vulnerability and providing resilience to the impacts of climate change, and supporting the delivery of renewable and low carbon energy and associated infrastructure. This is central to the economic, social and environmental dimensions of sustainable development."*

In the paragraphs which follow, the role of local planning authorities is discussed. It is noted that they should adopt proactive strategies to mitigate and adapt to climate change and to support the move to a low carbon future local planning authorities should plan for new development in locations and ways which reduce greenhouse gas emissions. Furthermore, it is noted in Paragraph 98 that:

*"When determining planning applications, local planning authorities should:*

*Not require applications for energy development to demonstrate the overall need for renewable or low carbon energy and also recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions; and*

*Approve the application if its impacts are (or can be made) acceptable..."*

In Section 3 'Supporting a prosperous rural economy', it is noted that to promote a strong rural economy local and neighbourhood plans should *"Promote the development and diversification of agricultural and other land-based rural businesses"*.

In this case, the Proposals would retain agricultural activity on the land via sheep grazing while generating an additional and diversified income stream. The substantial increases in the cost of farming against the more moderate increase in returns means that diversification of rural businesses is more important than ever. From recent experience of working with a

similar farm business, it is understood that the price of a tonne of grain has not increased substantially since the mid-1980s, whereas the costs for producing this now render the process unviable in many cases, especially for farms on poorer quality land. The Proposals would assist the diversification of a rural business, and support the rural area the Site is located in.

The Proposals are for a fully reversible dual use of the Site. Recent research by Nottingham Trent University, Forum for the Future and Farming Weekly as well as feedback from the agricultural community indicates strong support for this dual use of agricultural land, with one farmer stating that:

*"A lot of people say that PV panels are taking up land, wasting land but far from it if it is done properly ... My sheep prefer being under or around the panels than being in the open fields. The grass grows better, they also have lovely shelter and they lamb underneath them"<sup>30</sup>.*

Overall, the NPPF is supportive of renewable energy developments and this should be acknowledged as a key material consideration when assessing the planning application.

Further details from NPPF relating to specific issues are set out or noted below as appropriate.

## 6.2 NPPF - Presumption in favour of Sustainable Development

As detailed, the NPPF reinforces that planning plays a key role in securing reductions in greenhouse gas emissions and supporting the delivery of renewable energy. This is central to the economic, social and environmental dimensions of sustainable development.

There would be a positive impact in environmental terms due to the role of the Proposals in tackling climate change and generating low carbon renewable energy and supporting the transition to a low carbon future. Furthermore, environmental benefits include the additional planting for screening and enhanced biodiversity purposes at Site level.

Taking into account the three roles of sustainable development as set out in Paragraph 7 of the NPPF, TGC is of the view that the Proposals would result in a number of economic and social benefits by providing support for the construction industry, with local contractors/suppliers being engaged during the construction and eventual decommissioning phases. A number of the construction workers would likely utilise local services, thus positively impacting upon the local rural economy. The Proposals would generate additional income for the landowners, enhancing farm incomes whilst diversifying a rural business, in accordance with the Governments objective of promoting a strong rural economy. The Proposals would reduce reliance upon overseas energy sources and the energy produced would help to meet national energy targets. Additionally, the Proposals would assist in increasing the security and diversity of electricity supply. These economic and social benefits are considered to be important considerations.

There are substantial community benefit fund payments proposed, and the Proposals would generate substantial business rate payments for the Council.

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<sup>30</sup> <http://www.bbc.co.uk/news/science-environment-25305454>

Overall it is considered that the Proposals would comprise a sustainable form of development and therefore, in line with Paragraph 14 of the NPPF and the policies outlined above, there is a presumption in favour of this development.

### 6.3 Planning Practice Guidance (for Renewable and Low Carbon Energy), Solar PV Roadmap and Solar Strategy

The Department for Communities and Local Government (DCLG) have issued detailed guidance on planning issues relating to renewable energy including the development of solar farms. DECC have also published the Solar PV Roadmap<sup>31</sup> and the Solar Strategy<sup>32</sup> which builds on this guidance.

#### Planning Practice Guidance (for renewable and low carbon energy)

This guidance was issued in July 2013 and is now part of the Planning Practice Guidance<sup>33</sup> online resource.

Paragraph 27 details the relevant factors to be considered by local planning authorities:

- *Encouraging the effective use of previously developed land and if a proposal does involve greenfield land, that it allows for continued agricultural use and/or encourages biodiversity improvements around arrays;*

The Proposals are located on Grade 4 poorer quality agricultural land (as detailed on Natural England's Agricultural Land Classification Map and reinforced by the accompanying Agricultural Land Classification Report (ALC)) and would be built to ensure there is the ability to maintain agricultural use in the form of sheep grazing. Recommendations detailed in the accompanying Ecological Appraisal demonstrate there is the potential to provide considerable biodiversity improvements in and around the Site.

- *That solar farms are normally temporary structures and planning conditions can be used to ensure that the installations are removed when no longer in use and the land is restored to its previous use;*

It is common practice that permitted solar farms are bound by condition that they would be removed at the end of their useful life. The Proposals would be constructed to ensure that decommissioning is enacted with ease and TGC is willing to accept a planning approval condition requiring the Site to be reinstated to its current condition should it be requested.

- *The effect on landscape of glint and glare and on neighbouring uses and aircraft safety;*

Solar panels are designed to absorb sunlight rather than to reflect it, with typically 2% of incidental light being reflected. Reflections from solar panels are consequently smaller than direct sunlight, solar reflections from water and reflections from wet runways. Pilots would and do have to cope with glare effects more intense than those from solar panels. Detailed

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<sup>31</sup>[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/249277/UK\\_Solar\\_PV\\_Strategy\\_Part\\_1\\_Roadmap\\_to\\_a\\_Brighter\\_Future\\_08.10.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/249277/UK_Solar_PV_Strategy_Part_1_Roadmap_to_a_Brighter_Future_08.10.pdf)

<sup>32</sup>[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/302049/uk\\_solar\\_pv\\_strategy\\_part\\_2.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/302049/uk_solar_pv_strategy_part_2.pdf)

<sup>33</sup><http://planningguidance.planningportal.gov.uk/>

research<sup>34</sup> has concluded that “the potential for hazardous glare from flat-plate PV systems is similar to that of smooth water and not expected to be a hazard to air navigation”. On this basis, and noting the findings of that study, it is considered that the Proposals would not result in any adverse impact in terms of glint and glare.

- *The need for, and impact of, security measures such as lights and fencing;*

For safety and insurance purposes the Site must be contained by a perimeter fence which would be no higher than 2m (see drawing TGC/PV001 - DEER). TGC propose to use post and wire deer fencing. TGC also intend to use fixed infra-red CCTV cameras on 3m poles which can also be painted at the request of the Council to reduce potential visual impact (the provisional specification is shown in drawing TGC/PV004). There would be no external lighting of the Proposals during its operation other than a small light above the door of the substation. This is to meet the requirements of the DNO and health and safety guidance.

- *Great care should be taken to ensure heritage assets are conserved in a manner appropriate to their significance, including the impact of proposals on views important to their setting [...];*

Archaeology and cultural heritage have been carefully considered and Armour Heritage has prepared a Historical Environment Desk Based Assessment (DBA) which accompanies the application. This document has identified archaeological activity at the Site dating from the post-medieval and modern periods, with the potential for later medieval activity in the form of watermeadows. In later periods, the Site was part of a much larger area given over in World War II to the US Army who built an extensive base. However, given the nature of the Proposals, it is assessed that the resulting impact would be temporary, minimal and localised. Appropriate mitigation measures including careful Site design have been incorporated in order to ensure no inappropriate impacts would occur as a result of the Proposals.

The Proposals would not result in any inappropriate effects upon archaeological or cultural heritage assets.

Direct impacts as a result of the Proposals are deemed to be of relatively small scale, limited to small scale infrastructure for access, construction and shallow underground cabling runs. Accordingly further archaeological investigation is deemed unnecessary prior to the determination of this planning application. A standard planning condition to comprise an archaeological watching brief during construction works is considered sufficient.

- *The potential to mitigate landscape and visual impacts through, for example, screening with native hedges; and*

The principal of mitigation commenced with the design of the Proposals by locating them within an area of land not covered by any landscape designations and with appropriate existing tree and hedgerow cover. Additional landscape planting around the Site is proposed, mitigating any landscape and visual impacts and provide biodiversity enhancements. This ensures that the impacts are appropriate or can be made appropriate (refer to Section 13.0 of this P,DAS).

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<sup>34</sup> Evan Riley and Scott Olson, “A Study of the Hazardous Glare Potential to Aviators from Utility-Scale Flat-Plate Photovoltaic Systems,” *ISRN Renewable Energy*, vol. 2011, Article ID 651857 (available at <http://www.hindawi.com/isrn/renewable.energy/2011/651857/>)



- *Protecting local amenity is an important consideration which should be given proper weight in planning decisions.*

Due to the setbacks from the Site to the nearest dwellings and the screened, low level nature of the Proposals it is considered that there would be no overbearing effects on residential amenity as a result of the Proposals. Furthermore, the Sites design has set out to mitigate any potential visual impacts. As a result it is therefore considered that there would be no impacts on local amenity. Please refer to Section 14.0 for full details.

### **Solar PV Roadmap and Solar Strategy**

The third (of four) guiding principles of the roadmap relates to planning issues:

*“Support for solar PV should ensure proposals are appropriately sited, give proper weight to environmental considerations such as landscape and visual impact, heritage and local amenity, and provide opportunities for local communities to influence decisions that affect them”.*

The Proposals comply with these principles as proper weight has been given to environmental considerations during the Site search and design process. The Proposals are appropriate in landscape and visual terms (full details are set out in Section 13.0), there are no direct or significant indirect impacts on heritage and any archaeology impacts can be made appropriate as need be. Local amenity impacts are not inappropriate and substantial effort has been made, and would continue to be made, to provide opportunities for the local community to influence the decision making process.

There is a specific section on ground mounted solar farms in the Solar Strategy. In terms of planning issues, the Solar Strategy notes the STA’s 10 Commitments and states that compliance with these commitments seeks to *“ensure that the impact of large-scale solar farms on communities, visual impact and long-term land use are minimised”* (Paragraph 64). The STA’s biodiversity guidance is also noted, and the benefits of the Proposals in this regard are noted in Section 16.0 below.

In terms of the 10 Commitments and the biodiversity guidance, Paragraph 67 of the Solar Strategy states that:

*“These best practice initiatives are important as they help address the perception that solar farms are diverting significant amounts of land from agricultural use and domestic food production. This, alongside the effects on the landscape and communities of the rapid growth in the deployment of large-scale solar PV installations, might erode public support for the sector overall”.*

As a founding member of the STA’s Steering Committee on Large Scale Solar Farm Development, TGC is a responsible developer and has ensured that the Proposals comply with the 10 Commitments by considering them early on in the site selection and subsequent design process:

- 1) We will focus on non-agricultural land or land which is of lower agricultural quality.**

The Site is Grade 4, poorer quality agricultural land, avoiding BMV agricultural land in line with the NPPF and focussing on poorer quality land in line with the



PPG. It should be noted that agriculture would continue during operation of the Proposals.

**2) We will be sensitive to nationally and locally protected landscapes and nature conservation areas, and we welcome opportunities to enhance the ecological value of the land.**

The Proposals would not result in inappropriate impacts on any designations and would improve the biodiversity of the Site and its surroundings.

**3) We will minimise visual impact where possible and maintain appropriate screening throughout the lifetime of the project managed through a Land Management and/or Ecology plan.**

Screening has been incorporated into the Proposals and the Site Design shows indicative boundary treatments and landscaping. A landscape management plan can be agreed through condition.

**4) We will engage with the community in advance of submitting a planning application.**

TGC have undertaken a detailed community engagement programme. Results and responses are set out in the CCR which accompanies the application and outlined in Section 11.2.

**5) We will encourage land diversification by proposing continued agricultural use or incorporating biodiversity measures within our projects.**

The Site would continue to be used for grazing and there would be substantial biodiversity enhancements.

**6) We will do as much buying and employing locally as possible.**

There would be opportunities for local companies and workers during the construction (materials and labour) and operation (maintenance, landscaping, security and monitoring) phases.

**7) We will act considerably during construction, and demonstrate 'solar stewardship' of the land for the lifetime of the project.**

All relevant best practice would be complied with during construction. During operation, the Site would be managed in line with an agreed management plan.

**8) We will offer investment opportunities to communities in their local solar farms where there is local appetite and where it is commercially viable.**

At the community consultation event held for the Proposals, Investment Expression of Interest forms were made available for all attendees and as such, TGC actively encourage local ownership. Further details of all community consultation is detailed within the accompany CCR.

**9) We commit to using the solar farm as an educational opportunity, where appropriate.**

TGC would welcome the opportunity to discuss such opportunities in addition to the educational aspects of the community engagement programme to date.

#### **10) The end of the project life we will return the land to its former use.**

The Site can be returned to its former use and character once the Proposals are no longer operational.

Taking the above compliance with the STA's 10 Commitments into account, TGC consider that the Proposals comply with the guidance set out in the Solar Strategy.

The most recent letter to Planning Authorities from Greg Barker (then MP)<sup>35</sup> reconfirms that DECC "strongly support solar PV" and that "there is still a place for larger-scale field-based solar in the UK's energy mix". Ministerial statements reflect the desire to provide further support for roof mounted and brownfield solar PV, however it is important to note that they do not preclude the development of ground mounted solar in appropriate locations.

The letter re-confirms the requirements of the Solar Strategy and the Planning Practice Guidance. The Proposals comply with these requirements as detailed above and TGC have reviewed the five points on the second page of the letter before submitting this application, and consider that the Proposals comply with these requirements. This has ensured that the Proposals are in line with the latest comments and guidance from DECC.

## **6.4 Changes to Financial Support for Solar PV**

The changes to financial support bring forward the new funding regime (Contracts for Difference) to support the development of large scale ground mounted solar PV (greater than 5MW) which was already planned for 2017.

The changes to the financial support for large scale solar PV improve value for money for energy consumers as PV is now the second most competitive of all the low carbon technologies. The recent CfD auction results demonstrate how the price of solar has drastically reduced; "price for solar came in at up to 58% lower than the price would have been without competition"<sup>36</sup>.

The document re-confirms the UK's commitment to solar PV as a core part of the country's energy mix, with the very first sentence of the publication reading "Solar PV is an important part of the UK's energy portfolio" (Paragraph 1 and Paragraph 12). The publication goes on to specifically state that "appropriately sited large-scale solar PV also has the potential to play a significant role" (Paragraph 3).

Sensationalist style headlines were noted in the press following the publication of the consultation on changes to financial support. TGC note that the development of large scale ground mounted solar PV in appropriate locations is still strongly supported by current planning policy and guidance. The National Planning Policy Framework (the NPPF), the National Planning Policy Guidance (NPPG; which accompanies the NPPF) and local planning

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<sup>35</sup>[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/305460/140422\\_Solar\\_PV\\_Strategy\\_LA\\_letter.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/305460/140422_Solar_PV_Strategy_LA_letter.pdf)

<sup>36</sup> <https://www.gov.uk/government/news/world-leading-auctions-to-provide-major-green-electricity-boost>

policy all support renewable energy in principle and appropriately sited large scale ground mounted solar PV specifically.

Appropriately sited ground mounted solar PV presents a range of environmental and socio-economic benefits. This includes generating renewable energy, the key tool to tackling climate change, support for rural businesses through farm diversification, economic opportunities and support in the supply chain and substantial biodiversity enhancement opportunities.

This is reflected by the National Farmers' Union who back the development of appropriately sited solar PV projects which support economic and environmental objectives in the countryside. The Solar Strategy also singles out the agricultural sector for its "*excellent progress*" in the development of solar PV.

Overall, TGC reiterate that ground mounted solar PV is a core part of the energy mix, with appropriately sited schemes still supported by planning policy and guidance. TGC welcome the opportunity to continue to contribute to cost reductions and innovation, whilst tackling climate change and improving the country's energy security.

## 6.5 BRE National Solar Centre Biodiversity Guidance for Solar Developments

The September 2014 publication provides guidance to Planners on how they can help support biodiversity on solar farms. The '*State of Nature Report*' illustrates the severity of the threat facing British Wildlife and shows that biodiversity is declining in the UK. In the past 50 years over 60% of the 3,146 species monitored were recorded as declining. Agricultural intensification has been identified as one of the primary causes of the decline. There is no 'one size fits all' solution, as each site is considered unique. The best approach to implementing biodiversity successfully requires engagement with the local community, the landowner and local and national conservation organisations.

As previously stated the Proposals would have no moving parts and the infrastructure typically disturbs less than 5% of the ground. The posts upon which the panels are mounted take up less than 1% of the land area. Normally only 25-40% of the surface is over-sailed by panels. Due to the fact that panels are raised above the ground on posts, greater than 95% of a field utilised for solar farm development is still accessible for plant growth and potentially for wildlife enhancements and complementary agricultural activities such as conservation grazing.

There are a number of options that will help to enhance biodiversity on solar farms. These could include:

- New and enhanced hedgerows;
- Bird Boxes;
- Wild Flower meadows;
- Pollen and nectar strips; and
- Habitat for invertebrates.

Additionally, in the last 100 years bumblebee populations have crashed, with two species becoming extinct in the UK. It is recognised that solar farms provide an ideal environment for bee habitats because they can support a range of attractive micro habitats. The variety of

dry, wet, shaded and sunny areas, if managed efficiently, can encourage a much wider variety of fauna than improved grassland alone.

## 6.6 Intergovernmental Panel on Climate Change Working Group III: Mitigation of Climate Change

In April 2014 the Intergovernmental Panel on Climate Change Working Group III (IPCC WG III) released the fifth assessment report '*Mitigation of Climate Change*'. The IPCC WG III assesses all relevant options for mitigating climate change through limiting or preventing greenhouse gas emissions and enhancing activities that remove them from the atmosphere.

It found that serious emission cuts are yet to start and that Greenhouse Gases (GHG) emitted are still rising. If additional efforts are not implemented to reduce GHG then it will result in 3.7 - 4.8 degrees of warming by the end of the century. Emissions growth is expected to persist, driven by growth in global population and economic activities.

Fossil fuels have contributed 78% to the total GHG emissions increased from 1970 and 2010. Between 2000 and 2010 the main contributors to emission growth were a growing energy demand and an increase of the share of coal in the global fuel mix. The energy supply sector is the largest contributor to global GHG emissions. GHG emissions from the energy sector grew more rapidly between 2011 and 2010 than in the previous decade.

It has been identified that there is a need towards phasing out consumption of fossil fuels and zero net emissions:

*"The stabilization of greenhouse gas concentrations at low levels requires a fundamental transformation of the energy supply system, including the long-term phase-out of unabated fossil fuel conversion technologies and their substitution by low-GHG alternatives".*

To help stop the worst of climate change from happening, low carbon technologies share needs to grow to 80% by 2050. The rapid decarbonisation of electricity generation in recent years is realised by a rapid reduction of conventional coal power and limited expansion of natural gas.

Renewable energy has become a fast growing category in the energy supply with many of the renewable energies now achieving technical and economic maturity. For example, the cost of photovoltaic systems fell substantially between 2009 and 2012, with renewable energy accounting for over half of the new electricity generating capacity added globally in 2012.

Nuclear energy could make an increasing contribution to low-carbon energy supply, but a variety of barriers and risks exist (robust evidence, high agreement). Those include: operational risks, and the associated concerns, uranium mining risks, financial and regulatory risks, unresolved waste management issues, nuclear weapon proliferation concerns, and adverse public opinion (robust evidence, high agreement).

Delaying mitigation efforts beyond those in place today through to 2030 is estimated to substantially increase the difficulty of the transition to low longer-term emissions levels, and narrow the range of options consistent with maintaining temperature change below 2°C relative to preindustrial levels.

## 6.7 Campaign to Protect Rural England Policy (CPRE) Guidance Note

It has been identified by CPRE that solar energy has an important role to play in meeting future energy needs, that it helps to increase energy security diversity and makes a significant contribution to meeting the UK's target of producing 15% of our energy consumption from renewable sources by 2020.

CPRE outlined that a solar farm is acceptable when:

**1) Avoids harm to landscape character and quality, when viewed from publicly accessible vantage points.**

The landscape setting of the Site is considered to have a medium level sensitivity to landscape change. The zone of visual influence is limited due to the existing vegetation in the locality and the inclusion of additional screening would result in visual impacts being contained to a small area. The trees and hedgerows within the Site and surrounding area provide enclosure that restricts views. The Site and its immediate surroundings are also affected by a number of man-made features including major transport routes of the A50, A515 and the Crewe to Derby railway line and residential and industrial development within Marchington. The Proposals would not dramatically change the characteristics of the wider landscape or affect the integrity of the landscape. The Proposals would fit into the existing field pattern and the low level nature of the Proposals limits the zone of visual influence considerably.

**2) Avoids cumulative impacts on landscape character and quality, when viewed from publicly accessible vantage points.**

The Proposals would have minimal effects on both landscape character and visual amenity. Due to the existing natural vegetation around the Site, surrounding topography and existing built development particularly associated with HM Dovegate to the south, it is expected that the area of visual influence would be limited. The Proposals would not have any direct impacts on nearby designations and would help to improve and enhance biodiversity not only within the Site but also within the surrounding area. The Proposals could be viewed in conjunction with an adjacent proposed solar farm site to the east, from specific selected viewpoints. However, the Proposals would not result in any inappropriate cumulative impacts when viewed from key vantage points as these two developments would be viewed as one overall site, which sits well within the landscape. This is reflected in the Screening Direction which considered this issue carefully.

**3) Avoids harm to valued and special areas, especially those that are nationally and internationally protected.**

The Site is not located within or directly adjacent to a sensitive area. As such, the Proposals would avoid harm to valued and special areas.

#### **4) Avoids harm to views from publicly accessible land and the surroundings of settlements.**

The Proposals would not result in inappropriate harm to views from publically accessible land nearby and there would be no inappropriate impacts on the surroundings of settlements.

#### **5) Avoids using the best and most versatile land.**

The Agricultural Land Classification (ALC) report which accompanies the application concludes that the Site is Grade 4. As such it is poorer quality and not BMV.

#### **6) Avoids the site being classified as brownfield after decommissioning.**

The Site would not be irreversibly developed and there would be no change of use away from agricultural. The soil and land would not be adversely impacted by the Proposals, and it is likely that resting the Site for 25 years would improve the quality of the soil.

#### **7) Avoids adverse effects on biodiversity and delivers positive biodiversity<sup>37</sup>.**

Mitigation measures recommended in the Ecological Appraisal to protect and enhance biodiversity in the area have been included.

## **7.0 Purpose and Principle of the Proposals**

The purpose of the Proposals is to generate energy from a renewable source, in this case sunlight. This is to contribute to the overarching aims of international, national and local level of planning policy on tackling climate change by, in part, generating energy from renewables (as detailed in the preceding sections).

Overall, solar power is a key technology in tackling climate change, as *“solar power represents a vast resource which could, in principle, meet the world’s needs for low-carbon power generation many times over”<sup>38</sup>*. In terms of costs compared to other technologies *“cost reductions in solar PV over the last ten years now make it competitive with conventional, fossil fuel based grid power in some locations, and it will soon be competitive in others, including the UK”*. Further details of cost comparisons have been included in Section 4.0 above.

The purpose of the Proposals complies with the emerging Local Plan as it would generate 5.77 MWp of renewable energy which is a positive contribution to meeting local and regional energy targets. This clearly has wider social and economic benefits as a result of the wider contribution to tackling climate change.

Emerging Strategic Policy 28 relates to renewable and low carbon energy development in the East Staffordshire Borough. It provides strong support for renewable energy development, in accordance with the NPPF, with consideration of *“the degree to which the scale and nature of*

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<sup>37</sup><http://www.cpre.org.uk/resources/energy-and-waste/climate-change-and-energy/item/download/3706>

<sup>38</sup><https://workspace.imperial.ac.uk/climatechange/Public/pdfs/Briefing%20Papers/Solar%20power%20for%20CO2%20mitigation%20-%20Grantham%20BP%2011.pdf>

*a proposal reflects the capacity and sensitivity of the landscape, townscape, natural, historical and cultural features and areas to accommodate the development”.*

In accordance with this policy, developers are required to demonstrate any wider environmental, economic and social benefits of a development, in addition to the minimisation of any potential adverse impacts. Such benefits resulting from the Proposals are outlined in Section 6.2 of this P,DAS.

The emerging Local Plan states that applications will be approved if their impacts are, or can be made, acceptable. As such, it is not anticipated that the Proposals would cause any unacceptable impacts as any impacts which would have occurred have been mitigated accordingly. In addition, the Proposals would result in wider benefits including the provision of a clean energy supply, reductions in greenhouse gas and other polluting emissions, and contributions towards meeting national targets in renewable energy production.

The East Staffordshire Carbon Management Strategy and Implementation Plan (2013) sets out what the Council is doing to mitigate the effects of future climate change. It also considers how the Council plan to adapt and prepare for climate change. The Council *“believes strongly in the need to tackle climate change on a local level as well as nationally”*, thus recognising the importance of reduction in greenhouse gas emissions coupled with the emphasis on increasing renewable energy capacity within the Borough. In terms of their aim to *“highlight the economic, social and environmental benefits of taking action on climate change”*, the Proposals would provide such sustainable development benefits as detailed within Section 6.2, allowing the Council to achieve set targets in terms of renewable energy development and tackling climate change. Furthermore and in relation to the Proposals comprising of sustainable development, they comply with Principle 1, Strategic Policy 1 and Strategic Policy 28 of the emerging Local Plan.

Other benefits of the Proposals include the community benefits detailed in Section 3.0, the biodiversity enhancements detailed in Section 16.0 and the potential for local businesses to benefit from construction and maintenance contracts.

It is considered that the Proposals comply with the relevant policies of the adopted Local Plan and emerging Local Plan, or do not significantly conflict with them. Potential impacts have been minimised and the Proposals would be removed and the land returned to its former use at the end of their use.

In addition to the contribution to meeting energy targets, and as noted elsewhere, the Proposals would:

- Result in the local community benefitting substantially through the community benefit payments proposed (refer to Section 3.2);
- Support the local electricity network, improving grid reliability and stability;
- Offer additional community benefits (refer to Section 3.0);
- Employ and utilise local contractors and materials where possible during the construction, operation and decommissioning phases of the Proposals; and
- Present biodiversity enhancement and agricultural ecology stewardship opportunities (refer to Section 16.0).

In addition, the Proposals would enable the landowner/farmer to diversify their business whilst continuing to farm the Site which is in compliance with Policy CSP4 of the adopted



Local Plan and Strategic Objective 8 and Strategic Policy 14 of the emerging Local Plan. The landscape and ecological management of the Proposals and the Site would also contribute to farming practices which have a positive impact on the environment, whilst tackling climate change.

**Therefore, the Proposals would bring about substantial benefits which should be taken into account in the decision making process. The Proposals would assist the Council in achieving its targets for renewable energy generation whilst also providing community benefits. The development of the Site for the Proposals has policy support from the adopted Local Plan, the emerging Local Plan and supporting documents, as outlined within this section.**

## 8.0 Design

The Proposals involve the installation of a 5.77MWp ground mounted solar farm. The Proposals would include the installation of:

- PV panels mounted on a ground-based racking system;
- Power inverter stations;
- Transformer stations;
- Security fencing and associated access gates with CCTV security cameras mounted on free standing support poles; and
- Gravelled (type 1) roads are proposed within the Site to allow access for construction and maintenance.

The proposed photovoltaic (PV) panels would be a maximum of 3m in height above ground level (AGL) and their lower edge would be a minimum of 80cm AGL to allow sheep to graze beneath them. It should be noted that the bottom of the panels will be higher in the north of the Site, where they are a suitable height to protect them during flood events. The rows of solar PV panels would be set back from the perimeter security fencing in order to prevent overshadowing, to mitigate any potential for landscape and visual effects and to allow for the access track to be constructed. In addition, there would be a separation gap of approximately 4-5m between each row of panels, ensuring no overshadowing would occur and to allow access between each row. Refer to Drawing TGC/PV005 for indicative details of the appearance of the panels and their racking.

Existing on-site screening would be retained, managed (in terms of height) and reinforced as appropriate for the local landscape. The panels would be of a blue/black colour and a specification of what is likely to be deployed is submitted with the planning application (refer to drawing TGC/PV005).

There are three different common and acceptable options for the type of fencing in PV deployments in the UK; Palisade, Paladin and post and wire deer fencing. TGC consider that post and wire deer fencing is the most environmentally and landscape sensitive as it would help to reduce any potential landscape and visual effects. The proposed fence design is shown in drawing TGC/PV001 - DEER, submitted with the planning application. This type of fencing has been used as an example of good practice within the National Solar Centre' guidance on large PV solar farms: "deer fencing can be much less intrusive than other form of fencing and should be considered where possible", and has been deployed on solar far developments in a wide range of locations.

In deploying the proposed system, vertical support poles for the solar panel arrays are usually inserted into the ground to a depth of up to approximately 1.5m, subject to pole-specific ground conditions. Concrete feet can be employed if necessary to mitigate archaeological impacts. Refer to Sections 17.0 and 18.0 for further details.

The inverter substations are installed on a concrete base and would be approximately 9.7m long, 3.1m wide and 3.2m high as shown in drawing TGC/PV003 submitted with the application. These inverters are required to convert the direct current (DC) generated by the solar PV panels into alternating current (AC) which can be used by the electricity grid. The inverters would be housed in a proprietary manufactured housing which is designed for the weather conditions, avoiding the necessity of an additional building or container to house the inverters. They would be painted green or grey which is considered the most suitable for a rural environment however TGC are willing to discuss the finish with the Council or agree this through the use of planning conditions.

Planning permission is sought for the 33kV substation (GCS0015-1 Rev 04), switchgear housing (TGC/PV0010), inverter cabins (TGC/PV003), communications building (TGC/PV009) and customer switchgear (TGC/PV0010).

The proposed on-site buildings would not be prominent within the surrounding area and would be smaller in size than the many stores and barns typically found in the surrounding countryside environment.

Buildings would either be located in Flood Zone 1 or raised up on concrete bases as need be and in line with the FRA's mitigation measures.

Planning permission is also sought for all cabling between the Proposals to the existing overhead lines of the local distribution network, which is located within the Site.

The cable from the boundary of the Site to the Point of Connection (the PoC) would be entirely underground and following completion would not be visible, therefore ensuring no potential visual impacts. Soil would be temporarily excavated and once the cable has been laid all excavated soil would be backfilled restoring the land to its original appearance. The Distribution Network Operator (DNO) would apply for consent under the Electricity Act (which would include deemed planning permission) for a new connection pole under the existing line if this is required. The Council would be a statutory consultee during this process.

## 9.0 Design Principles and Context

A considerable number of factors have contributed towards the design and layout of the Proposals within the Site, as detailed below.

### ***Use***

The Site currently lies within agricultural farmland within the wider countryside setting. The Site is currently in agricultural use, with the Proposals resulting in this land becoming dual-use with energy production and sheep grazing throughout the operational life of the Proposals. The Proposals would form a temporary structure whereby they would be easily removed at the end of the operational lifetime of the Site, for which a planning condition is anticipated to guarantee. The Proposals would not result in the Site becoming brownfield land at the end of their operational life.

The biodiversity offering of the Site and the surrounding area would increase as a result of the development of the Proposals with the inclusion of additional hedgerow and wild flower seed planting along Site boundaries.

### **Layout**

The proposed Site layout has been developed in order to achieve the most suitable design for the Proposals. The design and layout sought to ensure that environmental impacts would be minimised, whilst the optimum energy generation would be achieved.

The Proposals sit comfortably within the Site and are well contained both physically and visually within their surroundings and the Site layout sought to reduce any potential adverse effects upon landscape and residential amenity.

The solar PV panels within the Site would be protected by 2m post and wire security fencing and would be linked to an existing access route either via Green Lane to the west or a minor road to the south to enable security and maintenance staff and vehicles to access the Site.

Within the Site, the panels would be arranged in long rows running from east to west, with each solar PV array mounted on a steel racking framework to ensure the panels would be south-facing and would be spaced approximately five metres apart in order to maximise the energy output. In order to maximise the irradiation levels, the rows would be set back from the existing and proposed hedgerow planting along the Site boundaries, thus minimising any potential for overshadowing. The additional planting would provide an opportunity for biodiversity enhancements associated with the Proposals.

The Proposals would include five inverter cabins, a 33kv substation, switchgear housing, two communication buildings and CCTV cameras mounted on poles at a height of 3m. The inverter cabins would accommodate an inverter and transformers, associated with the switchgear required to ensure that the DC energy produced by the PV panels is converted into AC energy, as required by the national grid and ensure it is transferred from low to medium voltage. These inverter cabins would be spread equally across the Site as illustrated on the Site Design Plan. The substation would be sited in close proximity to the nearest PoC to the local energy distribution network, which is located within the Site boundary. The CCTV cameras would be installed with a maximum height of 3m and would be positioned in order to minimise their visual impact. Camera views would be restricted to ensure that there would be no views into neighbouring properties.

The post and wire security fencing would protect the valuable equipment within the Site. Nevertheless the siting of this fencing has taken into account the potential effects upon the surrounding area and as such the existing Site boundary planting works to mitigate any potential effects and the proposed additional planting would help to effectively screen the Site from any nearby receptors.

The specification for the location, positioning and height of the Proposals has ensured:

- The Site is not located within any environmentally sensitive areas so as to reduce any potential effects the Proposals may have on landscape and visual amenity and ecological assets; and
- There are no tall hedgerows or dense vegetation that would cause overshadowing affecting the solar PV arrays, limiting the effective output of energy production.

Direct access to the Site would be provided via two Site entrance access gates, both located on Green Lane, with the first located on the south-west boundary of the northern field and the second on the north-western boundary of the northern field. These are required for construction vehicles during the construction phase and to allow maintenance vehicles to access the Site during the operational phase. The existing field entrance would be utilised. The layout of the access track is illustrated in the Site Design Plan. Access to the Site through the local road network proposed for use by delivery vehicles is outlined within Section 10.0 and discussed within the accompanying PTMP.

### ***Scale***

The scale of the Proposals ensures that the maximum output in terms of the generation of renewable energy from solar PV arrays can be achieved, with consideration of the potential for adverse effects. All of the associated buildings on the Site would be low level ensuring that they would not be readily visible from key viewpoints within the surrounding landscape. The scale of the Proposals would not be overbearing due to their low visual profile and benign nature and this would be further improved as the proposed planting enhancements mature and effectively screen the Site.

In terms of the panel racking system, the Proposals would consist of a fixed structure. This would be driven into the soil, removing the need for deep concrete foundations, allowing for the quick remediation of the Site following the operational lifetime of the Proposals.

## **10.0 Access, Traffic and Transport**

Access to the Site is assumed from the A515, utilising Moreton Lane, Houndhill and either a minor road to the south passing the poultry factory to the south or Green Lane to the west of the Site. Direct Site access to the Proposals would be taken via an access track, either to the north-west or south-west of the Site, within the northern field. Both access options are broad and offer good visibility when entering and exiting the Site. Refer to the Provisional Traffic Management Plan (PTMP) for full details.

Pedestrian access to the Proposals would be restricted for health and safety and security purposes (in order to prevent theft and vandalism). There are no public rights of way that cross the Site, and none that would be inappropriately affected as a result of the Proposals.

### **10.1 Construction**

A permitted development temporary construction compound would be entirely outside the adopted highway. It is proposed that all site materials would be delivered and stored without the need to have standing traffic or material offloading on the public highway.

It is estimated the construction would take approximately 14 weeks to complete. During the construction stage all vehicles for the construction would be parked outside the public highway. TGC would discuss the traffic management process with the Highways Department during the planning process to ensure safe working procedures during the construction process.

The good connections with the A515 would ensure that HGV movements can be undertaken effectively and efficiently without the need to travel directly through any settlements within the locality, subject to negotiations with the adjacent poultry factory regarding use of access road to the south of the Site.

Care would be taken during the construction phase to ensure no trees or hedges are damaged in line with Detailed Policy 8 of the emerging Local Plan and the recommendations of the Ecological Appraisal.

TGC and the electrical component suppliers provide detailed instructions for the safe sequencing and carrying out of the installation and commissioning works. All works would comply with the relevant UK and EU regulations to ensure a safe working and post installation environment would be achieved.

## 10.2 Operation

It is proposed that the Proposals would operate for a period of 25 years initially and following this period, consent may be sought to extend the lifetime of the planning permission.

Vehicular access to the Site would be restricted to maintenance visits by transit van or equivalent. It is anticipated that one maintenance visit per month would be required so the existing access point is considered suitable for this purpose.

## 10.3 Decommissioning

The lifetime of modern solar panels is 40 years. The design of the solar farm is such that when it comes to the end of its permitted life (which is expected to be 25 years), it can be dismantled with ease and the restoration of the Site can be carried out without delay.

If so required, TGC have no objection to a planning condition being imposed requiring the removal of the Proposals after the end of its permitted operational timescale of 25 years or if the system becomes inactive for a period of more than 12 months. This is unless a subsequent planning approval is secured extending the use of the Proposals for a further period.

The Proposals are entirely reversible and the Site would be restored to its pre-development condition after the operation phase.

The panels and all associated infrastructure would be recycled and it is anticipated the scrap value of the support racking systems is sufficient to pay for the removal of the solar farm. The panels can contain glass, aluminium and semiconductor material which all have a value when recycled. All metal utilised on Site, including all steel racking and fencing, and all associated cabling would also be recycled.

## 10.4 Planning Assessment

In compliance with Policy T1 of the emerging Local Plan, the Proposals would not unacceptably harm the safety and efficient use of the highways network or compromise the implementation of the local Transport Plan Area Strategies. The development of the Proposals would only result in the temporary use of HGV traffic for the delivery of materials throughout the 14 week construction phase. The traffic generated by the Proposals would not have a significant adverse effect on the safe and expeditious movement of long-distance through traffic on the trunk road, in line with Policy T2.

The Proposals would not cause a permanently high level of HGV movements on any of the areas listed within the adopted Local Plan including the Uttoxeter Central Area and unclassified roads and as such complies with Policy T5 of the adopted Local Plan. All HGV traffic would be temporary and associated with the 14 week construction phase of the Proposals. Traffic generated by the Proposals during the operational phase is expected to

comprise of one vehicle per month for the purposes of maintenance and as such the development of the Proposals would be supported by existing effective transport infrastructure in line with Strategic Objective 3 of the emerging Local Plan.

Any traffic impact of the development of the Proposals has been mitigated through design, so as not to cause unacceptable detriment to local amenity. A Provisional Traffic Management Plan (PTMP) accompanies the application and a detailed TMP can be prepared following determination, prior to works beginning on Site.

## **11.0 Pre-application Discussions & Public Consultation**

The Proposals and this P,DAS reflect the outcomes of the pre-application consultation process with various consultees and stakeholders, as detailed below.

### **11.1 East Staffordshire Borough Council**

An EIA Screening Opinion was adopted by the Council on 2 March 2015 stating that an EIA would be required for the Proposals. TGC subsequently submitted a request for an EIA Screening Direction. On 23 June 2015, an EIA Screening Direction was adopted by the Secretary of State (SoS), whereby it was considered that the Proposals would not result in significant effects on the environment.

Within the Screening Direction the SoS outlines the following:

- The Proposals are limited in size and unlikely to have significant effects in this regard;
- The Site is not within or near to a 'sensitive area' as defined by the 2011 Regulations and there are no sites that are designated for ecological or landscape values in or around the location. Due to the nature and scale of the Proposals the SoS does not consider that they would have a significant effect;
- The Site is not within an area designated for its scenic or high landscape value;
- The effects of noise, traffic, light or emissions are not considered to be significant;
- The SoS does not consider that there are any other factors that would lead to significant environmental effects by a development of this scale in this location;
- Whilst there will be some visual impacts, the SoS is not persuaded that there is likely to be a significant environmental effect; and
- The cumulative impact is not considered to be such that a significant environmental effect is likely.

### **11.2 Community Consultation**

A detailed community consultation programme has been undertaken by TGC. Gathering information on local issues has been valuable in terms of taking local concerns into consideration during the development process. Additionally, it was recognised that there is support for the Proposals especially in terms of the Site location.

The community consultation began with TGC sending information to Marchington Parish Council (PC), Staffordshire County Council, East Staffordshire Borough Council and the local MP regarding the proposal to hold a consultation event at Marchington Village Hall.

Invitation letters were also sent to 695 households, as well as 11 local businesses, these businesses were also sent posters advertising the event, and asked if they could display them in public areas. An advert was placed in the Uttoxeter Advertiser on 13 May 2015.

A consultation event was held in Marchington Village Hall on Thursday 28 May 2015 from 3pm to 7pm, attended by approximately 35 people with a number of supporters of the scheme.

Issues raised and discussed included:

- Local support for the development of renewable energy generating developments;
- Landscape and visual impacts;
- Site access; and
- The appropriateness of the site in planning and locational terms.

These were taken into consideration and:

- Screening would be incorporated around the Site's boundary;
- A Landscape and Visual Impact Appraisal has been prepared and accompanies the application;
- Paladin fencing was replaced by post and wire deer fencing within the Site design in order to reduce potential for any landscape and visual impacts; and
- Traffic management has been considered in detail at this stage and would be secured via condition through the use of a detailed Traffic Management Plan.

TGC consider that the community consultation programme has been successful because it has enabled TGC to gain an insight into local issues and concerns relating to the Proposals. These have been reflected in the Proposals as detailed above. As such, the programme has added value to the design process and ensured that the Proposals reflect these local issues. Full details of the community engagement programme are set out in the CCR.

## 12.0 Land Use

The Proposals are located on land which is Grade 4 (as detailed within Natural England's Agricultural Land Classification Map and confirmed by the accompanying ALC report). As such, the Proposals would not impact on BMV agricultural land as defined in the NPPF. It should also be noted that the Site would be grazed during the operation of the Proposals, retaining agricultural use of the land.

There are also substantial biodiversity benefits associated with the Proposals, as noted in Section 16.0 below.

### 12.1 Policy and Guidance

There are a number of planning tests which must be applied to the Proposals in terms of land use, and specifically, the use of agricultural land for the dual use of the Proposals and agriculture (sheep grazing). These are set out in the NPPF, the Planning Practice Guidance (for renewable and low carbon energy) (July 2013), and the National Planning Policy



Guidance (NPPG) (March 2014). These provide guidance to help the assessment process and are material considerations.

Paragraph 112 of the NPPF states:

*“Local planning authorities should take into account the economic and other benefits of the best and most versatile agricultural land. Where significant development of agricultural land is demonstrated to be necessary, local planning authorities should seek to use areas of poorer quality land in preference to that of a higher quality”.*

Paragraph 27 of The Planning Practice Guidance for Renewable and Low Carbon Energy states that:

*“Particular factors a local planning authority will need to consider include:*

- *Encouraging the effective use of previously developed land, and if a proposal does involve greenfield land, that it allows for continued agricultural use (referencing Paragraph 112 of the NPPF) and/or encourages biodiversity improvements around arrays (referencing Gregory Barker MP’s speech on 25 April 2013)”.*

The NPPG builds on these two requirements, setting out a two stage test for schemes which are proposed on greenfield land:

*“Particular factors a local planning authority will need to consider include[...] whether (i) the proposed use of any agricultural land has been shown to be necessary and poorer quality land has been used in preference to higher quality land; and (ii) the proposal allows for continued agricultural use where applicable and/or encourages biodiversity improvements around arrays”.*

The speech made by Gregory Barker (then MP) on 25 April 2013<sup>39</sup> is also noted in the NPPG. In this speech, it was stated:

*“Where solar farms are not on brownfield land, you must be looking at low grade agricultural land which works with farmers to allow grazing in parallel with generation [...] incorporating well thought out visual screening [...] involving communities in developing projects and bringing them with you [...] all of these will be vital in creating a sustainable future for large-scale solar PV”.*

Policy and guidance does not preclude the use of agricultural land in the development of solar farms, as was suggested by the UK’s Environment Secretary, Liz Truss. A freedom of information request was filed by Solar Power Portal which revealed that despite claims by Ms Truss that solar farms were having a damaging effect on agriculture and food production, DEFRA had been informed by CAP Direct Payments Team in September 2014 that *“given the*

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<sup>39</sup><https://www.gov.uk/government/speeches/gregory-barker-speech-to-the-large-scale-solar-conference>

*small areas of land covered [by solar farms] currently, it is not possible to argue that, at the national level, there is yet a serious impact on agricultural output”.*<sup>40</sup>

In the House of Commons oral statement of 29 January 2014 the Planning Minister, Nick Boles MP, said that *“where significant development is necessary on agricultural land, the national planning policy framework is equally clear that local planning authorities should seek to use areas of poorer quality in preference to that of a higher quality. Where land is designated at a relatively high grade it should not be preferred for the siting of such developments”.*

The Solar Strategy includes the Solar Trade Association’s ten commitments, which also state that ground mounted solar farms *“will focus on non-agricultural land or land which is of lower agricultural quality”.*

Lastly, Greg Barker stated that *“the main message from the Strategy is that we are keen to focus growth of solar PV in the UK on domestic and commercial roof space and on previously used land”* in his letter to Local Authorities of 22 April 2014.

Although there is the potential for confusion between 'best and most versatile' and 'poorer quality', the overarching National Policy Statement for Energy (EN-1)<sup>41</sup> states in Paragraph 5.10.8 that:

*“Applicants should seek to minimise impacts on the best and most versatile agricultural land (defined as land grade 1,2 and 3a of the Agricultural Land Classification) and preferably use land in areas of poorer quality (grades 3b, 4 and 5)”.*

Additionally, recent appeal decision APP/D3505/A/13/2204846 provides clarity, with the Inspector stating:

*“from all of this it seems to me that the emphasis from Government is to avoid using best and most versatile agricultural land for large scale solar arrays wherever reasonably possible”* (Paragraph 73).

As such, it is considered that poorer quality land is agricultural land which is not BMV.

The specific language of the above policy, guidance and ministerial statements should also be noted, as ground mounted solar farms are still supported subject to the above tests, and are not precluded outright in policy terms.

## 12.2 Assessment

Section 2.0 of this P,DAS should be reviewed with regards to site selection and use of agricultural land.

In terms of the need to demonstrate the use of agricultural land, ground mounted solar is a key part of the UK’s energy supply and it is not necessary to demonstrate the need for the development of renewable energy.

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<sup>40</sup>

[http://www.solarpowerportal.co.uk/news/exclusive\\_defras\\_solar\\_clampdown\\_based\\_on\\_politics\\_not\\_evidence](http://www.solarpowerportal.co.uk/news/exclusive_defras_solar_clampdown_based_on_politics_not_evidence)

<sup>41</sup>[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/37046/1938-overarching-nps-for-energy-en1.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/37046/1938-overarching-nps-for-energy-en1.pdf)

Similarly, the use of brownfield land and rooftops is encouraged, not required by any part of planning policy, and ground mounted solar farms on greenfield land in appropriate locations are supported by planning policy at all levels, as confirmed by recent appeal decision (APP/E2530/A/14/2218270):

*“The Council argues that the Appellants have not demonstrated that other sequentially preferable land is not available and has mentioned the government’s Solar PV Strategy Part 2 which emphasises the priority for utilising south facing commercial roofspace rather than greenfield agricultural land. Whilst the use of commercial roofspace and derelict land is clearly preferable the government’s strategy does not rule out the use of agricultural land for the siting of solar PV schemes to generate renewable energy.” (Paragraph 6)*

Other renewable energy projects and land uses utilise a greater proportion of land in the UK, with less scrutiny of this use, than solar farms. This is despite solar farms remaining in agricultural use and the other uses noted below preventing continued agricultural use.

**Table 1: Land Use within the UK**

Land Use	% of UK Land	Source/Method
Existing Solar Farms	0.024	c. 3GW, 2 hectares/MW, c.6,000 hectares
Solar Pipeline	0.03	c. 4GW, 2 hectares/MW, c.7,500 hectares
Fracking	0.39	DECC assessment <sup>42</sup>
Biomass	0.45	DEFRA <sup>43</sup>
Golf Courses	1.11 (England only)	Estimate based on Golf England figures <sup>44</sup>

TGC have considered and pursued the development of commercial rooftop and brownfield/previously developed land solar projects since the inception of the company in 2006. In 2011, TGC developed a 1MW rooftop scheme in conjunction with the Body Shop, on their headquarters in Littlehampton, Sussex.

Details of TGC’s ongoing efforts to develop projects on previously developed land, non-agricultural land and rooftops are set out in the Opportunity Register which accompanies the application. As can be seen from the Opportunity Register, at the time of submitting this, there are no such projects ready to be submitted for planning permission or likely to be ready for submission for planning permission in the near future.

The most recent discussions in the Opportunity Register have been held in the last few months (of TGC’s two year development and business cycle) and all above discussions have been unsuccessful in detailed commercial terms for reasons including:

<sup>42</sup> ‘The Environmental Effects of Onshore Oil and Gas Licensing – Two Page Synopsis,’ AMEC Environment & Infrastructure UK, London, 2014

<sup>43</sup> ‘Area of Crops Grown for Bioenergy in England and the UK: 2008-2011,’ Department for Environment Food & Rural Affairs, London, 2013.

<sup>44</sup> <http://www.bbc.co.uk/news/magazine-24378868>

- Prohibitively expensive development and/or alteration costs associated with structural reinforcements of roofs (taking into account wind load, snow and ice load plus the weight of PV panels) and development of brownfield land (geotechnical and geoenvironmental considerations);
- Insurance conflicts (content insurance challenges including risk to damage to stored stock from roof damage);
- Fundamental flaws, in the Solar Trade Association's opinion, in the banding and capacity triggers of financial support for rooftop solar on commercial buildings, with proposed and emerging changes preventing every day investors developing roof top schemes and helping to tackle climate change. Certain scales of development have been completely precluded as a result of imbalanced support, with all bands being reduced at the same rate despite the complete failure of certain bands (i.e. 250kW band);
- A shift, as a result of the economic downturn, to shorter leases for occupiers who are able to command more flexibility on lease terms. This means that owners need to retain flexibility in their warehouses and rooftops i.e. by being able to alter the roof to accommodate refrigeration and ventilation if need be;
- The 'fragmented' nature of owners and occupiers in industrial estates and commercial buildings, resulting in being unable to achieve consensus between myriad development partners and the complexities of the metering system in such a scenario;
- The focus of redevelopment and regeneration of brownfield land for residential, commercial and industrial (among other) uses means that solar farms on brownfield land are not financially viable in terms of land values. Generally, it makes more sense for such (often inner city or edge of settlement) locations to have trip generating uses, where they can be incorporated into an integrated transport system more easily, rather than increasing the pressure on Green Belt or greenfield sites for housing development etc.; and
- The lack of interest from the owners of buildings, whose tenants pay electricity bills, but who may not lease the building for long enough to benefit from the installation of a PV system.

It should also be noted that just as owners of residential property put panels on their own roof, it is often the case that companies which TGC approach are considering doing so themselves and do not wish to lease roof space to a third party to do so.

Similarly, the key role that the commercial/utility scale part of the overall solar sector plays in the UK economy is noted by the Solar Strategy. There are a many small scale rooftop installers (focussing on residential or small commercial properties) which operate on the FiT. However, TGC operates predominantly within the ROC and CfD areas, contributing to the supply of commercial/utility scale projects.

Significant expansion, likely putting a number of smaller businesses out of work in the process, would be required for TGC to develop FiT projects. As ground mounted solar farms are supported by planning policy and as they offer opportunities for making substantial contributions to renewable energy targets, TGC focus on this sector of the wider, overall solar PV market.

In addition to the above, the need for use of agricultural land for solar farms specifically is due to the requirement of large areas of flat or gently sloping land, avoidance of inappropriate or wide ranging residential amenity impacts, the need to avoid shading (for example by tall buildings in built up areas), the need for ease of access by larger vehicles and available and willing land owners who view solar farms as a viable use of land in conjunction with agriculture and an opportunity to diversify their rural business. Vacant land in urban areas tends to be unviable due to higher land values and the opportunities presented by commercial or residential development. Such urban brownfield locations are also better suited to more intense use in terms of sustainability principles.

TGC have also considered the redevelopment of airfield sites. However, those which were suitable (in terms of grid availability and potential planning and environmental impacts) were either unavailable (other proposed uses) or had already returned to agricultural use.

Landowners are often not willing to release such sites for solar farms as they are suitable for higher value development such as residential. Additionally, TGC have encountered sites with severe environmental issues such as foot and mouth disposal sites or buried waste tanks which render sites unviable.

With all of the above in mind and put simply, it is clear that to prohibit the significant development of agricultural land would prohibit the vast majority of renewable energy projects and significantly hinder tackling climate change.

As such, and having demonstrated the need for the use of greenfield land in this case, to control the use of BMV agricultural land, the NPPG states that for solar farms on greenfield land, it must be considered whether *“poorer quality land has been used in preference to higher quality land; and (ii) the proposal allows for continued agricultural use where applicable and/or encourages biodiversity improvements around arrays”*.

Although the speech made on 25 April 2013 by Greg Barker (then MP) is noted in this section of the PPG, the statement does not preclude the development of ground mounted solar farms in appropriately sited locations, on lower quality agricultural land. The speech supports the Proposals as they would be located on lower quality land and the Site would be grazed in parallel with the operation of the Proposals.

The NPPF clearly states that:

*“Where significant development of agricultural land is demonstrated to be necessary, local planning authorities should seek to use areas of poorer quality land in preference to that of a higher quality”* (Paragraph 112).

The NPPF does define ‘best and most versatile agricultural land’ as *“Land in grades 1, 2 and 3a of the Agricultural Land Classification”* (Annex 2: Glossary / Page 50). As such it is generally accepted that for planning purposes, this is the test of poorer or higher in terms of the quality of land.

As noted above, this was clarified by appeal decision APP/D3505/A/13/2204846, which included a review of the NPPF, PPG, ministers’ statements, the Solar Strategy and letters to Local Authorities, and concluded that *“the emphasis from Government is to avoid using BMV agricultural land for large scale solar arrays”*.

It has been clearly and robustly demonstrated that the ALC of the Site is Grade 4 and, therefore, it is not BMV agricultural land and is poorer quality land. The Proposals allow for

continued agricultural use as the Site would be grazed during the operation of the Proposals, retaining agricultural use of the land.

The Proposals would also incorporate substantial biodiversity improvements around arrays as illustrated on the Site Design, detailed in the accompanying Ecological Appraisal and outlined in Section 16.0. The Proposals represent an opportunity for the landowner to further diversify the agricultural business and continue to contribute to the local rural economy, at the same time as generating clean energy which would be used by the local communities connected to the distribution network.

The Site would continue to be used for agriculture due to the minimal physical disruption of the land and the spacing between rows, which allows sheep grazing. The Site would not be irreversibly developed and there would be no change of use away from agricultural. The soil and land would not be adversely impacted by the Proposals, and it is likely that resting the Site for 25 years would improve its quality. The land can be quickly returned to its current condition following the completion of the operation of the Proposals.

### 12.3 Local Development Orders for Housing Development on Brownfield Land

In August 2014 the Department for Communities and Local Government introduced plans that encourage Councils to bring forward brownfield land for housing development and in the process established a local development order incentive fund of £5 million which has been allocated to help provide support for the scheme.

This further expands onto measures announced in June 2014 from Chancellor of the Exchequer George Osborne, who outlined plans to make it easier to build on brownfield land that is suitable for housing. It was stated that the fund highlights the vital role that brownfield land plays in meeting the country's housing needs. The £5 million fund has been established to unlock local development orders as part of a drive to unlock viable housing schemes on brownfield sites through the delivery of planning simplification.

It has been outlined that there is enough previously developed brownfield land to deliver up to 200,000 new homes and with housing a key part of the government's long term economic plan, ministers are looking for permissions for homes to be in place on more than 90% of this land by 2020.

The Government has therefore set out clear criteria for prioritising housing development on all brownfield land and has outlined that it aims to deliver the maximum number of homes on brownfield sites by 2020. As a result this has significantly reduced the number of sites that could be potentially used for solar development.

### 12.4 Conclusion

**Overall, the planning tests set out above are met as, based on the above reasons and issues, it is considered that the need to develop agricultural land has been demonstrated. The Proposals would not result in any loss of agricultural land, the Site would continue to be utilised for agriculture, the Site is not BMV land and is poorer quality agricultural land and there would be significant biodiversity enhancements as a result of the Proposals and associated landscaping.**

## 13.0 Landscape and Visual Impacts

### 13.1 Staffordshire County-wide Renewable/Low Carbon Energy Study (2010)

This study details an assessment of the potential for local renewable energy up to 2026, looking at decentralized generation together with opportunities with future new development and retrofit within existing buildings. Standalone energy development presents significant opportunities across the Staffordshire district. Resources within each authority are dependent on a range of technical factors including solar irradiation, the quantum of existing and new development and the technical, economic and practical constraints.

It is stated that each authority should seek to maximize the use of low and zero carbon resource available to them, explicitly focusing on those solutions that are possible within their boundaries, such that they make a fair contribution. Further, the study surmises that planning policies need to be supportive of all energy generation technologies. Within East Staffordshire, the relevant planning policies support renewable energy generation, with due consideration of any adverse effects. The Proposals comply with these policies as detailed within this P,DAS and would contribute to East Staffordshire Borough's renewable energy and climate change targets with the production of 5.77MWp.

The estimated installed energy capacity within Staffordshire is approximately 88MW with an energy production equivalent of 400 GWh, or 2.5% of the energy demand of Staffordshire. It is outlined that the supply potential for renewable energy within East Staffordshire by way of proportion of energy demand by 2020 is 10% of the localized national target, whereby the 'elevated case' (maximum) would produce approximately 13% and the 'base case' (minimum), approximately 7.5%.

Under the scenarios tested within the study, East Staffordshire's renewable energy contribution is heavily influenced by wind, mostly due to its highly rural character and hence fewer constraining features. Solar-specific spatial guidance is not contained within this study. However, the capacity assessment for wind energy development has been utilized as a point of reference as to the acceptability of such development within the Borough. Considerations of such comparison, in landscape terms, include the relatively low height of solar PV installations compared to wind turbines. Figure 24 illustrates that the Proposals are within an area of development opportunities with no constraints identified for wind energy development. As such, it is considered that this area would present an area of development opportunity for solar energy developments, including the Proposals, with consideration of the relatively low height of solar panel arrays (up to 3m) and thus the relative ease in screening, in comparison to wind turbines within the landscape.

### 13.2 Landscape and Visual Impact Appraisal

The LVIA which accompanies the application has been prepared by Wardell Armstrong and should be referred to for full details of the assessment of landscape and visual impacts.

The potential for effects upon the surrounding landscape resulting from the Proposals have been given careful consideration. Due to the nature of the Proposals, it is necessary to seek a site that is not subject to overshadowing effects from the likes of existing vegetation or built development.

It is considered that due to their benign nature, the Proposals would have a minimal visual effect on the wider surroundings. However, additional planting and landscaping would be



introduced throughout the Site, strengthening Site boundaries and enhancing the biodiversity offering of the area with native species.

The land in which the Proposals would be sited has very limited visibility, as noted in the LVIA. Though the Zone of Theoretical Visibility (ZTV) diagram (refer to the accompanying LVIA) includes much of the land within 5km of the Site the reality is that the dense network of hedgerows and trees provides an effective visual screen from the vast majority of potential public and residential viewpoints. This is illustrated by the photomontages which accompany the application.

The Site and its immediate surroundings are already negatively affected in landscape terms by a number of man-made features including the A515, the Crewe to Derby railway line and HM Prison Dovegate in the immediate vicinity of the Site. However, it should be noted that a number of trees are located within the southern section of the Site, which are characteristic of the study area.

In terms of landscape designations, Forest Banks SSSI is approximately 2.5km south-west of the Site at its closest point. Small sections on the northern edge of the SSSI are located within the ZTV, however views would be screened by intervening vegetation and existing built development. Therefore the SSSI would not be affected, visually, by the Proposals.

Green Lane is a local road that links The Square to footpath Marchington 44. There would be views of the Proposals from a short 20m section of the road adjacent to the Site access point on Green Lane, with open, close proximity views would be available from this section of the road. However, from other locations on this road, intervening vegetation would generally screen views.

Moreton Lane/Houndhill is a local road that links Uttoxeter to the A515. Middle distance views are available from a 200m section of the road to the west of Houndhill House, although views are generally screened by intervening vegetation and existing built development.

The A515 is a road that links the A50 to Lichfield. Far distance views are available from a 200m section of the road to the south of where the A515 crosses the Crewe to Derby railway. Nevertheless, intervening vegetation generally screens views.

The potential cumulative impacts have been assessed with regard to the Proposals, with consideration of four solar farms (proposed and existing) within 4.2km of the Site, comprising of:

- A solar farm at Aston House Farm, Sudbury, approximately 2.5km north-east of the Site;
- A solar farm within the planning process on land north of Moreton Lane, Draycott in the Clay, immediately to the east of the Site;
- A solar farm within the planning process on land south of Moisty Lane, Marchington, approximately 2.8km west of the Site at the closest point; and
- A solar farm within the planning process to the south-east of the Willows, Uttoxeter, approximately 4.2km to the north-west of the Site at the closest point.

The proposed solar farm at Aston House Farm is located within the ZTV. In isolation this scheme would lead to an imperceptible adverse effect. As a result, the Proposals in combination within the scheme at Aston House Farm would lead to an additional imperceptible adverse cumulative effect (in combination view).

The proposed solar farm off Moreton Lane is located within the ZTV and would completely screen the Proposals. Therefore the presence of both schemes would not give rise to adverse cumulative impacts in combination or sequential views from the A515.

The remaining schemes outlined above would not give rise to adverse cumulative impacts on the landscape character or visual amenity of the area in combination with the Proposals due to the presence of intervening vegetation and built development between the sites leading to a lack of inter-visibility. No further large scale solar farms, either existing or in the process of planning, have been identified within the study area. Further details on these cumulative effects are outlined within the LVIA.

The Proposals are considered as acceptable in terms of their overall effects on landscape character and visual amenity. The LVIA has concluded that the highest level of impacts incurred as a result of the Proposals would be limited to receptors immediately adjacent to the Site.

As a result of the low level nature of the Proposals, the careful design and layout of the Site, the proposed planting enhancements and existing built development and intervening topography, it is not anticipated that the Proposals would result in inappropriate effects within the surrounding area.

The Proposals have sought to retain and enhance existing landscape elements to integrate them further into the surrounding landscape. The mitigation measures therefore seek to achieve the following aims:

- To retain and enhance all existing landscape features, particularly any mature trees and hedgerows surrounding the Site;
- To strengthen, enhance or where appropriate recreate characteristic landscape features in accordance with the relevant policies and guidance and the landscape guidelines of the local Landscape Character Assessment for the area; and
- To minimise any unnecessary overshadowing of the solar PV panels.

The low level nature of the Proposals would ensure that skylines would not be altered and the containment of development within the established field boundaries at a higher level than the Proposals would help to retain the character of the area. The Proposals have been designed in order to retain the existing field boundaries, typically mature hedgerows and trees. There would be no removal of this existing vegetation as part of the Proposals, with existing vegetation being allowed to mature further during the operational phase of the Proposals and be enhanced through appropriate planting.

A common concern related to commercial large scale solar farms is the potential for glint and glare from the solar PV panels which could be perceived as a nuisance or hazard to receptors in proximity to the Site. Solar PV modules are designed as light converters to absorb as much light as possible, as opposed to reflecting sunlight. As such, the extent of glare anticipated from the Proposals would be minimal. Any light reflection caused would be limited in both length of time and its position, due to the movement of the sun.

### **13.3 Planning Assessment**

The Proposals include the retention, creation and enhancement of key landscape features on the Site. This includes the mature hedgerows and trees on the Site, the field boundary and pattern and biodiversity enhancements in the fields, as well as their margins.

The design and layout of the Proposals respond positively to the context of the area surrounding the Site and the design would correspond to the surrounding landscape as it would be viewed in association with the surrounding built development of Marchington, including HM Dovegate to the south, and the existing railway line to the north. In addition, they would not result in significant adverse impacts on the immediate and general environment in terms of emissions or other impacts. As a result, the Proposals comply with Policy BE1 of the adopted Local Plan. The scale and nature of the Proposals reflect the capacity and sensitivity of the landscape and therefore comply with emerging Strategic Policy 28. The design of the Proposals reflects the existing density of its locality and would not be harmful to the character of the area, thus complying with emerging Strategic Policy 24.

The Proposals are in line with emerging Strategic Objective 12 as they have sought to protect and enhance the local countryside through their design and the quality of the landscape through enhanced planting and conservation of existing hedgerows and trees. Strategic Objective 12 is in line with a core planning principle of the NPPF which takes account of the character of different areas and recognises the intrinsic character and beauty of the countryside. Paragraphs 58 and 109 of the NPPF seek to achieve visually attractive schemes resulting from appropriate landscaping. Therefore reinforcing the suitability of the Proposals as the impacts on the immediate and wider landscape would not be significantly detrimental and the Proposals would not adversely affect the particular character of the surrounding landscape or any settlement as they would be well contained in the immediate landscape and as such views of the Proposals would be restricted.

It can be seen that the Proposals respond positively to the context of the surrounding area and in terms of height, they relate well with surrounding views. This would be due to the presence of existing vegetation and through the planting of additional hedgerows. As such, the Proposals would comply with emerging Detailed Policy 1.

Any imperceptible negative impacts would be outweighed by the substantial benefits of the Proposals in terms of renewable energy generation and the Proposals would benefit from the substantial weight of support for renewable energy in the NPPF and background policy/legislation as noted in this P,DAS.

Additionally, the detailed requirements of Policy CSP4 of the adopted Local Plan, Strategic Policy 14 and Strategic Objective 8 of the emerging Local Plan, are met as the Proposals support the diversification of farm-based operations with consideration of:

- Best and most versatile agricultural land;
- Impact upon landscape character;
- Existing properties and road network;
- Cumulative impact; and
- The impact upon the natural and historical environment.

The Proposals would not lead to the loss of important areas of open space or the development of open land around settlements. The Proposals would not obscure typical views of settlements from public vantage points, obstruct significant views of settlements, result in the loss of 'green fingers' which play an important role in the structure or amenity of settlements or have any other serious adverse effect on the character or setting of settlements.

Overall, it is considered that the Proposals are well sited in landscape and visual terms and comply with the Development Plan.

## 14.0 Residential Amenity

The visual screening afforded by the extensive vegetation cover surrounding the Site would ensure that the Proposals would result in very few visual effects on receptors. There are few residential receptors in the immediate surrounding area and it is unlikely that views of the Proposals would be readily possible from these dwellings. Nevertheless, the Site layout and design, including the retention of screening, has sought to minimise impacts upon residential amenity.

There would be oblique upper storey views of the Proposals from Brandon's Poultry Farm to the south, with views available from upper floor windows, although the vegetation on the boundary of the Site generally screens views.

There would be ground and upper floor views of the Proposals from some properties on Moreton Lane/Houndhill. Views would be available from three properties that are located to the south-west of HM Dovegate Prison and on the northern edge of Moreton Lane. Although vegetation on the boundary of the Site and existing built development generally screens views.

There would be ground and upper storey views of the Proposals from properties on the A515 immediately to the south of the Crewe to Derby railway line, however intervening vegetation would generally screen views.

Overall, it is considered that the impacts on amenity have been minimised by the choice of the Site for the Proposals and the existing and proposed landscaping, and there would be no inappropriate effects on nearby dwellings. The Proposals are justified by their local and wider benefits and there would be no loss of residential amenity as a result.

## 14.1 Planning Assessment

A core planning principle of the NPPF, as detailed in Paragraph 17, details that planning should always seek to secure a good standard of amenity for all existing and future occupants of land and buildings.

Any vehicles associated with the Proposals, particularly during construction, would not inappropriately harm the residential amenity of the local area, as the Proposals have been designed in order to protect the amenity of the occupiers of residential properties nearby, in line with emerging Strategic Policy 1. In addition, the Proposals would not impact upon the amenity of occupiers of nearby residential properties in terms of loss of light, outlook or privacy, in line with Detailed Policy 1 of the emerging Local Plan.

In compliance with Strategic Policy 14 of the emerging Local Plan, the Proposals would not unduly affect the amenity of neighbouring properties and in line with Strategic Policy 24 they would not be harmful to the character and amenity of the surrounding area. The Proposals comply with Policy BE1 as suitable mitigation in the form of additional planting and detailed Site layout and design have been incorporated into the Proposals to ensure that they would not result in inappropriate impacts on the immediate and general environment in terms of emissions and other impacts, including residential amenity.

Whilst there would be some temporary noise and dust emissions during construction, this is temporary in nature and would only last approximately 14 weeks. A Construction Environmental Management Plan can be put in place to minimise these impacts and construction would be based on best practice and be in line with latest guidance and legislation.

In terms of noise, the only anticipated noise source during operation of the Proposals would be from the extractor fans at the inverter cabins and would be minimal. Paragraph 123 of the NPPF outlines that planning policy should look to ensure that development proposals avoid unnecessary noise emissions giving rise to adverse impacts. Following the brief period of construction detailed, there would be minimal activity, noise or movement from the Site and as such the Proposals comply with emerging Detailed Policy 7 and NPPF and would not give rise to land instability, unacceptable levels of pollution in respect of noise or light, or contamination of ground, air or water. In addition the Proposals would accord with Policy NE27 of the adopted Local Plan as they would not result in any light pollution effects on the surrounding area.

Overall, it is considered that the impacts on amenity have been minimised by the choice of the Site for the Proposals and the proposed landscaping, and there would not be inappropriate impacts on these dwellings. As such, the Proposals comply with the relevant policy as outlined above. The Proposals are justified by their local and wider benefits and there would be no loss of residential amenity as a result.

## 15.0 Flood Risk and Drainage

TGC commissioned Nijhuis H<sub>2</sub>OK to carry out a Flood Risk Assessment (FRA) which accompanies the application.

The Environment Agency flood risk online mapping demonstrates that the Site is within Flood Zones 1, 2 and 3a, as confirmed by the FRA. The Proposals would incorporate appropriate mitigation measures including raising panels above flood levels, and a suitable SuDS scheme. As such they would not result in increased risk of flooding within or outwith the Site.

It is considered that the flood risks can be mitigated to a safe and acceptable level with the implementation of measures that would reduce flood risk to life and infrastructure. Furthermore, sustainability benefits associated with the Proposals would outweigh the flood risk to the Site.

The FRA details that for the 1 in 100 year with an allowance for climate change flood event, the extreme north-west area of the Site would experience flood depths of up to 0.72m. This covers only about 10% of the overall area of the Site. The higher areas of the Site, towards the east and the south, may be subject to flooding to a depth of 0.33m in the 1 in 100year + climate change fluvial flood event, representing approximately 60% of the Site area. The remainder of the Site, mostly to the immediate north of the poultry farm, is above the flood level and would not be inundated during the 1 in 100 year + climate change fluvial flood event. The values stated above represent the worst-case scenarios and do not allow any benefit for flood defences. The Environment Agency indicates that there is a manmade raised defence north of the Site, which affords protection from the River Dove with an upstream level of 66m AOD.

The mitigation measures that would be applied to the Proposals are based on the accompanying FRA. Within the north-west area of the Site, at most risk of flooding, the lower

end of the panels would be at least 1.05m AGL (refer to “Solar Farm 2V, 40 Module Racking based on Green Lane FRA – 2V Racking System Rev A). For the rest of the Site, the lower end of the solar array panels would be at minimum of 0.8m AGL and as such the design of the racking system and panels in the remainder of the Site have not been impacted upon by flooding potential. Site infrastructure, including the inverters, transformer stations, communications building and substation, have been located outside of the areas of Flood Zone 2 and 3 within the Site and are located within Flood Zone 1. As such the Final Floor Levels (FFL) of this infrastructure would be appropriate for its location outside of the flood zone.

Should it be necessary to locate buildings in the flood zone, the FRA’s design levels would be implemented. The FFL of all Site infrastructure is dependent upon their finalised locations within the Site and it is suggested that these final details are secured by condition.

## 15.1 Planning Assessment

The overriding emphasis for new developments of this type suggests that sustainability is an important aspect in granting approval. However, the risk due to flooding should not be overlooked but should be mitigated to a safe level if possible. Within planning policy the vulnerability classification and flood zone extents are key to assessing whether a development is appropriate.

The design of the Proposals planned for and reduced the impacts of climate change and would ensure that the development of the Proposals along the river corridor would not be unnecessarily exposed to the risk of flooding and would not increase the risk of flooding elsewhere, in accordance with Strategic Objective 10. In line with Strategic Policy 1, the Proposals have been designed to be developed without incurring unacceptable flood risk or drainage problems and incorporates a SuDS scheme in order to integrate mitigation and alleviation measures to avoid impacts on the Proposals themselves and elsewhere.

The Proposals would not cause unacceptable harm to any of the following, in accordance with Strategic Policy 27:

- The protection and storage capacity of the flood plain;
- Access to watercourses for maintenance;
- The characteristics of surface water run-off;
- The integrity of fluvial defences; or
- The drainage function of the natural watercourse system.

Furthermore and generally, the Proposals represent an efficient use of land in the flood zone as they are appropriate for their location, would enable agriculture to continue and would reduce the pressure on other sites outside and within the floodzone.

In terms of the sequential test, TGC investigated a large number of sites in the area and there were none available (in terms of a willing land owner) and suitable in terms planning policy with a viable grid connection. It should be noted that developing a site outside of the flood zone would have been more economical for TGC (reduced build costs) and as such the decision to submit this application was not taken lightly.

Paragraphs 98 and 100 of the NPPF and Paragraph 2 of the Technical Guidance to the NPPF are also relevant here; the impacts of flooding can be made appropriate through mitigation and as such the Proposals should be permitted.

It is also noted, in terms of the flood zones and the nature of land/proposals in Flood Zone 3, that:

- Water would be able to flow or be stored on the Site;
- The Technical Guidance notes that wind turbines are classed as essential infrastructure, and by the same reckoning, it is considered that the Proposals are also essential infrastructure; and
- The Proposals have been designed to remain open and operational during a flood event, would result in no net loss of functional flood plain (due to the minimal footprint and SuDS proposed), would not impede water flows and would not increase flood risk elsewhere.

The Proposals would likely have a vulnerability classification of 'less vulnerable' in accordance with the NPPF and its associated Technical Guidance (NPPF-TG). Referring to Table 3 of NPPF-TG 'less vulnerable' developments within Flood Zone 3a or lower risk zones are deemed to be appropriate. The Environment Agency considers solar farms to comprise 'essential infrastructure' and as such, subject to the 'exception test' such development may be appropriate within the flood zone.

Proposed development either entirely or partially within Flood Zones 2 or 3 would be required to pass the sequential test; demonstrating that there are no other reasonably developable sites at a lower risk of flooding. However, where NPPF does not cover areas within the superseded PPS25, then PPS25 is still considered relevant. Paragraph 3.49 of PPS25 states that renewable energy projects such as this do not require the application of the sequential test.

As the Site is classified as 'essential infrastructure' by the Environment Agency, the Proposals are required to pass the exception test before being deemed appropriate.

In terms of the exception test set out in Paragraph 102 of the NPPF, it is considered that the substantial benefits of the Proposals, in terms of generating renewable energy and associated benefits, outweigh flood risk (as the Proposals can be successfully mitigated and would not result in the increase in flood risk elsewhere, as detailed above). The Proposals would be safe for their lifetime taking account of the vulnerability of users (occasional maintenance workers), would not increase flood risk elsewhere, and would reduce flood risk overall through the use of SuDS and their contribution to tackling climate change. Indeed, there are clear links between climate change and flood events, therefore the Proposals would essentially contribute to reducing the likelihood and extent of flood events.

In terms of mitigation, the bottom of the solar array panels and the FFL of all on-site infrastructure including the inverter cabins and substation would be above the predicted 100 year plus climate change plus 300mm freeboard levels, as outlined above and within the accompanying FRA.

Taking all of the above into consideration, it is considered that the Proposals comply with Policy the relevant policies of the emerging Local Plan, as well as the NPPF.



## 16.0 Ecology and Biodiversity

TGC commissioned All Ecology to undertake an Ecological Appraisal at the Site with the Proposals in mind.

There are no statutory designated sites and there are two non-statutory designated sites within 1km of the Site which comprise:

- Marchington MOD Local Wildlife Site (LWS) situated directly north; and
- Dovegate Prison (grounds at) LWS situated directly west.

Marchington MOD LWS comprises a rich mix of secondary semi-natural and man-made habitats that have developed on the site of a former military camp. The Site forms part of this LWS, however the habitats encountered are common habitats and mainly improved grassland. The most significant change proposed is the clearance of the scattered scrub, although the loss/changes to these habitats in terms of their vegetation is not considered significant due to the fact that the loss of scrub in relation to its potential to support nesting birds would be addressed through the planting of new habitat including native hedgerows. In relation to the grassland, any loss or disturbance would be minimal and the new field margins have the potential to provide species-rich grassland. No inappropriate effects resulting from the Proposals would impact upon the surrounding habitats which also form part of this LWS.

Dovegate Prison (grounds at) LWS supports a range of habitats including large areas of semi-improved neutral grassland, both plantation and semi-natural broad-leaved woodland and three relatively large pools with an abundance of marginal vegetation. This LWS directly borders the Site, however it is well-screened from the Site by mature hedgerows and post and wire deer fencing.

Contractors would be advised that these LWS are present and that they would not be permitted to enter them. Given the low impact nature of the works, no other precautions are necessary.

With regard to the specially protected great crested newts, a number of ponds are present in the surrounding area and these were therefore subject to the Great Crested Newt Habitat Suitability Index (HSI) Assessment. Given the low impact nature of the works, only ponds up to 250m from the Site were considered. Full details of the assessment are outlined within the accompanying Ecological Appraisal. In summary six ponds were identified within 250m with three achieving a rating of 'below average' and one a rating of 'poor' for their suitability for Great Crested Newts with the remaining two ponds being dry and therefore considered unsuitable.

The works would be temporary, low impact and no terrestrial habitat is proposed for removal. Overall, the nature of the Site, particularly with regard to amphibians, is expected remain similar. Even if newts are present on the Site or in the surrounding area, no loss of habitat is proposed and any risk to newts would only be to those that could enter or cross the Site. By employing reasonable avoidance measures and a precautionary method of working, detailed in a non-licensed method statement, works could take place without harming or disturbing individual newts. Taking the above into account, it has therefore been considered that no further surveys for newts are necessary and a license would not be required to permit the works.

The presence/absence of Great Crested Newts will be determined through the implementation of Environmental DNA (eDNA) testing at the Site and results will be incorporated into a Method Statement. An eDNA survey is a new technique to survey freshwater organisms and the application to Great Crested Newts is one of the first practical operations. The method has recently shown to be highly effective for detecting the presence of this species. Following extensive testing for DEFRA during 2013, Natural England has recommended that the method can be used in protected species work.

## 16.1 Planning Assessment

The Proposals include the retention of the most ecologically valuable habitats on the Site, in the form of hedgerows and trees. It is considered that there is significant opportunity to provide biodiversity gain as part of the Proposals, in line with emerging Strategic Policy 1 and emerging Strategic Policy 24. Additionally, the Proposals would comply with Strategic Policy 28 as they would not have any adverse effects on locally designated sites of biodiversity importance. In accordance with the requirements of the NPPF, the development of the Proposals would result in an increase to the Site's biodiversity as outlined within the accompanying Ecological Appraisal and as such the Proposals would be compliant with current wildlife legislation and emerging Strategic Policy 29 which seek to protect such species and habitats. In addition, the Proposals would retain, protect and enhance features of biological interest and would provide for the appropriate management of these features.

Due to the use of the Site as sheep grazing pasture, changes to the ecological value of the Site would be unlikely. Measures to increase the ecological value of the Site through the control of grazing and allowing field margins to develop to create areas of semi-improved grassland would be incorporated, potentially between the new security fencing and existing boundaries within the Site.

As there would be no intensive agricultural practices during the operational phase, it is anticipated flora and fauna would have the opportunity to flourish in the area, especially when biodiversity enhancements in and around the Site are implemented. Solar farms present an opportunity for substantial biodiversity protection and enhancement. This could include the planting of additional species and habitat rich hedgerows, reseeded of fields with specialised solar farm seed mix which can withstand grazing and additionally is a good pollinator. Pollinating insects, especially bees, are a key part of the ecosystem, and the United Nations Food and Agricultural Organisation estimates that *“out of over 100 of the most common crops which provide 90% of food for 146 countries, 71 are pollinated by bees”*<sup>45</sup>. Solar farms and their pollination improvements can play an important role in addressing the recent crash in bee populations by introducing pollinating seed mixes, a key biodiversity benefit of the Proposals.

A recent study of four completed and operational solar farms in the UK concluded that *“solar farms can provide suitable conditions for grassland herbs, bumblebees and butterflies, and show significant gains as compared to arable land”* and that solar farms can *“deliver measurable benefits to biodiversity”*<sup>46,47</sup>.

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<sup>45</sup> [http://eifoundation.org/sites/default/files/public/Bees\\_report\\_web\\_version.pdf](http://eifoundation.org/sites/default/files/public/Bees_report_web_version.pdf)

<sup>46</sup> Parker, G.E. and McQueen, C. (2013) Can Solar Farms Deliver Significant Benefits to Biodiversity? Preliminary Study July – August 2013. Unpublished Report.

There would be a net gain in terms of biodiversity, even before the benefits of the contribution of the Proposals in tackling climate change are taken into account. Additional features including boundary planting for screening would be consistent with the characteristics of the surrounding area in compliance with Strategic Policy 23 in protecting and enhancing green infrastructure. As the Proposals would incorporate ecologically sensitive design and features for biodiversity early on, they would comply with Detailed Policy 2 of the emerging Local Plan. Furthermore, the Proposals would incorporate the best environmental practice and construction techniques.

The Proposals would not result in any unacceptable levels of pollution in respect of contamination of the ground or water on or surrounding the Site, in accordance with Detailed Policy 7.

Mature trees, both within hedgerows or those present as standard trees, would be protected during the construction works through the establishment of root protection zones in accordance with BS 5837:2012, where appropriate.

The Proposals would incorporate additional planting around the boundaries including infilling existing hedges. This would result in enhanced biodiversity benefits and provide additional screening of the solar PV arrays within the Site. All new hedgerows planted as part of the landscape proposals for the Site, or any enhancement of the existing hedgerows, would utilise a species rich mix, as outlined in the accompanying Ecological Appraisal, in order to encourage wildlife.

With regards to Dormice, although their presence within the Site was not confirmed, as detailed within the accompanying Ecological Appraisal, the following precautionary measures would be carried out to ensure their protection. Any ongoing management of the Site including hedge trimming or tree surgery works would be carried out during the hibernation period of November to March, when Dormice are likely to be hibernating in nests just below ground. Any larger limbs would not be allowed to fall to the ground within the hedgerow and instead would be pulled clear in order to avoid the potential crushing of hibernating Dormice.

The potential for protected or notable mammal species to use the Site is deemed to be low and no constraints are predicted as a result of the presence of passing Badgers or the likely presence of common small mammals. As a precaution, during the construction phase, any trenches and other excavations would be back-filled before nightfall or a ramp left to allow animals to easily exit. The security fencing would allow a gap of at least 200mm between the base of the fence and ground ensuring that it does not pose a barrier to wildlife movements.

It is noted that nesting birds are protected under The Wildlife and Countryside Act 1981 (and amendments). No removal of hedgerows or trees is proposed and the works, which are low impact, are not expected to disturb birds should they be present in the boundary hedgerows and trees. Any on-going management of the Site including hedge trimming or tree surgery works, would be carried out outside of the bird-nesting season of March to August.

As such, the Proposals would protect, conserve and enhance the diversity of wildlife and habitats within and surrounding the Site in accordance with emerging Strategic Objective 12.

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<sup>47</sup><http://www.solartrade.org.uk/media/Can%20solar%20parks%20provide%20significant%20benefits%20for%20biodiversity%20%202.pdf>

The wet ditch situated just off-site to the south would not be directly affected by the Proposals. However, the following would take place for the protection of the ditch, as well as the rest of the Site, during the construction phase:

- During the construction phase of the project on no account would any chemicals, including vehicle fuels or lubricants be left on the Site at night where they might be accessed by accident or deliberately resulting in spillage to the ditch; and
- Any contractors engaged in works on the Site would have in place secure storage facilities and an agreed pollution prevention plan. Appropriate pollution control equipment would be available at the Site to control spillages if they do occur.

The Proposals comply with the main policy test for renewable energy development in the emerging Local Plan, Strategic Policy 28, as they would not result in an adverse impact on features of ecological interest. The Proposals include the retention of the most ecologically valuable habitats on the Site, in the form of hedgerows and trees, in line with emerging Detailed Policy 8. If any minimal removal is required for access tracks or similar development, additional planting would be provided to offset any minor loss. It is considered that there is significant opportunity to provide biodiversity gain as part of the Proposals.

Through careful design and layout, it is not anticipated that the Proposals would result in any inappropriate effects upon ecological receptors either within or outwith the Site.

## 17.0 Archaeology

TGC commissioned Armour Heritage to undertake a Historic Environment Desk Based Assessment (DBA) of the development of the Proposals on the Site.

The DBA identified archaeological activity at the Site comprising former watermeadow systems dating to the post-medieval period and the more modern use of the Site as military barracks. There are further archaeological remains within the study areas, in general relating to medieval and post-medieval activity including settlement and agriculture, with subsequent land division, enclosure, settlement and agriculture. Activity relating to the military camp included the construction of railway tracks within the Site which will have caused considerable disturbance to any buried archaeological deposits which may have been present previously. Given the evidence, it has been assessed that the Site has a low potential to contain significant archaeological remains.

Until its use as a military camp, the Site will likely have comprised agricultural land, probably since at least the medieval period. Evidence for post-medieval or later intrusions which could have impacted upon the archaeological remains, where present, comprises the construction of a watermeadow system, the construction of the military camp and the subsequent removal of camp buildings and features prior to the Site's reversion to grazing land. The construction in the 1970's of large electricity pylons across the Site will also have resulted in below-ground impacts.

### 17.1 Planning Assessment

In terms of archaeological potential, the Site consists of fields that have been utilised for agriculture and as such any potential for archaeological remains is deemed to be low. In

addition, it is anticipated that the majority of ground works would be undertaken in the current ploughed depth.

Paragraph 128 of the NPPF stipulates that “*where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit and appropriate desk-based assessment and, where necessary, a field evaluation*”. The Proposals are compliant with this requirement of the NPPF as a desk-based assessment has been prepared and accompanies the application. Further field evaluations are not required, for the reasons set out in the DBA and due to the fact that the Proposals are low impact and reversible.

Overall, it is considered that the Proposals comply with Strategic Policy 1 of the emerging Local Plan as they would provide for archaeological investigation where this is appropriate. Additionally, in line with emerging Detailed Policy 6, the Proposals have taken account of undesignated archaeological sites and sites of potential archaeological interest. In addition, the Proposals include provision for the conservation of archaeological resources and would not adversely affect archaeological assets.

## 18.0 Cultural Heritage

Armour Heritage has carefully considered the potential impact on heritage assets as part of the DBA which accompanies the application.

The Proposals would not represent a significant feature within the local landscape, due to the Site’s location, aspect, screening and the nature of the local topography. The DBA has identified the Proposals would result in no substantial harm to any designated heritage assets, or their settings.

The historic landscape of the area has evolved over relatively long periods of time in comparison to the projected ‘life’ of the Proposals, and it is considered that the temporary effects of the Proposals would not be a material concern. Any negative effects would be contained to such a degree that any wider landscape considerations are not unduly compromised, in particular where the broader historic landscape as a whole is considered, rather than localised effects within them.

There are a number of Listed Buildings within 1km of the Site, associated with the nearby Marchington Conservation Area. The location of the Site, its aspect and the screening afforded by local topography, urban areas and infrastructure would result in no intervisibility between it and any designated sites and monuments within the ZTV, with the exception of very limited views toward the Marchington Conservation Area from the southern fields. Where the Site would be visible in longer views, any impacts upon the significance of the historic landscape would diminish with distance.

Given the nature of the Proposals and the environment within which it is set, it is considered that no further mitigation measures need to be adopted with regard to any identified limited visual impact of the Proposals on designated sites and monuments within the wider landscape, where intervisibility is shared and a potential negative effect has been identified.

## 18.1 Planning Assessment

The public benefits of the Proposals, in terms of contributing to tackling climate change through the generation of renewable energy, as well as economic and biodiversity benefits, outweigh any less than substantial impacts. Paragraphs 128 to 139 of the NPPF seek to

protect heritage assets, although Paragraphs 133 and 134 outline that harm to heritage assets may be deemed acceptable if outweighed by public benefits of the development. Therefore, based on the above and the information in the accompanying archaeological desk based assessment, it is considered that the Proposals are in line with the NPPF as less than substantial impacts on cultural heritage assets would be clearly outweighed by the public benefits of the Proposals.

The design of the Proposals respects the historic environment in line with emerging Strategic Policy 24 and would protect, conserve and enhance heritage assets and their settings, in line with emerging Strategic Policy 25. In compliance with emerging Detailed Policies 5 and 6, the integrity and setting of heritage assets including Listed Buildings would be protected through the use of high quality design and materials with appropriate scale and massing. Nevertheless, no adverse effects have been identified due to the lack of intervisibility with the Site and nearby assets.

Overall, the Proposals are in line with the NPPF and local planning policy as they would not adversely affect features of historic interest and are justified in terms of local and wider benefits.

## **19.0 Public Access, Recreation and Tourism**

There are a number of PRoW located within the vicinity of the Site, although no such assets cross the Site itself, as detailed within the accompanying LVIA.

Footpath Draycott in the Clay 3 links the A515 to Footpath Draycott in the Clay 2. There would be views of the Proposals where the footpath adjoins the A515, although intervening vegetation generally screens views.

Footpath Hanbury 4 links Hanbury to Coton Lane. From this footpath, there would be views of the Proposals for a short section near Rough Hays with intervening vegetation generally screening views.

Views of the Proposals from other transport routes and PRoW within the study area would be screened by intervening vegetation, existing built development and changes in topography. Long distance views of the Site from the high topography that has been identified within the south of the study area would be screened by intervening vegetation and existing built development.

The accompanying LVIA details the anticipated effects of the Proposals on the network of paths surrounding the Site. Some adverse effects have been predicted, as detailed within the LVIA. No other tourism facilities or resources likely to be affected by the Proposals were identified within the study area.

Additional screening of the Proposals on the Site would be incorporated, thus reducing the openness of views from the routes identified. Despite the fact that adverse effects on a number of routes are anticipated, these effects would be entirely visual and the Proposals would not pose any barrier of entry to these routes.

It should be noted that all onshore renewable energy developments are likely to lead to landscape and visual effects, and that significant or adverse effects are not necessarily unacceptable. The changes arising from the Proposals may engender positive or negative responses depending on individual perceptions regarding the merits of solar energy development. The same scheme may be seen by some as attractive, acceptable and



contributing to the well-being of the natural environment. Whilst others may take a negative stance, regarding the Proposals as unattractive and unacceptable.

Paragraph 75 of the NPPF seeks to protect and enhance PRoW and access. The Proposals would not be harmful to the character and amenity of the area in line with emerging Strategic Policy 24. In addition they would protect and enhance amenity areas and landscape value of the Site due to the small scale nature of the Proposals themselves and through the incorporation of additional planting/screening, complying with emerging Strategic Policy 27. The design of the Proposals reflects the capacity and sensitivity of the surrounding landscape as stipulated by Strategic Policy 28.

The Proposals would be appropriate in terms of their scale and impact on the surrounding landscape setting through their design, density and location and as such comply with Policy CSP4 of the adopted Local Plan. Additionally and in line with Policy BE1 of the adopted Local Plan, the design of the Proposals has incorporated suitable mitigation measures to ensure that they would not result in inappropriate impacts on the immediate and general environment in terms of emissions or other impacts.

As stated the Proposals would not impact upon the routes identified in any other way other than visually and would not pose any barrier to access. The adverse effects identified would diminish over time, as the proposed screening develops and bearing in mind the small scale nature of the height of the solar panels, effects would be minimised further.

In terms of tourism, there has been one study conducted to determine the potential impact on tourism of wind and solar farms in Cornwall. The comprehensive survey of holiday makers in Cornwall was conducted in 2013. Participants were asked whether the presence of wind and solar farms would affect their decision to visit Cornwall again, with 94% claiming it would have no impact upon their decision to come back, 4% stating that it would actually encourage them to visit again and only 2% said that they would be less likely to visit again as a result. Generally, it was found that the majority of participants expressed support for renewable energy development, with 75% expressing support for solar farm development specifically<sup>48</sup>.

Whilst there are limited studies investigating the potential impact on tourism of solar farms, generally due to their low level appearance and benign nature, there have been a number of studies of and enquiries into the impacts of large scale wind farms on tourism in Scotland and Wales. Please refer to the reports at the links below, which are key parts of the evidence base that suggests that renewable energy projects do not have general impacts on tourism in the areas which they are located in:

- Scottish Government – Economy, Energy and Tourism Committee (2012) - Report on the Achievability of the Scottish Government’s Renewable Energy Targets  
[http://www.scottish.parliament.uk/S4\\_EconomyEnergyandTourismCommittee/Reports/eeR-12-07w-r.pdf](http://www.scottish.parliament.uk/S4_EconomyEnergyandTourismCommittee/Reports/eeR-12-07w-r.pdf)
- Visit Scotland – Wind Farm Consumer Research Topic Paper  
<http://www.visitscotland.org/pdf/Revised%20Oct%2012%20%20Insights%20Wind%20Farm%20Topic%20Paper.pdf>

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<sup>48</sup> [www.goodenergy.co.uk/visitor-impact-research-nov2013](http://www.goodenergy.co.uk/visitor-impact-research-nov2013)



- Scottish Government – The Economic Impacts of Wind Farms on Scottish Tourism <http://www.scotland.gov.uk/Resource/Doc/214910/0057316.pdf>
- Welsh Government - Study into the Potential Economic Impact of Wind Farms and Associated Grid Infrastructure on the Welsh Tourism Sector- <http://wales.gov.uk/docs/desh/publications/140404economic-impacts-of-wind-farms-on-tourism-en.pdf>

It is noted that there are no tourism assets on the Site and as such there would be no direct impacts. Furthermore, it is considered that any impacts on nearby heritage assets, which may play a role in tourism in the area, would be less than substantial.

TGC would be happy to discuss the incorporation of an information board into the Proposals, explaining the benefits of the Proposals including the biodiversity features of the solar farm, near to the entrance of the Site. This could provide an educational tool and could be undertaken in conjunction with a local contractor/craftsperson. In addition, it may be possible for school and community groups to visit the Site.

There would be no inappropriate impacts on the setting of nearby settlements and attractions of these areas would not be adversely affected. As such and overall, no impacts on tourism are anticipated.

## 20.0 Conclusions

To conclude, there is strong policy support for renewable energy projects from the NPPF, the adopted Local Plan and the emerging Local Plan. This is subject to ensuring that projects do not have inappropriate impacts and balancing any potential impacts against the benefits of a project.

The design and access issues in relation to the Proposals have been assessed. It is considered that due to their benign nature and screening afforded by existing vegetation and additional proposed planting, they would not result in an unacceptable impact on the visual landscape or amenity value of the wider countryside within which it is set.

The Proposals are compliant with relevant planning policy and guidance and would not cause unacceptable harm upon the landscape character or residential amenity within the area. The Site was carefully selected and naturally screened, which coupled with the low visual profile of the solar PV arrays, results in limited views of the Site from key vantage points.

There are a number of positive benefits associated with the Proposals, including social, environmental and economic benefits. In addition, the Proposals would raise the profile of renewable energy generation in the local area, and could be utilised as an educational tool by local schools and community groups.

The Proposals comply with the main policy test for renewable energy within the emerging Local Plan, Policy 28 – Renewable and Low Carbon energy generation, as they would provide substantial renewable energy generation and carbon savings and have recognised the need to balance adverse impacts.

Section 38 of the Planning and Compulsory Purchase Act 2004 requires that planning applications be determined in accordance with the provisions of the Development Plan unless material considerations suggest otherwise. In determining an application for planning permission, decision makers should give consideration to the compliance of a proposal against the Development Plan taken as a whole. Plans often have policies tailored specifically

to control certain kinds of development and such policies should carry weight and be more dominant in the minds of decision makers. The conflicting nature of Development Plan policies is highlighted by appeal decision (APP/K1128/A/13/2206258):

*“I have found that the proposal would accord with some development plan policies and conflict with another. It is not unusual for development plan policies to pull in different directions and most, if not all, development results in some degree of harm. However, when read as a whole, the proposal would accord with the development plan and would comprise sustainable development.”*

The Proposals would provide a clean, renewable and sustainable form of energy. They would generate a considerable amount of electricity and would assist in meeting national targets for increasing energy consumption from renewable resources. Additionally, the Proposals would make a valuable contribution to reducing greenhouse gas emissions and, in combination with other renewable and low carbon energy schemes, would assist in tackling climate change. These comprise important wider environmental benefits of the Proposal.

The Proposals would make a substantial contribution to the Council’s aim of improving the contribution of the area to renewable energy targets, and TGC has chosen to pursue the Site for development due to the benign impacts or the ability for mitigation to make impacts appropriate.

It has been demonstrated that whilst there are some adverse impacts associated with the Proposals, these can either be made appropriate through suitable mitigation measures, or the impacts are outweighed by the substantial benefits which the Proposals would result in. This is in terms of contributing to tackling climate change through the generation of sufficient renewable electricity to power 1,530 local homes, with the generation of 5.05GWh of renewable energy per year, biodiversity enhancements, economic benefits and diversification of a rural business and contributions to a community fund.

**Overall, it is considered that the Proposals comply with the Development Plan, particularly emerging Policy 28, and National Planning Policy. The Proposals would make a substantial contribution to meeting the Council’s renewable energy targets as well as a positive contribution to national targets. There are substantial community and rural business diversification benefits, which outweigh the impacts of the Proposals. Taking all of this into account, it is respectfully requested that the planning application which this P,DAS accompanies be approved by the Council.**