Response to consultation on Renewable and Low Carbon Energy Generation in North Somerset SPD

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Respondent Name	Organisation	Comment	Council Response	Document Changes
B Walters	-	All seems very suitable	Thank you for your comment.	N/A
C Trickey		Seems reasonable and acceptable.	Thank you for your comment.	N/A
Campaign to Protect Rural England	Campaign to Protect Rural England	1.7 We strongly support the statement that appropriate siting is the key to minimising the impact of solar PV.	Thank you for your comment. We acknowledge your support for paragraph 1.7 of the guidance and will make no amendments to this.	N/A
Centre for Sustainable Energy	Centre for Sustainable Energy	This chapter provides good national context to solar energy, but could benefit from more local context. In addition to local planning responsibilities, figures on local solar energy could be included. For instance; annual figures for installed	Thank you for your comment. We will include RegenSW data on solar PV installations. The background in introdction sections will remain distinct.	Paragraph 1.4 will now include the following sentence: The latest data on solar PV installations within North Somerset (to March 2013) reports that there are 4039 projects within the district with

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		capacity, solar insolation and/or organizations involved in the solar energy supply chain. It could also be combined with the following 'Introduction' chapter to avoid overlap of content. An overarching suggestion we have for chapters using hyperlinks would be to provide the web-address. This allows people with printed copies to still know where documentation referenced can be found. This could be within the text, as a footnote or in an appendix of references.	Each hyperlink provided in the document, does take the reader sources of further information section which lists the web address.	an installed generation capacity of 13.616MWe.
Clapton in Gordano Parish Clerk	Clapton in Gordano Parish Clerk	The Clapton-in-Gordano Parish Council wishes to record its support for the guidance	Thank you for your comment.	N/A
Clevedon Town Council (I Johnson)	Clevedon Town Council	The Planning Committee of the Town Council considered the initial guidance document which relates to solar photovoltaic arrays. Members were unable to make specific detailed comments but wished to thank NSC	Thank you for your comment.	N/A

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		for setting out appropriate criteria for these large scale energy installations.		
Derek Roberts	G.E. Oil & Gas	With regards to 'renewable' forms of power generation, will the study consider ALL forms of renewable power, I.E. apart from the usual 'wind or solar farms', wave electric generation from the Bristol Channel or pump and gravity generation.	Thank you for your comment. We will be addressing other forms of sustainable/ low carbon and renewable forms of energy generation within further policy guidance. We will notify you once this is available for comment.	N/A
Dundry Parish Council	Dundry Parish Council	Dundry Parish Council has no specific comments to make about this document. However, councillors would be interested to know whether, given the relatively recent introduction of this type of development to this area, there will be any mechanism in place for reviewing the planning guidance it once it has been in use for a while.	Thank you for your comment. We will add a review and monitoring section to the document where we will provide detail on how we will monitor applications and review the guidance in light of emerging policy/ advances in the renewable energy sector.	We will add the following section to the document: Monitoring and Review Local Planning Authorities are required to publish an Annual Monitoring Report (AMR) to assess the effectiveness of policies and guidance that forms part of the local development plan. We will monitor

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				the provision and delivery of renewable energy technologies as part of the AMR process and report accordingly. This guidance will be reviewed as and when necessary in light of all material information.
Kingston Seymour Parish Council	Kingston Seymour Parish Council	1. The document appears comprehensive and well-reasoned 2. The recognition that landowners need to realise the potential of their land in a variety of non-traditional, non-agricultural ways is welcome - preferred locations can no longer exclude all countryside although the proposed controls will be important, especially screening to address the concerns about "glint and glare". 3. Whilst this SPD specifically addresses large-scale installations, it would be good to see some of the controls suggested applied to domestic installations. These are often a blight on the street scene and of questionable economic or environmental impact.	Thank you for your comment. We intend to privde policy guidance on domestic solar PV installations in the future and will notify you when this is available for comment.	N/A

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Mendip Hills AONB (P Bryan)	Mendip HIlls AONB	We support the Council's commitment to reducing carbon emissions and supporting renewable and low carbon forms of energy generation (par 1.3) and we strongly agree that their development must be appropriately sited (par 1.7). In particular, we are pleased to see that the Council has included the following important points which we would like to endorse: Solar PV arrays should avoid areas that are undeveloped (par 1.3).	Thank you for your comment. The sections you endorse will remain unchanged.	N/A
Mr B Langton		I was a bit amazed to read the estimate of 15ha for a 5MW ground based PV scheme and wonder if this was a mistake: we have an estimate from Solarsense for a 150kW ground-based scheme that would occupy about 1/3 acre and scaling up that gives about 5 ha for a 5MW scheme.	Thank you for your comment. We have reviewed the area required for a solar array facility of 5MW capacity and in all cases reviewed, the hectare coverage is between 10 and 15 hectares. We will amend the guidance to reflect this.	The last sentence in Section 1.4 will now read: To appreciate the potential scale involved, a 5MW solar PV array if located on open land would require between 10 and 15ha of land to ground mount panels. It should be noted however, that this will vary with the type of panel selected.

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Network Rail (B Morgan)	Network Rail	Network Rail has been consulted by North Somerset Council on the Renewable and Low Carbon Energy Generation Supplementary Planning Document (SPD) – Solar Photovoltaic Arrays. Thank you for providing us with this opportunity to comment on this document. This email forms the basis of our response to this consultation request. Network Rail is a statutory undertaker responsible for maintaining and operating the country's railway infrastructure and associated estate. Network Rail owns, operates, maintains and develops the main rail network. This includes the railway tracks, stations, signalling systems, bridges, tunnels, level crossings and viaducts. The preparation of development plan policy is important in relation to the protection and enhancement of Network Rail's infrastructure. In this regard, please find our comments below. Any proposed installation of Solar Panels adjacent to the railway should	Thank you for your response. A chapter on rail considerations will be added to the guidance.	Rail consideration chapter is added and will read as follows: 4.19 Any proposed installation of solar panels adjacent to the railway should not interfere with the line of sight of train drivers and the potential for glint and glare from the panels that may impact upon signalling must be eliminated at design stage, to eliminate any risk to railway operations. We must be made aware if a proposed development includes the installation of cables under the railway, as this would necessitate works that could damage or undermine the safety, operation and integrity of the railway. Any proposal that necessitated any cabling/high tension lines over the railway would require consultation with the Network Rail National Business Team. 4.20 Network Rail will be consulted on any planning applications for solar PV developments as standard and we encourage developers to consult with them at locations in proximity to the

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		consider the following point at design stage to eliminate any risk to railway operations; the provision of any reflective material used in the solar collecting equipment should not interfere with the line of sight of train drivers and the potential for glare or reflection of light from the panels that may impact upon signalling must be eliminated. North Somerset Council should be made aware that any proposed Solar Farm that includes as part of the remit the installation of cables under the railway to facilitate any works on site or any method of electricity transmission would invariably be objected too as this would necessitate works that could damage or undermine the safety, operation and integrity of the railway. Any proposal for a solar farm that necessitated any cabling/high tension lines over the railway would also be objected too pending negotiation/consents/ agreements with our National Business Team.		national rail network, at an early stage in the development process.

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		Network Rail should be consulted on any planning applications for solar farms as standard and would wish to see our comments included in council documentation in connection with solar farms for consideration and action.		
Patty Shayler	Latin Zest	"to reduce carbon dioxide emissions by 80% by 2050, from a 1990 baseline" Could you please give us what is the baseline? This is a great initiative, any plans to include Housing associations in North Somerset? Thank you and keep up the good work! Patty Shayler @LatinZest Guatemala	Thank you for your comment. The 1990 carbon emissions baseline figure used for Climate Change Act is 778 million tonnes of carbon dioxide. The guidelines are specifically for solar arrays and not domestic installations where permitted development rights apply. If you are interested in housing associations application of solar PV panels in North Somerset, I would refer you to Alliance Homes, who have a programme of installation of panels on their properties.	N/A

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Peter Martin	Retired	It all seems reasonable in the face of the EU directive. However I think that your time and costs would be better employed if you were to put your weight behind the movement towards repealing the 2008 Climate Change Act. There is now undisputed evidence that suggests that climate change is a natural occurrence. The human race cannot fight nature and we would be foolish to try and do so and bankrupt the country. If the question is really about sustainable energy then we have the answer right on our doorstep here in Somerset - the Severn! In my view capturing the energy of the tidal flow (second highest in the world) would be far more productive and cost effective than anything else.	Thank you for your comment. We will be addressing other forms of sustainable/ low carbon energy generation technologies within further policy guidance.	N/A
Sian Parry	Avon Wildlife Trust	We very much welcome this document as it clarifies the criteria by which solar PV arrays will be assessed and approved by the Council. It clearly lays out the considerations	Thank you for your comment.	N/A

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		needed for landscape, visual and biodiversity potential impacts.		

Document section Introduction

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Avon and Somerset Constabulary	Avon and Somerset Constabulary	Consideration must be given to crime occurring at Solar Farms, particularly with regard to the potential for metal theft and associated damage at solar farms. Expert advice to the police is that 4-5 tonnes of copper is needed for every megawatt of electricity generated within a solar farm, therefore, it is relatively easy to calculate a rough total value of copper and other valuable metals present on site. Security at each site should be considered as site specific depending on scale of the site. Large installations viewed no differently from any other energy installation of substantial size.	Thank you for your comment. Further detail around the security of PV sites will be added to the document.	The document under the heading of security and fencing will now read as follows: 4.7 Security at each site should be considered as site specific depending on the scale of the site. Access should be restricted to one vehicular entrance/exit and suitable defence put in place to protect it from unauthorised vehicle entry. It is recommended that panels are marked overtly to reduce the attractiveness to theft. 4.8 It is accepted that fencing is likely to be required and applicants are advised to minimise the use and height, ensuring it has minimal visual

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		One main risk is removal of large quantities of panels using heavy duty tools and vehicles. It is vital that a security system is installed in the interest of both public safety and crime reduction. Access should be restricted to one vehicular entrance/exit and suitable defence to protect it from unauthorised vehicular entry. Boundary 'demarcation' fencing offers no security to a site. Security fencing such as Weld mesh fencing, defensive topping, perimeter intruder detection system (PIDS), CCTV coverage may be appropriate. The visual impact of such fencing can be minimised from outside from hedgerow and type of fencing used. CCTV alone is of little reward unless it is monitored in some way to provide an alert and response. Most importantly any monitoring system requires a response.		impact in terms of colouration, utilising a 'see-through' capacity. Security fencing such as weld mesh fencing, defensive topping, perimeter intruder detection system (PIDS) may be appropriate. 4.9 Fencing must not obstruct public rights of way, nor restrict wildlife corridors. Wildlife access crossing points should be included wherever possible. Existing features such as copses, hedges and other natural landscape features should be retained to screen security fencing, supplemented by additional native planting. 4.10 Whilst under construction, it is recommended that valuable assets and equipment should be stored in a secure yard protected by CCTV. Where polemounted CCTV facilities are proposed, their location should be carefully considered to minimise visual/landscape impact. The use of security lighting should be kept to an absolute minimum, and should utilise a passive infra-red (PIR) technology,

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		Arrays should be continuously monitored with an alarm system, and activation pinpoints locations and requires a response. Security bolts further secure photovoltaic panels. Solar panels should be marked overtly reducing the ease with which they can be re-sold. Panels should be marked covertly for identification should they be recovered. Whilst under construction valuable assets and equipment should be stored in a secure yard protected by CCTV/PIDS.		designed and installed in a manner that minimises glare and light pollution. Permanent lighting will not be permitted. 4.11 Planning applications should contain full details and specifications of all security and lighting installations in order to allow an accurate landscape/ visual assessment of the proposal to be made.
Backwell Parish Council	Backwell Parish Council	Thank you for accepting Backwell Parish Council's comments, which are as follows: Having read through the document it looks pretty comprehensive. North Somerset Council make a statement:	Thank you for your comment. The wording in paragraph 2.2 will be amended in accordance with this.	Paragraph 2.2 will be ameded to read as follows: Solar cells are grouped together to form solar panels (or modules) and in turn, a number solar panels are grouped together to form solar PV

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		2.1 Photovoltaic cells consist of layers of semiconducting material, usually silicon and work by converting solar radiation into direct current electricity. When light shines on the cell, it creates an electric field across the layers. The stronger the sunshine, the more electricity is produced.		arrays. Solar cells need to be orientated as close to south facing as possible and need to be clear of overshadowing from buildings or trees. The more solar radiation that reaches the panels, the more electricity is produced. The solar energy that is converted into electricity will need to be exported to the electricity network.
		The bit about "The stronger the sunshine, the more electricity is produced." is not accurate if you look at what the industry and other bodies say, because as the temperature rises the panels become less efficient. So it all depends on what NSC mean by "The stronger the sunshine". Other than that NSC have covered all the bases and given references to the National Planning Policy Framework (NPPF), NSC Core strategy and others. On the point of references NSC		

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		might like to revisit their table as they have a number of duplicate entries.		
Campaign to Protect Rural England	Campaign to Protect Rural England	2.3 It should be added that the efficiency of solar arrays can be greatly increased if they are installed with tracking systems, to maintain optimum alignment towards the sun. These are expensive but can allow increased power to be generated on a set area, so might be worthwhile in constrained situations. These systems are now beginning to be more widely used in the UK, e.g.: http://www.fwi.co.uk/articles/25/07/2011/128007/sun-tracking-solar-panels-cut-grain-drying-costs.htm#.UcrPRJwsa0I Although expensive, the return on investment for these systems has been estimated as slightly higher than on conventional systems (the article linked to above gives 11.8% against 11.7%). 2.6 We note that North Somerset Council acknowledge the motivation for Solar Photovoltaic (PV) arrays is	Thank you for your comments. We acknowledge your endorsement of paragraph 2.6 and 2.7 and these will remain unchanged. Paragraph 2.3 will be amended to include detail on tracking systems.	Paragraph 2.3 will now read as follows: The optimum angle of the panels for electricity generation is dependant upon the orientation of the array. The efficiency of arrays can be greatly increased if they are installed with tracking systems, to maintain optimum alignment towards the sun. These are more expensive to install, but do allow increased power to be generated in a reduced area of land.

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		due to the relatively high levels of solar energy potential in the South West of England (although North Somerset is not in the highest band in the South West) and the driver from the Government's Feed in-Tariff subsidy. Both of the areas are related to external influences. 2.7 We are pleased to note that North Somerset Council recognises that Solar Photovoltaic arrays have a variety of impacts and control on these impacts should be implemented by setting out clear parameters for their development as shown in this document.		
Centre for Sustainable Energy	Centre for Sustainable Energy	The purpose of the introduction, when read in conjunction with the background, should be to provide context of what this SPD guidance is for and why it has been developed. The definition of what is defined as a solar array could be made clearer; for instance a dedicated paragraph stating	Thank you for your comment. We have included the detail in the box on page 2 to make it clearer that this guidance is for stand alone systems only.	Box on page 2 will now read as follows: The guidance within this SPD is for stand-alone systems falling outside permitted development rights, currently defined as having an area larger than 9m ² .

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		'The guidance within this SPD is for stand-alone systems falling outside permitted development rights, currently defined as having an area larger than 9m2' Paragraph 2.4 could be interpreted as misleading. Solar arrays with a length or width greater than 3m would need planning permission, meaning an array could have an area below 9m2 but still require planning permission. Paragraph 2.5 is false. Non-domestic systems are a permitted development providing it meets the conditions within 'Part 43: INSTALLATION OF NON-DOMESTIC MICROGENERATION EQUIPMENT' of The Town and Country Planning (General Permitted Development) (Amendment) (England) Order 2012 (http://www.legislation.gov.uk/uksi/2012/748/made). This paragraph should be rewritten to summarise the permitted development conditions for non-domestic systems.	Paragraph 2.4 will remain unchanged as it sets out the national permitted development rights. Paragraph 2.5 will be been removed, as have the references to domestic installations in paragraph 2.4. Paragraph 2.6 will become paragraph 2.5 and will include detail of the electricity market reform and contracts for difference replacing ROCs Paragraph 2.7 will become paragraph 2.6 and will be amended in light of your comment.	This guidance does not apply to domestic installations of solar photovoltaic (PV) panels. The majority of roof mounted and domestic stand-alone systems are permitted development. This means that these systems will not require planning permission. Detail of the criteria can be found in the Introduction section, which sets out when planning permission is required. The new paragraph 2.5 will now include the following: As part of the Government's Electricity Market Reform a new support mechanism for low carbon electricity generation 'Contracts for Difference' (CfD) will be introduced from 2014. The current ROC Scheme will run in parallel with CfD from 2014/15 until 2017. During that period developers of new generating capacity will be able to choose whether to apply for a CfD or the Renewables Obligation. On 31 March 2017 the Renewables Obligation will close to new generating capacity.

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		Paragraph 2.6 could be revised to reflect recent proposed changes to the Feed In Tariff, which will provide support for community installations up to 10MW imminently – and also reflect the emerging new 'Contracts for Difference'. Contracts for Difference are replacing the Renewable Obligation as the new financial support mechanism for larger renewable electricity generators. To be accurate, Paragraph 2.7 should have the word 'technology' replaced by 'development in this locality', or words to that effect. Solar photovoltaics have seen substantial growth in deployment in the 21st century, but have been in commercial existence since the 1960's. This paragraph also suggests the SPD itself sets out control parameters. It should be clear this document provides guidance on how to meet local plan policies, as defined by its format as a SPD.		Paragraph 2.6 will now read as follows: Whilst we are supportive of the installation of renewable and low carbon energy generation technologies, we recognise that installations at the scale covered in this guidance are relatively new and due to their scale, can have a variety of impacts. We therefore need to display appropriate control in their application and are setting out clear parameters for the development of solar PV arrays within this document. This is to ensure it conform to policy DM2, 'renewable and low carbon energy' in the emerging Sites and Policies Development Plan Document.

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Highways Agency	Highways Agency	Thank you for consulting the Highways Agency on North Somerset Council/s initial guidance on solar photovoltaic arrays. We have reviewed the document and find it very clear and comprehensive. We endorse the need for a glint and glare report in order that potential impact on the highway and its users can be assessed.	Thank you for your comment. The requirements for glint and glare assessments will remain unchanged in the document.	N/A
Mr A Mousley		Para 2.3, last sentence. Spelling mistake "No <u>m</u> ore than one stand alone solar panel within the curtilage will be permitted.	Thank you for your comment. The spelling mistake will be corrected.	Paragraph 2.3 has become 2.4 in the revised document and the spelling mistake has been corrected.
wwarden		2.2 An obvious point, but 'trees' not 'tress'! 2.4 We suggest that that the guidance should make clear what are the limits of permitted development and, rather than stating that 'Most domestic, roof mounted solar PV panels are now permitted development', it would be better to explain what isn't included in this 'most'. For example, our	Thank you for your comment. The spelling mistake in 2.2 has been corrected. We accept your point about paragraph 2.4. and setting out the criteria for installations that are not permitted development and will change the wording in this section to reflect this.	Paragraph 2.4 will now read: Domestic solar PV systems are permitted development (will not require planning permission) unless they: • protrude more than 200 mm beyond the plane of the wall or roof slope • are on a flat roof, any panel must be less than 1

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		understanding is that roof mounted PV panels within a Conservation Area and facing the highway require planning permission, which seems perfectly reasonable. If correct the guidance needs to state this. Also, the wording in the last bullet point, which appears to refer to freestanding ('stand-alone'?) PV structures within a Conservation Area is unclear and should be better explained. 2.7 Amend the first sentence to read: 'Whilst we are in principle supportive of the installation of renewable and low carbon energy generation technologies, we recognise that these are relatively new technologies and, due to their scale, potential developments can have a range of impacts.'		metre in height above the highest part of the roof excluding any chimneys on or within the curtilage of listed buildings or upon a site designated as a scheduled ancient monument. are within the the AONB or Conservation area in which case, must not be on a roof slope or wall fronting the highway. Domestic free-standing solar PV systems are permitted development unless they are: more than 4 metres in height installed less than 5 metres away from any boundary more than 9 metres square within the curtilage of listed buildings or upon a site designated as a scheduled ancient monument. if within a conservation area, must not be located on a wall fronting a highway or be nearer to the highway than the dwellinghouse or block of flats and no more than

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				one free-standing solar panel within the curtilage will be permitted.

Document section

Site Selection

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Bristol Airport	Bristol International Airport	Solar Photovoltaic arrays can, in some circumstances, have an effect on aviation safety, either through glint and glare, or their potential to attract roosting birds. For developments located close to the airfield access for rescue services may also need to be considered. I would therefore request that a section on aviation is included in the guidance note as follows: **Aviation** Developers should consult with Bristol Airport at an early stage to identify any potential impacts on aviation interests. PV systems should be designed to avoid adverse effects from reflected light and thus conform to the	Thank you for your comment. A chapter on aviation incpororating your comments will be included.	 4.17 Due to potential impact solar PV arrays may have on aviation safety, developers are advised to consult with Bristol Airport at an early stage in the development process. PV systems should be designed to avoid adverse effects from reflected light and thus conform to the Air Navigation Order 2009, specifically Articles 137, 221 and 222. Article 137 – Endangering safety of an aircraft. Article 221 – Lights liable to endanger. Article 222 – Lights which dazzle or distract.

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		Air Navigation Order 2009, specifically Articles 137, 221 and 222. They should be designed to avoid attracting roosting birds and for developments close to the airport, access for rescue services in the event of an emergency may also need to be considered. The Civil Aviation Authority is currently developing their policy on the installation of solar photovoltaic systems and their potential impact to aviation. However, whilst this is in progress, developers should refer to the published interim guidance, available from this link: www.caa.co.uk/ default.aspx?catid=697&pageid=1351		 4.18 Consideration of the impacts from installed lighting and the potential for glint and glare associated with the development will need to be taken into consideration. For developments close to the airport, access for rescue services in the event of an emergency may also need to be considered. 4.19 The Civil Aviation Authority is currently developing policy on the installation of solar photovoltaic systems and their potential impact to aviation. Whilst this is in progress, developers should refer to the published interim guidance.
C Hooper		One obvious place to put PV arrays that does not appear to have been thought of is above car parks. For example at Park and Ride sites or railway stations.	Thank you for your comment. The document will now include reference to potential site location at car parks, railway stations.	Section 3.1 under preferred sites will now read as follows: Solar PV arrays should avoid areas that are undeveloped and should therefore be located on previously developed/ contaminated and industrial land and its margins. Solar

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				PV arrays should, where practical be mounted on top of existing roofs, or integrated into new roofs and buildings. This can include structures above car park and potentially park and ride sites or at railway stations. Any potential 'greenfield' PV site should seek to complement existing development, for example grazed land should still be able to be grazed once the development is completed. Solar PV arrays should generally avoid landscapes designated for their natural beauty or historic interest and sites of recognised ecological and archaeological importance.
Campaign to Protect Rural England	Campaign to Protect Rural England	3.2 We are pleased that the policy recognises the cumulative impact of solar PV sites. 3.4 We would like to see considerably stronger commitment to keeping BMV land in agricultural use, for reasons of food systems sustainability and food security. We suggest that Grade 1 agricultural land should be more or less off limits for development; grade	Thank you for your comment. We have amended the section on Agricultural Land Classification and included reference to the Natural England Guidance Note TIN049. We have added more information on local views paragrpah 3.9 of the landscape section.	Agrucultural Land 3.4 In accordance with the National Planning Policy Framework (NPPF), where there is significant development of agricultural land, this should seek to use poorer quality land in preference to that of higher quality (safeguarding the long term potential of best and most versatile agricultural land (grades 1, 2 and 3a) and conserving

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		2 and 3a should only be developed in very special circumstances. In the case of solar arrays, the function of which is not dependent on the precise site, we suggest that planning permission should only be granted on land of grade 3b or worse and only where any proposal meets the other requirements e.g. in relation to landscape, in this policy. The language in the draft document is not currently strong enough. The NPPF uses very weak language on this vital issue and we feel that local authorities have a duty to make up for this shortfall. 3.5 – 3.11 CPRE support this section which deals very well with landscape and visual impact issues. We would add that in some cases, additional planting and management of trees could screen a specific view while also added to the value of the natural environment. We would like to see a paragraph added to this effect:	Paragraph 3.10 becomes 3.12 in the revised document and the wording has been amended to include your point about not permitting removal of mature trees. The EIA submission requirements will include recommendation for a biodiversity survey and plan. Comment on 3.19 - noted.	soil resources). More detail on Agricultural Land Classification is contained within the Natural England information note TIN049. We are not likely to support applications on the highest graded agricultural land (grades 1 or 2) and therefore encourage prospective developments towards lower graded land. 3.5 It is noted however, that paragraph 112 of the NPPF guides planning authorities to take account of the economic and other benefits of the best and most versatile agricultural land and recognition is given to the need to support diversification of agricultural land use that helps to sustain an agricultural enterprise. Therefore, while development on lower grade land is preferred, we will consider the merits of the proposed development in the context of wider sustainability criteria. The grading of land in North Somerset can be viewed on the Agricultural Land Classification map.

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		"Where the installation is generally low in visual impact but there are specific narrow view cones into the site, planning may be granted with a condition relating to the planting or management of hedgerow trees to block that particular view". 3.10 This paragraph could be strengthened to prevent removal of existing mature trees from hedgerows, which might be desirable from point of view of allowing the solar array to be installed un-shaded right up to the field boundary, but which would have a detrimental effect on landscape and biodiversity. 3.15 We support this strongly and feel that more could be made of the opportunities to improve biodiversity around solar installations. In a sense, the land beneath a solar array is 'free' land, in that the economics of the land ownership are carried by the solar installation. There is therefore great potential to use the land in ways that might not otherwise be economically practical. For example:		Paragraph 3.9 will now include the following: Where the installation is generally low in visual impact but there are sensitive local views into the site, planning may be granted with a condition relating to the planting or management of hedgerow trees to block that particular view 3.12 Any development must be temporary and enable full restoration of the site to its original state once the installation is decommissioned. Any removal of existing vegetative field boundaries, including mature trees within these will not be permitted. This will be a condition of any planning permission granted. In the appendix, a bullet will be added as follows: • Ecological survey and assessment, and biodiversity enhancement proposals. A short biodiversity survey and plan is recommended.

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		 The restoration of 'unimproved', species-rich grassland habitats. Taking advantage of the 'edge effect', whereby the borders of particular habitats have greater biodiversity; the intermittent shade of a solar array offers interesting opportunities for marginal, shade-loving and endangered species. The possibility of creating habitats rich in wildflowers with apiculture as part of the permanent management plan, to increase bee numbers to the benefit of surrounding farmlands. We would like to see: A requirement for a short biodiversity survey of the surrounding areas, to identify the key issues that could be addressed within a biodiversity plan for the site. This need not be expensive; local wildlife trusts might be 		

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		happy to provide basic local information free of charge. • A requirement for a biodiversity plan for each site. This need not be onerous – relatively cheap actions could make a big difference. • These requirements should be added into the appendix regarding planning application and EIA submission requirements. 3.19 There is great risk that Solar PV arrays will meet the other requirements of this policy but will still have serious impacts in relation to infrastructure requirements and we are very supportive of 4.1- 4.15 that covers details of these requirements and protecting both the landscape and other impacts for local communities.		
Centre for Sustainable Energy	Centre for Sustainable Energy	This chapter provides developers good guidance on preferred locations. However, some of the wording could be misinterpreted as site allocation; especially when words such as 'must'	Thank you for your comment. We have looked at the constraints and considered whether a map was appropriate and on balance decided	

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		and 'should' are included, without making this clear it is North Somerset Council's preferred option. For example, paragraph 3.1 could be reworded so that 'Solar PV arrays should preferably' North Somerset Council could consider developing a site allocation document for renewable energy within its suite of Local Plan documents, as recommended by the National Planning Policy Framework (paragraph 97), using some of the criteria for preferred siting of solar arrays. Paragraph 3.2 suggests cumulative impacts of solar PV should be avoided, but does not define what they are. It would be useful to provide	that it was mor appropriate to take a criteria based approach. We will therefore not be providing a site allocation map.	
		guidance on what constitutes an unacceptable cumulative impact, and recommend developers assess and (where applicable) mitigate against these.		
		Paragraphs 3.4 and 3.5 would benefit from having 'significant development'		

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		and 'typical field sizes' defined, so applicants can understand where there proposal falls into these categories. Paragraph 3.8 suggests 'landscape and visual impacts' are an 'environmental impact', but the paragraph and section is on visual impact. The paragraph could be reworded to be clearer, highlighting that visual and landscape impacts have greater consideration in protected areas or where they can be viewed from significant vantage points. The final sentence and 3 bullets could also be removed, as they do not provide guidance on what is an 'adverse impact to the AONB'. Other paragraphs in this section already provide adequate guidance on preferred siting within the landscape and Mendip Hills AONB. Paragraph 3.10 could be expanded/ reworded to provide clearer guidance. Solar PV technology has a limited lifetime, and it is for this reason that N Somerset Council views these developments as temporary. Due to the temporary nature of development,		

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		it would be useful to provide applicants with an example planning condition that would be imposed requiring their removal after a certain time-period (potentially linked to the lifetime of FIT, RO or Contract for Difference). It should also be made clear whether temporary removal of vegetative field boundaries would be permitted during construction/ decommissioning stages, or whether there is a requirement that no changes are made at any stage during its lifetime. Paragraph 3.14 would benefit from defining what would be considered as an 'appropriate ecological impact survey'. Paragraph 3.17 should support applicants in identifying where there are historic assets and, if applicable, preferred offsets (distances between) these.		
DMC	-	In terms of site selection I suggest that the large area of land between Herluin	Thank you for your comment.	N/A

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		Way, Winterstoke Road, Hutton Moor Lane and the railway be considered. I realise this is poor development land but subject to health and safety considerations for construction workers and subsequent maintenance workers it would seem an excellent choice.	We are not identifying exact locations for potential solar PV arrays within this guidance, but rather setting out the parameters that potential developments must adhere to in order to gain planning permission.	
Leigh & Glennie Ltd	Leigh & Glennie Ltd	3.8 - Landscape and visual considerations. One additional consideration should be added: to have regard to any location in the Green Belt. Such land is designated with the purpose of preventing towns merging together, to safeguard the countryside from encroachment, and to check the sprawl of large built-up areas (paragraph 80 of the NPPF). The building of solar parks in the Green Belt will prejudice such objectives, due to the panels and associated buildings and fencing. This is confirmed in paragraph 91 that such development is inappropriate.		

Respondent Name	Organisation	Comment	Council Response	Document Changes
		The Council's SPD should make it clear that the Council consider solar PV arrays within the Green Belt as inappropriate development, and that schemes which reduce the openness of the Green Belt or lead to encroachment into the countryside, or the merging of towns together, will be resisted.		
Leigh & Glennie Ltd	Leigh & Glennie Ltd	3.7 - Visual impact. Mention should also be made of any scheme not being visually intrusive in shorter viewpoints. Whilst the longer, extensive views are mentioned here, solar pv farms can have a dramatic impact on shorter views, ie footpaths crossing or very close to a site. The size of panels, the associated buildings and tall fences directly adjoining footpaths can be very visually dominant and imposing, which can harm the quiet and open enjoyment of walking on country footpaths.	Thank you for your comment. Paragraph 3.7 becomes 3.9 in the revised document and we have made amendments to take account of your comment.	Paragrpah 3.9 will now read as follows: To avoid adverse visual impact, arrays should be sited on relatively level ground and avoid sloping upper hillside locations, to reduce their visual profile. Sites should be screened from view where possible, either by the existing landscape or by planting hedges or vegetation. Where the installation is generally low in visual impact but there are sensitive local views into the site, planning may be granted with a condition relating to the planting or management of hedgerow trees to block that particular view. It should not be possible to

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				obtain extensive views of selected sites from sensitive public vantage points, including views from footpaths crossing or those very close to the site and locations where the array would be seen as a dominant element within the local landscape.
Mendip Hills AONB (P Bryan)	Mendip HIlls AONB	 Solar PV arrays should be located on previously developed/ contaminated and industrial land and its margins (par 3.1). Solar PV arrays should generally avoid landscapes designated for their natural beauty or historic interest and sites of recognised ecological and archaeological importance (par 3.1). The potential for cumulative impact of solar PV sites, arising from consents given in any one area, should be avoided (par 3.2). 	Thank you for your comment. The sections you endorse will remain unchanged.	N/A
Mendip Hills AONB (P Bryan)	Mendip HIlls AONB	 Solar PV arrays should avoiding Best and Most Versatile (BMV) land (par 3.4). 	Thank you for your comment.	N/A

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		 Any solar PV proposal should aim to complement the character of the local landscape, particularly its scale and pattern and should be located within land areas that equate to typical field sizes, and are suited to the uniformity of a solar PV array (par 3.5) Ideally, the array should be set within well-hedged field boundaries, or other landscape features that provide containment (par 3.5). Glint, glare and reflective issues are considered in the visual assessment (3.6). Nationally protected landscapes, such as the Mendip Hills AONB, are given special consideration (par 3.8) and acknowledgement that landscape and visual impacts are likely to be the most significant environmental effects of a solar PV development (par 3.8). 	The sections you endorse will remain unchanged.	

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		 Views to and from the Mendip Hills AONB will be of particular relevance (par 3.8). Potential sites to the north of the Mendip Hills AONB will be on south facing sites and likely to be highly visible from the Mendip Hills AONB (par 3.8). 		
Mendip Hills AONB (P Bryan)	Mendip HIlls AONB	We have a number of minor concerns that we would like to raise. These include the following; • Paragraph 3.10 states that "Any development must be temporary and enable full restoration of the site to its original state once the installation is decommissioned. Any removal of existing vegetative field boundaries will not be permitted". How is this to be enforced?	Thank you for your comment: Paragraph 3.10 becomes 3.12 in the revised document and we have changed the wording to reflect your comment. We are also adding a review and monitoring requirement section which will require review of permitted applications.	3.12 Any development must be temporary and enable full restoration of the site to its original state once the installation is decommissioned. Any removal of existing vegetative field boundaries, including mature trees within these will not be permitted. This will be a condition of any planning permission granted.
Sian Parry	Avon Wildlife Trust	Para 3.1 We would recommend that the final sentence should be	Thank you for your comment.	Paragraph 3.1 will now read as follows:

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		strengthened to read 'Solar PV arrays should avoid landscapes'	We will amend the wording of paragraph 3.1.	Solar PV arrays should avoid areas that are undeveloped and should therefore be located on previously developed/ contaminated and industrial land and its margins
Sian Parry	Avon Wildlife Trust	Paragraph 3.12 We are pleased to see that areas of ecological importance, including local ones, are to be avoided. 3.14 This appears to have a typo in the last sentence and should readto avoid restricting access to and movement of native wildlife We would recommend that at the end of the sentence, after habitat impact, 'and impact on species' should be added. 3.15-2nd bullet point. Natural England's Technical Information Note TIN101 on Solar Parks: Maximising Environmental Benefits (2011) mentioned in 3.16, refers to various species such as bats, birds and invertebrates which may be affected	Thank you for your comment. We will amend the wording in paragraph 3.14. We will add more detail on invertebrates and biodiversity enhancements in paragraph 3.15. Paragraph 3.16 will become paragraph 3.17 and the reference will now be to the biodiversity and trees SPD with a link to this provided.	 3.15 bullets 2 to 4 will now read as follows: habitat enhancement for a diverse range of flora and fauna, for example by adapting built structures to encourage use by nesting, roosting; foraging for birds and invertebrates or hibernating species such as bats; creating ponds where appropriate planting wild bird seed mixtures for birds and nectar and pollen rich margins for bees and butterflies

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		by solar panels so it would be useful to emphasise this in the wording. They may also have more recent information on this. We've also found evidence of solar farms affecting invertebrates when researching for our response to the Bleadon Solar Array application (see our response to 13/P/0854/F2 Land at South Hill Farm) which should be referenced in the SPD. 3.16 the link to Action for Nature doesn't work. I checked the website and the BAP doesn't appear to be available. This needs clarification and updating.		The first sentence of paragraph 3.17 will now read as follows More information on biodiversity in North Somerset can be found in the Biodiversity and Trees Supplementary Planning Document.
Wraxall and Failand Parish Council (clerk)	Wraxall and Failand Parish Council	Regarding the above mentioned document we wish to make the following comments:- Re.para 3.1: Solar PV arrays should avoid areas that are undeveloped and should therefore be located on	Thank you for your comment. In paragraph 3.1 , we will add the detail you suggest in relation to panel reflectivity and will reiterate that a glint and glare assessment is required.	The last 2 sentences of paragraph 3.1 will be amended to now read as follows: Solar PV arrays should generally avoid landscapes designated for their natural beauty or historic interest and sites of recognised ecological and archaeological importance. The

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		previously developed/ contaminated and industrial land and its margins. Solar PV arrays should, where practical be mounted on top of existing roofs, or integrated into new roofs and buildings. Any potential 'greenfield' PV site should seek to complement existing development, for example grazed land should still be able to be grazed once the development is completed. Solar PV arrays should generally avoid landscapes designated for their natural beauty or historic interest and sites of recognised ecological and archaeological importance. As the panels are usually reflective, they should not be installed where such reflection has the potential to cause a safety risk or annoyance to others".		reflectiveness of panels needs to be taken into consideration and their potential to cause a safety risk will need to be assessed via a glint and glare assessment.
wwarden		3.1 We suggest that in addition to 'new roofs and buildings' priority should be given to siting new PV	Thank you for your comment. We will amend the wording of paragraph 3.1 to include location at	Paragraph 3.1 will now read as follows: 3.1 Solar PV arrays should avoid areas that are undeveloped and should

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		arrays on existing building roofs wherever possible and, as a priority, on car parking sites. There is an associated benefit here in that there are no resulting additional surface water drainage issues and no increase in flood risk because the built area is effectively unchanged. Also, in relation to the 'greenfield' sites and the suggestion that the land should still be grazed, we would refer you to the following Dorset AONB-related guidance: Vegetation will grow under the solar panels and this will require management, particularly to avoid the site becoming overgrown with noxious weeds and assist with the eventual restoration of the site, normally to agriculture. There are various techniques for managing the vegetation; these include mowing, strimming, spraying or mulching. Spraying should be avoided wherever possible and mulching large areas is likely to present technical challenges and may add to the landscape/visual	car parks and will include preference that land should be grazed. We have made amendments to paragraph 3.4 to take further take account of agricultural land classifications. With reference to your comment on paragraph 3.10, 6.10 amd 6.11. We believe that if is sufficient to agree the decommissioning timescale as a condition of granting planning permission, so will not make any amendments to these parahraphs. Current wording in 6.10 is as follows: 'Planning permission will therefore only be granted under the condition of an agreed timescale for decommissioning and with land restoration to its original use.' Paragraph 3.10 - regarding the issue of timescale permitted as part of an application will be covered within the requirement for a decommissioning schedule. We feel that directing applicants towards the requirements of the WEEE directive	therefore be located on previously developed/ contaminated and industrial land and its margins. Solar PV arrays should where practical be mounted on top of existing roofs, or integrated into new roofs and buildings. This can include structures above car parks, potentially park and ride sites or at railway stations. Any potential 'greenfield' PV site should seek to complement existing development and land management around panels will be required. Grazing is likely to be the most sustainable and effective measure. Sheep, chickens or geese are likely to be most appropriate. Paragraph 3.4 will now read as follows: In accordance with the National Planning Policy Framework (NPPF), where there is significant development of agricultural land, this should seek to use poorer quality land in preference to that of higher quality (safeguarding the long term potential of best and

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		impact of a development proposal. Few of these management techniques are regarded as sustainable, particularly on sites up to 15ha, and there is a desire, both in terms of food production and the rural scene, to continue an agricultural use on the site. Grazing is therefore to be encouraged wherever practicable. Cattle, horses, pigs and goats are likely to be too 'physical' with the solar arrays but sheep, chickens or geese should be acceptable. 3.4 We feel that as written the document raises a number of wider national issues, not least those related to food production capacity for the country. For example, it is suggested here that whilst preference will be given to those applications proposed for lower grade land, consideration on merit will be given to developments on better quality land in the context of the wider sustainability of the agricultural enterprise. As it is unrealistic to believe that the land underneath any PV array will be particularly productive we are	(at 6.11) is sufficient to cover the recycling/landfill requirement at decommissioning. Paragraph 3.13 becomes 3.15 and includes a link to the council interative map which does show these designations, this has been made clearer to direct the reader to select the correct legend. Paragraph 3.17 becomes 3.20 and will direct the reader to the interative map which shows the designations within North Somerset. Paragraph 3.19 comment- more detail has been provided on flood risk.	most versatile agricultural land (grades 1, 2 and 3a) and conserving soil resources). More detail on Agricultural Land Classification is contained within the Natural England information note TIN049. We are not likely to support applications on the highest graded agricultural land (grades 1 or 2) and therefore encourage prospective developments towards lower graded land. Paragraph 3.11 will now include the following as its last sentence: Applications within the AONB designation will be subject to rigorous examination and will need to demonstrate that the objectives of the designation will not be compromised by the development. Paragraph 3.15 (previously 3.13) will now read as follows: 3.15 In North Somerset there are four areas of Special Areas of Conservation (SACs); two National Nature

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		particularly concerned about the apparent disregard for this better quality land, especially at a time when communities are being encouraged to consider the food miles associated with their produce (therefore reducing the impact of journeys on the climate) and to support their local farmers by buying local. We find this a contradiction. Therefore, we would like to see a much stronger wording around the unlikelihood of applications being accepted if submitted for land graded 1, 2 or 3. 3.5 to 3.9 We feel that the potential landscape and visual impacts of solar PV arrays are particularly significant and that the guidance wording needs to reflect this by being much stronger. We would refer you to guidance produced by the Dorset AONB partnership which, while still to be adopted as policy by the local authority, makes the point that solar PV arrays are incongruous and likely to be extremely contentious in much of rural North Somerset. The Dorset guidance states:		Reserves; the Mendip Hills Area of Outstanding Natural Beauty (AONB), 38 Sites of Special Scientific Interest (SSSI), two hundred Local Wildlife Sites and over eighty Local geological Sites and local nature reserves. You can view these site designations on a North Somerset interactive map by selecting the environment and cultural heritage legend. paragraph 3.20 (previously 3.17) will now read as follows: Generally historic, cultural and landscape-sensitive assets should be avoided. These include conservation areas, listed buildings, scheduled monuments, areas of archaeological importance and registered and other historic parks and gardens. You can view these site designations on a North Somerset interactive map by selecting the environment and cultural heritage legend.

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		Overall there is a presumption against large scale Solar PV arrays within the highly sensitive Dorset AONB due to their large scale and unnatural appearance. Therefore, any application for large scale solar PV arrays within the designation will be subject to rigorous examination and is expected to clearly demonstrate that the objectives of the designation will not be compromised by the development. We recommend that a similar approach is taken by NSC, with a clear presumption against solar PV array development on or adjacent to any heritage, conservation, ecological, cultural, AONB and other landscape sensitive or amenity asset sites. 3.10 This states that any PV array development must be considered temporary, as also referenced in paras 6.10 and 6.11. We would prefer that 'temporary' should defined in some way, preferably with specific time limits imposed as a condition of development. Also, while the WEEE		

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		regulations are referred to in relation to disposal and decommissioning, some definition is required as to what will be recyclable compared with how much will be sent to landfill and thereby offsetting any potential climate change benefits. A land and materials restoration strategy should be required as a condition of any planning permission. 3.13 Note that these designations are not obvious on any mapping which is readily available on the NSC website. Also, our understanding is that the correct terms are 'Wildlife Sites' and 'Regionally Important Geological Sites' (RIGS).		
		3.17 We feel that this should be worded much more strongly. Please refer to the points made under para 3.9 above. 3.19 It needs to be appreciated that any solar panel array will effectively create a large hard surface area which must increase the risk of surface water flooding if installed on undeveloped		

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		land, irrespective of the infrastructure issues mentioned here.		

Document section Site Detail

Respondent Name	Organisation	Comment	Council Response	Document Changes
Campaign to Protect Rural England	Campaign to Protect Rural England	4.4 Aircraft safety is mentioned here; however, glint and glare can be an issue for road and rail traffic as well. The glint and glare assessment should aim to assess the impact on all local properties and transport infrastructure.	Thank you for your comment. It is noted that glint and glare should be considered not just for aircraft, but also for road and rail safety. The document will be amended to reflect this.	Paragraph 4.3 will now read: Solar panels are designed to absorb, not reflect, irradiation. However, the sensitivities associated with glint and glare, including the landscape/visual impact and the potential impact on aircraft, road and rail safety, should not be underestimated.
Centre for Sustainable Energy	Centre for Sustainable Energy	Whilst this element of the SPD provides clarity on what site details North Somerset Council expects from applicants, it could benefit from greater clarity within three paragraphs of guidance (detailed below).		

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		Paragraph 4.4 would benefit by providing applicants with a preferred approach or link to existing guidance on carrying out 'glint and glare' assessments.		
		Paragraph 4.6 suggests concrete cannot be used for the foundations, yet other types of development in N Somerset are permitted to use concrete foundations. We recommend the wording is changed to 'use of concrete is minimised', unless guidance on alternatives is provided and justification of why specifically developments for solar PV cannot use concrete in foundations.		
		Paragraph 4.11 should be clear that access tracks will not be acceptable between each, or even the majority, of rows of solar panels. Currently it could be misinterpreted that no access tracks should run between rows of solar panels, yet in reality this is where those which are needed could be best-sited to minimise visual impact.		

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Coal Authority	The Coal Authority	As you may be aware, the North Somerset area contains surface coal resources in the vicinity of Bristol and Nailsea, which has resulted in a limited legacy of past coal mining activity. This legacy can pose risks to land stability and new development, such as the 170 recorded mine entries within North Somerset. Accordingly, The Coal Authority considers that ground conditions and unstable land should be recognised as an issue that requires due consideration as part of new proposals for Solar PV Arrays. The Coal Authority would therefore suggest the following amendment to section 4.2: "Hence intrusive groundworks, such as trenching and foundations, should be minimised and the use of concrete avoided. In windy areas and localised areas of unstable land resulting from past mining activities the stability of the installation will need to be considered."	Thank you for your comment. The suggested addition for paragraph 4.1 will be made.	Paragraph 4.1 will now read as follows: It is important that solar PV developments are sympathetic to the existing environment and minimal disruption must take place during the construction and operational phases of any development. Intrusive groundworks, such as trenching and foundations, should be minimised and the use of concrete avoided. In windy areas and localised areas of unstable land resulting from past mining activities the stability of the installation will need to be considered.

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M Highfield	Somerset County Council	Section 6.7 covers the requirement to provide information for planning purposes and this includes consideration of the construction phase. The section on 'Ground Works' 4.6 might be reviewed to highlight the consideration of noise particularly if the development is to involve the installation of numerous driven metal support piles. I have assessed this process of piling and found it can create maximum noise levels of 96dB(A) at 10m with the average noise level of 91dB(A) created during a pile insertion cycle of approximately 30seconds. While the occurrence of noise at neighbouring dwellings may be unavoidable during the construction phase of a site, the guidance should encourage a contractor to consider noise impact at an early stage and devise measures to minimise any instances of significant residential disturbance. Actions might include avoidance of weekend working periods, provision of reliable information on the commencement of	Thank you for your comment. We will amend the document at parahraph 4.5 to add noise consideration during site construction.	Paragraph 4.5 will now read as follows: Site levelling and groundworks should be kept to a minimum. Any site levelling works necessary to facilitate the development of a solar PV array should be discussed at the preapplication stage, and detailed within any planning application. Contractors should consider the noise impact at an early stage and implement measures to minimise instances of significant residential disturbance. Actions to be implemented will include avoidance of weekend working, provision of reliable information on the commencement of noisy development and avoidance of early morning disturbance.

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		noisy development and avoidance of early morning disturbance.		
Mendip Hills AONB (P Bryan)	Mendip HIlls AONB	 Groundworks are minimised (par 4.5). Concrete foundations are avoided (par 4.6). Permanent lighting is not permitted (par 4.8). That the visual impact of security fencing and lighting will be minimised (par 4.8). 	Thank you for your comment. The sections you endorse will remain unchanged.	N/a
Mendip Hills AONB (P Bryan)	Mendip HIlls AONB	 Paragraph 4.8 Lighting - we recommend that lighting is not permitted. Paragraph 4.12 states that "A statement to justify any building and its size will be required, especially in the Green Belt and within the Mendip Hills Area of Outstanding Natural Beauty" this implies that it may be 	Thank you for your comment. With reference to your comment about lighting, we accept that some lighting may be required, but ask for this to be PIR type, thereby only illuminated when absolutely necessary. With reference to the siting of inverter buildings, whilst we do not state that	The appropriate sentence in Paragraph 3.1 will now read as follows: Solar PV arrays should avoid landscapes designated for their natural beauty or historic interest and sites of recognised ecological and archaeological importance.

Respondent Name	Organisation	Comment	Council Response	Document Changes
		possible to site arrays within the AONB. Paragraph 3.1 states that "Solar PV arrays should generally avoid landscapes designated for their natural beauty or historic interest and sites of recognised ecological and archaeological importance." We recommend that this is strengthened by removing the word "generally".	we would categorically refuse an installation in the AONB, but we have placed emphasis within the document that the designation of the AONB will be taken into consideration with any proposed development. Paragraph 3.1 will be amended as per your suggestion.	
Sian Parry	Avon Wildlife Trust	Para 4.7 We support the point about wildlife access crossing points. Para 4.8 We support the statement that permanent lighting will not be permitted, as this will potentially affect local wildlife, especially bats and invertebrates.	Thank you for your comment. Paragraphs 4.7 and 4.8 will remain unchanged.	
Yatton Parish Council	Yatton Parish Council	Yatton Parish Council considered the guidance note was a well drafted document but to made the observation under 4.13 that members considered	Thank you for your comment. The guided minimum buffer strip will remain as 5 metres which upon review	

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		that 9m was a suitable distance from a boundary to any array installation, to allow ample space for hedge and ditch maintenance machinery ".	of other guidance appears to the the accepted limit. In special circumstances this may be increased (e.g. where the Environment Agency requires access to watercourses).	
wwarden		4.4 In terms of 'glint and glare' we suggest that there should be a specific need for consultation with airports and any local aircraft operators, with this to be evidenced in the Environmental Impact Assessment.	Thank you for your comment. We have added a section in the document specifically addressing aviation issues and requuire a glint and glare assessment as part of the Landscape and Visual Impact Assessment.	

Document sectionConsultation/Community Engagement

Respondent Name	Organisation	Comment	Council Response	Document Changes
Centre for Sustainable Energy	Centre for Sustainable Energy	The guidance within this chapter will ensure developers run effective community engagement and can encourage greater community	Thank you for your comment. with reference to supporting developers on community consultation	Paragraph 5.3 will now read as follows:

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		involvement in schemes. It could have a separate, stand-alone paragraph added to encourage commercial-scale developers to offer a tangible community benefit – for example, in the form of a community benefit fund proportional to the size of the development or offering a cooperative share offer (linking to paragraph 5.6). It could also have a paragraph added setting-out any support the council can offer developers in running community consultations, for instance; hosting or promoting events, identifying key stake-holders and any other support the council can offer. This should be linked to paragraph 6.1. Paragraph 5.4 should include the role that communities can/are playing in developing renewable energy, in addition to promoting them. Even if community-led solar energy proposals are currently rare in North Somerset, their prevalence is likely to increase if the area matches national trends.	-we can provide some guidance if requested and will add detail to this effect. Paragraph 5.5 has been re-worded to replace enterprise with ownership.	The council can provide guidance to developers on how to engage effectively with the local community if requested.

Respondent Name	Organisation	Comment	Council Response	Document Changes
		Paragraph 5.5 could have 'community enterprise model' reworded to 'community ownership model', so that it is consistent with the subheading and paragraphs that follow. It could also have text which asks commercial developers to demonstrate any offers or discussions they have had during community engagement, in trying to include elements of community ownership.		
Mendip Hills AONB (P Bryan)	Mendip HIlls AONB	 Solar PV development should be regarded as a temporary use of land (par 6.10). Planning permission will only be granted under the condition of an agreed timescale (par 6.10). Where a development ceases to be operational, the site must be returned as soon as practicable to original use. (par 6.10). 	Thank you for your comment. The document on thiese points will remain unchanged.	N/A
National Trust	National Trust	As it stands, the historic environment section of the document looks rather	Thank you for your comment.	Paragraph 3.20 will now read as follows:

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		short, and does not mention settings of heritage assets. In this respect, para 132 of the NPPF notes that the significance of a heritage asset can be harmed or lost through development within its setting. The good practice guide to PPS5, which has not been superseded, makes several references to setting (para's 54, 70, 113 and 118), including: "For the purposes of spatial planning, any development or change capable of affecting the significance of a heritage asset or people's experience of it can be considered as falling within its setting". Could similar wording be incorporated into the SPD?	detail on heritage asset and their setting.	Heritage assets could be affected by a solar PV development, either by causing direct physical change or by a change in their setting and therefore altering people's experience of it. Any proposed development will need to assess the nature; extent and importance of a heritage asset and the contribution of its setting will need to be taken into consideration. Where heritage assets are relevant to an application, measures must be taken to ensure there is no permanent impact to the heritage asset.
wwarden		5.2 In the first sentence, the term 'tease out' should be replaced with 'explore', which reads better. In the second sentence, amend to read: 'and the potential controversy that it is likely to generate'.	Thank you for your comment. We have made the suggested amendments to the document.	The document will now read: Paragraph 5.2 Effective dialogue about solar PV proposals between developers, the local authority, stakeholders, local communities, interest groups and

Respondent Name	Organisation	Comment	Council Response	Document Changes
		5.3 It is suggested that this paragraph refers to the consultation process and isn't required in the SPD. Alternatively, amend the second sentence to read: 'We will endeavour to ensure that everyone who has commented on this or other consultations is always kept informed on how relevant policy is being developed'. 5.4 In the fourth line add the word 'and' after 'revenue streams'.		statutory consultees is essential to explore issues of concern and discuss options for mitigation and provision of any benefits to the local area. The scale of public engagement required will vary according to the scale of the proposal and the potential controversy this is likely to generate. Prospective developers of commercial scale schemes need to be aware of the time required for effective engagement and allow sufficient time in their project planning to allow for responses. Paragraph 5.3 The council will provide feedback on all comments received (with discussions entered into as necessary) so that everyone knows how their comments have been addressed and how they will influence decision-making in determining applications. We will endeavour to ensure that everyone who has commented on this or other consultations is always kept informed on how relevant policy is being developed. Our consultation requirements/ procedure are set out in

Respondent Name	Organisation	Comment	Council Response	Document Changes
				our Statement of Community Involvement.

Document section The Planning Application

Respondent Name	Organisation	Comment	Council Response	Document Changes
Campaign to Protect Rural England	Campaign to Protect Rural England	6.1 We are pleased to note the advice in the document to engage with local communities at an early stage and to allow for any application to be as transparent as possible by providing all the relevant information. 6.10 & 6.11 CPRE are particularly pleased to see these two points relating to the sites being regarded as temporary use of land and the procedure for removal and disposal. Solar PV arrays (as with other energy sources) are a fast moving and technologically advancing market. All	Thank you for your comment. Paragraphs 6.1, 6.10 and 6.11 will remain unchanged.	N/A

Respondent Name	Organisation	Comment	Council Response	Document Changes
		of this equipment will have a limited lifespan.		
Centre for Sustainable Energy	Centre for Sustainable Energy	This chapter follows-on well from the previous chapter, and chapter 6.1 should be linked to any support the council can offer in running effective community engagement at early and later stages. When providing guidance on EIA thresholds, paragraph 6.4 could benefit from providing further examples and context of the appearance of half a hectare of solar PV. For instance, that half a hectare is equivalent to 5,000m2 of development – and this could, depending on panels and spacing, be equivalent to 500kW (based on 100W per m2). Paragraph 6.8 should be clear that the energy generation potential is an estimate; the figures for capacity, energy generation and the related capacity factor are dependent on weather and the specific panels chosen (falling outside the remit of planning).	Thank you for your comment. The detail you suggest for paragraph 6.4 will be added. Detail will be added in paragraph 6.8 as suggested. Paragraph 6.11 will remain unchanged as others have requested that the requirement for developers to recycle, re-use etc the panel constituents should be clearly set out.	Paragraph 6.4 will now include the wording as follows: However, Schedule 2; Section 3 of the regulations under the energy industry heading specifies that any industrial energy installation producing electricity, steam and hot water, which exceeds 0.5 hectares (which is around 5000m² of development and depending on panel type/ spacing would be equivalent to 500kW and consist of around 60 panels) could potentially be EIA development Paragraph 6.8 will include the following wording: It is accepted that the above will be dependant on weather conditions, principally solar radiation levels.

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		Solar PV developments will potentially have a lifetime of 25 years in N Somerset. The guidance in paragraph 6.11 is too prescriptive and the disposal of waste off-site is somewhat outside of planning considerations. We recomend the paragraph is rewritten, explaining to applicants the likely condition that would be placed on their development, ensuring consistency with paragraph 3.10 within the SPD. It could include guidance that N Somerset would expect disposal to be in accordance with 'relevant local, national and European waste directives'.		
Environment Agency	Environment Agency	Flood Risk Due to the size of solar parks, the applicant will be expected to submit a Flood Risk Assessment (FRA) with any planning application submission, giving consideration to the impact of drainage. Any concentration of run-off could lead to localised flood risk, especially	Thank you for your comment. The guidance does stipulate that a flood risk assessment will be required. The section on flood risk and access will be amended to take on board the comments received. With regards to the waste regulations, we will add a sentence to require all	Paragraph 3.19 to 3.22 on flood risk assessment will now read: 3.19 The impact of a solar park site on flood risk should be considered in the Environmental Report accompanying the planning application. The surface water treatment needs to be considered carefully, given the development of infrastructure associated with sites, including inverter housings, access

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Respondent Name	Organisation	where under-lying soils are not naturally free draining. To overcome this, SUDS drainage techniques should be adopted, such as small swales and infiltration trenches. To avoid the concentration of flows along their length, these should not necessarily be linked through the site but can be a series of shorter features. Where sites are located within Flood Zone 2 or 3, classified as having a medium or high probability of flooding, then the FRA produced should also include the following: Compensatory flood storage should be provided for any loss of fluvial floodplain volume. Floor levels of any buildings and electrical controls should be raised above the flood level and other infrastructure should be made resilient to flooding. A detailed proposal for how	waste generated on site to be disposed of as per these regs - paragrapg 6.12.	tracks and hard standing, which may affect surface water runoff rates and volumes. Any electrical equipment may need to be raised off the ground to avoid potential flooding. 3.20 Any concentration of run-off could lead to localised flood risk, especially where under-lying soils are not naturally free draining. To overcome this, SUDS drainage techniques should be adopted, such as small swales and infiltration trenches. To avoid the concentration of flows along their length, these should not necessarily be linked through the site but can be a series of shorter features. 3.21 Where sites are located within Flood Zone 2 or 3, classified as having a medium or high probability of flooding, then the FRA produced should also include the following: Compensatory flood storage should be provided for any loss of fluvial floodplain volume.
		surface water run-off will be stored and disposed of in a sustainable way must be included. This should prevent		Floor levels of any buildings and electrical controls should

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		any increase in surface water flow (up to and including the 1 in 100 year plus climate change storm) from leaving the site or causing localised flooding on site. Due to the large size of these developments, we would expect to see calculations and a drainage layout proposal. Evidence that the Sequential Test has been passed by the Local Planning Authority (LPA) is required. Access tracks Where access tracks need to be provided, permeable tracks should be used, and localised SUDS should be used to control any run-off. Landscape/Visual impact or Ecology Given the temporary nature of these developments, solar park sites should be configured or selected to avoid the need to impact on existing drainage systems and watercourses. Access should avoid the need to culvert existing watercourses. Where culverting is required, it should be		be raised above the flood level and other infrastructure should be made resilient to flooding. • A detailed proposal for how surface water run-off will be stored and disposed of in a sustainable way must be included. This should prevent any increase in surface water flow (up to and including the 1 in 100 year plus climate change storm) from leaving the site or causing localised flooding on site. Due to the large size of these developments, we would expect to see calculations and a drainage layout proposal. • Evidence that the Sequential Test has been passed by the Local Planning Authority (LPA) is required. 3.22 Given the temporary nature of these developments, solar park sites should be configured or selected to avoid the need to impact on existing drainage systems and watercourses.

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		demonstrated that no reasonable alternatives exist, and where possible this should only be temporary for the construction period. There is the potential for solar farms to act as an "ecological trap" for certain types of insect that are attracted to polarised light. This is an area that has been researched with particular reference to aquatic insects. Therefore it is recommended that ponds are placed strategically around the site. Environment Management During construction the following comments apply: The developer should ensure that the guidance in the Environment Agency: Pollution Prevention Guidelines 6: Working at construction and demolition sites (PPG 6) and Pollution Prevention Guidelines 5: Works and maintenance in and near water (PPG 5) is followed.		Access should avoid the need to culvert existing watercourses. Where culverting is required, it should be demonstrated that no reasonable alternatives exist, and where possible this should only be temporary for the construction period. Paragraph 4.11 will now read: Access details should be submitted and should aim to utilise existing tracks where a hard surfaced access is necessary. Hard surfaced access tracks will not be acceptable between rows of solar panels. The installation of additional access tracks should be kept to an absolute minimum and where they need to be provided, permeable tracks should be used, and localised SUDS should be used to control any run-off. Generally, service vehicles should be capable of servicing these facilities without the need to construct access tracks. 6.12 Any waste generated on site during construction must be disposed of in accordance with the Waste

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		Where possible, waste washings from any concrete should be discharge into the foul sewer, with the agreement of Wessex Water. If not, the developer should ensure compliance with the Environment Agency Regulatory Position Statement 107: Managing concrete wash waters on construction sites: good practise and temporary discharges to ground and surface waters. Any waste generated must be disposed of in accordance with Waste (England and Wales) Regulations 2011. If waste material is brought onto site for construction purposes, the developer should ensure that appropriate permits are held according to Waste (England and Wales) Regulations 2011. CL: AIRE sites must be identified and declared prior to construction and all protocols followed, if not Environmental Permits will apply. Oil or chemical storage facilities should be sited in bunded areas. The		(England andWales) Regulations 2011.

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		capacity of the bund should be at least 10% greater than the capacity of the storage tank or, if more than one tank is involved, the capacity of the largest tank within the bunded area. Hydraulically inter-linked tanks should be regarded as a single tank. There should be no working connections outside the bunded area. During construction, measures should be in place to ensure that in the event of an incident any spills/accidents shall be safely dealt with. For any vehicles that leave the site, measures should be incorporated to ensure that soil deposits are not deposited on the road. COMTAMINATED LAND If there is a risk of previous land uses causing contamination then a contaminated land survey should be undertaken. Initially this will involve a desk study, if this shows that contamination is possibly then trial		

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		pits and ultimately remediation should be detailed.		
Mendip Hills AONB (P Bryan)	Mendip HIlls AONB	The Mendip Hills AONB unit is currently working with Natural England to help produce a Visibility Map for the Mendip Hills AONB. This research analyses an area within 20km of the AONB and identifies which bits of land can be seen from the AONB. This will shortly be made available and it may be worth including as evidence that prospective solar PV development applicants for could be directed.	Thank you for your comment. We have decided not to include this map within the guidance document.	None at present.
wwarden		6.1 It would be appreciated if the words 'through the town or parish council' can be added at the end of the first sentence, which fits much better with the objectives of NSC's Parish Charter. The third sentence should read 'the potential' and not 'potential the'!	Thank you for your comment. We will make the suggested changes to the document.	2nd sentence of Paragraph 6.1 will now read as follows: We also advise that you engage with the local community at an early stage through the appropriate town or parish council. Paragraph 6.5 will now read:

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		In the penultimate sentence, add a comma before 'if requested'. 6.5 The last sentence should be amended to read 'Generally, an EIA is likely to be needed' and, later, 'and is likely to be required for larger scale developments'. 6.8 It is unclear what is meant by the term 'full nameplate capacity'. This needs to be clarified or the term defined. 6.10 Amend the last sentence to read: 'Also, permission will be conditional on a further agreement'		The proposal will be assessed against the selection criteria in Schedule 3 of the EIA Regulations to enable a screening opinion to be issued. This will include the potential impact on environmental receptors including local ecology, archaeology, water resources, landscape character and visual impacts. The potential for cumulative effects with any existing or approved development (both other solar PV schemes and other types of development) will also be considered. Generally, an EIA is likely to be needed for Schedule 2 developments, if the solar PV development is in a particularly environmentally sensitive or vulnerable location and is likely to be required for larger scale developments. Paragraph 6.8 will now read: • the 'capacity factor' (the ratio of its actual output over a period of time, to its potential output if it were possible for it to operate at full technical capacity indefinitely)

Document section

Appendix 4

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wwarden		Appendix: 3. Impacts and their significance Amend the first sentence to read: 'The environmental statement must assess the impact of the proposal and the significance of this impact'. Amend the wording in the last bullet point to read: 'Inter-relationship between all of the above.' 6. Alternatives Amend the first bullet point to read: 'Demonstrate that other sites have been considered and provide reasons for why other sites have been dismissed and why the proposed site is considered to be the most appropriate.'	Thank you for your comment. All suggested amendments will be made to the document.	The document will now read as the following in the sections below: Appendix: 3. Impacts and their significance 'The environmental statement must assess the impact of the proposal and the significance of this impact'. 6. Alternatives 'Demonstrate that other sites have been considered and provide reasons for why other sites have been dismissed and why the proposed site is considered to be the most appropriate.' 8. Difficulties 'An indication of any difficulties encountered through technical deficiencies or lack of expertise encountered in compiling the

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		8. Difficulties Delete the words 'lack of know-how' and replace these with 'the lack of data or expertise'.		information in the Environmental Statement.'

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