



Planning Inspectorate
Arolygiaeth Gynllunio

BARN GWMPASU:

Prosiect Solar Arfaethedig Llanwern Future Energy

Cyfeirnod yr Achos: EN010171

Mabwysiadwyd gan yr Arolygiaeth Gynllunio (ar ran yr Ysgrifennydd Gwladol)
yn unol â Rheoliad 10 Rheoliadau Cynllunio Seilwaith (Asesu Effeithiau
Amgylcheddol) 2017

29 Ionawr 2025

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1. CYFLWYNIAD

- 1.0.1 Ar 19 Rhagfyr 2024, cafodd yr Arolygiaeth Gynllunio (yr Arolygiaeth) gais am Farn Gwmpasu gan Future Energy Llanwern Limited (yr ymgeisydd) o dan Reoliad 10 Rheoliadau Cynllunio Seilwaith (Asesu Effeithiau Amgylcheddol) 2017 (y Rheoliadau AEA) ar gyfer Prosiect Solar Arfaethedig Llanwern Future Energy (y datblygiad arfaethedig). Rhoddodd yr ymgeisydd wybod i'r Ysgrifennydd Gwladol o dan Reoliad 8(1)(b) y rheoliadau hynny ei fod yn bwriadu darparu Datganiad Amgylcheddol mewn perthynas â'r datblygiad arfaethedig a, thrwy gyfrwng Rheoliad 6(2)(a), bod y datblygiad arfaethedig yn 'ddatblygiad AEA'.
- 1.0.2 Darparodd yr ymgeisydd y wybodaeth angenrheidiol i lywio cais o dan Reoliad AEA 10(3) ar ffurf Adroddiad Cwmpasu, sydd ar gael yn:
- <http://infrastructure.planninginspectorate.gov.uk/document/EN010171/EN010171-000008-FEL%20-%20Scoping%20Report.pdf>
- 1.0.3 Y ddogfen hon yw'r Farn Gwmpasu (y Farn) a fabwysiadwyd gan yr Arolygiaeth ar ran yr Ysgrifennydd Gwladol. Gwneir y Farn hon ar sail y wybodaeth a ddarparwyd yn yr Adroddiad Cwmpasu, sy'n adlewyrchu'r datblygiad arfaethedig fel y'i disgrifir ar hyn o bryd gan yr ymgeisydd. Dylai'r Farn hon gael ei darllen ar y cyd ag Adroddiad Cwmpasu'r ymgeisydd.
- 1.0.4 Mae'r Arolygiaeth wedi amlinellu yn yr adrannau canlynol o'r Farn hon lle y mae wedi cytuno / anghytuno i hepgor agweddau / materion penodol ar sail y wybodaeth a ddarparwyd yn yr Adroddiad Cwmpasu. Mae'r Arolygiaeth yn fodlon na ddylai derbyn y Farn Gwmpasu hon atal yr ymgeisydd rhag cytuno wedi hynny â'r cyrff ymgynghori perthnasol i hepgor y cyfryw agweddau / materion o'r Datganiad Amgylcheddol, lle y darparwyd tystiolaeth ychwanegol i gyfiawnhau'r dull hwn. Fodd bynnag, er mwyn dangos bod yr agweddau / materion wedi derbyn sylw'n briodol, dylai'r Datganiad Amgylcheddol esbonio'r rhesymeg dros eu hepgor a chyfiawnhau'r dull a ddefnyddiwyd.
- 1.0.5 Cyn mabwysiadu'r Farn hon, ymgynghorodd yr Arolygiaeth â'r 'cyrff ymgynghori' a restrir yn Atodiad 1 yn unol â Rheoliad AEA 10(6). Rhoddir rhestr o'r cyrff ymgynghori a ymatebodd o fewn y raddfa amser statudol (ynghyd â chopïau o'u sylwadau) yn Atodiad 2. Mae'r sylwadau hyn wedi cael eu hystyried wrth baratoi'r Farn hon.
- 1.0.6 Mae'r Arolygiaeth wedi cyhoeddi cyfres o nodiadau cyngor, gan gynnwys [Nodyn Cyngor 7: Asesu Effeithiau Amgylcheddol: Gwybodaeth Amgylcheddol Ragarweiniol, Sgrinio a Chwmpasu \(AN7\)](#). Mae AN7 a'i atodiadau yn rhoi arweiniad ar brosesau AEA yn ystod y camau cyn-ymgeisio a chynghor i gynorthwyo ymgeiswyr i baratoi eu Datganiad Amgylcheddol.
- 1.0.7 Dylai ymgeiswyr roi sylw penodol i'r cyngor sefydlog yn AN7, ochr yn ochr â nodiadau cyngor eraill ar broses Deddf Cynllunio 2008, sydd ar gael yn:

[Advice notes | National Infrastructure Planning \(planninginspectorate.gov.uk\)](#)

- 1.0.8 Ni ddylid ystyried bod y Farn hon yn awgrymu bod yr Arolygiaeth yn cytuno â'r wybodaeth neu'r sylwadau a roddwyd gan yr ymgeisydd yn ei gais am farn gan yr Arolygiaeth. Yn arbennig, ni fydd sylwadau gan yr Arolygiaeth yn y Farn hon yn rhagfarnu unrhyw benderfyniadau diweddarach a wneir (e.e. pan gyflwynir y cais yn ffurfiol) y dylai unrhyw ddatblygiad a amlygwyd gan yr ymgeisydd gael ei drin o reidrwydd fel rhan o Brosiect Seilwaith o Arwyddocâd Cenedlaethol (NSIP) neu ddatblygiad cysylltiedig neu ddatblygiad nad oes arno angen caniatâd datblygu.

2. SYLWADAU TROSFWAOL

2.1 Disgrifiad o'r Datblygiad Arfaethedig

(Adran 2 yr Adroddiad Cwmpasu)

Rhif Adnabod	Cyfeirnod	Disgrifiad	Sylwadau'r Arolygiaeth
21.1	Paragraff 2.7.1	Gweithgareddau adeiladu	Rhoddir trosolwg o weithgareddau adeiladu dangosol ym mharagraff 2.7.1 yr Adroddiad Cwmpasu. Dylai'r wybodaeth hon gael ei hamlinellu yn y Datganiad Amgylcheddol, gan gynnwys cerrig milltir adeiladu allweddol, hyd a lleoliad y gweithgareddau adeiladu sy'n ofynnol, offer a pheiriannau cysylltiedig, symudiadau rhagfynedig cerbydau a'r oriau adeiladu arfaethedig.
212	Paragraffau 2.7.7-2.7.9	Cyfadeiladau adeiladu	Mae'r Adroddiad Cwmpasu'n datgan y byddai angen i'r datblygiad arfaethedig gael cyfadeiladau adeiladu dros dro o fewn y safle. Fodd bynnag, nid yw'r union leoliad wedi'i bennu eto. Er mwyn sicrhau bod yr effeithiau arwyddocaol tebygol yn cael eu hasesu'n gadarn, dylai'r Datganiad Amgylcheddol roi manylion ynglŷn â nifer, lleoliad a dimensiynau cyfadeiladau adeiladu.
213	Paragraff 2.7.1	Croesfannau	Mae'n debygol y bydd ffosydd draenio, cyrsiau dŵr, seilwaith (gan gynnwys ffyrdd a rheilffyrdd), a chynfinoedd sensitif yn cael eu croesi yn ystod adeiladu'r datblygiad arfaethedig. Dylai'r Datganiad Amgylcheddol amlygu pa gyrsiau dŵr a/neu nodweddion eraill, fel ffyrdd, a fydd yn cael eu croesi ac ym mhle, gan gyfeirio at unrhyw ffigur(au) cysylltiedig. Dylai'r Datganiad Amgylcheddol ddisgrifio'r mathau o groesfannau sy'n ofynnol, eu graddfa a'u dimensiynau a natur unrhyw waith adeiladu cysylltiedig. Pan ystyrir bod angen hyblygrwydd, dylid cyfiawnhau hyn yn llawn, a dylai'r Datganiad Amgylcheddol seilio asesiadau ar y senario achos gwaethaf a chyfiawnhau pam y byddai'r senario hwn yn arwain at yr effaith amgylcheddol fwyaf. Dylid darparu digon o fanylion i lywio asesiad cadarn o effeithiau arwyddocaol tebygol ar agweddau/ materion perthnasol, gan gynnwys

Rhif Adnabod	Cyfeirnod	Disgrifiad	Sylwadau'r Arolygiaeth
			derbynyddion ecolegol. Dylid gwneud ymdrech i gytuno ar yr ymagwedd at groesfannau gyda'r cyrff ymgynghori perthnasol.
214	Paragraffau 2.6.4 -2.6.6	Cysylltiad allforio trydan i is-orsaf Whitson y Grid Cenedlaethol	Nid yw'r Adroddiad Cwmpasu'n nodi p'un a fyddai angen unrhyw waith ar is-orsaf Whitson y Grid Cenedlaethol a fyddai'n cael ei gynnwys yng ngwaith y Gorchymyn Caniatâd Datblygu (DCO). Dylai effeithiau arwyddocaol tebygol gwaith o'r fath gael eu hasesu yn y Datganiad Amgylcheddol, naill ai yn rhan o'r datblygiad arfaethedig neu yn yr asesiad o effeithiau cronol os bwriedir ceisio cydsyniad ar wahân ar ei gyfer.
215	Paragraff 2.7.10	Gweithgareddau gweithredol a chynnal a chadw	Dylai'r Datganiad Amgylcheddol ddisgrifio cwmpas a hyd posibl gwaith cynnal a chadw a fyddai'n ofynnol yn ystod gweithredu'r datblygiad arfaethedig, gan gynnwys symudiadau cerbydau rhagfynedig, niferoedd staff ac unrhyw dybiaethau sy'n sail i'r niferoedd rhagfynedig hyn. Dylai'r cynigion ar gyfer rheoli a chynnal a chadw'r tir o amgylch ac o dan y modiwlau ffotofoltäig solar yn barhaus gael eu sicrhau trwy'r DCO a'u cadarnhau yn y Datganiad Amgylcheddol, gan gynnwys unrhyw waith rheoli llystyfiant a phori gan anifeiliaid. Dylai unrhyw effeithiau niweidiol posibl o ganlyniad i weithgareddau cynnal a chadw gael eu hasesu yn y Datganiad Amgylcheddol hefyd pan fydd effeithiau arwyddocaol yn debygol o ddigwydd.
216	Adran 2.8	Datgomisiynu	Dylai'r Datganiad Amgylcheddol ddisgrifio'r gweithgareddau a'r gwaith sy'n debygol o fod yn ofynnol yn ystod datgomisiynu'r datblygiad arfaethedig, gan gynnwys yr hyd disgwyledig. Pan fydd effeithiau arwyddocaol yn debygol o ddigwydd o ganlyniad i ddatgomisiynu'r datblygiad arfaethedig, dylai'r rhain gael eu disgrifio a'u hasesu yn y Datganiad Amgylcheddol. Dylai unrhyw gynigion ar gyfer adfer y safle i ddefnydd amaethyddol neu ddefnydd arall gael eu disgrifio, hefyd.
217	Paragraffau 2.3.2 a 2.5.3	Hyblygrwydd	Er mwyn cynnal hyblygrwydd yn y dyluniad, mae'r ymgeisydd yn datgan ei fod yn bwriadu defnyddio dull 'Amlen Rochdale' yn y cais DCO. Mae nifer o gyfeiriadau yn yr Adroddiad

Rhif Adnabod	Cyfeirnod	Disgrifiad	Sylwadau'r Arolygiaeth
			<p>Cwmpasu at fireinio a dewis opsiynau amrywiol wrth i ddyluniad y prosiect ddatblygu, ac ni phenderfynwyd eto ar leoliad llawer o elfennau'r datblygiad arfaethedig o fewn safle'r cais.</p> <p>Ar adeg cyflwyno'r cais, mae'r Arolygiaeth yn disgwyl y bydd y disgrifiad o'r datblygiad arfaethedig yn ddigon manwl i gynnwys dyluniad, maint, capasiti, technoleg a lleoliadau gwahanol elfennau'r datblygiad arfaethedig (gan gynnwys cyfiawnhad iddynt) i alluogi dealltwriaeth lawn o'r effeithiau amgylcheddol posibl. Dylai hyn gynnwys ôl troed ac uchderau mwyaf strwythurau (yn berthnasol i lefelau presennol y tir), yn ogystal â gofynion defnydd tir ar gyfer pob elfen a cham o'r datblygiad. Dylai'r disgrifiad gael ei ategu (fel y bo'r angen) gan ffigurau, trawstoriadau, a lluniadau a ddylai fod wedi'u cyfeirnodu'n glir ac yn briodol. Lle y ceisir hyblygrwydd, dylai'r Datganiad Amgylcheddol amlinellu'r paramedrau dylunio a fyddai'n berthnasol yn glir a sut y defnyddiwyd y rhain i lywio asesiad digonol yn y Datganiad Amgylcheddol.</p>
218	Tabl 5-5	Goleuadau	<p>Mae'r Adroddiad Cwmpasu'n datgan efallai y bydd angen goleuadau yn ystod y cam adeiladu, ond ni ddarperir unrhyw wybodaeth am leoliadau, pŵer, amseriadau a dulliau rheoli goleuadau. Dylai'r Datganiad Amgylcheddol ddarparu manylion llawn lleoliad y goleuadau a'r math o oleuadau, ac asesu effeithiau goleuadau ar dderbynyddion ecolegol a dynol ar gyfer pob elfen a cham o'r datblygiad arfaethedig.</p>

2.2 Methodoleg AEA a Chwmpas yr Asesiad

(Adran 4 yr Adroddiad Cwmpasu)

Rhif Adnabod	Cyfeirnod	Disgrifiad	Sylwadau'r Arolygiaeth
221	Paragraff 4.8.1	Barn broffesiynol	Dylai'r Datganiad Amgylcheddol ddarparu tystiolaeth i gefnogi casgliadau neu amlygu'n glir lle y dibynnwyd ar farn broffesiynol i bennu lefel arwyddocâd effeithiau. Dylai unrhyw ddefnydd o farn broffesiynol i asesu arwyddocâd gael ei gyfiawnhau'n llawn yn y Datganiad Amgylcheddol.
222	Paragraff 4.6.8	Data gwaelodlin	Dylid sicrhau bod y data a ddefnyddir i lywio'r asesiadau yn y Datganiad Amgylcheddol yn gyfredol ac yn gynrychioliadol. Dylid dangos bod data a gafwyd gan drydydd partion yn berthnasol ac yn adlewyrchu gwaelodlin y datblygiad arfaethedig.
223	Paragraff 4.14.7	Effeithiau cronol	Mae paragraff 4.14.7 yr Adroddiad Cwmpasu'n nodi bwriad yr ymgeisydd i asesu effaith rhyngweithiadau. Mae'r Arolygiaeth yn fodlon ar y dull arfaethedig; fodd bynnag, dylai'r Datganiad Amgylcheddol hefyd asesu'r potensial i effeithiau cronol ddeillio o fesur lliniaru arfaethedig ar gyfer agwedd neu fater amgylcheddol penodol e.e. plannu i liniaru effeithiau ar y dirwedd ac effeithiau gweledol ar asedau archaeolegol claddedig ac ati.
224	Paragraff 4.10.8	Cynlluniau rheoli	Mae'r Adroddiad Cwmpasu'n nodi nifer o gynlluniau rheoli a fydd yn cael eu cynhyrchu yn rhan o'r cais DCO, gan gynnwys oCEMP, Cynllun Rheoli Tirwedd ac Ecolol Amlinellol (LEMP); a Chynllun Rheoli Traffig Adeiladu Amlinellol (CTMP). Dylai'r cynlluniau amlinellol fod yn ddigon manwl i roi hyder ynglŷn â chyflawni mesurau lliniaru, yn enwedig y rhai hynny y dibynnir arnynt yn y Datganiad Amgylcheddol i osgoi neu leihau effeithiau arwyddocaol.

Rhif Adnabod	Cyfeirnod	Disgrifiad	Sylwadau'r Arolygiaeth
225	Paragraffau 2.7.10 a 2.9.2	Monitro	Dylai'r Datganiad Amgylcheddol nodi a disgrifio unrhyw drefniadau arfaethedig i fonitro effeithiau niweidiol a sut byddai canlyniadau'r cyfryw waith monitro'n cael eu defnyddio i lywio unrhyw gamau unioni sy'n angenrheidiol.
226	Amherthnasol	Tabl Cwmpasu	Mae'r Arolygiaeth yn argymhell bod tabl yn cael ei ddefnyddio yn y Datganiad Amgylcheddol i amlinellu newidiadau allweddol i baramedrau/opsiynau'r datblygiad arfaethedig yn yr Adroddiad Cwmpasu i'r rhai hynny a gyflwynir yn y Datganiad Amgylcheddol. Argymhellir hefyd bod tabl yn cael ei ddarparu sy'n dangos sut mae'r materion a godwyd yn y Farn Gwmpasu wedi derbyn sylw yn y Datganiad Amgylcheddol a/neu ddogfennau cysylltiedig.
227	Amherthnasol	Arbenigwyr cymwys	Mae'n rhaid i'r Datganiad Amgylcheddol gynnwys datganiad gan yr ymgeisydd sy'n amlinellu arbenigedd neu gymwysterau perthnasol arbenigwyr o'r fath, fel sy'n ofynnol gan Reoliad 14 Rheoliadau AEA 2017.
228	Amherthnasol	Trawsffiniol	Mae'r Arolygiaeth, ar ran yr Ysgrifennydd Gwladol, wedi ystyried y datblygiad arfaethedig ac mae'n dod i'r casgliad ei fod yn annhebygol o gael effaith arwyddocaol ar yr amgylchedd yn un o Wladwriaethau'r Ardal Economaidd Ewropeaidd, naill ai'n unigol neu ar y cyd. Wrth ddod i'w chasgliad, mae'r Arolygiaeth wedi amlygu ac ystyried effeithiau tebygol y datblygiad arfaethedig, gan gynnwys ystyried llwybrau posibl a hyd a lled, maint, tebygolrwydd, hyd, amllder a gwrthdroadwyedd yr effeithiau. Daw'r Arolygiaeth i'r casgliad fod tebygolrwydd y datblygiad arfaethedig o achosi effeithiau trawsffiniol mor isel fel nad oes angen ymarfer sgrinio trawsffiniol manwl. Fodd bynnag, bydd y safbwynt hwn yn cael ei

Rhif Adnabod	Cyfeirnod	Disgrifiad	Sylwadau'r Arolygiaeth
			<p>adolygu'n barhaus a bydd yn ystyried unrhyw wybodaeth newydd neu sylweddol wahanol a ddaw i'r amlwg a allai newid y penderfyniad hwnnw.</p> <p>Sylwer: Mae dyletswydd yr Ysgrifennydd Gwladol o dan Reoliad 32 Rheoliadau AEA 2017 yn parhau drwy gydol proses y cais.</p> <p>Mae proses yr Arolygiaeth o sgrinio materion trawsffiniol wedi'i seilio ar yr ystyriaethau perthnasol a nodir yn yr atodiad i'w Thudalen Gyngor 'Prosiectau Seilwaith o Arwyddocâd Cenedlaethol: Cyngor ar Effeithiau Trawsffiniol a'r Broses', y mae dolenni iddi ar gael ym mharagraff 1.0.7 uchod.</p>

3. SYLWADAU AR YR AGWEDD AMGYLCHEDDOL

3.1 Tirwedd a Gweledol

(Adran 5 yr Adroddiad Cwmpasu)

Rhif Adna bod	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig eu hepgor	Sylwadau'r Arolygiaeth
31.1	Tabl 5-6	Derbynyddion y tu allan i'r Parth Gwelededd Damcaniaethol (ZTV) – pob cam	Cynigir hepgor y mater hwn ar y sail na fydd gan dderbynyddion y tu allan i'r ZTV olygfa o'r datblygiad arfaethedig. Mae'r Arolygiaeth yn cytuno bod y datblygiad arfaethedig yn annhebygol o arwain at effeithiau arwyddocaol ar dderbynyddion y tu allan i'r ZTV. Ar yr amod bod y rhestr o dderbynyddion wedi'i seilio ar y ZTV terfynol, gellir hepgor y mater hwn o'r Datganiad Amgylcheddol.
31.2	Tabl 5-6	Effeithiau anuniongyrchol ar Ardaloedd Cymeriad Tirwedd Cenedlaethol (ACTCau) – pob cam	Mae'r Adroddiad Cwmpasu'n cynnig hepgor y mater hwn ar y sail bod ACTCau o fewn yr ardal astudio'n rhychwantu ardal eang. Ar y sail y bwriedir defnyddio asesiadau lleol, mae'r Arolygiaeth yn fodlon y gellir hepgor asesiad o effeithiau ar ACTCau o asesiad pellach.
31.3	Tabl 5-6	Effeithiau anuniongyrchol ar dderbynyddion tirwedd a gweledol y tu hwnt i 5km – pob cam	Cynigir hepgor y mater hwn ar y sail na ddisgwylir effeithiau anuniongyrchol ar dderbynyddion tirwedd a gweledol y tu hwnt i'r ardal astudio 5km. Mae'r Arolygiaeth yn nodi bod y ZTV yn dangos bod y datblygiad arfaethedig yn weladwy y tu hwnt i'r ardal astudio 5km. At hynny, ni ddarparwyd digon o wybodaeth am natur a lleoliad derbynyddion posibl y tu hwnt i'r ardal astudio ddatganedig. Fel y cyfryw, nid yw'r Arolygiaeth mewn sefyllfa i hepgor y mater hwn. Dylai'r Datganiad Amgylcheddol ddarparu cyfiawnhad clir ar gyfer yr ardal astudio 5km ddatganedig, gan gynnwys cyfeiriad at y ZTV a'r effeithiau posibl ar dderbynyddion a amlygwyd.
31.4	Tabl 5-6	Effeithiau cronol y tu hwnt i 5km – pob cam	Cynigir hepgor y mater hwn ar y sail na ddisgwylir effeithiau cronol y tu hwnt i'r ardal astudio 5km. Mae'r Arolygiaeth yn nodi bod y ZTV yn dangos bod y datblygiad arfaethedig yn weladwy y tu hwnt i'r ardal astudio 5km. At hynny, ni ddarparwyd digon o

Rhif Adnabod	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig eu hepgor	Sylwadau'r Arolygiaeth
			wybodaeth am natur a lleoliad cynlluniau cronol y tu hwnt i'r ardal astudio ddatganedig. Fel y cyfryw, nid yw'r Arolygiaeth mewn sefyllfa i hepgor y mater hwn. Dylai'r Datganiad Amgylcheddol ddarparu cyfiawnhad clir ar gyfer yr ardal astudio 5km ddatganedig, gan gynnwys cyfeiriad at y ZTV a'r effeithiau posibl ar gynlluniau cronol a amlygwyd.
315	Tabl 5-6	Eiddo preswyl unigol y tu hwnt i 1km – pob cam	Cynigir hepgor y mater hwn ar y sail y disgwylir effeithiau gweledol cyfyngedig ar eiddo y tu hwnt i 1km. Ni ddarparwyd digon o wybodaeth am natur y derbynyddion hyn a hyd a lled gwelededd, felly nid yw'r Arolygiaeth yn gallu hepgor y mater hwn ar hyn o bryd.
316	Tabl 5-6	Effeithiau anuniongyrchol ar Gymeriad y Morlun – pob cam	Mae'r Adroddiad Cwmpasu'n cynnig hepgor y mater hwn ar y sail na dd disgwylir i adeiladu, gweithredu a datgomisiynu'r datblygiad arfaethedig arwain at effeithiau ar Gymeriad y Morlun. Ni roddwyd llawer o gyfiawnhad na thystiolaeth i awgrymu na fydd y datblygiad arfaethedig yn cael effeithiau arwyddocaol ar gymeriad y morlun. Fel y cyfryw, nid yw'r Arolygiaeth mewn sefyllfa i hepgor y mater hwn ar hyn o bryd. Dylai'r Datganiad Amgylcheddol asesu unrhyw effeithiau arwyddocaol ar Gymeriad y Morlun.

Rhif Adnabod	Cyfeirnod	Disgrifiad	Sylwadau'r Arolygiaeth
317	Paragraff 5.3.3	Yr ardal astudio	Mae'r Adroddiad Cwmpasu'n datgan bod yr ardal astudio ar gyfer yr Asesiad Tirwedd a Gweledol wedi'i seilio ar farn broffesiynol, gan gynnwys dealltwriaeth o gymeriad y dirwedd leol, graddau'r gweithgareddau adeiladu a datblygu a gynigir ac adolygiad o ardaloedd astudio a ddefnyddiwyd ar gyfer prosiectau solar tebyg. Mae'r Arolygiaeth o'r farn y dylai'r ardal astudio gael ei seilio ar raddau pellaf effeithiau arwyddocaol tebygol. Dylai hyn gynnwys ystyriaeth o'r ZTV.

3.2 Fflachiau a Llacharedd Solar

(Adran 6 yr Adroddiad Cwmpasu)

Rhif Adna bod	Cyfeir nod	Materion y mae'r Ymgeisydd yn cynnig eu hepgor	Sylwadau'r Arolygiaeth
321	Paragr aff 6.6.1	Fflachiau a llacharedd – adeiladu a datgomisiynu	Mae'r Adroddiad Cwmpasu'n cynnig hepgor y mater hwn ar y sail bod effeithiau fflachiau a llacharedd yn annhebygol o ddigwydd hyd nes y bydd y paneli ffotofoltäig solar wedi'u codi. Mae'r Arolygiaeth yn cytuno bod effeithiau arwyddocaol yn annhebygol o ddigwydd o ganlyniad i fflachiau a llacharedd yn ystod adeiladu a datgomisiynu. Gellir hepgor y mater hwn o'r Datganiad Amgylcheddol.
322	Paragr affau 6.4.8 – 6.4.11 a Thabl 6-7	Yr asesiad o lacharedd ar linellau rheilffordd – gweithredu	Mae'r Adroddiad Cwmpasu'n cynnig hepgor y mater hwn ar y sail bod y llinell reilffordd agosaf oddeutu 1km oddi wrth y ffin llinell goch, sydd y tu hwnt i'r trothwy 500m ar gyfer effeithiau arwyddocaol a nodir yng Nghanllawiau Asesu Fflachiau a Llacharedd Pager Power (2022). Ar y sail hon, mae'r Arolygiaeth yn cytuno bod effeithiau fflachiau a llacharedd sylweddol ar linellau rheilffordd yn annhebygol o ddigwydd. Gellir hepgor y mater hwn o asesiad pellach.
323	Paragr affau 6.4.17 – 6.4.19 a Thabl 6-7	Yr asesiad o lacharedd ar feysydd awyr – gweithredu	Cynigir hepgor y mater hwn ar y sail bod y maes awyr agosaf wedi'i leoli oddeutu 20km oddi wrth y datblygiad arfaethedig. Mae'r Arolygiaeth yn cytuno bod effeithiau arwyddocaol fflachiau a llacharedd ar feysydd awyr yn annhebygol ar y pellter hwn. Gellir hepgor y mater hwn o asesiad pellach.

Rhif Adnabod	Cyfeirnod	Disgrifiad	Sylwadau'r Arolygiaeth
324	Paragraff 6.3.1	Derbynyddion sensitif	Cynghorir yr ymgeisydd i ddefnyddio'r ZTV a ddatblygwyd ar gyfer yr Asesiad Tirwedd a Gweledol i amlygu derbynyddion sensitif â golygfeydd posibl o'r safle, y gallai fflachiau a llacharedd effeithio arnynt o'r herwydd. Dylid gwneud ymdrech i gytuno ar y derbynyddion sensitif gyda'r cyrff ymgynghori perthnasol. Dylid dangos lleoliadau'r derbynyddion sensitif ar gynllun cysylltiedig.
325	Paragraff 6.9.1	Tybiaethau	Dylai unrhyw dybiaethau a wnaed neu y dibynnwyd arnynt gael eu hamlinellu a'u cyfiawnhau'n glir yn y Datganiad Amgylcheddol.

3.3 Treftadaeth Ddiwylliannol ac Archaeoleg

(Adran 7 yr Adroddiad Cwmpasu)

Rhif Adna bod	Cyfeir nod	Materion y mae'r Ymgeisydd yn cynnig eu hepgor	Sylwadau'r Arolygiaeth
331	Tabl 7-6	Henebion Cofrestredig ac Adeiladau Rhestredig ymhellach na 5km oddi wrth y safle	Mae'r Arolygiaeth yn cytuno y gellir hepgor y mater hwn gan fod effeithiau arwyddocaol yn annhebygol ar asedau treftadaeth dynodedig y tu hwnt i 5km o safle'r datblygiad arfaethedig.
332	Paragr aff 7.6.2 a Thabl 7-6	Effeithiau ar asedau hanesyddol claddedig hysbys na chofnodwyd yn flaenorol – gweithredu	Mae'r Adroddiad Cwmpasu'n cynnig hepgor y mater hwn ar y sail na fydd mwy o darfu ar dir pan fydd y datblygiad arfaethedig yn weithredol. Ar y sail hon, mae'r Arolygiaeth yn fodlon hepgor y mater hwn o'r Datganiad Amgylcheddol.
333	Paragr aff 7.6.2 a Thabl 7-6	Effeithiau ar leoliad asedau hanesyddol ar y tir nad ydynt wedi'u dynodi sydd wedi'u lleoli mwy na 100m i ffwrdd o'r ffin llinell goch cwmpasu – pob cam	Cynigir hepgor y mater hwn ar y sail nad yw asedau nad ydynt wedi'u dynodi yn ddigon sensitif i arwain at effeithiau arwyddocaol tebygol ar leoliad y tu hwnt i'r pellter hwn. Ni ddarparwyd digon o wybodaeth am natur a lleoliad yr asedau treftadaeth hyn i ddiystyru effeithiau arwyddocaol ar eu lleoliad o ganlyniad i'r datblygiad arfaethedig. Dylai'r Datganiad Amgylcheddol gynnwys asesiad o effeithiau arwyddocaol sy'n debygol o ddigwydd neu, fel arall, gadarnhau pam na fyddent yn digwydd, gan gynnwys cadarnhad o'u lleoliad, eu rhyngweledd â'r datblygiad arfaethedig a thystiolaeth o gytundeb â'r rhanddeiliaid perthnasol.
334	Paragr aff 7.6.2	Treftadaeth ddiwylliannol ac archaeoleg – datgomisiynu	Mae'r Adroddiad Cwmpasu'n cynnig hepgor y mater hwn ar y sail y byddai unrhyw effeithiau posibl ar asedau treftadaeth wedi digwydd eisoes yn ystod adeiladu ac y bydd asedau claddedig fel ceblau a gwasanaethau yn cael eu gadael yn y fan a'r lle. Oherwydd

Rhif Adna bod	Cyfeir nod	Materion y mae'r Ymgeisydd yn cynnig eu hepgor	Sylwadau'r Arolygiaeth
	a Thabl 7-6		y gellid tarfu ar y tir yn ystod datgomisiynu a bod yr effeithiau'n debygol o fod yn debyg i'r rhai a brofir yn ystod adeiladu, mae'r Arolygiaeth o'r farn y dylai asesiad o effaith y datblygiad arfaethedig ar olion archaeolegol hysbys ac anhysbys yn ystod datgomisiynu gael ei gynnwys yn y Datganiad Amgylcheddol.
335	Tabl 7-6	Asedau hanesyddol claddedig nad ydynt wedi'u dynodi y tu allan i'r safle – adeiladu a gweithredu	Mae'r Adroddiad Cwmpasu'n cynnig hepgor y mater hwn ar y sail na fydd unrhyw effeithiau ffisegol ar yr asedau hyn, o ganlyniad i waith adeiladu a gweithredol a wneir o fewn y safle. Ar y sail hon, mae'r Arolygiaeth yn fodlon hepgor y mater hwn o'r Datganiad Amgylcheddol.

Rhif Adna bod	Cyfeir nod	Disgrifiad	Sylwadau'r Arolygiaeth
336	Amher thnasol	Delweddau	Nid yw'r Adroddiad Cwmpasu'n nodi p'un a fyddai unrhyw ffotogyfosodiadau neu gynrychioliadau gweledol yn cael eu paratoi i gefnogi'r asesiad o dreftadaeth ddiwylliannol. Dylid gwneud pob ymdrech i gytuno ar nifer a lleoliad unrhyw olygfannau sy'n ofynnol i gefnogi'r asesiad o effeithiau ar leoliadau gyda chyrff ymgynghori.
337	Paragraffau 7.5.4 a 7.8.6	Ymchwiliad pellach a gwerthusiad archaeolegol	Tynnir sylw'r ymgeisydd at ymateb Cadw i'r ymgynghoriad (Atodiad 2 y Farn hon) ynglŷn â'r potensial ar gyfer Asesiad Desg o'r Amgylchedd Hanesyddol (HEDBA) i amlygu nodweddion archaeolegol claddedig y mae angen ymchwilio iddynt ymhellach trwy arolwg geoffisegol a gwerthusiad archaeolegol, o bosibl. Dylai'r ymgeisydd wneud ymdrech i drafod a chytuno ar amseriad, cwmpas a methodoleg unrhyw ymchwiliadau a gwerthusiad dilynol gyda'r cyrff ymgynghori perthnasol.

3.4 Ecoleg

(Adran 8 yr Adroddiad Cwmpasu)

Rhif Adna bod	Cyfeir nod	Materion y mae'r Ymgeisydd yn cynnig eu hepgor	Sylwadau'r Arolygiaeth
34.1	Tabl 8-3	Effeithiau ar safle Ramsar/Ardal Cadwraeth Arbennig (ACA)/Safle o Ddiddordeb Gwyddonol Arbennig (SoDdGA) Aber Afon Hafren – gweithredu	Mae'r Adroddiad Cwmpasu'n cynnig hepgor y mater hwn ar y sail bod effeithiau posibl cyfyngedig yn gysylltiedig â gweithredu'r datblygiad arfaethedig. Nodir nad yw'r Adroddiad Cwmpasu'n ystyried y potensial ar gyfer effeithiau yn sgil diraddio ansawdd dŵr o ganlyniad i newidiadau i'r system ddraenio leol neu ollyngiad o ganlyniad i bresenoldeb paneli ffotofoltäig solar. Felly, mae'r Arolygiaeth o'r farn na ddarparwyd digon o wybodaeth am y potensial ar gyfer effeithiau gweithredol ar y safle hwn. Dylai'r Datganiad Amgylcheddol asesu'r effeithiau posibl ar safle Ramsar/ACA/SoDdGA Aber Afon Hafren yn ystod gweithredu.
34.2	Tabl 8-3	Effeithiau ar ACA Afon Wysg – adeiladu a gweithredu	Mae'r Adroddiad Cwmpasu'n cynnig hepgor y mater hwn ar y sail bod y datblygiad arfaethedig yn ddigon pell oddi wrth y safle i osgoi effeithiau arwyddocaol. Mae'r Arolygiaeth o'r farn bod potensial ar gyfer effeithiau ar yr ACA o 3.7km o hyd. At hynny, ni ddarparwyd digon o dystiolaeth i ddiystyru'r posibilrwydd y gallai effeithiau ddigwydd. Mae'r Arolygiaeth hefyd yn nodi y gallai rhywfaint o'r cynefin ar y safle, fel ffosydd draenio a ffosydd, fod â chysylltiad swyddogaethol â'r ACA i ryw raddau. Fel y cyfryw, nid yw'r Arolygiaeth mewn sefyllfa i hepgor y mater hwn. Dylai'r Datganiad Amgylcheddol asesu'r effeithiau ar ACA Afon Gwy. Tynnir sylw'r ymgeisydd at yr ymateb ymgynghori gan Cyfoeth Naturiol Cymru (CNC) am wybodaeth ychwanegol (Atodiad 2 y Farn hon).
34.3	Tabl 8-3	Effeithiau ar ACA Safleoedd Ystlumod Dyffryn Gwy a Fforest y Ddena – adeiladu a gweithredu	Cynigir hepgor y mater hwn ar y sail bod y datblygiad arfaethedig y tu allan i'r ' <i>lleoliadau sensitif</i> ' a fanylir yn ACA Safleoedd Ystlumod Dyffryn Gwy a Fforest y Ddena: Rheoli Datblygu – arolwg gweithgarwch a chanllawiau asesu Ystlumod Pedol (2021), wedi'i leoli 9.5km oddi wrth yr ACA a'r tu allan i'r ardal gynhaliath graidd ar gyfer ystlumod pedol. Ar

Rhif Adna bod	Cyfeir nod	Materion y mae'r Ymgeisydd yn cynnig eu hepgor	Sylwadau'r Arolygiaeth
			y sail hon, mae'r Arolygiaeth yn cytuno bod effeithiau arwyddocaol yn annhebygol o ddigwydd ar y safle hwn. Gellir hepgor y mater hwn o'r Datganiad Amgylcheddol.
344	Tabl 8-3	Effeithiau ar SoDdGA Cors Magwyr – adeiladu a gweithredu	Cynigir hepgor y mater hwn ar y sail bod y SoDdGA wedi'i leoli 1.2km i ffwrdd a'i fod i fyny'r afon o'r datblygiad arfaethedig. Mae'r Arolygiaeth o'r farn y gallai effeithiau ddigwydd ar y SoDdGA i fyny'r afon o 1.2km o hyd. At hynny, ni ddarparwyd digon o dystiolaeth i ddiystyru'r posibilrwydd y gallai effeithiau ddigwydd. Fel y cyfryw, nid yw'r Arolygiaeth mewn sefyllfa i hepgor y mater hwn yn gyfan gwbl. Dylai'r Datganiad Amgylcheddol ddarparu datganiad sy'n manylu ar sut mae effeithiau arwyddocaol yn annhebygol o ddigwydd, gan gyfeirio at yr holl lwybrau effaith posibl. Os amlygir unrhyw effeithiau arwyddocaol posibl, dylai'r rhain gael eu hasesu'n llawn yn y Datganiad Amgylcheddol.
345	Tabl 8-3	Effeithiau ar SoDdGA/ Gwarchodfa Natur Genedlaethol (GNG) Gwlyptiroedd Casnewydd – adeiladu a gweithredu	Cynigir hepgor y mater hwn ar y sail bod y SoDdGA wedi'i leoli 1.2km i ffwrdd o'r datblygiad arfaethedig. Mae'r Arolygiaeth o'r farn y gallai effeithiau ddigwydd ar y SoDdGA o 1.2km o hyd. At hynny, ni ddarparwyd digon o dystiolaeth i ddiystyru'r posibilrwydd y gallai effeithiau ddigwydd. Fel y cyfryw, nid yw'r Arolygiaeth mewn sefyllfa i hepgor y mater hwn yn gyfan gwbl. Dylai'r Datganiad Amgylcheddol ddarparu datganiad sy'n manylu ar sut mae effeithiau arwyddocaol yn annhebygol o ddigwydd ar y safle hwn, gan gyfeirio at yr holl lwybrau effaith posibl, gan gynnwys, er enghraifft, unrhyw lwybrau hydrolegol. Os amlygir unrhyw effeithiau arwyddocaol posibl, dylai'r rhain gael eu hasesu'n llawn yn y Datganiad Amgylcheddol.
346	Tabl 8-3	Effeithiau ar: <ul style="list-style-type: none"> Ystlumod sy'n Clwydo Pathewod Llygod y Dŵr a; 	Cynigir hepgor effeithiau ar y rhywogaethau hyn ar y sail y bwriedir cadw coed a allai fod yn glwydfannau ystlumod, y bwriedir sefydlu parthau clustogi ffosydd draenio a, phan fydd y paneli solar wedi'u codi, bod effeithiau uniongyrchol ar y rhywogaethau a'r cynefinoedd hyn yn annhebygol o ddigwydd. Mae'r Arolygiaeth yn cytuno bod effeithiau uniongyrchol ar y rhywogaethau hyn yn annhebygol o ddigwydd yn ystod gweithredu'r datblygiad arfaethedig ac y gellir eu hepgor o'r Datganiad Amgylcheddol.

Rhif Adna bod	Cyfeir nod	Materion y mae'r Ymgeisydd yn cynnig eu hepgor	Sylwadau'r Arolygiaeth
		<ul style="list-style-type: none"> Llygod yr Yd - gweithredu 	

Rhif Adna bod	Cyfeir nod	Disgrifiad	Sylwadau'r Arolygiaeth
34.7	Amher thnasol	Ffigurau gwaelodlin	Dylai'r Datganiad Amgylcheddol ddarparu ffigurau ar wahân sy'n manylu ar yr ardaloedd lle y cynhaliwyd arolygon gwaelodlin (a'r ardaloedd na arolygwyd) a defnyddiau tir presennol y safle. Tynnir sylw'r ymgeisydd at yr ymateb ymgynghori gan Cyfoeth Naturiol Cymru (CNC) am wybodaeth ychwanegol (Atodiad 2 y Farn hon).
34.8	Tabl 8-2	Arolygon gwaelodlin	Mae arolygon gwaelodlin blaenorol a gynhaliwyd ar gyfer y datblygiad arfaethedig yn cynnwys Arolwg Cynefin Cam 1 a gynhaliwyd yn 2019 ac arolwg Dosbarthiad Cynefin y Deyrnas Unedig a gynhaliwyd yn 2023. Er mwyn osgoi amheuaeth, dylai unrhyw ddiweddariad i arolwg 2018 ddefnyddio methodoleg yr Arolwg Cynefin Cam 1. Tynnir sylw'r ymgeisydd at yr ymateb ymgynghori gan Cyfoeth Naturiol Cymru (CNC) am wybodaeth ychwanegol (Atodiad 2 y Farn hon).
34.9	Paragr affau 10.9.4, 17.5.5 a 17.5.6	Meysydd Electromagnetig (EMF)	<p>Mae'r Arolygiaeth yn nodi na chytunwyd ar y dull o groesi cyrsiau dŵr gyda cheblau eto ac y gallai technegau adeiladu di-ffos gael eu defnyddio lle y bo'n briodol. Heb wybodaeth ychwanegol, fel manylion am y dull a'r llwybr terfynol ar gyfer ceblau, mae'r Arolygiaeth o'r farn y gallai pridd gael ei wresogi gan geblau ac y gallai EMF effeithio ar dderbynyddion ecolegol, gan gynnwys y rhai hynny o fewn cyrsiau dŵr, fel pysgod.</p> <p>Dylai'r Datganiad Amgylcheddol ystyried y posibilrwydd y gallai EMF effeithio ar dderbynyddion ecolegol, gan gynnwys y rhai hynny o fewn cyrsiau dŵr yr effeithir arnynt. Dylai'r Datganiad Amgylcheddol hefyd egluro'r dull gosod ceblau sy'n ofynnol i groesi</p>

Rhif Adna bod	Cyfeir nod	Disgrifiad	Sylwadau'r Arolygiaeth
			cyrsgiau dŵr perthnasol a disgrifio unrhyw fesurau dylunio sydd ar waith a fyddai'n cyfyngu ar y potensial ar gyfer effeithiau EMF.

3.5 Adareg

(Pennod 9 yr Adroddiad Cwmpasu)

Rhif Adna bod	Cyfeir nod	Materion y mae'r Ymgeisydd yn cynnig eu hepgor	Sylwadau'r Arolygiaeth
35.1	Tabl 9-3	Aflonyddu'n weledol ar safle Ramsar (nodweddion adaregol) ac Ardal Gwarchodaeth Arbennig (AGA) Aber Afon Hafren – adeiladu	<p>Mae'r Adroddiad Cwmpasu'n cynnig hepgor effeithiau aflonyddu gweledol ar safle Ramsar (nodweddion adaregol) ac AGA Aber Afon Hafren ar y sail y byddai presenoldeb y morglawdd rhwng y safle a'r aber yn darparu sgrin weledol.</p> <p>Nid yw'r Arolygiaeth o'r farn y darparwyd digon o dystiolaeth i ddangos na fyddai effeithiau ar nodweddion adaregol AGA a safle Ramsar Aber Afon Hafren o ganlyniad i aflonyddu gweledol yn ystod adeiladu. Dylai'r mater hwn gael ei asesu yn y Datganiad Amgylcheddol lle mae effeithiau arwyddocaol yn debygol o ddigwydd, neu dylid darparu tystiolaeth i ddangos absenoldeb effeithiau arwyddocaol tebygol, gan gynnwys cytundeb â'r cyrff ymgynghori perthnasol. Tynnir sylw'r ymgeisydd at yr ymateb ymgynghori gan CNC (Atodiad 2 y Farn hon) ynglŷn â'r arolwg aflonyddu a gomisiynwyd ganddo yn 2024 "Monitro Sŵn ac Aflonyddu Gweledol yn AGA/ACA/safle Ramsar/SoDdGA Aber Afon Hafren".</p>
35.2	Tabl 9-3	Safle Ramsar (nodweddion adaregol) ac AGA Aber Afon Hafren – gweithredu	<p>Mae'r Adroddiad Cwmpasu'n cynnig hepgor y mater hwn ar y sail bod y cam gweithredol yn annhebygol o achosi effeithiau uniongyrchol neu anuniongyrchol oherwydd nad yw cynlluniau solar yn creu sŵn na difrod pan fyddant ar waith. Cynigir hepgor aflonyddu gweledol hefyd o ganlyniad i'r morglawdd uchel rhwng y safle a'r aber.</p> <p>Heb dystiolaeth nad yw'r safle'n darparu tir swyddogaethol gysylltiedig sy'n cynnal nodweddion adaregol safle Ramsar ac AGA Aber Afon Hafren, a thystiolaeth sy'n dangos cytundeb clir â'r cyrff ymgynghori perthnasol, nid yw'r Arolygiaeth mewn sefyllfa i gytuno i hepgor y materion hyn o'r asesiad.</p>

Rhif Adna bod	Cyfeir nod	Materion y mae'r Ymgeisydd yn cynnig eu hepgor	Sylwadau'r Arolygiaeth
			Yn unol â hynny, dylai'r Datganiad Amgylcheddol gynnwys asesiad o'r materion hyn neu wybodaeth sy'n dangos cytundeb â'r cyrff ymgynghori perthnasol ac absenoldeb effaith arwyddocaol debygol.

Rhif Adna bod	Cyfeir nod	Disgrifiad	Sylwadau'r Arolygiaeth
353	Paragr affau 9.3.1, 9.4.2 a Thabl 9-1	Yr ardal astudio	Mae'r Adroddiad Cwmpasu'n datgan bod chwiliad wedi cael ei gynnal o offeryn ar-lein llywodraeth y Deyrnas Unedig, sef Gwybodaeth Ddaearyddol Amlasiantaethol ar gyfer Cefn Gwlad (MAGIC), ar gyfer safleoedd y Rhwydwaith Safleoedd Rhyngwladol/ Cenedlaethol hyd at 10km o safle'r cais, yn ymwneud ag adar yn unig. Dylai'r Datganiad Amgylcheddol sicrhau bod yr ardal astudio ar gyfer pob derbynnydd ecolegol yn adlewyrchu Parth Dylanwad (Zol) y datblygiad arfaethedig yn hytrach na bod yn seiliedig ar bellter penodedig. O ran safleoedd a ddynodwyd yn rhyngwladol, dylai'r Datganiad Amgylcheddol ystyried y potensial i effeithiau ddigwydd y tu hwnt i 10km. Dylid gwneud ymdrech i gytuno ar yr ardal(oedd) astudio gyda'r cyrff ymgynghori perthnasol.
354	Tabl 9-2	Arolwg tylluanod gwynion	Mae'r Arolygiaeth yn nodi na chynigiwyd arolwg penodol i rywogaeth ar gyfer tylluanod gwynion sy'n bridio/chwilota am fwyd. Tynnir sylw'r ymgeisydd at yr ymateb ymgynghori gan CNC (Atodiad 2 y Farn hon) ynglŷn â'r angen am arolygon tylluanod gwynion yn ystod y tymor bridio. Dylai'r ymgeisydd geisio cytuno ar gwmpas ac amseriad arolygon gyda'r cyrff ymgynghori perthnasol.
355	Tabl 9-1	SoDdGA Cronfa Ddŵr Llandegfedd a SoDdGA Ynys Echni	Tynnir sylw'r ymgeisydd at yr ymateb ymgynghori gan CNC (Atodiad 2 y Farn hon) sy'n cynghori bod SoDdGA Cronfa Ddŵr Llandegfedd a SoDdGA Ynys Echni yn cael eu cynnwys yn y Datganiad Amgylcheddol. Dylid gwneud ymdrech i gytuno ar y safleoedd

Rhif Adna bod	Cyfeir nod	Disgrifiad	Sylwadau'r Arolygiaeth
			dynodedig sydd i'w cynnwys ar gyfer diddordeb adaregol gyda'r cyrff ymgynghori perthnasol.
356	Paragr aff 9.8.1	Mesurau lliniaru a gwelliannau	Tynnir sylw'r ymgeisydd at yr ymateb ymgynghori gan CNC (Atodiad 2 y Farn hon) ynglŷn â manylion mesurau lliniaru priodol, gwelliannau a manylion ar gyfer monitro unrhyw fesurau lliniaru arfaethedig ar ôl adeiladu.

3.6 Yr Amgylchedd Dŵr a Pherygl Llifogydd

(Adran 10 yr Adroddiad Cwmpasu)

Rhif Adnabod	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig eu hepgor	Sylwadau'r Arolygiaeth
361	Paragraff 10.3.3	Effeithiau ar yr amgylchedd dŵr a derbynyddion perygl llifogydd y tu hwnt i 1.5km i lawr yr afon o'r ffin llinell goch – pob cam	Mae'r Adroddiad Cwmpasu'n cynnig hepgor y mater hwn ar y sail yr ystyrir bod radiws 1.5km o'r ffin llinell goch yn ddigonol, yn seiliedig ar farn broffesiynol, i gynnwys yr holl agweddau perthnasol. Nid yw'r Adroddiad Cwmpasu'n cyfiawnhau'r ardal astudio adnoddau dŵr yn glir. Mae'r Arolygiaeth o'r farn y dylai'r Datganiad Amgylcheddol ddiffinio'r ardal astudio'n glir yn seiliedig ar y Zol, hydroleg y safle a'r potensial ar gyfer effeithiau arwyddocaol. Dylid ystyried derbynyddion i fyny'r afon hefyd, lle y bo'n briodol.
362	Tabl 10-12	Effeithiau ar yr Ecosystem Ddaearol sy'n Dibynnu ar Ddŵr Daear (GWTDE) – pob cam	Cynigir hepgor y mater hwn ar y sail bod y GWTDE a amlygwyd wedi'i lleoli i fyny'r afon o'r safle, ac felly ei bod yn annhebygol y bydd effaith arni. Nodir yn Nhabl 10-11 a Pharagraff 10.7.4 yr amlygwyd effeithiau anuniongyrchol posibl ar GWTDE Gwarchodfa Natur Cors Magwyr. Mae hyn yn groes i'r cyfiawnhad a roddwyd dros hepgor y mater hwn. Fel y cyfryw, nid yw'r Arolygiaeth yn fodlon hepgor y mater hwn. Dylai'r Datganiad Amgylcheddol asesu'r holl effeithiau a allai fod yn arwyddocaol ar GWTDE Gwarchodfa Natur Cors Magwyr.

Rhif Adnabod	Cyfeirnod	Disgrifiad	Sylwadau'r Arolygiaeth
363	Paragraff 10.4.15	Effeithiau ar gynnal a chadw ffosydd draenio	Mae nifer o ffosydd draenio wedi'u lleoli o fewn ffin y safle. Ni ddylai lleoliad strwythurau sy'n gysylltiedig â'r datblygiad arfaethedig rwystro cynnal a chadw ffosydd draenio, a dylid ystyried effeithiau posibl y cynllun ar gynnal a chadw ffosydd draenio yn y Datganiad

Rhif Adnabod	Cyfeirnod	Disgrifiad	Sylwadau'r Arolygiaeth
			Amgylcheddol. Tynnir sylw'r ymgeisydd at ymateb ymgynghori CNC (Atodiad 2 y Farn hon) yn hyn o beth.
364	Paragraff 10.6.13	Arolygon ffosydd draenio a ffosydd	Tynnir sylw'r ymgeisydd at ymateb ymgynghori CNC (Atodiad 2 y Farn hon) ynglŷn â'r angen am unrhyw arolygon ffosydd draenio a ffosydd i lywio gwaith monitro ansawdd dŵr.
365	Paragraff 10.7.5	Y Gyfarwydddeb Fframwaith Dŵr (WFD)	Mae'r Adroddiad Cwmpasu'n amlygu'r potensial ar gyfer halogi cyrff dŵr wyneb a dŵr daear. O ystyried lleoliad daearyddol y datblygiad arfaethedig, dylai'r Datganiad Amgylcheddol ystyried yr effeithiau posibl ar gyrff dŵr yr WFD. Tynnir sylw'r ymgeisydd at dudalen gyngor yr Arolygiaeth: Cyngor ar y Gyfarwydddeb Fframwaith Dŵr yn hyn o beth. Dylai'r Datganiad Amgylcheddol esbonio'r berthynas rhwng y datblygiad arfaethedig ac unrhyw gyrff dŵr perthnasol o ran y Cynllun Rheoli Basn Afon perthnasol presennol. Dylai'r Datganiad Amgylcheddol ddarparu asesiad WFD (neu asesiad sgrinio sy'n esbonio pam nad oes angen asesiad llawn) i lywio asesiad y Datganiad Amgylcheddol. Dylid cytuno ar y dull a'r canfyddiadau gyda CNC.

3.7 Cyflwr y Tir

(Adran 11 yr Adroddiad Cwmpasu)

Rhif Adnabod	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig eu hepgor	Sylwadau'r Arolygiaeth
37.1	Paragraff 11.4.8	Tir amaethyddol	Cynigir hepgor y mater hwn ar y sail bod Map 2 y Dosbarthiad Tir Amaethyddol Rhagfynegol a ddarparwyd gan Lywodraeth Cymru yn dangos bod y safle'n debygol o gynnwys tir Dosbarthiad Tir Amaethyddol gradd 3(b) a 4 yn bennaf. Mae'r Arolygiaeth yn nodi y bwriedir cwblhau arolwg Dosbarthiad Tir Amaethyddol ar gyfer y safle i gadarnhau hyn. Ar yr amod bod canlyniadau'r arolwg Dosbarthiad Tir Amaethyddol yn cadarnhau'r graddau a nodwyd gan y map rhagfynegol, gellir hepgor y mater hwn o asesiad pellach. Fodd bynnag, os bydd yr arolwg Dosbarthiad Tir Amaethyddol yn amlygu unrhyw dir amaethyddol Gorau a Mwyaf Amlbwrpas (BMV), dylid ystyried goblygiadau hyn yn y Datganiad Amgylcheddol.
37.2	Tabl 11-12	Effeithiau ar ddaear (geoamrywiaeth) – pob cam	Cynigir hepgor y mater hwn ar y sail nad yw'r safle a'r ardal astudio'n cynnwys unrhyw dderbynyddion daearegol sensitif. Ar y sail hon, mae'r Arolygiaeth yn fodlon hepgor y mater hwn o'r Datganiad Amgylcheddol.
37.3	Tabl 11-12	Effeithiau ar ddaear (sefydlogrwydd tir) – pob cam	Cynigir hepgor y mater hwn ar y sail y byddai sefydlogrwydd tir yn cael ei ystyried drwy gydol y broses dylunio ac adeiladu ac yn cael ei lywio gan astudiaeth ddesg geo-amgylcheddol ac arolygon pellach. Mae'r Arolygiaeth yn fodlon ar y dull hwn. Gellir hepgor y mater hwn o'r Datganiad Amgylcheddol.
37.4	Tabl 11-12	Effeithiau ar adnoddau mwynau – pob cam	Mae'r Adroddiad Cwmpasu'n cynnig hepgor y mater hwn ar y sail nad yw'n debygol y bydd effaith ar ddyddodion tywod a gro arwynebol yn union i'r de-ddwyrain o'r safle ac nad oes unrhyw dderbynyddion mwynau eraill yn agos i'r datblygiad arfaethedig. Ar y sail hon, mae'r Arolygiaeth yn cytuno bod y datblygiad arfaethedig yn annhebygol o gael

Rhif Adnabod	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig eu hepgor	Sylwadau'r Arolygiaeth
			unrhyw effeithiau arwyddocaol ar adnoddau mwynau, ac y gellir hepgor y mater hwn o'r Datganiad Amgylcheddol.

Rhif Adnabod	Cyfeirnod	Disgrifiad	Sylwadau'r Arolygiaeth
375	Amhert hnasol	Diraddiad cydrannau	Dylai'r Datganiad Amgylcheddol ystyried effaith rhyddhau a gollwng cemegau peryglus trwy ddiraddiad cydrannau'r fferm solar wrth iddynt gael eu defnyddio.
376	Paragraff 2.8.3	Gadael ceblau yn y fan a'r lle	Mae'r Arolygiaeth yn nodi'r bwriad i adael seilwaith claddedig, fel ceblau, yn y fan a'r lle. Dylai'r Datganiad Amgylcheddol asesu'r potensial i'r seilwaith hwn ddiraddio a rhyddhau cemegau peryglus. Tynnir sylw'r ymgeisydd at yr ymateb ymgynghori gan CNC am wybodaeth ychwanegol (Atodiad 2 y Farn hon).

3.8 Traffig a Thrafnidiaeth

(Adran 12 yr Adroddiad Cwmpasu)

Rhif Adnabod	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig eu hepgor	Sylwadau'r Arolygiaeth
38.1	Paragraff 12.7.5	Y rhwydwaith priffyrdd a derbynyddion – gweithredu	<p>Mae'r Adroddiad Cwmpasu'n cynnig hepgor y mater hwn ar y sail y byddai cludo llwythi i'r safle'n lleiafswm yn ystod y cam gweithredol ac y byddai'n ofynnol i amnewid seilwaith ac ar gyfer mân weithgareddau cynnal a chadw yn unig.</p> <p>Mae'r Arolygiaeth yn cytuno y bydd symudiadau gweithredol yn isel ac felly'n annhebygol o arwain at unrhyw effeithiau arwyddocaol tebygol. Mae'r Arolygiaeth yn fodlon hepgor y mater hwn o asesiad pellach ar yr amod bod y disgrifiad o'r datblygiad yn y Datganiad Amgylcheddol yn cadarnhau mathau a niferoedd cerbydau (gan gyfeirio at drothwyon o fewn canllawiau perthnasol) i gyfiawnhau'r safbwynt hwn.</p>

Rhif Adnabod	Cyfeirnod	Disgrifiad	Sylwadau'r Arolygiaeth
382	Paragraffau 12.5.2-12.5.6	Amodau gwaelodlin	Dylai'r Datganiad Amgylcheddol amlygu lleoliadau arolygon cyfrif traffig, esbonio sut y dewiswyd y lleoliadau hyn a chadarnhau pryd yn union y cynhaliwyd yr ymarferion cyfrif. Dylid gwneud ymdrech i gytuno ar y manylion hyn gyda'r awdurdodau priffyrdd lleol perthnasol. Er mwyn rhoi sicrwydd bod yr asesiad o effeithiau arwyddocaol tebygol yn cael ei gefnogi gan set ddata gadarn, dylai'r Datganiad Amgylcheddol gynnwys cyfiawnhad i gefnogi hyd a lled yr ymdrech arolygu, gan gynnwys pam yr ystyrir bod y data traffig a gasglwyd yn cynrychioli amodau llif nodweddiadol (niwtral) ar y rhwydwaith.
38.3	Paragraff 12.3.3	Y Rhwydwaith Ffyrdd Strategol (SRN)	Mae'r Adroddiad Cwmpasu'n datgan y bydd yr ardal astudio'n cynnwys unrhyw ffyrdd a fyddai'n cael eu defnyddio fel llwybrau cludo ar gyfer danfoniadau i fyny i'r prif rwydwaith

Rhif Adnabod	Cyfeirnod	Disgrifiad	Sylwadau'r Arolygiaeth
	a Ffigur 12-1		ffyrdd. Fodd bynnag, nid yw'r Adroddiad Cwmpasu'n trafod effeithiau arwyddocaol tebygol ar yr SRN ei hun. O ystyried bod cerbydau adeiladu'n debygol o gyrraedd y datblygiad arfaethedig trwy'r SRN, dylai'r Datganiad Amgylcheddol gynnwys asesiad o effeithiau traffig ar yr SRN (gan gynnwys yr M4, Pont Tywysog Cymru, yr M48 a Phont Hafren, yr M49 a'r M5) yn ystod adeiladu a datgomisiynu sy'n debygol o arwain at effeithiau arwyddocaol. Tynnir sylw'r ymgeisydd at sylwadau gan National Highways (Atodiad 2 y Farn hon) yn hyn o beth.
384	Tabl 12-1	Hawliau Tramwy Cyhoeddus (PRoW) a llwybrau hamdden eraill	Dylai'r asesiad o effeithiau ar ddefnyddwyr PRoW a llwybrau hamdden gael ei gefnogi gan gyfrifiadau cerddwyr/defnyddwyr lle y bo'n bosibl, a dylid gwneud ymdrech i gytuno ar leoliadau cyfrifiadau o'r fath gyda'r cyrff ymgynghori perthnasol. Lle y bo'n berthnasol, dylai'r Datganiad Amgylcheddol asesu rhyngweithiadau posibl rhwng asesiadau agwedd (er enghraifft, traffig a thrafnidiaeth, sŵn, llwch, hamdden ac effaith weledol). Dylai lleoliadau unrhyw wyriadau neu llwybrau sy'n cael eu cau gael eu dangos ar ffigurau addas yn y Datganiad Amgylcheddol.
385	Amhert hnasol	Llwythi Anwahanadwy Anghyffredin	Dylai'r Datganiad Amgylcheddol nodi p'un a oes angen unrhyw symudiadau Llwythi Anwahanadwy Anghyffredin ac asesu unrhyw effeithiau arwyddocaol tebygol posibl.

3.9 Sŵn a Dirgryniad

(Adran 13 yr Adroddiad Cwmpasu)

Rhif Adnabod	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig eu hepgor	Sylwadau'r Arolygiaeth
39.1	Tabl 13-11, Tabl 12-3 a pharagraff 13.3.8	Dirgryniad a gludir trwy'r ddaear gan draffig ffyrdd – pob cam	<p>Mae'r Adroddiad Cwmpasu'n cynnig hepgor y mater hwn ar y sail na ystyrir bod effeithiau arwyddocaol yn debygol a bod nifer o faterion yn gysylltiedig ag asesu dirgryniad a gludir trwy'r ddaear. Mae'r Adroddiad Cwmpasu'n cyfeirio at y Llawlyfr Dylunio Ffyrdd a Phontydd (DMRB LA 111), sy'n datgan y dylai dirgryniad gweithredol gael ei hepgor o'r fethodoleg asesu gan y bydd arwyneb ffordd a gynhelir yn rhydd rhag afreoleidd-dra yn rhan o ddyluniad prosiect a thrwy gynnal a chadw cyffredinol.</p> <p>O ystyried faint o draffig y rhagfynegir y bydd y datblygiad arfaethedig yn ei greu yn ystod adeiladu, mae'r Arolygiaeth yn cytuno y gellir hepgor dirgryniad traffig ffyrdd o'r asesiad. Dylai'r disgrifiad o'r datblygiad yn y Datganiad Amgylcheddol gadarnhau mathau a niferoedd cerbydau ar gyfer pob cam datblygu (gan gyfeirio at drothwyon o fewn canllawiau perthnasol) i gyfiawnhau'r safbwynt hwn.</p>
39.2	Tabl 13-11 a pharagraff 13.6.4	Dirgryniad gweithredol	<p>Mae'r Adroddiad Cwmpasu'n cynnig hepgor y mater hwn ar y sail na fyddai peiriannau gweithredol yn achosi dirgryniad a gludir trwy'r ddaear.</p> <p>O ystyried nodweddion y datblygiad arfaethedig, mae'r Arolygiaeth yn fodlon i'r mater hwn gael ei hepgor. Dylai'r Datganiad Amgylcheddol ddangos bod y math o beiriannau ac offer a'r manau lle y'u defnyddir yn annhebygol o arwain at effeithiau dirgryniad sylweddol ar dderbynyddion sensitif.</p>

Rhif Adnabod	Cyfeirnod	Disgrifiad	Sylwadau'r Arolygiaeth
393	Paragraff 13.3.3 a Ffigur 13-1	Yr ardal astudio	Mae paragraff 13.3.3 yn diffinio'r ardaloedd astudio arfaethedig. Dylai'r Datganiad Amgylcheddol esbonio sut y dewiswyd yr ardaloedd astudio gan gyfeirio at hyd a lled effeithiau tebygol y datblygiad arfaethedig a thystiolaeth ategol berthnasol fel manylion peiriannau ac offer, modelu sŵn/mapio cyfuchliniau sŵn neu ganllawiau perthnasol.
394	Paragraffau 13.5.7-13.5.9	Arolwg sylfaenol	<p>Mae'r Adroddiad Cwmpasu'n datgan y cynigir rhaglen o waith monitro acwstig sylfaenol a fydd yn canolbwyntio ar bennu'r lefelau sŵn sylfaenol mewn lleoliadau sy'n gynrychioliadol o'r derbynyddion hynny sy'n debygol o brofi'r lefelau sŵn amgylchynol sylfaenol isaf, a'r lefelau sŵn adeiladu a/neu weithredol uchaf tebygol o ganlyniad i adeiladu a gweithredu'r datblygiad arfaethedig.</p> <p>Dylai'r Datganiad Amgylcheddol esbonio sut y dewiswyd y lleoliadau monitro sŵn sylfaenol a sut yr ystyrir eu bod yn gynrychioliadol o dderbynyddion cyfagos. Dylid cytuno ar y lleoliadau monitro gydag ymgynghoreion perthnasol.</p>
395	Amhertnasol	Derbynyddion – croesgyfeirio	<p>Mae'r Arolygiaeth o'r farn y gallai sŵn a dirgryniad arwain at effeithiau niweidiol ar dderbynyddion tirwedd a gweledol hefyd, o ran llonyddwch er enghraifft, ac ar asedau treftadaeth ddiwylliannol. Dylid croesgyfeirio at effeithiau niweidiol posibl ar y dirwedd a threftadaeth ddiwylliannol ym mhenodau agwedd perthnasol y Datganiad Amgylcheddol. Dylai'r Datganiad Amgylcheddol hefyd ystyried p'un a oes angen ystyried unrhyw dderbynyddion ecolegol mewn perthynas ag effeithiau sy'n gysylltiedig â sŵn a dirgryniad. Dylai'r ymgeisydd geisio cytundeb gan y cyrff ymgynghori perthnasol ar unrhyw dderbynyddion ecolegol a chroesgyfeirio i benodau perthnasol yn y Datganiad Amgylcheddol.</p>

3.10 Gwrthsefyll y Newid yn yr Hinsawdd

(Adran 14 yr Adroddiad Cwmpasu)

Rhif Adnabod	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig eu hepgor	Sylwadau'r Arolygiaeth
3.10.1	Tabl 14-10 a pharagraffau 14.61, 14.6.2 a 14.6.9	Bregusrwydd asedau'r datblygiad arfaethedig i'r newid yn yr hinsawdd – adeiladu a datgomisiynu	<p>Mae'r Adroddiad Cwmpasu'n cynnig hepgor y mater hwn yn ystod adeiladu a datgomisiynu ar y sail yr ystyrir bod amlygiad i dueddiadau a pheryglon y newid yn yr hinsawdd yn ystod y camau adeiladu a datgomisiynu yn isel o ganlyniad i amserlen fer y camau hyn. Mae'r Adroddiad Cwmpasu'n datgan ymhellach y byddai oCEMP yn cael ei ddefnyddio yn ystod adeiladu i reoli ymatebion i amodau tywydd eithafol. Byddai ymatebion i ddigwyddiadau tywydd eithafol a'r newid yn yr hinsawdd yn cael eu rheoli yn ystod datgomisiynu yn unol â'r gofynion deddfwriaethol bryd hynny.</p> <p>Ar y sail y cyflwynir oCEMP gyda'r cais DCO sy'n cynnwys mesurau o'r fath ac o ystyried cyfnod byr a natur y gwaith adeiladu a datgomisiynu, mae'r Arolygiaeth yn cytuno nad yw effeithiau'n debygol o fod yn arwyddocaol ac y gellir eu hepgor o asesiad pellach.</p>
3.10.2	Tablau 14-9 a 14-10	Bregusrwydd asedau'r datblygiad arfaethedig i'r newid yn yr hinsawdd – gweithredu	<p>Mae'r Adroddiad Cwmpasu'n cynnig hepgor y mater hwn yn ystod gweithredu ar y sail bod y mesurau lliniaru a fanylir yn Nhabl 14-9 yn dangos y gall y datblygiad arfaethedig wrthsefyll y newid yn yr hinsawdd ar hyd cylch oes yr asedau. Mae'n datgan ymhellach y byddai seilwaith allweddol yn cael ei ddylunio i allu gwrthsefyll y newid yn yr hinsawdd ar hyd oes yr ased. Mae'r Arolygiaeth yn nodi bod y safle'n elwa o amddiffynfeydd arfordirol presennol ac y byddai Asesiad Canlyniadau Llifogydd yn cael ei gynnal yn rhan o'r Datganiad Amgylcheddol a fyddai'n amlygu mesurau lliniaru ychwanegol i warchod yr asedau rhag perygl llifogydd sy'n cynyddu yn sgil y newid yn yr hinsawdd.</p> <p>Ar sail bod y mesurau lliniaru a fanylir yn Nhabl 14-9 yn cael eu sicrhau'n briodol yn y DCO, mae'r Arolygiaeth yn cytuno i hepgor y mater hwn o asesiad pellach.</p>

Rhif Adnabod	Cyfeirnod	Disgrifiad	Sylwadau'r Arolygiaeth
3.103	Amherthnasol	Amherthnasol	Amherthnasol

3.11 Asesiad Nwyon Tŷ Gwydr

(Adran 15 yr Adroddiad Cwmpasu)

Rhif Adnabod	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig eu hepgor	Sylwadau'r Arolygiaeth
3.11.1	Tabl 15-6	Allyriadau nwyon tŷ gwydr o ddefnydd tir, newid i ddefnydd tir a choedwigaeth – pob cam	Mae'r Arolygiaeth yn cytuno y gellir hepgor y mater hwn gan fod y datblygiad arfaethedig yn annhebygol o achosi allyriadau nwyon tŷ gwydr sylweddol o'r newid i ddefnydd tir yn ystod pob cam. Mae hyn o ganlyniad i'r tarfu lleiafsymiol a gynigir i'r tir (cloddio ar gyfer gosod seilbyst a llwybr ceblau/llwybrau mynediad yn unig) ac o ystyried natur y newid i ddefnydd tir, y bwriedir iddo aros fel tir amaethyddol a thir pori gan ddefaid.
3.11.2	Tabl 15-6	Allyriadau nwyon tŷ gwydr sy'n deillio o'r canlynol: <ul style="list-style-type: none"> gwaredu gwastraff – adeiladu allyriadau y gellir eu priodoli i gynhyrchion a deunyddiau – gweithredu defnyddio ynni – gweithredu defnyddio dŵr – gweithredu 	Dylai'r Datganiad Amgylcheddol ddarparu asesiad o allyriadau nwyon tŷ gwydr ar gyfer oes gyfan y datblygiad arfaethedig yn unol â'r canllawiau sydd ar gael a/neu safonau ar asesu nwyon tŷ gwydr. Mae hyn yn cynnwys ystyried allyriadau nwyon tŷ gwydr o'r gweithgareddau a restrwyd yn ystod adeiladu, gweithredu a datgomisiynu. Felly, dylai'r materion hyn gael eu hasesu ar gyfer oes y datblygiad arfaethedig ac nid yw'r Arolygiaeth yn cytuno i hepgor y materion hyn o asesiad pellach.

		<ul style="list-style-type: none"> • prosesau gweithredol eraill – gweithredu • dadadeiladu'r datblygiad arfaethedig – datgomisiynu • trafnidiaeth i gyfleusterau diwedd oes – datgomisiynu • prosesu cydrannau – datgomisiynu • gwaredu cydrannau – datgomisiynu 	
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Rhif Adnabod	Cyfeirnod	Disgrifiad	Sylwadau'r Arolygiaeth
311.3	Paragraff 15.5.5	Methodoleg asesu allyriadau nwyon tŷ gwydr	Dylai'r Datganiad Amgylcheddol nodi'r canllawiau a ddefnyddiwyd i lywio'r fethodoleg asesu. Dylai gwyriadau o'r canllawiau a ddefnyddiwyd gael eu cyfiawnhau'n glir yn y Datganiad Amgylcheddol. Dylai'r Datganiad Amgylcheddol geisio cytuno ar y dull o asesu nwyon tŷ gwydr gyda'r cyrff ymgynghori perthnasol a dylid darparu tystiolaeth o unrhyw gytundeb yn y Datganiad Amgylcheddol.
311.4	Paragraff 15.5.1	Tybiaethau asesu allyriadau nwyon tŷ gwydr	Dylai'r asesiad nwyon tŷ gwydr yn y Datganiad Amgylcheddol ddisgrifio unrhyw dybiaethau a wnaed i bennu gweithgareddau eraill sy'n cynhyrchu trydan ac esbonio'r hyn a olygir gan "osgoi neu ddadleoli" o ganlyniad i'r datblygiad arfaethedig.

3.12 Materion Economaidd-gymdeithasol, Twristiaeth a Hamdden

(Adran 16 yr Adroddiad Cwmpasu)

Rhif Adnabod	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig eu hepgor	Sylwadau'r Arolygiaeth
3.121	Tabl 16-8	Effeithiau uniongyrchol, anuniongyrchol ac a gymhellwyd ar gyflogaeth/y farchnad lafur – gweithredu	Cynigir hepgor y mater hwn ar y sail y byddai nifer y cyflogeion a'r gwariant gweithredol cysylltiedig yn annhebygol o arwain at effeithiau arwyddocaol. Ar yr amod bod y Datganiad Amgylcheddol yn nodi nifer y cyflogeion sy'n ofynnol ar gyfer gweithredu'r datblygiad arfaethedig, mae'r Arolygiaeth yn cytuno y byddai gweithredu'r datblygiad arfaethedig yn annhebygol o gael effeithiau arwyddocaol ar farchnadoedd llafur. Gellir hepgor y mater hwn o'r Datganiad Amgylcheddol.
3.122	Tabl 16-8	Effeithiau uniongyrchol, anuniongyrchol ac a gymhellwyd ar wasanaethau lleol a busnesau twristiaeth (h.y. lletygarwch a manwerthu) – pob cam	Cynigir hepgor y mater hwn ar y sail bod tair dinas fawr o fewn awr o daith mewn car, ac felly ei bod yn annhebygol y bydd effeithiau ar letygarwch neu wasanaethau manwerthu lleol. Nid yw'r cyfiawnhad a roddwyd yn mynd i'r afael ag effeithiau posibl ar fusnesau twristiaeth. At hynny, mae paragraff 16.6.4 yn datgan y bwriedir cynnwys effeithiau anuniongyrchol ar fusnesau twristiaeth yn yr asesiad. Mae'r ymagwedd at y mater hwn yn aneglur, felly nid yw'r Arolygiaeth mewn sefyllfa i'w hepgor yn gyfan gwbl. Mae'r Arolygiaeth yn cytuno, yn seiliedig ar leoliad y datblygiad arfaethedig, nad yw effeithiau arwyddocaol yn debygol ar letygarwch a gwasanaethau manwerthu. Gellir hepgor y mater hwn o'r Datganiad Amgylcheddol. Fodd bynnag, er mwyn osgoi amheuaeth, dylid asesu effeithiau ar fusnesau twristiaeth yn llawn yn y Datganiad Amgylcheddol.
3.123	Tabl 16-8	Effeithiau uniongyrchol ac anuniongyrchol ar ddefnydd tir (adnodd	Cynigir hepgor y mater hwn oherwydd, yn ôl Map 2 y Dosbarthiad Tir Amaethyddol Rhagfynegol, nid oes tir amaethyddol BMV yn bresennol ar y safle ac felly byddai effeithiau arwyddocaol yn annhebygol o ddigwydd. Nid yw'r sail resymegol hon yn ystyried effeithiau posibl ar fusnesau amaethyddol. Fel y cyfryw, nid yw'r Arolygiaeth

		amaethyddol) – pob cam	mewn sefyllfa i hepgor y mater hwn. Dylai'r Datganiad Amgylcheddol asesu effeithiau uniongyrchol ac anuniongyrchol ar yr adnodd amaethyddol, gan gynnwys effeithiau ar fusnesau. Gweler y sylw o dan Rif Adnabod 3.7.1 am farn yr Arolygiaeth ar BMV.
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Rhif Adnabod	Cyfeirnod	Disgrifiad	Sylwadau'r Arolygiaeth
3.124	Amherthnasol	Gwahanu	Dylai'r Datganiad Amgylcheddol asesu effeithiau materion gwahanu posibl yn ystod adeiladu a gweithredu ar gyfer ffermwyr a thirfeddianwyr eraill. Dylid cynnwys mesurau yn y dDCO i sicrhau bod ffermwyr a thirfeddianwyr eraill yn gallu cael at eu da byw a'u symud, ac na rwystir eu gallu i gael mynediad i'w tir. Yn unol â hynny, dylid asesu ac adrodd ar yr effeithiau posibl hyn yn y Datganiad Amgylcheddol ar gyfer pob cam o'r datblygiad arfaethedig.
3.125	Paragraff 16.6.2	Cyflogaeth	Mae'r Adroddiad Cwmpasu'n datgan y bydd cyflogaeth a grëwyd yn ystod adeiladu a datgomisiynu'r datblygiad arfaethedig yn cael ei hystyried yn yr asesiad economaidd-gymdeithasol. Mae'r Arolygiaeth yn cynghori y dylai nifer y swyddi a'r math o swyddi a grëir gael eu hamcangyfrif yn y Datganiad Amgylcheddol a'u hystyried yng nghyd-destun y gweithlu sydd ar gael yn yr ardal yn ystod pob cam perthnasol o'r datblygiad arfaethedig.
3.126	Adran 16.8	Mesurau Lliniaru	Mae'r Adroddiad Cwmpasu'n datgan na chynigir mesurau lliniaru ychwanegol ar y cam hwn oherwydd ystyrir bod mesurau ymgorfforedig a'r strategaeth ddylunio ar gyfer y datblygiad arfaethedig yn ddigonol i osgoi unrhyw effeithiau arwyddocaol. Er mwyn osgoi amheuaeth, dylai'r Datganiad Amgylcheddol amlinellu unrhyw fesurau ymgorfforedig a ragwelir i osgoi effeithiau arwyddocaol ar dderbynyddion economaidd-gymdeithasol.

3.13 Pynciau Amgylcheddol Eraill

(Adran 17 yr Adroddiad Cwmpasu)

Rhif Adnabod	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig eu hepgor	Sylwadau'r Arolygiaeth
3.131	Paragraffau 17.2.7, 17.2.14 a 17.2.15	Ansawdd aer – allyriadau llwch	<p>Mae'r Adroddiad Cwmpasu'n cynnig hepgor allyriadau llwch ar y sail na ystyrir bod effeithiau arwyddocaol yn debygol oherwydd byddai'r camau adeiladu a datgomisiynu'n ddarostyngedig i fesurau lliniaru ansawdd aer sy'n gysylltiedig â rheoli llwch a fyddai'n cael eu hymgorffori yn yr oCEMP.</p> <p>O ystyried bod mesurau lliniaru priodol yn unol ag arfer gorau a chanllawiau'r Sefydliad Rheoli Ansawdd Aer (IAQM) wedi cael eu cynnwys yn y gofrestr ymrwymadau ac y byddent yn cael eu sicrhau trwy'r oCEMP, mae'r Arolygiaeth yn cytuno y gellir hepgor y mater hwn.</p>
3.132	Paragraffau 17.2.6, 17.2.9, 17.2.10 a Thabl 17-1	Ansawdd aer – allyriadau cerbydau a pheiriannau	<p>Mae'r Adroddiad Cwmpasu'n cynnig hepgor asesiad o allyriadau cerbydau a pheiriannau ar y sail y byddai mesurau lliniaru ar gyfer peiriannau ac offer modur yn cael eu hymgorffori yn yr oCEMP ac oherwydd y disgwylir i symudiadau traffig fod yn is na'r meini prawf perthnasol a amlinellir yng nghanllawiau Environmental Protection UK (EPUK) ac IAQM.</p> <p>O ystyried natur a chwmpas y datblygiad arfaethedig, mae'r Arolygiaeth yn cytuno â'r ymagwedd hon yn amodol ar gadarnhau yn y Datganiad Amgylcheddol na fydd y niferoedd cerbydau arfaethedig, yn unigol nac ar y cyd â chynigion eraill ar gysylltiadau perthnasol, yn mynd yn fwy na throthwyon EPUK ac IAQM. Dylai'r bennod Disgrifiad o'r Prosiect yn y Datganiad Amgylcheddol amlinellu'n glir nifer a math tebygol y cerbydau sy'n ofynnol ar gyfer adeiladu, gweithredu a datgomisiynu.</p>
3.133	Adran 17.3	Ansawdd tir	<p>Mae'r Adroddiad Cwmpasu'n cynnig hepgor pennod annibynnol yn y Datganiad Amgylcheddol ar ansawdd tir ar y sail y bydd effeithiau ffisegol y datblygiad arfaethedig ar batrymau defnydd tir presennol yn cael eu hystyried ym mhennod y</p>

			Datganiad Amgylcheddol ar gyflwr y tir. O ystyried y wybodaeth a ddarparwyd, mae'r Arolygiaeth yn fodlon y gallir asesu'r mater hwn o fewn y bennod ar gyflwr y tir yn amodol ar ymrwymiad yn y gofrestr ymrwymadau i ddarparu cynllun gollwng hylif drilio, gweithdrefn argyfwng ar gyfer ymateb i ollyngiadau, lleiniau clustogi/mesurau rheoli adeiladu priodol a mesurau arfer gorau yn ystod pob cam i leihau'r perygl o ryddhau halogyddion. Mae'r Arolygiaeth yn nodi y byddai cynllun rheoli pridd yn cael ei gynhyrchu, sy'n manylu ar fesurau i leihau neu osgoi niwed i briddoedd. Er mwyn eglurder, fe ddylai hwn gael ei ddarparu gyda'r cais a'i sicrhau trwy'r DCO.
3.134	Adran 17.4	Damweiniau mawr neu drychinebau	Mae'r ymgeisydd yn cynnig hepgor pennod annibynnol ar ddamweiniau mawr a thrychinebau ar y sail y byddai'r risgiau a restrir yn Nhabl 17-2 yn cael eu hadrodd ym mhenodau perthnasol y Datganiad Amgylcheddol os oes potensial ar gyfer effeithiau arwyddocaol tebygol. Mae'r Arolygiaeth wedi ystyried nodweddion y datblygiad arfaethedig ac mae'n cytuno â'r dull hwn.
3.135	Adran 17.5	Iechyd dynol a'r boblogaeth	Ar y sail y bydd penodau technegol y Datganiad Amgylcheddol yn ystyried effeithiau posibl iechyd dynol o fewn eu hasesiadau eu hunain, mae'r Arolygiaeth yn cytuno nad oes angen asesiad annibynnol ar iechyd dynol. Dylai'r Datganiad Amgylcheddol gyfeirio'n glir at ble yr ystyriwyd effeithiau sy'n ymwneud ag iechyd dynol yn y penodau technegol perthnasol.
3.136	Paragraffau 17.5.5 a 17.5.6	EMF	Mae'r Adroddiad Cwmpasu'n cynnig bod cwmpas yr asesiad o EMF mewn perthynas ag AEA yn cael ei gyfyngu i geblau sy'n gysylltiedig â'r datblygiad arfaethedig sydd dros 132kV. Mae'r Arolygiaeth yn cytuno â'r ymagwedd hon. Yn unol â chanllawiau perthnasol (DECC Llinellau Pŵer: Dangos cydymffurfedd â chanllawiau amlygiad cyhoeddus i EMF, Cod Ymarfer Gwirfoddol 2012), fe allai ceblau sydd dros 132kV achosi effeithiau EMF. Mae'r Arolygiaeth o'r farn y dylid darparu asesiad EMF mewn atodiad i'r Datganiad Amgylcheddol ar gyfer unrhyw geblau â foltedd o fwy na 132kV. Dylai hyn gynnwys lleoliad, llwybr, a folteddau unrhyw geblau dros 132kV ac asesiad risg i unrhyw dderbynyddion dynol ac ecolegol sensitif o fewn y Zol. Tynnir sylw'r ymgeisydd at Rif Adnabod 3.4.9 ynglŷn ag effeithiau EMF ar dderbynyddion ecolegol.

3.137	Adran 17.6	Telathrebu, derbyniad teledu a chyfleustodau	Mae'r Arolygiaeth yn fodlon hepgor yr agweddau hyn ar yr amod bod y Datganiad Amgylcheddol yn amlinellu canfyddiadau'r asesiad desg a sut yr ystyriwyd y rhain yn y dyluniad i liniaru effeithiau posibl.
3.138	Adran 17.7	Gwastraff	<p>Mae'r Adroddiad Cwmpasu'n datgan bod pennod ar wahân ar wastraff yn y Datganiad Amgylcheddol wedi cael ei hepgor o'r AEA gan na ragfynegir unrhyw effeithiau arwyddocaol tebygol yn ystod pob cam o'r datblygiad arfaethedig.</p> <p>Mae'r Arolygiaeth yn cytuno nad oes angen pennod annibynnol ar wastraff yn y Datganiad Amgylcheddol. Fodd bynnag, nid yw'r Arolygiaeth yn fodlon hepgor yr agwedd hon. Dylai'r Datganiad Amgylcheddol barhau i gynnwys disgrifiad o ffrydiau gwastraff posibl adeiladu a datgomisiynu, a chynnwys cyfeintiau amcangyfrifedig gweddillion ac allyriadau disgwylidig, yn ôl math a swm, a symiau a mathau'r gwastraff a gynhyrchir, gan gynnwys asesiad o'r effeithiau arwyddocaol tebygol.</p> <p>Os bydd angen gwaredu oddi ar y safle, dylid cynnwys asesiad o effeithiau arwyddocaol tebygol yn y Datganiad Amgylcheddol, gan gynnwys effeithiau cronol. Dylai'r Datganiad Amgylcheddol ddarparu cynllun rheoli gwastraff a disgrifio unrhyw fesurau a weithredir i leihau gwastraff i'r eithaf a dangos sut y bydd yr hierarchaeth wastraff yn cael ei chymhwyso.</p>
3.139	Adran 17.8	Gwres ac ymbelydredd	Mae'r Adroddiad Cwmpasu'n cynnig hepgor asesiad o effeithiau gwres ac ymbelydredd yn ystod adeiladu, gweithredu a datgomisiynu gan na ddisgwylir unrhyw ffynonellau gwres ac ymbelydredd sylweddol o ganlyniad i raddfa a natur y datblygiad arfaethedig. Mae'r Arolygiaeth yn cytuno y gellir hepgor y mater hwn o ystyriaeth bellach ar yr amod bod y Datganiad Amgylcheddol yn cyfeirio'n glir at unrhyw ffynonellau gwres ac ymbelydredd a amlygwyd a sut yr ystyriwyd y rhain mewn perthynas â dewis y safle, gosodiad y safle a dylunio mesurau lliniaru.

Rhif Adnabod	Cyfeirnod	Disgrifiad	Sylwadau'r Arolygiaeth
3.13.10	Amherthnasol	Amherthnasol	Amherthnasol

3.14 Effeithiau Cronnol

(Adran 18 yr Adroddiad Cwmpasu)

Rhif Adnabod	Cyfeirnod	Materion y mae'r Ymgeisydd yn cynnig eu hepgor	Sylwadau'r Arolygiaeth
3.14.1	Amherthnasol	Amherthnasol	Ni chynigiwyd hepgor unrhyw faterion o'r asesiad.

Rhif Adnabod	Cyfeirnod	Disgrifiad	Sylwadau'r Arolygiaeth
3.14.2	Tabl 18-1	Lleoliad datblygiadau cronol	Dylai'r Datganiad Amgylcheddol gynnwys gwybodaeth am leoliad datblygiadau sydd wedi'u cynnwys yn yr asesiad o effeithiau cronol a'r pellter o'r datblygiad arfaethedig. Fe ddylai hyn gael ei ategu gan ffigur sy'n dangos lleoliadau a hyd a lled datblygiadau cronol mewn perthynas â'r datblygiad arfaethedig.

ATODIAD 1: CYRFF YMGYNGHORI YR YMGYNGHORWYD Â NHW’N FFURFIOL

TABL A1: CYRFF YMGYNGHORI RHAGNODEDIG

Cyrff a ragnodir yn atodlen 1 Rheoliadau Cynllunio Seilwaith (Ceisiadau: Ffurflenni a Gweithdrefn Ragnodedig) 2009 (fel y’u diwygiwyd) (‘y Rheoliadau CFfGR (fel y’u diwygiwyd)’)

DISGRIFIAD ATODLEN 1	SEFYDLIAD
Gweinidogion Cymru	Llywodraeth Cymru
Y cyngor plwyf perthnasol neu, pan fo’r cais yn berthnasol i dir yng Nghymru neu’r Alban, y cyngor cymuned perthnasol	Cyngor Cymuned Redwick
	Cyngor Cymuned Trefonnen
	Cyngor Cymuned Allteuryn
	Cyngor Cymuned Llanwern
	Cyngor Cymuned Langstone
	Cyngor Cymuned Trefesgob
	Cyngor Cymuned Rogiet
	Cyngor Cymuned Caer-went
	Cyngor Tref Magwyr gyda Gwndy
Cyfoeth Naturiol Cymru	Cyfoeth Naturiol Cymru
Comisiwn Brenhinol Henebion Cymru	Comisiwn Brenhinol Henebion Cymru
Y bwrdd draenio mewnol perthnasol	Bwrdd Draenio Mewnol Gwastadeddau Cil-y-coed a Gwynllŵg
Yr Awdurdod Priffyrdd perthnasol	Cyngor Dinas Casnewydd
	Cyngor Sir Fynwy
	National Highways
Yr Ysgrifennydd Gwladol dros Drafnidiaeth	Yr Adran Drafnidiaeth

DISGRIFIAD ATODLEN 1	SEFYDLIAD
Yr Awdurdod Gweithredol Iechyd a Diogelwch	Yr Awdurdod Gweithredol Iechyd a Diogelwch
Asiantaeth Diogelwch Iechyd y Deyrnas Unedig, un o asiantaethau gweithredol yr Adran Iechyd a Gofal Cymdeithasol	Asiantaeth Diogelwch Iechyd y Deyrnas Unedig
GIG Lloegr	GIG Lloegr
Ymddiriedolaethau'r Gwasanaeth Iechyd Gwladol (Cymru)	Ymddiriedolaeth GIG Iechyd Cyhoeddus Cymru
	Ymddiriedolaeth GIG Prifysgol Gwasanaethau Ambiwlans Cymru
	Ymddiriedolaeth GIG Prifysgol Felindre
Y bwrdd iechyd lleol perthnasol (Cymru)	Bwrdd Iechyd Prifysgol Aneurin Bevan
Comisiynwyr Ystad y Goron	Ystad y Goron
Yr awdurdod heddlu perthnasol	Comisiynydd Heddlu a Throseddu Gwent
Yr awdurdod tân ac achub perthnasol	Awdurdod Tân ac Achub De Cymru

TABL A2: YMGYMERWYR STATUDOL PERTHNASOL

Mae gan y diffiniad o 'ymgymerwr statudol' yn y Rheoliadau CFfGR (fel y'u diwygiwyd) yr un ystyr ag yn adran 127 Deddf Cynllunio 2008.

YMGYMERWR STATUDOL	SEFYDLIAD
Yr Ymddiriedolaeth GIG berthnasol	Ymddiriedolaeth GIG Iechyd Cyhoeddus Cymru
	Ymddiriedolaeth GIG Prifysgol Gwasanaethau Ambiwlans Cymru
	Ymddiriedolaeth GIG Prifysgol Felindre

YMGYMERWR STATUDOL	SEFYDLIAD
Y bwrdd iechyd lleol perthnasol (Cymru)	Bwrdd Iechyd Prifysgol Aneurin Bevan
Rheilffyrdd	Network Rail Infrastructure Ltd
	Ystad Rheilffyrdd Hanesyddol National Highways
Darparwr Gwasanaeth Cyffredinol	Grŵp y Post Brenhinol
Yr Asiantaeth yr Amgylchedd berthnasol	Cyfoeth Naturiol Cymru
Yr ymgwymerwr dŵr a charthffosiaeth perthnasol	Dŵr Cymru
Y cludwr nwy cyhoeddus perthnasol	Cadent Gas Limited
	Northern Gas Networks Limited
	Scotland Gas Networks Plc
	Southern Gas Networks Plc
	Wales and West Utilities Ltd
	CNG Services Ltd
	Energy Assets Pipelines Limited
	ES Pipelines Ltd
	ESP Connections Ltd
	ESP Networks Ltd
	ESP Pipelines Ltd
	Fulcrum Pipelines Limited
	GTC Pipelines Limited
	Harlaxton Gas Networks Limited
	Independent Pipelines Limited
	Indigo Pipelines Limited

YMGYMERWR STATUDOL	SEFYDLIAD
	Inovyn Enterprises Ltd
	Last Mile Gas Ltd
	Leep Gas Networks Limited
	Mua Gas Limited
	Quadrant Pipelines Limited
	Stark Works
	National Gas
Y cynhyrchwr trydan perthnasol sydd â Phwerau Gorchymyn Prynu Gorfodol (CPO)	Severn Gas Transportation Limited
	National Grid Electricity Distribution (South Wales) Limited
	Advanced Electricity Networks Ltd
	Aidien Ltd
	Aurora Utilities Ltd
	Eclipse Power Network Limited
	Energy Assets Networks Limited
	ESP Electricity Limited
	Fulcrum Electricity Assets Limited
	Green Generation Energy Networks Cymru Ltd
	Harlaxton Energy Networks Limited
	Independent Distribution Connection Specialists Ltd
	Independent Power Networks Limited
	Indigo Power Limited
	Last Mile Electricity Ltd
	Leep Electricity Networks Limited
	Mua Electricity Limited

YMGYMERWR STATUDOL	SEFYDLIAD
	Optimal Power Networks Limited
	Stark Infra-Electricity Ltd
	The Electricity Network Company Limited
	UK Power Distribution Limited
	Utility Assets Limited
	Vattenfall Networks Limited
Y dosbarthwr trydan perthnasol sydd â Phwerau CPO	National Grid Electricity Transmission Plc
	National Grid Electricity System Operation Limited

TABL A3: AWDURDODAU LLEOL FEL Y’U DIFFINNIR YN ADRAN 43(3) DEDDF CYNLLUNIO 2008

AWDURDOD LLEOL
Cyngor Dinas Casnewydd
Cyngor Sir Fynwy
Cyngor Dosbarth Fforest y Ddena
Awdurdod Parc Cenedlaethol Bannau Brycheiniog
Cyngor Bwrdeistref Sirol Torfaen
Cyngor Caerdydd
Cyngor Swydd Henffordd
Cyngor Bwrdeistref Sirol Blaenau Gwent
Cyngor Bwrdeistref Sirol Caerffili
Dinas Bryste
Cyngor Sir Powys
Cyngor De Swydd Gaerloyw

AWDURDOD LLEOL
Cyngor Swydd Gaerloyw

TABL A4: CYRFF YMGYNGHORI NAD YDYNT YN RHAGNODEDIG

SEFYDLIAD
Cadw
Comisiynydd y Gymraeg
Tîm Rheoli Trafnidiaeth Cyfarwyddwyr yr Amgylchedd ac Adfywio De-ddwyrain Cymru (SewDER)
Cyngor Gogledd Gwlad yr Haf
Cyngor Gwlad yr Haf

ATODIAD 2: YMATEBWYR I'R YMGYNGHORIAD A CHOPIAU O YMATEBION

CYRFF YMGYNGHORI A YMATEBODD ERBYN Y DYDDIAD CAU STATUDOL:
Cyngor Blaenau Gwent
Cadw
Cyngor Bwrdeistref Sirol Caerffili
Cyngor Cymuned Caer-went
Dŵr Cymru
Fulcrum Pipelines Limited
Cyngor Cymuned Allteuryn
Yr Awdurdod Gweithredol Iechyd a Diogelwch
Indigo Networks
Cyngor Tref Magwyr gyda Gwndy
Cyngor Sir Fynwy
National Grid Electricity Transmission PLC
National Highways
Cyfoeth Naturiol Cymru
Network Rail
Cyngor Dinas Casnewydd
Iechyd Cyhoeddus Cymru
Gwasanaeth Tân ac Achub De Cymru
Wales & West Utilities



Planning Inspectorate
Arolygiaeth Gynllunio

SCOPING OPINION:

Proposed Future Energy Llanwern Solar Project

Case Reference: EN010171

Adopted by the Planning Inspectorate (on behalf of the Secretary of State)
pursuant to Regulation 10 of The Infrastructure Planning (Environmental
Impact Assessment) Regulations 2017

29 January 2025

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 APPENDIX 2: RESPONDENTS TO CONSULTATION AND COPIES OF REPLIES		

1. INTRODUCTION

- 1.0.1 On 19 December 2024, the Planning Inspectorate (the Inspectorate) received an application for a Scoping Opinion from Future Energy Llanwern Limited (the applicant) under regulation 10 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (The EIA Regulations) for the proposed Future Energy Llanwern Solar Project (the proposed development). The applicant notified the Secretary of State (SoS) under regulation 8(1)(b) of those regulations that they propose to provide an Environmental Statement (ES) in respect of the proposed development and by virtue of regulation 6(2)(a), the proposed development is 'EIA development'.
- 1.0.2 The applicant provided the necessary information to inform a request under EIA regulation 10(3) in the form of a Scoping Report, available from:

<http://infrastructure.planninginspectorate.gov.uk/document/EN010171/EN010171-000008-FEL%20-%20Scoping%20Report.pdf>
- 1.0.3 This document is the Scoping Opinion (the Opinion) adopted by the Inspectorate on behalf of the SoS. This Opinion is made on the basis of the information provided in the Scoping Report, reflecting the proposed development as currently described by the applicant. This Opinion should be read in conjunction with the applicant's Scoping Report.
- 1.0.4 The Inspectorate has set out in the following sections of this Opinion where it has / has not agreed to scope out certain aspects / matters on the basis of the information provided as part of the Scoping Report. The Inspectorate is content that the receipt of this Scoping Opinion should not prevent the applicant from subsequently agreeing with the relevant consultation bodies to scope such aspects / matters out of the ES, where further evidence has been provided to justify this approach. However, in order to demonstrate that the aspects / matters have been appropriately addressed, the ES should explain the reasoning for scoping them out and justify the approach taken.
- 1.0.5 Before adopting this Opinion, the Inspectorate has consulted the 'consultation bodies' listed in appendix 1 in accordance with EIA regulation 10(6). A list of those consultation bodies who replied within the statutory timeframe (along with copies of their comments) is provided in appendix 2. These comments have been taken into account in the preparation of this Opinion.
- 1.0.6 The Inspectorate has published a series of advice pages, including [Advice Note 7: Environmental Impact Assessment: Preliminary Environmental Information, Screening and Scoping \(AN7\)](#). AN7 and its annexes provide guidance on EIA processes during the pre-application stages and advice to support applicants in the preparation of their ES.
- 1.0.7 Applicants should have particular regard to the standing advice in AN7, alongside other advice notes on the Planning Act 2008 (PA2008) process, available from:

[Advice notes | National Infrastructure Planning \(planninginspectorate.gov.uk\)](https://www.planninginspectorate.gov.uk/advice-notes/national-infrastructure-planning/)

- 1.0.8 This Opinion should not be construed as implying that the Inspectorate agrees with the information or comments provided by the applicant in their request for an opinion from the Inspectorate. In particular, comments from the Inspectorate in this Opinion are without prejudice to any later decisions taken (e.g. on formal submission of the application) that any development identified by the applicant is necessarily to be treated as part of a Nationally Significant Infrastructure Project (NSIP) or associated development or development that does not require development consent.

2. OVERARCHING COMMENTS

2.1 Description of the Proposed Development

(Scoping Report Section 2)

ID	Ref	Description	Inspectorate's comments
211	Para 2.7.1	Construction activities	An overview of indicative construction activities is provided in paragraph 2.7.1 of the Scoping Report. This information should be set out in the ES including key construction milestones, the duration and location of the required construction activities, associated plant and machinery, predicted vehicle movements and the proposed construction hours.
212	Para 2.7.7-2.7.9	Construction compounds	The Scoping Report states that the proposed development would require temporary construction compounds within the site, however, the exact location is yet to be determined. To ensure a robust assessment of likely significant effects, the ES should provide details regarding the number, location and dimensions of construction compounds.
213	Para 2.7.1	Crossings	Reens, watercourses, infrastructure (including roads and rail), and sensitive habitats are likely to be crossed during construction of the proposed development. The ES should identify which watercourses and/or other features, such as roads, will be crossed and at what locations, with reference to any accompanying figure(s). The ES should describe the types of crossings that are required, their scale and dimensions and the nature of any associated construction works. Where flexibility is deemed necessary this should be fully justified, and the ES should base assessments on the worst-case scenario and justify why this scenario would lead to the greatest environmental impact. Sufficient detail should be provided to inform a robust assessment of likely significant effects on relevant aspects/matters, including ecological receptors. Efforts should be made to agree the approach to crossings with the relevant consultation bodies.
214	Para 2.6.4 - 2.6.6	Electricity export connection to	The Scoping Report does not identify whether any works would be required at the Whitson National Grid substation that would be included in the Development Consent Order (DCO) works. The likely significant effects from such works should be assessed within the ES,

ID	Ref	Description	Inspectorate's comments
		Whitson National Grid substation	either as part of the proposed development, or in the cumulative effects assessment if they are to be consented separately.
215	Para 2.7.10	Operational and maintenance activities	The ES should describe the potential scope and duration of maintenance works that would be required during the operation of the proposed development, including predicted vehicle movements, staffing numbers and any assumptions that underpin these predicted numbers. The proposals for ongoing management and maintenance of the land around and under the solar PV modules should be secured through the DCO and confirmed in the ES, including any vegetation management and animal grazing. Any potential adverse impacts of maintenance activities should also be assessed in the ES where significant effects are likely to occur.
216	Section 2.8	Decommissioning	The ES should provide a description of the activities and works which are likely to be required during decommissioning of the proposed development, including the anticipated duration. Where significant effects are likely to occur as a result of decommissioning the proposed development, these should be described and assessed in the ES. Any proposals for restoration of the site to agricultural or other use should also be described.
217	Para 2.3.2 and 2.5.3	Flexibility	<p>It is stated that in order to maintain flexibility in the design the applicant intends to apply the 'Rochdale Envelope' approach to the DCO application. There are a number of references in the Scoping Report to various options being refined and selected as the project design progresses, and the location of many elements of the proposed development within the application site is not yet decided.</p> <p>The Inspectorate expects that at the point an application is made, the description of the proposed development will be sufficiently detailed to include the design, size, capacity, technology and locations of the different elements of the proposed development (including a justification for these) to enable a full understanding of the potential environmental effects. This should include the footprint and maximum heights of structures (relevant to existing ground levels), as well as land-use requirements for all elements and phases of the development. The description should be supported (as necessary) by figures, cross-sections, and drawings which should be clearly and appropriately referenced. Where</p>

ID	Ref	Description	Inspectorate's comments
			flexibility is sought, the ES should clearly set out the design parameters that would apply and how these have been used to inform an adequate assessment in the ES.
21.8	Table 5-5	Lighting	The Scoping Report states that lighting may be required during the construction phase, but no information is provided regarding locations, power, timings and control mechanisms of lighting. The ES should provide full details of location and types of lighting and assess effects from lighting on both ecological and human receptors for all elements and phases of the proposed development.

2.2 EIA Methodology and Scope of Assessment

(Scoping Report Section 4)

ID	Ref	Description	Inspectorate's comments
221	Para 4.8.1	Professional judgement	The ES should provide evidence to support conclusions or clearly identify where professional judgement has been relied upon to determine the level of significance of effects. Any use of professional judgement to assess significance should be fully justified within the ES.
222	Para 4.6.8	Baseline data	It should be ensured that the data used to inform the assessments in the ES is up to date and representative. Data obtained from third parties should be demonstrated to be relevant and reflective of the baseline of the proposed development.
223	Para 4.14.7	Cumulative effects	Paragraph 4.14.7 of the Scoping Report notes the applicant's intention to assess effect interactions. The Inspectorate is content with the proposed approach; however, the ES should also assess the potential for cumulative effects that may occur as a result of proposed mitigation for a specific environmental aspect or matter e.g. landscape and visual mitigation planting on buried archaeological assets etc.
224	Para 4.10.8	Management plans	The Scoping Report identifies a number of management plans that will be produced as part of the DCO application, including an oCEMP, Outline Landscape and Ecological Management Plan (LEMP); and an Outline Construction Traffic Management Plan (CTMP). The outline plans should be sufficiently detailed to provide confidence in the delivery of mitigation, particularly that relied upon within the ES to avoid or reduce significant effects.

ID	Ref	Description	Inspectorate's comments
225	Para 2.7.10 and 2.9.2	Monitoring	The ES should identify and describe any proposed monitoring of adverse effects and how the results of such monitoring would be utilised to inform any necessary remedial actions.
226	N/A	Scoping Table	The Inspectorate recommends the use of a table in the ES to set out key changes in parameters/options of the proposed development in the Scoping Report to those presented in the ES. It is also recommended that a table is provided demonstrating how the matters raised in the Scoping Opinion have been addressed in the ES and/or associated documents.
227	N/A	Competent experts	The ES must be accompanied by a statement from the applicant outlining the relevant expertise or qualifications of such experts, as required by Regulation 14 of the EIA Regulations 2017.
228	N/A	Transboundary	<p>The Inspectorate on behalf of the SoS has considered the proposed development and concludes that the proposed development is unlikely to have a significant effect either alone or cumulatively on the environment in a European Economic Area State. In reaching this conclusion the Inspectorate has identified and considered the proposed development's likely impacts including consideration of potential pathways and the extent, magnitude, probability, duration, frequency and reversibility of the impacts.</p> <p>The Inspectorate considers that the likelihood of transboundary effects resulting from the proposed development is so low that it does not warrant the issue of a detailed transboundary screening. However, this position will remain under review and will have regard to any new or materially different information coming to light which may alter that decision.</p>

ID	Ref	Description	Inspectorate's comments
			<p>Note: The SoS' duty under regulation 32 of the 2017 EIA Regulations continues throughout the application process.</p> <p>The Inspectorate's screening of transboundary issues is based on the relevant considerations specified in the annex to its Advice Page 'Nationally Significant Infrastructure Projects: Advice on Transboundary Impacts and Process', links for which can be found in paragraph 1.0.7 above.</p>

3. ENVIRONMENTAL ASPECT COMMENTS

3.1 Landscape and Visual

(Scoping Report Section 5)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
31.1	Table 5-6	Receptors outwith the Zone of Theoretical Visibility (ZTV) – all phases	This matter is proposed to be scoped out on the basis that receptors outside of the ZTV will have no view of the proposed development. The Inspectorate agrees that the proposed development is unlikely to result in significant effects on receptors outside of the ZTV. Providing the list of receptors is based on the final ZTV, this matter can be scoped out of the ES.
31.2	Table 5-6	Indirect effects upon National Landscape Character Areas (NLCAs) – all phases	The Scoping Report proposes to scope this matter out on the basis that NLCAs within the study area cover an extensive area. On the basis that local level assessments are to be utilised, the Inspectorate is content that an assessment of effects on NCLAs can be scoped out of further assessment.
31.3	Table 5-6	Indirect effects upon landscape and visual receptors beyond 5km – all phases	This matter is proposed to be scoped out on the basis that indirect effects on landscape and visual receptors are not expected beyond the 5km study area. The Inspectorate notes that the ZTV indicates visibility of the proposed development beyond the 5km study area. Furthermore, insufficient information has been provided on the nature and location of potential receptors beyond the stated study area. As such, the Inspectorate is not in a position to scope this matter out. The ES should provide clear justification for the stated 5km study area including reference to the ZTV and the potential impacts to identified receptors.
31.4	Table 5-6	Cumulative effects beyond 5km – all phases	This matter is proposed to be scoped out on the basis that cumulative effects are not expected beyond the 5km study area. The Inspectorate notes that the ZTV indicates visibility of the proposed development beyond the 5km study area. Furthermore, insufficient information has been provided on the nature and location of cumulative

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			schemes beyond the 5km study area. As such, the Inspectorate is not in a position to scope this matter out. The ES should provide clear justification for the stated 5km study area including reference to the ZTV and the potential impacts to identified cumulative schemes.
31.5	Table 5-6	Individual residential properties beyond 1km – all phases	This matter is proposed to be scoped out on the basis that limited visual effects are expected on properties beyond 1km. Insufficient information has been provided regarding the nature of these receptors and extent of visibility, therefore the Inspectorate is unable to scope out this matter out at this stage.
31.6	Table 5-6	Indirect effects on Seascape Character – all phases	The Scoping Report proposes to scope this matter out on the basis that impacts to Seascape Character from the construction, operation and decommissioning of the proposed development are not expected to occur. Little justification or evidence has been provided to suggest that the proposed development will not have significant effects on seascape character. As such, the Inspectorate is currently not in a position to scope this matter out. The ES should assess any potentially significant impacts to Seascape Character.

ID	Ref	Description	Inspectorate's comments
31.7	Para 5.3.3	Study area	The Scoping Report states that the study area for the Landscape and Visual Assessment is based on professional judgment including an understanding of the local landscape character, the scale of the construction and development activities proposed and a review of study areas used for similar solar projects. It is the Inspectorate's opinion that the study area should be based on the furthest extent of likely significant effects. This should include consideration of the ZTV.

3.2 Solar Glint and Glare

(Scoping Report Section 6)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
321	Para 6.6.1	Glint and glare – construction and decommissioning	The Scoping Report proposes to scope this matter out on the basis that glint and glare effects are unlikely to occur until the solar photovoltaic panels have been erected. The Inspectorate agrees that significant effects as a result of glint and glare during construction and decommissioning are unlikely to occur. This matter can be scoped out of the ES.
322	Paras 6.4.8 – 6.4.11 and Table 6-7	The assessment of glare on railway lines - operation	The Scoping Report proposes to scope this matter out on the basis that the nearest railway line is approximately 1km from the red line boundary (RLB), which is beyond the 500m threshold for significant effects stated within the Pager Power Glint and Glare Assessment Guidelines (2022). On this basis, the Inspectorate agrees that significant glint and glare effects on railway lines are unlikely to occur. This matter can be scoped out from further assessment.
323	Paras 6.4.17 – 6.4.19 and Table 6-7	The assessment of glare on aerodromes - operation	This matter is proposed to be scoped out on the basis that the nearest aerodrome is located approximately 20km from the proposed development. The Inspectorate agrees that significant effects from glint and glare on aerodromes are unlikely at this distance. This matter can be scoped out from further assessment.

ID	Ref	Description	Inspectorate's comments
324	Para 6.3.1	Sensitive receptors	The applicant is advised to use the ZTV developed for the Landscape and Visual Assessment to identify sensitive receptors with potential views of the site, which may therefore be affected by glint and glare. Effort should be made to agree the sensitive receptors with relevant consultation bodies. The locations of the sensitive receptors should be shown on an accompanying plan.
325	Para 6.9.1	Assumptions	Any assumptions made or relied upon should be clearly set out and justified within the ES.

3.3 Cultural Heritage and Archaeology

(Scoping Report Section 7)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
331	Table 7-6	Scheduled Monument and Listed Buildings further than 5km from the site	The Inspectorate agrees that this matter can be scoped out as there is unlikely to be likely significant effects on designated heritage assets beyond 5km from the proposed development site.
332	Para 7.6.2 and Table 7-6	Impacts on known and previously unrecorded buried historic assets - operation	The Scoping Report proposes to scope this matter out on the basis that once the proposed development is operational, no further ground disturbance will occur. On this basis, the Inspectorate is content to scope this matter out of the ES.
333	Para 7.6.2 and Table 7-6	Impacts on the setting of non-designated above-ground historic assets that lie more than 100m from the scoping RLB – all phases	This matter is proposed to be scoped out on the basis that non-designated assets are not sensitive enough to result in likely significant effects on setting beyond this distance. Insufficient information has been provided on the nature and location of these heritage assets to rule out significant effects on their setting from the proposed development. The ES should include an assessment of significant effects where they are likely to occur or otherwise confirm why they would not, including confirmation of their location, intervisibility with the proposed development and evidence of agreement with the relevant stakeholders.
334	Para 7.6.2 and Table 7-6	Cultural heritage and archaeology - decommissioning	The Scoping Report proposes to scope this matter out on the basis that any potential impacts to heritage assets would have already occurred during construction and buried assets such as cables and services will be left in situ. As there is potential for ground disturbance during decommissioning and effects are likely to be similar to those experienced during construction, the Inspectorate is of the opinion that an assessment of

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			the impact of the proposed development on known and unknown archaeological remains during decommissioning should be included in the ES.
335	Table 7-6	Non-designated buried historic assets outside of the site – construction and operation	<p>The Scoping Report proposes to scope this matter out on the basis that these assets will not experience any physical impacts, due to construction and operational works being conducted within the site.</p> <p>On this basis, the Inspectorate is content to scope this matter out of the ES.</p>

ID	Ref	Description	Inspectorate's comments
336	N/A	Visuals	The Scoping Report does not specify whether any photomontages or visual representations would be prepared to support the assessment of cultural heritage. Effort should be made to agree the number and location of any viewpoints required to support the assessment of setting effects with relevant consultation bodies.
337	Para 7.5.4 and 7.8.6	Further investigation and archaeological evaluation	The applicant's attention is drawn to Cadw's response to consultation (Appendix 2 of this Opinion) regarding the potential for the Historic Environment Desk Based Assessment (HEDBA) to identify buried archaeological features that require further investigation possible by geophysical survey and archaeological evaluation. The applicant should make effort to discuss and agree the timing, scope and methodology for any investigations and subsequent evaluation with relevant consultation bodies.

3.4 Ecology

(Scoping Report Section 8)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
34.1	Table 8-3	Impacts to Severn Estuary Ramsar/ Special Area of Conservation (SAC)/Site of Special Scientific Interest (SSSI) - operation	The Scoping Report proposes to scope this matter out on the basis that there are limited potential effects associated with the operation of the proposed development. It is noted that the Scoping Report does not consider the potential for impacts through the degradation of water quality as a result of changes to the local drainage regime or spillage due to the presence of solar PV panels. Therefore, the Inspectorate considers that insufficient information has been provided on the potential for operational effects on this site. The ES should assess the potential impacts to the Severn Estuary Ramsar/SAC/SSSI during operation.
34.2	Table 8-3	Impacts to River Usk SAC – construction and operation	The Scoping Report proposes to scope this matter out on the basis that the proposed development is sufficient distance from the site to avoid significant effects. The Inspectorate considers that there is still the potential for impacts to occur on the SAC from 3.7km. Furthermore, insufficient evidence has been provided to rule out the possibility of impacts occurring. The Inspectorate also notes that some of the habitat on site such as reens and ditches may have some functional linkage to the SAC. As such, the Inspectorate is not in a position to scope this matter out. The ES should assess the impacts to the River Usk SAC. The applicant's attention is drawn to the consultation response from National Resources Wales (NRW) for further information (Appendix 2 of this Opinion).
34.3	Table 8-3	Impacts to Wye Valley and Forest of Dean Bat Sites SAC – construction and operation	This matter is proposed to be scoped out on the basis that the proposed development lies outside the ' <i>sensitive locations</i> ' detailed within the Wye Valley and Forest of Dean Bat SAC: Development Management – Horseshoe Bat activity survey and assessment guidance (2021), is located 9.5km away from the SAC and outside of the core sustenance area for horseshoe bats. On this basis, the Inspectorate agrees that significant effects are unlikely to occur on this site. This matter can be scoped out from the ES.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
344	Table 8-3	Impacts to Magor Marsh SSSI – construction and operation	This matter is proposed to be scoped out on the basis that the SSSI is located 1.2km away and is upstream from the proposed development. The Inspectorate considers that there is still the potential for upstream impacts to occur on the SSSI from 1.2km. Furthermore, insufficient evidence has been provided to rule out the possibility of impacts occurring. As such, the Inspectorate is not in a position to scope this matter out entirely. The ES should provide a statement detailing how significant effects are unlikely to occur, including reference to all potential impact pathways. If any potentially significant effects are identified, these should be fully assessed within the ES.
345	Table 8-3	Impacts to Newport Wetlands SSSI/ NNR – construction and operation	This matter is proposed to be scoped out on the basis that the SSSI is located 1.2km away from the proposed development. The Inspectorate considers that there is still the potential for impacts to occur on the SSSI from 1.2km. Furthermore, insufficient evidence has been provided to rule out the possibility of impacts occurring. As such, the Inspectorate is not in a position to scope this matter out entirely. The ES should provide a statement detailing how significant effects are unlikely to occur on this site, including reference to all potential impact pathways, including for example any hydrological pathways. If any potentially significant effects are identified, these should be fully assessed within the ES.
346	Table 8-3	Impacts on: <ul style="list-style-type: none"> • Roosting Bats • Dormice • Water Voles and; • Harvest Mice - operation	Impacts to these species are proposed to be scoped out on the basis that trees with bat roost potential are to be retained, reed buffer zones are to be established and once the solar panels are erected, direct impacts to these species and habitats are unlikely to occur. The Inspectorate agrees that direct impacts to these species during the operation of the proposed development are unlikely to occur and can be scoped out of the ES.

ID	Ref	Description	Inspectorate's comments
34.7	N/A	Baseline figures	The ES should provide separate figures detailing the areas where baseline surveys have been undertaken (and where coverage has been missed) and the current land uses of the site. The applicant's attention is drawn to the consultation response from Natural Resources Wales (NRW) for further information (Appendix 2 of this Opinion).
34.8	Table 8-2	Baseline surveys	Previous baseline surveys carried out for the proposed development include a Phase 1 Habitat Survey carried out in 2019 and a UK Habitat Classification survey carried out in 2023. For the avoidance of doubt, any update to the 2019 survey should utilise the Phase 1 Habitat Survey methodology. The applicant's attention is drawn to the consultation response from NRW for further information (Appendix 2 of this Opinion).
34.9	Para 10.9.4, 17.5.5 and 17.5.6	Electromagnetic Fields (EMF)	<p>The Inspectorate notes the approach to watercourse cable crossings has not yet been agreed and that there is potential for trenchless construction techniques to be applied where appropriate. In the absence of further information, such as details on the final cabling method and route, the Inspectorate considers there is the potential for soil heating from cables and EMF effects to occur to ecological receptors including those within watercourses such as fish.</p> <p>The ES should consider the potential for EMF effects to occur to ecological receptors including those within affected watercourses. The ES should also clarify the cabling method required to cross relevant watercourses and describe any design measures in place which would limit the potential for EMF effects.</p>

3.5 Ornithology

(Scoping Report Section 9)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
351	Table 9-3	Visual disturbance to the Severn Estuary Ramsar (ornithological features) and Special Protection Area (SPA) - construction	<p>The Scoping Report proposes to scope out impacts from visual disturbance on the Severn Estuary Ramsar (ornithological features) and SPA on the basis of the presence of the sea wall between the site and estuary which would provide visual screening.</p> <p>The Inspectorate considers that insufficient evidence has been provided to demonstrate that there would be no visual disturbance impacts during construction on the ornithological features of the Severn Estuary SPA and Ramsar. This matter should be assessed in the ES where significant effects are likely to occur, or evidence provided to demonstrate the absence of likely significant effects including agreement with relevant consultation bodies. The applicant's attention is drawn to the consultation response from NRW (Appendix 2 of this Opinion) regarding their commissioned survey of disturbance in 2024 "Monitoring Noise and Visual Disturbance at Severn Estuary SPA/SAC/Ramsar/SSSI".</p>
352	Table 9-3	Severn Estuary Ramsar (ornithological features) and SPA - operation	<p>The Scoping Report proposes to scope this matter out on the basis that the operational phase is unlikely to cause direct or indirect effects as by nature solar schemes do not create noise or damage once in place. Visual disturbance is also proposed to be scoped out due to the high sea wall between the site and the estuary.</p> <p>In the absence of evidence that the site does not provide functionally linked land that supports the ornithological features of the Severn Estuary Ramsar and SPA, and evidence demonstrating clear agreement with relevant consultation bodies, the Inspectorate is not in a position to agree to scope these matters out of the assessment.</p> <p>Accordingly, the ES should include an assessment of these matters or the information demonstrating agreement with the relevant consultation bodies and the absence of likely significant effect.</p>

ID	Ref	Description	Inspectorate's comments
353	Para 9.3.1, 9.4.2 and Table 9-1	Study area	The Scoping Report states that a search was made of the UK governments on-line tool Multi-Agency Geographic Information for the Countryside (MAGIC) for International/ National Site Network sites up to 10km from the application site, relating to birds only. The ES should ensure the study area for each ecological receptor reflects the proposed development's Zone of Influence (Zoi) rather than being based on a fixed distance. In relation to internationally designated sites, the ES should consider the potential for effects to occur beyond 10km. Efforts should be made to agree the study area(s) with relevant consultation bodies.
354	Table 9-2	Barn owl survey	The Inspectorate notes that no species-specific survey for breeding/foraging barn owls have been proposed. The applicant's attention is drawn to the consultation response from NRW (Appendix 2 of this Opinion) regarding the need for barn owl surveys during the breeding season. The applicant should seek to agree the scope and timing of surveys with relevant consultation bodies.
355	Table 9-1	Llandegfedd Reservoir SSSI and Flatholm SSSI	The applicant's attention is drawn to the consultation response from NRW (Appendix 2 of this Opinion) which advises that Llandegfedd Reservoir SSSI and Flatholm SSSI are scoped into the ES. Effort should be made to agree the designated sites scoped in for ornithological interest with relevant consultation bodies.
356	Para 9.8.1	Mitigation and enhancements	The applicant's attention is drawn to the consultation response from NRW (Appendix 2 of this Opinion) regarding details of appropriate mitigation, enhancements and details for a scheme of post-construction monitoring of any proposed mitigation.

3.6 Water Environment and Flood Risk

(Scoping Report Section 10)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
361	Para 10.3.3	Impacts to water environment and flood risk receptors beyond 1.5km downstream of the RLB – all phases	The Scoping Report proposes to scope this matter out on the basis that a 1.5km radius from the RLB is considered sufficient, based on professional judgement, to encompass all relevant aspects. The Scoping Report does not clearly justify the water resources study area. The Inspectorate considers that the ES should clearly define the study area based on the Zol, the hydrology of the site and potential for significant effects. Consideration of upstream receptors should also be included where appropriate.
362	Table 10-12	Impacts to Ground Water Dependent Terrestrial Ecosystem (GWTDE) – all phases	This matter is proposed to be scoped out on the basis that the identified GWTDE is located upstream from the site, and so is unlikely to be impacted. It is noted in Table 10-11 and Para 10.7.4 that potential indirect impacts to Magor Marsh Nature reserve GWTDE have been identified. This is in contradiction to the justification provided for scoping this matter out. As such, the Inspectorate is not content to scope this matter out. The ES should assess all potentially significant impacts to Magor Marsh Nature reserve GWTDE.

ID	Ref	Description	Inspectorate's comments
363	Para 10.4.15	Impacts on the maintenance of reens	A number of reens are located within the site boundary. The placement of structures associated with the proposed development should not hinder the maintenance of reens and consideration of potential impacts of the scheme on the maintenance of reens should be provided within the ES. The applicant's attention is drawn to NRW's response to consultation (Appendix 2 of this Opinion) in this regard.
364	Para 10.6.13	Reen and ditch surveys	The applicant's attention is drawn to NRW's response to consultation (Appendix 2 of this Opinion) regarding the need for any reen and ditch surveys to inform water quality monitoring.

ID	Ref	Description	Inspectorate's comments
365	Para 10.7.5	Water Framework Directive (WFD)	The Scoping Report identifies the potential for contamination of surface water and groundwater bodies. Given the geographic location of the proposed development, the ES should consider the potential impacts on WFD water bodies. The applicant's attention is drawn to the Inspectorate's advice page: Advice on the Water Framework Directive in this regard. The ES should explain the relationship between the proposed development and any relevant water bodies in relation to the current relevant River Basin Management Plan. The ES should provide a WFD assessment (or a screening assessment detailing why a full assessment is not required) to inform the ES assessment. The approach and findings should be agreed with NRW.

3.7 Ground Conditions

(Scoping Report Section 11)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
37.1	Para 11.4.8	Agricultural land	This matter is proposed to be scoped out on the basis that the Predictive Agricultural land Classification Map 2 provided by the Welsh Government indicates that the site is likely predominantly Agricultural Land Classification (ALC) grade 3(b) and 4. The Inspectorate notes that an ALC survey is proposed to be completed for the site to confirm this. Providing the results of the ALC survey confirm the grades indicated by the predictive map, this matter can be scoped out from further assessment. However, should the ALC survey identify any Best and Most Versatile (BMV) agricultural land, the implications of this should be considered within the ES.
37.2	Table 11-12	Effects on geology (geodiversity) – all phases	This matter is proposed to be scoped out on the basis that the site and study area does not contain any sensitive geological receptors. On this basis, the Inspectorate is content to scope this matter out of the ES.
37.3	Table 11-12	Effects on geology (ground stability) – all phases	This matter is proposed to be scoped out on the basis that ground stability would be considered throughout the design and construction process and informed by a geo-environmental desk study and further surveys. The Inspectorate is content with this approach. This matter can be scoped out of the ES.
37.4	Table 11-12	Effects on mineral resources – all phases	The Scoping Report proposes to scope this matter out on the basis that the superficial sand and gravel deposits located immediately southeast of the site are unlikely to be affected and no other mineral receptors are in proximity to the proposed development. On this basis, the Inspectorate agrees that the proposed development is unlikely to have any significant effects on minerals resources, this matter can be scoped out of the ES.

ID	Ref	Description	Inspectorate's comments
375	N/A	Component degradation	The ES should consider the impact of the release and leaching of hazardous chemicals through the degradation of solar farm componentry with use.
376	Para 2.8.3	Cables left in-situ	The Inspectorate notes the intention to leave buried infrastructure such as cables in-situ. The ES should assess the potential for this infrastructure to degrade and release hazardous chemicals. The applicant's attention is drawn to the consultation response from NRW for further information (Appendix 2 of this Opinion).

3.8 Traffic and Transport

(Scoping Report Section 12)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
381	Para 12.7.5	Highway network and receptors - operation	<p>The Scoping Report proposes to scope this matter out on the basis that transportation of loads to the site would be minimal during the operational phase and would only be required for replacement infrastructure and minor maintenance activities.</p> <p>The Inspectorate agrees that operational movements will be low and therefore unlikely to give rise to any likely significant effects. The Inspectorate is content to scope this matter out of further assessment on the provision that the ES description of development confirms operational vehicle types and numbers (with reference to thresholds within relevant guidance) to justify this position.</p>

ID	Ref	Description	Inspectorate's comments
382	Para 12.5.2-12.5.6	Baseline conditions	The ES should identify the locations of traffic count surveys, explain how these locations were selected and confirm precise details of when the counts were undertaken. Effort should be made to agree these details with relevant local highway authorities. To provide assurance that the assessment of likely significant effects is supported by a robust dataset, the ES should include a justification to support the extent of the survey effort, including why the traffic data collected is considered to represent the typical (neutral) flow conditions on the network.
383	Para 12.3.3 and Figure 12-1	Strategic Road Network (SRN)	The Scoping Report states that the study area will include any roads which would be utilised as the haul routes for deliveries up to the principal road network. The Scoping Report however does not discuss likely significant effects on the SRN itself. Given that construction vehicles are likely to access the proposed development via the SRN the ES should include an assessment of traffic impacts on the SRN (including the M4, Prince of

ID	Ref	Description	Inspectorate's comments
			Wales Bridge, M48 and Severn Bridge, M49 and M5) during construction and decommissioning which are likely to result in significant effects. The applicant's attention is drawn to comments from National Highways (Appendix 2 of this Opinion) in this regard.
384	Table 12-1	Public Rights of Way (PRoW) and other recreational routes	The assessment of impacts on users of PRoW and recreational routes should be supported by pedestrian/user counts where possible, with efforts made to agree the locations for such counts with relevant consultation bodies. Where relevant, the ES should assess potential interactions between aspect assessments (for example traffic and transport, noise, dust, recreation and visual impact). The locations of any diversions or closures should be illustrated on suitable figures in the ES.
385	N/A	Abnormal Indivisible Loads (AILs)	The ES should detail whether any AIL movements are required and assess any potential likely significant effects.

3.9 Noise and Vibration

(Scoping Report Section 13)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
391	Table 13-11, Table 12-3 and para 13.3.8	Road traffic ground-borne vibration – all phases	<p>The Scoping Report proposes to scope this matter out on the basis that significant effects are not considered likely and that there are a number of issues associated with the assessment of ground-borne vibration. The Scoping Report refers to the Design Manual for Roads and Bridges (DMRB LA 111), which states that operational vibration should be scoped out of the assessment methodology as a maintained road surface will be free of irregularities as part of project design and under general maintenance.</p> <p>Given the predicted level of traffic generated by the proposed development during construction, the Inspectorate agrees that road traffic vibration can be scoped out of the assessment. The ES description of development should confirm the vehicle types and numbers for all phases of development (with reference to thresholds within guidance) to justify this position.</p>
392	Table 13-11 and para 13.6.4	Operational vibration	<p>The Scoping Report proposes to scope this matter out on the basis that operational plant would not give rise to ground-borne vibration.</p> <p>Considering the characteristics of the proposed development, the Inspectorate is content for this matter to be scoped out. The ES should demonstrate that operational plant and equipment is of a type and to be used in locations unlikely to result in significant vibration impacts on sensitive receptors.</p>

ID	Ref	Description	Inspectorate's comments
393	Para 13.3.3 and	Study area	Paragraph 13.3.3 defines the proposed study areas. The ES should explain how the study areas have been selected with reference to the extent of the likely impacts of the proposed

ID	Ref	Description	Inspectorate's comments
	Figure 13-1		development and relevant supporting evidence such as details of plant and machinery, noise modelling/noise contour mapping or relevant guidance.
394	Para 13.5.7-13.5.9	Baseline survey	<p>The Scoping Report states that a program of baseline acoustic monitoring is proposed that will focus on determining baseline sound levels at locations representative of those receptors considered likely to currently experience the lowest baseline ambient sound levels, and the likely highest construction and/or operational sound levels due to the construction and operation of the proposed development.</p> <p>The ES should explain how the baseline noise monitoring locations were chosen and how they are deemed to be representative of nearby receptors. The monitoring locations should be agreed with relevant consultees.</p>
395	N/A	Receptors – cross referencing	<p>The Inspectorate considers that noise and vibration may also have potential to lead to adverse effects on landscape and visual receptors, in terms of tranquillity for example, and on cultural heritage assets. Potential adverse effects on landscape and cultural heritage should be cross referenced in the relevant aspect chapters in the ES. The ES should also consider whether any ecological receptors require consideration in respect of noise and vibration related impacts. The applicant should seek agreement from the relevant consultation bodies on any ecological receptors and cross refer to relevant chapters within the ES.</p>

3.10 Climate Change Resilience

(Scoping Report Section 14)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.10.1	Table 14-10 and para 14.6.1, 14.6.2 and 14.6.9	Vulnerability to climate change of the proposed development's assets – construction and decommissioning	<p>The Scoping Report proposes to scope out this matter during construction and decommissioning on the basis that exposure to climate change trends and hazards during the construction and decommissioning phase is considered to be low due to the short timeframe for these phases. The Scoping Report further states that an oCEMP would be utilised during construction to manage responses to extreme weather conditions. Responses to extreme weather and climate change events would be managed during decommissioning in accordance with legislative requirements at that time.</p> <p>On the basis that an oCEMP is submitted with the DCO application that includes such measures and taking into account the short-term duration and nature of construction and decommissioning works, the Inspectorate agrees that effects are not likely to be significant and can be scoped out of further assessment.</p>
3.10.2	Table 14-9 and 14-10	Vulnerability to climate change of the proposed development's assets – operation	<p>The Scoping Report proposes to scope this matter out during operation on the basis that the mitigation measures detailed in Table 14-9 demonstrate that the proposed development is resilient to climate change across the lifecycle of the assets. It is further stated that critical infrastructure would be designed to be resilient to climate change for the life of the asset. The Inspectorates notes that the site benefits from existing coastal defences and that a Flood Consequence Assessment (FCA) would be undertaken as part of ES which would identify additional mitigation measures to protect the assets from flood risk increasing with climate change.</p> <p>On the basis that the mitigation measures detailed in Table 14-9 are appropriately secured in the DCO, the Inspectorate agrees to scope this matter out of further assessment.</p>

ID	Ref	Description	Inspectorate's comments
3.103	N/A	N/A	N/A

3.11 Greenhouse Gas Assessment

(Scoping Report Section 15)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.11.1	Table 15-6	Greenhouse gas (GHG) emissions from land use, land use change and forestry – all phases	The Inspectorate agrees that this matter can be scoped out as the proposed development is unlikely to cause significant release of GHG emissions from land use change during all phases. This is due to the minimal disturbance proposed to the land (piling and cable route/access routes excavation only) and considering the nature of the land use change which is intended to remain as agricultural land and sheep grazing.
3.11.2	Table 15-6	<p>GHG emissions of the following:</p> <ul style="list-style-type: none"> • disposal of waste – construction • emissions attributable to products and materials – operation • energy use – operation • water use – operation • other operational processes – operation • deconstruction of the proposed 	The ES should provide an assessment of GHG emissions for the whole lifetime of the proposed development in accordance with available guidance and/or standards on GHG assessment. This includes consideration of GHG emissions from the listed activities during construction, operation and decommissioning. Therefore, these matters should be assessed for the lifetime of the proposed development and the Inspectorate does not agree to scope these matters out of further assessment.

		<p>development – decommissioning</p> <ul style="list-style-type: none"> • transport to end-of-life facilities - decommissioning • processing of components – decommissioning • disposal of components – decommissioning 	
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ID	Ref	Description	Inspectorate's comments
3.11.3	Para 15.5.5	GHG emissions assessment methodology	The ES should identify the guidance that has been used to inform the assessment methodology. Deviations from the applied guidance should be clearly justified within the ES. The ES should seek to agree the approach to the GHG assessment with relevant consultation bodies with evidence of any agreement provided in the ES.
3.11.4	Para 15.5.1	GHG emissions assessment assumptions	The GHG assessment within the ES should describe any assumptions made to determine other electricity production activities and explain what is meant by being “avoided or displaced” as a result of the proposed development.

3.12 Socioeconomics, Tourism and Recreation

(Scoping Report Section 16)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.121	Table 16-8	Direct, indirect, and induced employment/labour market effects - operation	This matter is proposed to be scoped out on the basis that the number of employees and associated operational spend would be unlikely to result in significant effects. Providing the ES states the number employees required for the operation of the proposed development, the Inspectorate agrees that the operation of the proposed development would be unlikely to have significant effects on labour markets. This matter can be scoped out of the ES.
3.122	Table 16-8	Direct, indirect and induced effects on local services and tourism businesses (i.e. hospitality and retail) – all phases	<p>This matter is proposed to be scoped out on the basis that there are three major cities within an hour's drive and so effects on local hospitality or retail services are unlikely to be significantly affected. The justification provided does not address potential effects on tourism businesses. Furthermore, paragraph 16.6.4 states that indirect impacts to tourism businesses are to be scoped into the assessment. The approach to this matter is unclear and as such, the Inspectorate is not in a position to scope it out entirely.</p> <p>The Inspectorate agrees that based on the location of the proposed development, significant effects on hospitality and retail services are unlikely to be significant. This matter can be scoped out of the ES. However, for the avoidance of doubt, effects on tourism businesses should be fully assessed within the ES.</p>
3.123	Table 16-8	Direct and indirect effects on land-use (agricultural resource) – all phases	This matter is proposed to be scoped out on the basis that according to the Predictive Agricultural land Classification Map 2, no BMV agricultural land is present on site and so significant effects would be unlikely to occur. This rationale does not consider potential impacts to agricultural businesses. As such, the Inspectorate is not in a position to scope this matter out. The ES should assess direct and indirect impacts on agricultural resource, including impacts to businesses. See comment I.D. 3.7.1 for the Inspectorates opinion on BMV.

ID	Ref	Description	Inspectorate's comments
3.124	N/A	Severance	The ES should assess the impacts during construction and operation of potential severance issues for farmers and other landowners. Measures should be included within the dDCO to ensure farmers and other landowners ability to access and move their livestock and that ability to access their land is not hindered. Accordingly, these potential effects should be assessed and reported in the ES for all phases of the proposed development.
3.125	Para 16.6.2	Employment	The Scoping Report states employment generated during construction and decommissioning of the proposed development will be considered in the Socio-Economic assessment. The Inspectorate advises that the number and types of jobs created should be estimated in the ES and considered in the context of the available workforce in the area during each relevant phase of the proposed development.
3.126	Section 16.8	Mitigation	The Scoping Report states that no further mitigation measures are proposed at this stage as embedded measures and the design strategy for the proposed development are considered sufficient to avoid any significant effects. For the avoidance of doubt, the ES should outline any embedded measures that are envisioned to avoid significant effects on socio-economic receptors.

3.13 Other Environmental Topics

(Scoping Report Section 17)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.131	Para 17.2.7, 17.2.14 and 17.2.15	Air quality – dust emissions	<p>The Scoping Report proposes to scope out dust emissions on the basis that significant effects are not considered likely as the construction and decommissioning phases would be subject to air quality mitigation measures associated with dust control which would be incorporated into the oCEMP.</p> <p>Given that appropriate mitigation measures in line with best practice and Institute of Air Quality Management (IAQM) guidance have been included within the commitments register and would be secured through the oCEMP, the Inspectorate agrees that this matter can be scoped out.</p>
3.132	Para 17.2.6, 17.2.9, 17.2.10 and Table 17-1	Air quality – vehicle and plant emissions	<p>The Scoping Report proposes to scope out an assessment of vehicle and plant emissions on the basis that mitigation measures for plant and motorised equipment would be incorporated into the oCEMP and that traffic movements are anticipated to fall below the relevant criteria set out in Environmental Protection UK (EPUK) and IAQM's guidance.</p> <p>The Inspectorate, considering the nature and scope of the proposed development, agrees to this approach subject to confirmation in the ES that the proposed vehicle numbers alone or cumulatively with other proposals on relevant links will not exceed the relevant EPUK and IAQM's thresholds. The Project Description chapter of the ES should clearly set out the likely number and type of vehicles required for construction, operation and decommissioning.</p>
3.133	Section 17.3	Land quality	<p>The Scoping Report proposes to scope out a standalone ES Chapter for land quality on the basis that the physical effects of the proposed development on existing land-use patterns will be considered within the ground conditions chapter of the ES. Considering the information provided, the Inspectorate is content that this matter can be assessed within the ground conditions aspect chapter subject to a commitment within the commitments</p>

			register to providing a drilling fluid breakout plan, emergency spill response procedure appropriate buffers/construction management measures and best practice measures during each phase to reduce risk of contaminant mobilisation. The Inspectorate notes that a soil management plan would be produced, detailing measures to reduce or avoid damage to soils. For clarity, this should be provided with the application and secured through the DCO.
3.134	Section 17.4	Major accidents or disasters	The applicant proposes to scope out a standalone chapter for major accidents and disasters on the basis that the risks listed in Table 17-2 would be reported on in the relevant chapters of the ES where there is potential for likely significant effects to occur. The Inspectorate has considered the characteristics of the proposed development and agrees with this approach.
3.135	Section 17.5	Human health and population	On the basis that the technical chapters of the ES will consider the potential effects of human health within their own assessments, the Inspectorate is in agreement that a standalone assessment on human health is not required. The ES should clearly signpost where impacts relating to human health have been considered in the relevant technical chapters.
3.136	Para 17.5.5 and 17.5.6	EMF	The Scoping Report proposes the scope of the assessment of EMF in relation to EIA to be limited to cables associated with the proposed development that exceed 132kV. The Inspectorate agrees to this approach. In line with relevant guidance (DECC Power Lines: Demonstrating compliance with EMF public exposure guidelines, A Voluntary Code of Practice 2012), cables above 132kV have potential to cause EMF effects. The Inspectorate considers that an EMF assessment should be provided in an appendix to the ES for any cables with voltages over 132kV. This should include the location, routing, and voltages of any cables over 132kV and a risk assessment to any human and ecological sensitive receptors within the ZoI. The applicant's attention is drawn to ID 3.4.9 regarding EMF effects on ecological receptors.
3.137	Section 17.6	Telecommunications, television reception and utilities	The Inspectorate is content to scope these aspects out provided that the ES sets out the findings of the desk-based assessment and how this has been taken into account in the design to mitigate potential impacts.

3.138	Section 17.7	Waste	<p>The Scoping Report states that a separate waste chapter for the ES has been scoped out of the EIA as no likely significant effects are predicted during all phases of the proposed development.</p> <p>The Inspectorate agrees that a standalone chapter on waste is not required within the ES. However, the Inspectorate is not content to scope this aspect out. The ES should however still contain a description of the potential waste streams of construction and decommissioning, and include estimated volumes, by type and quantity, of expected residues and emissions and quantities and types of waste produced, including, and an assessment of the likely significant effects.</p> <p>If off-site disposal is required, an assessment of likely significant effects including cumulative effects should be included within the ES. The ES should provide a waste management plan and describe any measures implemented to minimise waste and demonstrate how the waste hierarchy will be applied.</p>
3.139	Section 17.8	Heat and radiation	<p>The Scoping Report proposes to scope out an assessment of impacts from heat and radiation during construction, operation and decommissioning as no significant sources of heat and radiation are anticipated due to the scale and nature of the proposed development. The Inspectorate agrees that this matter may be scoped out from further consideration provided that the ES clearly signposts any identified sources of heat and radiation and how this has been considered with respect to site selection, site layout and mitigation design.</p>

ID	Ref	Description	Inspectorate's comments
3.13.10	N/A	N/A	N/A

3.14 Cumulative Effects

(Scoping Report Section 18)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.14.1	N/A	N/A	No matters have been proposed to be scoped out of the assessment

ID	Ref	Description	Inspectorate's comments
3.14.2	Table 18-1	Location of cumulative developments	The ES should include information on the location of the developments included in the cumulative effects assessment and the distance from the proposed development. This should be supported by a figure depicting the locations and extent of cumulative developments in relation to the proposed development.

APPENDIX 1: CONSULTATION BODIES FORMALLY CONSULTED

TABLE A1: PRESCRIBED CONSULTATION BODIES

Bodies prescribed in schedule 1 of The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended) (the 'APFP Regulations (as amended)')

SCHEDULE 1 DESCRIPTION	ORGANISATION
The Welsh Ministers	Welsh Government
The relevant parish council or, where the application relates to land in Wales or Scotland, the relevant community council	Redwick Community Council
	Nash Community Council
	Goldcliff Community Council
	Llanwern Community Council
	Langstone Community Council
	Bishton Community Council
	Rogiet Community Council
	Caerwent Community Council
	Magor with Undy Town Council
Natural Resources Wales	Natural Resources Wales
Royal Commission On Ancient and Historical Monuments Of Wales	Royal Commission On Ancient and Historical Monuments Of Wales
The relevant internal drainage board	Caldicot and Wentlooge levels Internal Drainage Board
The relevant Highways Authority	Newport City Council
	Monmouthshire County Council
	National Highways

SCHEDULE 1 DESCRIPTION	ORGANISATION
The Secretary of State for Transport	Department for Transport
The Health and Safety Executive	Health and Safety Executive
United Kingdom Health Security Agency, an executive agency of the Department of Health and Social Care	United Kingdom Health Security Agency
NHS England	NHS England
The National Health Service Trusts (Wales)	Public Health Wales NHS Trust
	Welsh Ambulance Services University NHS Trust
	Velindre University NHS Trust
The relevant local health board (Wales)	Aneurin Bevan University Health Board
The Crown Estate Commissioners	The Crown Estate
The relevant police authority	Gwent Police and Crime Commissioner
The relevant fire and rescue authority	South Wales Fire and Rescue Service

TABLE A2: RELEVANT STATUTORY UNDERTAKERS

‘Statutory undertaker’ is defined in The APFP Regulations (as amended) as having the same meaning as in section 127 of the Planning Act 2008 (PA2008)

STATUTORY UNDERTAKER	ORGANISATION
The relevant NHS Trust	Public Health Wales NHS Trust
	Welsh Ambulance Services University NHS Trust

STATUTORY UNDERTAKER	ORGANISATION
	Velindre University NHS Trust
The relevant local health board (Wales)	Aneurin Bevan University Health Board
Railways	Network Rail Infrastructure Ltd
	National Highways Historical Railways Estate
Universal Service Provider	Royal Mail Group
The relevant Environment Agency	Natural Resources Wales
The relevant water and sewage undertaker	Dwr Cymru (Welsh Water)
The relevant public gas transporter	Cadent Gas Limited
	Northern Gas Networks Limited
	Scotland Gas Networks Plc
	Southern Gas Networks Plc
	Wales and West Utilities Ltd
	CNG Services Ltd
	Energy Assets Pipelines Limited
	ES Pipelines Ltd
	ESP Connections Ltd
	ESP Networks Ltd
	ESP Pipelines Ltd
	Fulcrum Pipelines Limited
	GTC Pipelines Limited
	Harlaxton Gas Networks Limited
	Independent Pipelines Limited

STATUTORY UNDERTAKER	ORGANISATION
	Indigo Pipelines Limited
	Inovyn Enterprises Ltd
	Last Mile Gas Ltd
	Leep Gas Networks Limited
	Mua Gas Limited
	Quadrant Pipelines Limited
	Stark Works
	National Gas
The relevant electricity generator with CPO Powers	Severn Gas Transportation Limited
	National Grid Electricity Distribution (South Wales) Limited
	Advanced Electricity Networks Ltd
	Aidien Ltd
	Aurora Utilities Ltd
	Eclipse Power Network Limited
	Energy Assets Networks Limited
	ESP Electricity Limited
	Fulcrum Electricity Assets Limited
	Green Generation Energy Networks Cymru Ltd
	Harlaxton Energy Networks Limited
	Independent Distribution Connection Specialists Ltd
	Independent Power Networks Limited
	Indigo Power Limited
	Last Mile Electricity Ltd

STATUTORY UNDERTAKER	ORGANISATION
	Leep Electricity Networks Limited
	Mua Electricity Limited
	Optimal Power Networks Limited
	Stark Infra-Electricity Ltd
	The Electricity Network Company Limited
	UK Power Distribution Limited
	Utility Assets Limited
	Vattenfall Networks Limited
The relevant electricity transmitter with CPO Powers	National Grid Electricity Transmission Plc
	National Grid Electricity System Operation Limited

TABLE A3: LOCAL AUTHORITIES AS DEFINED IN SECTION 43(3) OF THE PA2008

LOCAL AUTHORITY
Newport City Council
Monmouthshire County Council
Forest of Dean District Council
Bannau Brycheiniog National Park Authority
Torfaen County Borough Council
Cardiff Council
Herefordshire Council
Blaenau Gwent County Borough Council
Caerphilly County Borough Council
City of Bristol

LOCAL AUTHORITY
Powys County Council
South Gloucestershire Council
Gloucestershire County Council

TABLE A4: NON-PRESCRIBED CONSULTATION BODIES

ORGANISATION
Cadw
Welsh Language Commissioner
Transport Management Team South East Wales Directors of Environment and Regeneration (SewDER)
North Somerset Council
Somerset Council

APPENDIX 2: RESPONDENTS TO CONSULTATION AND COPIES OF REPLIES

CONSULTATION BODIES WHO REPLIED BY THE STATUTORY DEADLINE:
Blaenau Gwent Council
Cadw
Caerphilly County Borough Council
Caerwent Community Council
Dwr Cymru Welsh Water
Fulcrum Pipelines Limited
Goldcliff Community Council
Health and Safety Executive
Indigo Networks
Magor with Undy Town Council
Cyngor Sir Fynwy
National Grid Electricity Transmission PLC
National Highways
Natural Resources Wales
Network Rail
Newport City Council
Public Health Wales
South Wales Fire and Rescue Service
Wales & West Utilities

Todd Brumwell
The Planning Inspectorate
Environmental Services
Operations Group 3
Temple Quay House
2 The Square
Bristol
BS1 6PN

From: Plas y Ffynnon
Cambrian Way
Brecon
Powys
LD3 7HP
Tel: (01874) 620431
Email: planning.enquiries@beacons-npa.gov.uk
NPA Ref: 24/23476/SCO
Your Ref: EN010171
Officer: [REDACTED]
Date: 8th January 2025

Development Consent-Planning Act 1980 (as amended)
The Town and Country (Environmental Impact Assessment) (Wales) Regulations 2017 - ("the 2017 Regulations")

Proposal: "Proposed Solar Farm on Land to the South of Llanwern Steelworks (approx. 2.5km) comprising the Gwent Levels between Whitson and Undy, Newport."

Address: Land To The South Of Llanwern Steelworks, Newport,

Thank you for the consultation on the Environmental Statement (ES) scoping report for the above, received 19 December 2024.

Site Location and Proposal

Solar PV farm with a total red line boundary of 548.3ha situated on agricultural land approx.. 13km east of Newport between the villages of Redwick and Undy. The site lies approximately 20km to the south-east of the Bannau Brycheiniog National Park (BBNP). Please note that the legal entity of this Local Planning Authority remains 'Brecon Beacons National Park Authority'.

National Park Context

Section 63 of the Environment Act (1995) sets out the statutory purposes of the National Park as follows:-

To conserve and enhance the natural beauty, wildlife and cultural heritage of the National Park; and
To promote opportunities for the public understanding and enjoyment of the special qualities of the National Park

In accordance with section 62(2) of the Environment Act, any relevant Authority shall have regard to National Park purposes when performing any functions in relation to, or so as to affect, land in a National Park. Relevant Authorities include public bodies, government departments, local authorities and statutory undertakers.

Section 3.1.3 of the Brecon Beacons National Park Authority Local Development Plan 2007-2022 states that in commenting on proposals that impact on the National Park it will aim to ensure that s62(2) is observed through the application of Strategic Policy SP1.

Policy SP1 states the following:

Development in the National Park will be required to comply with the purposes and statutory duty set out in legislation, and will be permitted where it:

- a) conserves and enhances the natural beauty, wildlife and cultural heritage of the Park; and/or
- b) provides for, or supports, the understanding and enjoyment of the special qualities of the National Park in a way that does not harm those special qualities; and
- c) fulfils the two purposes above and assists the economic and social well-being of local communities.

The Special Qualities of the National Park may be significantly impacted by development proposals on the fringes of the National Park. The Brecon Beacons National Park Management Plan 2023-2028 defines the Special Qualities of the Brecon Beacons National Park as follows:

- The National Park's sweeping grandeur and outstanding natural beauty observed across a variety of harmoniously connected landscapes, including marvellous gorges and waterfalls, classic karst geology with limestone pavement, caves and sink holes, contrasting glacial landforms such as cliffs and broad valleys carved from old red sandstone and prominent hilltops with extensive views in all directions. A landscape that provides a sense of time depth and timelessness
- A working, living "patchwork" of contrasting patterns, colours and textures comprising well-maintained farmed landscapes, open uplands, lakes and meandering rivers, punctuated by small-scale woodlands, country lanes, hedgerows and stone walls and scattered settlements. grouped around landscape, community, experiences and wildlife. Because these special qualities are often felt rather than rationally processed through statements of policy, we have asked local poets and artist to respond to the special qualities, to help speak to the emotive sense of what makes the Park special.
- A sense of place and cultural identity - "Welshness" - characterised by the indigenous Welsh language, religious and spiritual connections, unique customs and events, traditional foods and crafts, relatively unspoilt historic towns and villages, family farms and continued practices of traditional skills developed by local inhabitants to live and earn a living here, such as common land practices and grazing.
- An intimate sense of community where small, pastoral towns and villages are comparatively safe, friendly, welcoming and retain a spirit of cooperation.
- Enjoyable and accessible countryside with extensive, widespread and varied opportunities to pursue walking, cycling, fishing, waterbased activities and other forms of sustainable recreation or relaxation.
- A sense of discovery where people explore the National Park's hidden secrets and stories such as genealogical histories, prehistoric ritual sites, relic medieval rural settlements, early industrial sites, local myths and legends and geological treasures from time immemorial.
- A feeling of vitality and wellbeing that comes from enjoying the National Park's fresh air, clean water, rural setting, open land and locally produced foods.

- A National Park offering, dark, night time skies, peace and tranquility with opportunities for quiet enjoyment, inspiration, relaxation and spiritual renewal.
- The geology and climate vary greatly across the Park creating an elaborate patchwork landscape rich in biodiversity. The Park hosts heathlands, grasslands and woodlands, with uplands and lowlands, natural lakes and riparian habitats. The Park contains limestone pavement and blanket bogs of international and national importance. Several endangered species survive in the Park, including some for which the Park is their furthest extent of their natural range.
- An abundance of wildlife thrives in semi-natural habitats that have been lived in and shaped by human settlement for millennia. The landscape is interlaced with ancient hedgerows bustling with life, enclosing wildlife-rich hay meadows, and primeval woodlands that cloak some steep-sided valleys. Veteran trees adorn the landscape, carrying the scars of centuries of changing dependency on their resources. Heather-dominated uplands maintained through grazing by horses, sheep and cattle are a testament to the intimate relationship between biodiversity and farming.

Planning Policy Wales (PPW) (Edition 12) acknowledges the statutory purposes of National Parks and references the "Sandford Principle" (page 140), whereby if there is a conflict between the statutory purposes, greater weight shall be given to the first purpose of conserving and enhancing the natural beauty, wildlife and cultural heritage. PPW states that *"planning authorities have a statutory duty to have regard to National Parks and AONB purposes. This duty applies in relation to all activities affecting National Parks and AONBs, whether those activities lie within, or in the setting of, the designated areas. The designated landscapes should be drivers of the sustainable use and management of natural resources in their areas, and planning authorities should have regard to their identified special qualities in the exercise of their functions and any relevant management plans."* (see para 6.3.5).

Response

As set out above, the site lies approximately 20km to the south-east of the BBNP. Given the nature of the development and distance separating the proposed development from the BBNP, the only topic that is considered to have a potential impact is Landscape and Visual Assessment.

It is considered that the proposed development may be visible from viewpoint locations within the Brecon Beacons National Park and Blaenavon World Heritage Site, however since the study area for the Zone of Theoretical Visibility is restricted to 5km, this would not therefore be assessed in the methodology proposed within the report.

Nevertheless, it is considered likely that the proposal would not have a significant visual impact on the BBNP.

Yours sincerely,



Gareth Jones
Director, Planning and Place

Yr ydym yn croesawu gohebiaeth yn y Gymraeg. Bydd unrhyw ohebiaeth yn y Gymraeg yn cael ei ateb yn y Gymraeg a ni fydd unrhyw gyswllt trwy gyfrwng y Gymraeg yn arwain at oedi yn y mater sy'n cael ei drin.

We welcome correspondence in Welsh. Any correspondence in Welsh will be answered in Welsh and corresponding in Welsh will not lead to a delay in the matter being dealt with.

From: [REDACTED]
To: [Llanwern Solar Project](#)
Subject: Fw: EN010171 - Future Energy Llanwern Solar Project - EIA Scoping Notification and Consultation
Date: 20 December 2024 12:20:16
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[EN010171_Letter to stat cons_Scoping & Reg 11 Notification.pdf](#)

Good afternoon,

Blaenau Gwent Council have no comment to make on the Scoping Opinion for this proposal.

Kind regards

Steph

Steph Hopkins MSc LLB (Hons)

Rheolwr Tim Gwasanaethau Datblygu/Team Manager Development Management

Rheoli Datblygu / Development Management

Adfywio a Gwasanaethau Cymunedol / Regeneration & Community Services

E-bost/ [REDACTED]@blaenau-gwent

Cyngor Bwrdeistref Sirol Blaenau Gwent/ Blaenau Gwent County Borough Council

Y Swyddfeydd Cyffredinol, Heol Gwaith Dur, Glyn Ebwy, NP23 6DN / The General Offices, Steelworks Road, Ebbw Vale, NP23 6DN

Rydym yn awr yn Gyngor sy'n gweithio'n ystwyth. Mae hyn yn golygu y gall staff weithio'n hyblyg o unrhyw leoliad a/neu ar wahanol amserau a defnyddio technoleg i weithio'n wahanol tra'n hyrwyddo gwasanaeth mwy cydlynol. Er fod y Ganolfan Ddinesig yn awr ar gau i'r cyhoedd, mae pob swyddog yn dal i fod ar gael dros y ffôn neu e-bost. Cyfeiriad post ar gyfer gohebiaeth yn unig yw'r cyfeiriad a roddir uchod.

We are now an agile working Council. This means that staff can work flexibly from any location and/or at different times and using technology to work differently whilst promoting a more joined up service. The Civic Centre is now closed however all officers are still available by phone or email. The address provided above is a postal address for correspondence only.

From: Llanwern Solar Project

Sent: 19 December 2024 16:36

Subject: EN010171 - Future Energy Llanwern Solar Project - EIA Scoping Notification and Consultation

External: This email originated from outside Blaenau Gwent Borough Council.

Please take care when clicking links.

Allanol: Daeth yr e-bost hwn o'r tu allan Cyngor Bwrdeistref Sirol Blaenau Gwent.

Planning Inspectorate

Eich cyfeirnod
Your reference

EN010171

By email

Ein cyfeirnod
Our referencellanwernsolarproject@planninginspectorate.gov.ukDyddiad
Date

16 January 2025

Llinell uniongyrchol
Direct line

0300 0256004

Ebost
Email:Cadwplanning@gov.wales

Dear Todd Brumwell

PROPOSED DEVELOPMENT: Future Energy Llanwern Solar Project

Thank you for your consultation of 19 December 2024 asking for Cadw's view on the above.

Cadw, as the Welsh Government's historic environment service, has assessed the characteristics of this proposed development and its location within the historic environment. In particular, the likely impact on designated or registered historic assets of national importance. In assessing if the likely impact of the development is significant Cadw has considered the extent to which the proposals affect those nationally important historic assets that form the historic environment, including scheduled ancient monuments, listed buildings, registered historic parks, gardens and landscapes.

These views are provided without prejudice to the Welsh Government's consideration of the matter, should it come before it formally for determination.

Advice

Our records show that the following historic assets are potentially affected by the proposal.

Listed Buildings:

See Annex A

Scheduled Ancient Monuments:

See Annex A

Registered Historic Parks and Gardens:

PGW(Gt)44(MON) Dewstow House
PGW(Gt)3(NPT) Pencoed Castle
PGW(Gt)18(NPT) Beechwood Park

Registered Historic Landscapes:

HLW (Gt) 2 Gwent Levels

This advice is given in response to scoping opinion as to the contents of an Environmental Impact Assessment (EIA) that will be submitted in support of an application for the Future Energy Llanwern Solar Project.

The request for a scoping opinion is accompanied by scoping report produced by WSP. Chapter 7 of the scoping report considers the Cultural Heritage and Archaeology of the proposed application area and the methodologies that will be used to assess the impact of the proposed development on it.

These assessments will include:

- a historic environment desk-based assessment meeting (HEDBA) the standards and guidance for such works produced by the Chartered Institute for Archaeologists;
- an assessment of the impact of the proposed development on the setting of designated historic assets, following the methodology given in the Welsh Government document "The Setting of Historic Assets in Wales".
- an Assessment of the Significance of the Impact of Development on Historic Landscape (ASIDOHL) following the methodology given in the Welsh Government document "Guide to Good Practice on using The Register of Landscapes of Historic Interest in Wales in the Planning and Development Process".

We agree that these studies and the identified data sources are appropriate. However, it should be noted that the HEDBA may identify buried archaeological features that will require further investigation possible by geophysical survey and archaeological evaluation. If these additional investigations are required, they should be completed before the application is submitted in accord with section 6.1.24 of Planning Policy Wales and section 207 of National Planning Policy Framework.

The ASIDOHL assessment will also need to consider the cumulative impact of this proposed solar farm along with those that have already been constructed, consented or proposed in the Gwent Levels registered historic landscape and the individual historic landscape character areas (HCLA). Cadw should be consulted in regard to the HCLAs that will need to be included in the ASIDOHL.

Yours sincerely

Denise Harris
Historic Environment Branch

ANNEX A

Listed Buildings:

2035	Church of St Michael and All Angels	II*
	Cross Base in Churchyard to St. Michael and all Angels	
2036	Church	II
2037	Old Court Farmhouse (including attached Cross Wing	II

	known as Ilamfihangel Court)	
2047	Church of St Mary	II*
2052	Church of St Mary	II
2744	Ivy Lodge	II
2903	Thatched Cottage	II
2904	Pencoed Castle	II*
2906	Cross Base in Churchyard to St Mary's Church	II
2907	Parish Church of St Cadwaladr	II
2912	Church of St Mary Magdalene	II
2919	Parish Church of Langstone	II
2920	Langstone Court Farmhouse	II
2921	Parish Church of St Martin	II
2922	Ford Farmhouse	II
2926	Parish Church of St Mary	II*
2928	Church of St Mary	I
2930	Magor House	II
2931	Manor Farmhouse	II
2936	Church of St Mary	I
2937	Parish Church of St John the Baptist	II
2940	Church of St Thomas	I
2943	Whitson Church	II*
	Whitson Court including attached pavilions and garden	
2944	walls	II*
2946	Whitson Lodge	II
2994	The Bell Inn PH	II
3056	Barn to SW of Penhow Castle	II
3060	Brick House	II
3064	Great Milton	II
3065	Little Porton Cottage	II
3066	Little Porton Byre	II
3072	Church of the Holy Trinity	II
3073	Church House & The Friars	II
3089	Farmhouse at Pencoed Castle	II
3090	Long Barn at Pencoed Castle	II
3091	Dovecote at Pencoed Castle	II
3096	Telephone Call-box at the junction with Bulmore Road	II
	Beechwood House, attached forecourt wall and attached	
3109	coach-house range	II
15934	Manor House Farmhouse	II
15935	Barn at Manor House Farm	II
15936	Stables at Manor House Farm	II
15937	Old Windmill	II
15938	Farm Range at Old Court Farm	II
15939	Stables at Old Court Farm	II
	Green Farmhouse (including attached Walls and Railings to	
15940	Front)	II
15941	Cowhouse Range East of Green Farmhouse	II
15943	Barn to East of Green Farmhouse	II
16062	Old School	II
16063	Schoolhouse	II
16064	Magor Mansion (also known as the Procurator's House)	II*
16065	War Memorial	II
16066	The Golden Lion PH	II
16067	Magor Post Office	II
16068	The Vicarage	II
16069	Salisbury Farmhouse	II
16070	Great House Farmhouse including attached range of farm	II

	buildings	
16071	Moorgate Cottage	II
17075	Barn to NW of Ford Farmhouse	II
17076	Pencoed Castle Gatehouse	II*
17078	Barn at The Barn Farm	II
17538	Great Newra	II
17539	Barn at Great Newra	II
17540	Whitson Farm	II
17541	Samson Court	II
17542	Pye Corner Farm	II
17543	Tatton Farm	II
17544	Fair Orchard	II
17545	Fair Orchard Barn and attached agricultural buildings	II
18173	Baltic Oil Works	II
18178	Malt House	II
18179	Lock walls to mouth of Old Town Dock	II
21458	Former Police Telephone Box	II
23038	Church of St Bridget	II
23039	Dewstow House	II
23041	Pen-y-lan Farmhouse	II
23059	Grotto about 30m to the south east of Dewstow House Terrace, Wall, Grotto and Underground Garden about 5m	II*
23060	to north west of Dewstow House Grotto, Underground Garden and Bridge about 60m to west	II*
23061	of Dewstow House	II*
25846	St Patrick's Roman Catholic Church	II
	Monument of James Rennie in the Churchyard of the	
26118	Church of the Holy Trinity	II
	Monument of Willmetts and Darvel in the Churchyard of the	
26119	Church of the Holy Trinity	II
26121	Church of the Holy Spirit	II
26131	Priory Farmhouse	II
26132	Barn at Priory Farm	II
85290	Old Lime Kiln	II

Scheduled Monuments

MM021 St Julian's Wood Camp
 MM049 Priory Wood Camp
 MM058 Langstone Fish Pond
 MM059 Langstone motte and enclosure
 MM068 Standing Stone 252m South of Bencroft Lane
 MM069 The Larches Camp
 MM092 Goldcliff Moated House Site
 MM126 Undy Churchyard Cross
 MM127 Wilcrick Hill Camp
 MM128 Bishton Castle
 MM154 St Brides Netherwent Deserted Village
 MM169 Enclosure revealed by Aerial Photography
 MM170 Round Barrow 57m South of Stock Wood
 MM180 Medieval Building adjoining Magor Churchyard
 MM188 Moated Site 200m South West of Court Farm
 MM198 Medieval Moated Site 400m N of Undy Church
 MM201 Moated Site 250m SW of Pencoed Castle
 MM202 Deserted Medieval Village W of St Mary's Church

MM205 Moated Site E of Grangefield Farm
MM226 Relict Seawall alongside Collister Pill Reen
MM253 Moated Site in Coldra Wood
MM274 Pencoed Castle
MM298 Ford Farm Roman Villa
MM313 St. Mary Magdalene's Churchyard Cross, Goldcliff
MM314 St. Mary's Churchyard Crosses, Magor
MM324 St. Mary's Churchyard Cross, Llanwern
MM325 St. Michael's Churchyard Cross, Llanfihangel Rogiet
MM353 Goldcliff Pill Anti-invasion Defences

From: [REDACTED]
To: [Llanwern Solar Project](#)
Subject: RE: EN010171 - Future Energy Llanwern Solar Project - EIA Scoping Notification and Consultation
Date: 16 January 2025 14:38:32
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)

Dear Todd

Thank you for your consultation on the scoping for this NSIP. I can confirm that Caerphilly County Borough Council have no comments to make on the scoping report.

Kind regards

Helen

Helen Winsall

Prif Gynllunydd | Principal Planner

Cyngor Bwrdeistref Sirol Caerffili | Caerphilly County Borough Council

 [REDACTED]
[REDACTED]@caerphilly.gov.uk [REDACTED]@caerffili.gov.uk

Porwch ein gwefan | Browse our website

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www.youtube.com/caerphillycbctv

www.flickr.com/photos/caerphillycbc

Gallwch ohebu mewn unrhyw iaith neu fformat.Ni fydd gohebu yn Gymraeg yn creu unrhyw oedi.

Correspondence may be in any language or format.Corresponding in Welsh will not lead to any delay.

From: Llanwern Solar Project

Sent: 19 December 2024 16:36

Subject: EN010171 - Future Energy Llanwern Solar Project - EIA Scoping Notification and Consultation

You don't often get email from llanwernsolarproject@planninginspectorate.gov.uk. [Learn why this is important](#)

FAO Head of Planning

Dear Sir/Madam

Please see attached correspondence on the proposed Future Energy Llanwern Solar Project.

The Applicant for the Proposed Development intends to make an application for Development Consent under the Planning Act 2008. The Applicant has sought a Scoping Opinion from the Planning Inspectorate, on behalf of the Secretary of State, as to the scope and level of detail of the information to be provided within the Environmental Statement that will accompany its future application.

The Planning Inspectorate has identified you as a consultation body to inform the Scoping Opinion and is therefore inviting you to submit comments by **16 January 2024**. The deadline is a statutory requirement that cannot be extended.

Further information is included within the attached letter.

Kind regards,

Todd Brumwell



Todd Brumwell

EIA Advisor

Planning Inspectorate

 @PINSgov  Planning Inspectorate  planninginspectorate.gov.uk

Ensuring **fairness, openness** and **impartiality** across all our services

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From: [REDACTED]
To: [Llanwern Solar Project](#)
Subject: EN010171 - Future Energy Llanwern Solar Project
Date: 13 January 2025 12:23:50

Dear Sir,

The Caerwent Community Council were very pleased to be consulted on the above.

The document was very comprehensive and the councillors concerns were

- The scale of the project in terms of area.
- Pollution
- Biodiversity including nesting birds and other species which may be lost in the exercise.
- Fencing/boundarieswhat will it look like in the natural environment?
- What would the post construction monitoring include? How will this be adhered to?

These are just some of the concerns raised.

Therefore we as a council would very much like to stay involved and be consulted on the project.

Kind Regards,

Anne-Marie Spooner

Clerk to Caerwent Community Council

Operations Group 3
Planning Inspectorate
Temple Quay House 2
The Square
Bristol
BS1 6PN

Date: 03/01/2025
Our Ref: PPA0009160

Dear Sir/Madam,

Grid Ref: 340849 184161

Site Address: Llanwern Solar Project

Development: EIA Scoping Notification and Consultation Ref EN010171 - Future Energy Llanwern Solar Project

Thank you for consulting us in regards to the proposed Future Energy Llanwern. We have reviewed the submitted documents and comment as follows.

FOUL WATER DRAINAGE

Based on the submitted information that proposed development does not appear to connect to the public sewerage system and as such we have no comments to make in regards to foul water drainage.

SURFACE WATER DRAINAGE

Regarding Surface Water, as of 7th January 2019, this proposed development is subject to Schedule 3 of the Flood and Water Management Act 2010. The development therefore requires approval of Sustainable Drainage Systems (SuDS) features, in accordance with the 'Statutory standards for sustainable drainage systems – designing, constructing, operating and maintaining surface water drainage systems'. It is therefore recommended that the developer engage in consultation with the Local Authority, as the determining SuDS Approval Body (SAB), in relation to their proposals for SuDS features. Please note, Dwr Cymru Welsh Water is a statutory consultee to the SAB application process and will provide comments to any SuDS proposals by response to SAB consultation.

No details have been submitted as of yet, however, we draw the applicants attention to Planning Policy Wales which acknowledges that legislation prohibits the discharge of surface water to foul sewers.

Furthermore, highlights that any surface water from new developments should not be discharged to combined systems because of the risk of pollution when combined systems overflow (Para 6.6.3). Therefore, no amount of surface water will be permitted to communicate directly or indirectly with the public combined sewerage system.

ASSET PROTECTION

The site is crossed by a significant strategic rising main measuring 700mm in diameter. This 700mm rising main drains a large portion of southern Monmouthshire and surrounding counties to Nash Wastewater Treatment Works (WwTW) which is one of the largest WwTW operating in Wales.

No operational development can occur within the required 4.75m protection zone (measured either side of the pipes centreline). Your design should take into account this protection zone to ensure no detriment arises to the asset, the environment and our customers.

POTABLE WATER SUPPLY

The proposed development is crossed by several Dwr Cymru Welsh Water Distributor Watermains. These watermains have a protection zone measured 3.85m either side of the pipes centreline where no operational development can take place.

From the information provided it has been assumed no new potable water connection, or upsize of existing supply, is being requested or required as such none has been approved as part of this consultation, easement only advised. If this is incorrect please advise further providing details of the potable water requirements for an assessment of capacity and suitable connection to be undertaken.

I trust the above information is helpful and will assist you in forming water and drainage strategies that should accompany any future planning application. I also attach copies of our water and sewer extract plans for the area, and a copy of our Planning Guidance Note which provides further information on our approach to the planning process, making connections to our systems and ensuring any existing public assets or infrastructure located within new development sites are protected.

Please note that our response is based on the information provided in your enquiry and should the information change we reserve the right to make a new representation. Should you have any queries or wish to discuss any aspect of our response please do not hesitate to contact our dedicated team of planning officers, either on 0800 917 2652 or via email at developer.services@dwrcymru.com

Please quote our reference number in all communications and correspondence.

Yours faithfully,

Rhys Evans
Planning Liaison Manager
Developer Services

Please Note that demands upon the water and sewerage systems change continually; consequently the information given above should be regarded as reliable for a maximum period of 12 months from the date of this letter.



Welsh Water is owned by Glas Cymru – a ‘not-for-profit’ company.
Mae Dŵr Cymru yn eiddo i Glas Cymru – cwmni ‘nid-er-elw’.

We welcome correspondence in
Welsh and English

Dŵr Cymru Cyf, a limited company registered in
Wales no 2366777. Registered office: Pentwyn Road,
Nelson, Treharris, Mid Glamorgan CF46 6LY

Rydym yn croesawu gohebiaeth yn y
Gymraeg neu yn Saesneg

Dŵr Cymru Cyf, cwmni cyfyngedig wedi'i gofrestru yng
Nghymru rhif 2366777. Swyddfa gofrestredig: Heol Pentwyn
Nelson, Treharris, Morgannwg Ganol CF46 6LY.



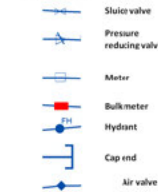
Dŵr Cymru
Welsh Water

PPA0009160 Water Main Plan



LEGEND

Clean network:



NB: Water main symbol colour indicates the type:
LIGHT BLUE - Trunk
DARK BLUE - Distribution
YELLOW - Raw Water

Notes:

Whilst every reasonable effort has been taken to correctly record the pipe material of Dŵr Cymru assets, there is a possibility that in some cases pipe material (other than Asbestos Cement or Pitch Fibre) may be found to be asbestos cement (AC) or Pitch Fibre (PF). It is therefore advisable that the possible presence of AC or PF pipes be anticipated and considered as part of any risk assessment prior to excavation.

Dŵr Cymru Cynhyrchdy (The Company) gives this information as to the position of its underground apparatus by way of general guidance only and on the strict understanding that it is based on the best information available and is not intended as to be relied upon in the event of excavations or other works in the vicinity of the Company's apparatus. The user of this information is advised to verify the position of any apparatus before working on it. The information is supplied to the Company as shown on the map information available and, in particular, not subject to the provisions of the Water Industry Act 1989 which is subject to the provisions of the Water Industry Act 1989 and the provisions of the Water Industry Act 1989. It should be noted that the records that are available to the Company may not show the existence of a water main, service pipe, sewer, storm drain or other apparatus and any associated equipment and before 1 September 1989, as it then did, the authorities responsible for the provision of water supply and sewerage services were not required to maintain records of the location of the apparatus in and on the land to which they were supplied. It should be understood that the Company is not responsible for any damage to the apparatus or to the land to which it is supplied. The user of this information is advised to verify the position of any apparatus before working on it.

**EXACT LOCATIONS OF ALL APPARATUS
TO BE DETERMINED ON SITE.**

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Map Ref: 341730,184092
Map scale: 1:3750
Printed by: Jeremy Hackman
Printed on: 03 Jan 2025



Dŵr Cymru
Welsh Water

PPA0009160 Public Sewer Record



LEGEND(Representative of most common features)

Waste network:		
Foul chamber	Surface water chamber	Outfall
Combined chamber	Combined sewer overflow	Lamphole
Special purpose chamber	Storm Overflow	Rising main
Treatment works	Gravity sewer	Private sewer
Pumping station	Private sewer subject to Sect. 104 adoption agreement	Private Sewer Transfer
NB: Sewer symbol colour indicates the type	Lateral Drain	Inspection Chamber
RED - Combined		
GREEN - Surface Water		
BROWN - Road		
Purple - Former S24 sewers (for indicative purposes only)		

Notes:

Whilst every reasonable effort has been taken to correctly record the pipe material of DWW assets, there is a possibility that in some cases pipe material (other than Asbestos Cement or Pitch Fibre) may be found to be asbestos cement (AC) or Pitch Fibre (PF). It is therefore advisable that the possible presence of AC or PF pipes be anticipated and considered as part of any risk assessment prior to excavation.

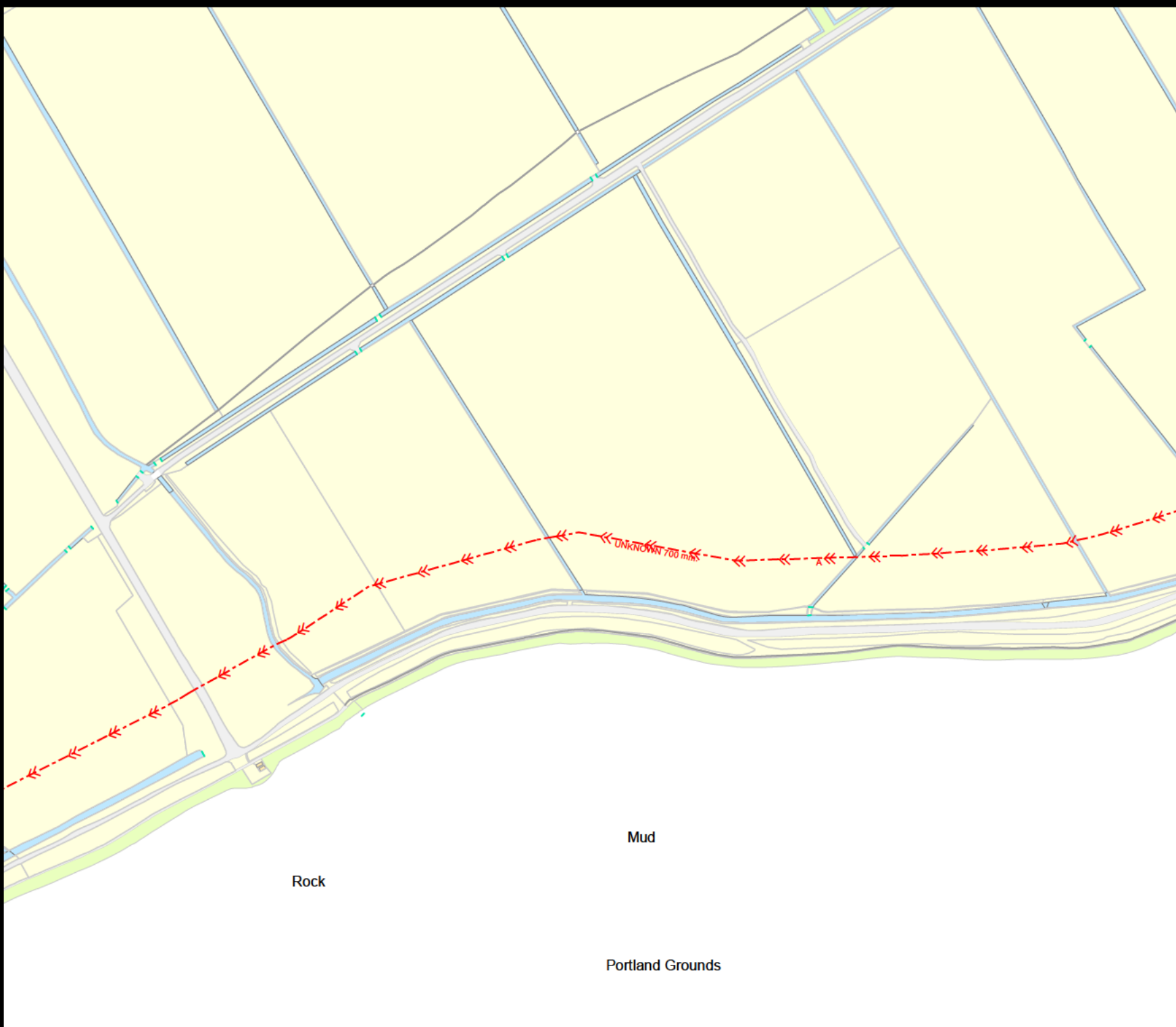
Dŵr Cymru Cynhyrchdy (The Company) gives this information as to the position of its underground apparatus by way of general guidance only and on the strict understanding that this is based on the best information available and is not intended as to the correctness of the information in the event of excavations or other works in the vicinity of the Company's apparatus. The user of this information is advised to verify the accuracy of any excavation work carried out on site. The information is supplied to the Company, as far as is practicable, in accordance with statutory requirements of sections 194 and 198 of the Water Industry Act 1991 which is based upon the best information available and, in particular, is not subject to the same level of scrutiny as the Company's internal records. It should be noted that the records that are available to the Company may not include the existence of a water main, surface water sewer, lateral drain or inspection and access chamber, or any associated equipment and fixtures. It is therefore advised that the user of this information is advised to verify the accuracy of any excavation work carried out on site. It should be understood that the Company is not liable for any loss or damage caused by any error in the information provided.

Service pipes are not generally shown, but their presence should be anticipated.

**EXACT LOCATIONS OF ALL APPARATUS
TO BE DETERMINED ON SITE.**

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Printed by: Jeremy Hackman
Printed on: 03 Jan 2025



Planning and new development

What you should do, and how we can help





Whether you're a homeowner with plans to extend your home, a builder working on a new house or a developer working on a new housing site, you need to involve us in the planning process. Even if you are just thinking about building, getting us involved early can help your project run smoothly and address any water and drainage matters as early as possible in the development process.

How can we help?

As water and waste services are at the forefront of public health and protection of the environment, we play a key part in the town and country planning process.

If you're planning on building new houses, our team of dedicated planning officers can give you advice and guidance at all stages of the process, including pre-application, planning application and discharge of condition.

When it comes to your new development, by getting us involved in the planning stages, we can:

- Assess whether the current local water and sewerage networks have capacity to service your new site (and if they can't, then identify whether the network can be reinforced to support your new site)
- Mitigate any potential negative impact that the new development could have on the performance of our infrastructure, the service we provide to customers, and the wider environment
- Identify where new development and growth is planned so that we can target investment in our existing infrastructure within these areas
- Provide advice on making new water and waste connections to our networks once your development is complete and ready to be occupied
- Identify any existing water or waste pipes in or near to the site, so we can advise on their location and let you know your options for protecting and/or diverting our assets for the lifetime of the development





Step 1: Use our pre-planning service

What is our pre-planning service?

We encourage all developers to engage with us as early as possible to ensure any water and drainage matters that might arise during the planning process are identified and addressed early on. In order to facilitate this, you can engage with us via our dedicated pre-planning service, which will provide:

- An assessment of the impact of your proposed development and whether our local water and waste networks can support it
- Confirmation of whether off-site water mains and/or sewers will need to be provided, and
- Water main and sewer plans indicating the location of our assets crossing the site or located in close proximity. *Please note that these are for general guidance only and all assets need to be accurately located on site before any excavation works begin.*

How can I access it?

You can submit a 'pre-planning advice' application online via our website. To make sure that we can provide you with the most comprehensive advice, you should include the following information:

- Site location plan
- Details of the proposed development
- Proposed points of communication to our local network of sewers and/or water mains (if known)
- Relevant planning history relating to the site e.g. any previous permissions granted or status within the council's development plan

You can see how much this service will cost on our website, and we'll aim to get back to you with a written **response within 21 days** of your application. The advice provided will be valid for 12 months and help inform our response when consulted on your planning application by the local planning authority (LPA).

For larger developments in Wales:

- You have to undertake pre-application consultation as set out in Schedule 4 of the Town & Country Planning (Development Management Procedure) (Wales) (Amendment) Order 2016 for any developments that:
 - Include 10 dwellings or larger
 - Have 1000sqm or larger non-residential floor space or
 - Have a site area that's 1 hectare or larger
- This means you need to consult with us and we will **respond within 28 days**.
- While there's no charge for this service, as it's a statutory requirement, we do recommend that you apply for our pre-planning service in advance of this consultation, as it will help to identify any potential issues that need to be addressed in advance of your planning application.





Step 2: Once you have our pre-planning advice



Locate our assets

Before you build, it's important to identify if any of our pipes, water mains or sewers are underneath the ground in or adjacent to your development site. Under section 159 of the Water Industry Act 1991, we have the rights of access to inspect, maintain, adjust, repair or alter any asset or apparatus at all times.

If your land does contain assets

If your land does indeed contain some of our assets, then this will have an impact on the layout and general arrangement of the new development site. We strongly recommend that you contact us to discuss accurately locating our assets to ensure that they are protected during and after construction. Please contact our Plan and Protect team via planandprotect@dwrcymru.com or 08009172652 to discuss further.

If you want to divert or remove the assets contained in your land

If you decide the asset located within or adjacent to your site can't be incorporated within the layout of the new development, or our rights of access to the asset may be hindered by your proposal, you can ask us to alter, divert or remove it in accordance with section 185 of the Water Industry Act 1991. You can find the application forms on our website.

How will you manage surface water?

As with all new development sites, you'll need to think about how to deal with surface water runoff from any new buildings and hard standings. Legislation in both England and Wales now actively encourages the use of sustainable urban drainage systems (SUDS). This approach manages surface water runoff by imitating natural drainage systems and retaining water on or near the site.

There are such a variety of SUDS techniques including green roofs, rainwater harvesting and permeable pavements that any development should be able to include a SUDS scheme. There would need to be good justification not to incorporate a SUDS scheme on your site.

SUDS in Wales

All new development of more than one building or a construction area of 100m² or more will require consent from the sustainable drainage system (SUDS) approval body (also known as a SAB) for any new SUDS features, as required by Schedule 3 of the Flood and Water Management Act 2010. SABs are delivered by local authorities across Wales.

In accordance with this and the Welsh Government 'Statutory standards for sustainable drainage systems', you need to explore and fully exhaust all surface water drainage options, using discharge to a combined sewer only as a last resort.

SUDS in England

Even if your new development is based in England, it's important to keep Part H of the 'Building Regulations 2000' in mind. On this basis, all new developments in England will also be expected to consider surface water management techniques and demonstrate all technical options have been explored and exhausted, in liaison with the land drainage authority and/or the Environment Agency. You need to consider the management of highway or land drainage runoff as these flows won't be allowed to discharge directly or indirectly into the public sewerage system.



Step 3: The planning application process

Once you've used our pre-planning service and identified any potential issues before building, it's time to incorporate our advice into your proposals to your local planning authority (LPA).

As part of the planning application consultation process we will provide similar advice to that provided in our pre-application **response within 21 days**. It's important to note that while we share our expert opinion during this process, the ultimate decision to grant planning permission is the LPA's.

What are the options if we can't currently support your development?

Network hydraulic modelling/WwTW feasibility studies

As our aim is to support economic development and growth, we do not want to resist new development where possible. However, we must take the capacity of our existing assets, the service we are providing to existing customers and the environment into account. In areas where there are capacity constraints either on our networks or at the wastewater treatment works (WwTW), we may well already have proposals in place to deliver reinforcement works and to create capacity for new developments.

That being said, you may want to develop your site in advance of us undertaking these works. If this is the case, to ensure there's no detriment to our existing customers, you may be required to implement solutions identified by an assessment of either the network or WwTW. It's important to note that you won't be expected to resolve any existing operational issues.

Where further assessments are recommended, you will need to allow sufficient time in your development programme for these studies to be carried out and any reinforcement works to be delivered, as in some circumstances we won't permit a communication to our networks until these works are completed. The delivery of the works will need to align with occupation rather than construction.

Where possible, we will control the delivery of any solutions as part of the planning process. Dependent on the progress of the assessment, we may be in a position to recommend appropriate planning conditions so that the outcomes of the assessment can be delivered as part of any planning permission.

This approach allows us to support the progression of the site through the planning process, however in the absence of a completed assessment and known solutions we may need to work with you and the LPA until the assessment is completed and the outcomes are known.

Step 4: Connecting to our network

If you've had the green light from us and planning permission has been granted for your development, then it's time to start thinking about the different ways you'll need to connect to our network.

On our website you can find detailed guidance around applying for new water connections, new water mains, new public sewers and new sewer connections.

Contact us

If you've still got any questions or queries, then feel free to contact us:

Email: developer.services@dwrcymru.com

Visit: www.dwrcymru.com

Tel: 0800 917 2652





Contact Us:

If you've got any questions or queries,
then feel free to contact us:

Call
0800 917 2652

Email
developer.services@dwrcymru.com

Visit
www.dwrcymru.com



@dwrcymru



/dwrcymruwelshwater

From: [FPL - Conx Request](#)
To: [Llanwern Solar Project](#)
Subject: RE: EN010171 - F - EIA Scoping Notification and Consultation
Date: 31 December 2024 12:46:55
Attachments: [image006.jpg](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)
[image010.png](#)
[image011.png](#)
[EN010171 Letter to stat cons Scoping & Reg 11 Notification.pdf](#)

You don't often get email from connectionrequest@fulcrum.co.uk. [Learn why this is important](#)

Hi,

We can confirm Fulcrum Pipelines Limited do not have any existing pipes or equipment on or around the above site address.

Please note that other gas transporters may have plant in the area which could be affected by your proposed works.

We will always make every effort to help you where we can, but Fulcrum Pipelines Limited will not be held responsible for any incident or accident arising from the use of the information associated with this search. The details provided are given in good faith, but no liability whatsoever can be accepted in respect thereof.

If you need any help or information simply contact Fulcrum on 03330 146 455.

In case of an emergency please phone 0800 111 999.

Kind regards,



FPL - Conx Request

e: ConnectionRequest@fulcrum.co.uk | w: www.fulcrum.co.uk
a: Fulcrum, 2 Europa, Sheffield, Sheffield, S9, T: 1XH 03330
View Business Park 146
466

Tell us how we're doing:

We'd really appreciate feedback on your experience with us today. So, please tell us how we're doing by emailing feedback@fulcrum.co.uk

From: Llanwern Solar Project
Sent: Thursday, December 19, 2024 4:11 PM
Subject: EN010171 - F - EIA Scoping Notification and Consultation

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Dear Sir/Madam

Please see attached correspondence on the proposed Future Energy Llanwern Solar Project. The Applicant for the Proposed Development intends to make an application for Development Consent under the Planning Act 2008. The Applicant has sought a Scoping Opinion from the Planning Inspectorate, on behalf of the Secretary of State, as to the scope and level of detail of the information to be provided within the Environmental Statement that will accompany its

From: [Goldcliff Community Council](#)
To: [Llanwern Solar Project](#)
Subject: Scoping document
Date: 15 January 2025 08:30:40

You don't often get email from goldcliffcommunitycouncil@outlook.com. [Learn why this is important](#)

Thank you for providing the draft scope. Goldcliff Community Council have the following comments:

The scope includes the cumulative impact of solar developments on the SSSI - as it stands it looks at other pipeline schemes but it doesn't encompass the impact the cumulative impact of similar recently completed schemes which have already seen the impact of solar development on a substantial part of the SSSI.

The drainage system on the SSSI is integrated such that changes to absorption and drying rates on land effect the system as a whole, The panels impact how rain is absorbed into the ground and reduce the exposure of the land to sunlight, reducing evaporation. As an integrated system the scope should include the impact on the overall reën system in terms of flood risk, not just on reën falling in the area covered by the proposal as it is already under pressure from changes to the flow of drainage from building developments around Newport.

Please confirm receipt of our comments

Regards

Chair
Goldcliff Community Council

For the attention of: Todd Brumwell
Environmental Services
Operations Group 3
Temple Quay House
2 The Square
Bristol
BS1 6PN

Chemicals, Explosives and
Microbiological Hazards
Division – Unit 4

NSIP Consultations
Land Use Planning Team
Building 1.2,
Redgrave Court,
Bootle L20 7HS

Date: 8th January 2025

NSIP.applications@hse.gov.uk

References: CM9 Ref: 4.2.1.7307.
NSIP Ref: EN010171

<http://www.hse.gov.uk/>

Dear Todd,

**PROPOSED FUTURE ENERGY LLANWERN SOLAR PROJECT
PROPOSAL BY FUTURE ENERGY LLANWERN LIMITED
INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2017
(as amended) REGULATIONS 10 and 11**

Thank you for your letter of 19th December 2024 regarding the information to be provided in an environmental statement relating to the above project. HSE does not comment on EIA Scoping Reports but the following information is likely to be useful to the applicant.

HSE's Land Use Planning Advice

Will the proposed development fall within any of HSE's consultation distances?

CEMHD5 Contribution to Consultation

1. With reference to the redlined ***Proposed development application boundary***, shown on **FIGURE 1.1 PROPOSED SCOPING RED LINE BOUNDARY** found in [Future Energy Llanwern EIA Scoping Report Scoping Report [PINS Ref: EN010171], Document Reference: EN 010171/SCP/1 Revision Number: 1, December 2024, Future Energy Llanwern Limited] the proposed project does not fall within the consultation distances of any Major Accident Hazard Pipeline(s).
2. However, a section of the redlined ***Proposed development application boundary*** does fall within the consultation distances of a Major Accident Hazard Installation(s):
 - a. Air Products (BR) Ltd, Llanwern (HSE ref: H0109)
3. Providing no populations, either temporary or permanent, are introduced within any of HSE's public safety zones associated with Major Accident Hazard Pipeline(s), HSE does not advise against the proposed project.

4. Please note if at any time a new Major Accident Hazard Pipeline is introduced or existing Pipeline modified prior to the determination of a future application, then the HSE reserves the right to revise its advice.
5. Likewise, if prior to the determination of a future application, a Hazardous Substances Consent is granted for a new Major Hazard Installation or a Hazardous Substances Consent is varied for an existing Major Hazard Installation in the vicinity of the proposed development, again the HSE reserves the right to revise its advice.

Would Hazardous Substances Consent be needed?

6. The presence of hazardous substances on, over or under land at or above set threshold quantities (Controlled Quantities) may require Hazardous Substances Consent (HSC) under the Planning (Hazardous Substances) Act 1990 as amended. The substances, alone or when aggregated with others, for which HSC is required, and the associated Controlled Quantities, are set out in The Planning (Hazardous Substances) Regulations 2015.
7. Hazardous Substances Consent would be required if the proposed development site is intending to store or use any of the Named Hazardous Substances or Categories of Substances and Preparations at or above the controlled quantities set out in schedule 1 of these Regulations.
8. Further information on HSC should be sought from the relevant Hazardous Substances Authority.

Explosives sites

CEMHD 7's response is no comment to make as there are no HSE Licensed explosives sites in the vicinity of the proposed development.

Electrical safety

No comment from a planning perspective

At this time, please send any further communication on this project directly to the HSE's designated e-mail account for NSIP applications at nsip.applications@hse.gov.uk. We are currently unable to accept hard copies, as our offices have limited access.

Yours faithfully,

**CEMHD4
NSIP Consultation Team**

From: [Completionpacks](#)
To: [Llanwern Solar Project](#)
Cc: [Completionpacks](#)
Subject: RE: Plant Enquiry
Date: 03 January 2025 12:11:53
Attachments: [image001.jpg](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)
[image007.png](#)
[338808_183482.pdf](#)

Hi,

I can confirm that Indigo are not affected by these works

Thank you

Laura

Laura Collier | Asset Engagement Officer

Please note our dedicated completions Inbox Email:

completionpacks@indigonetworks.co.uk

Indigo Networks

[\[REDACTED\]@indigonetworks.co.uk](#)

We have a new Head Office!

Please make a note of our new address below and we kindly ask that you update your records accordingly.

A close-up of a logo? ? Description automatically generated

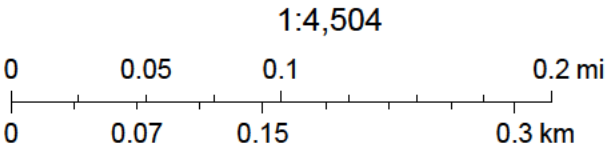


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338808, 183482



03/01/2025, 12:09:38



Magor with Undy Town Council

The Gwent Levels are an iconic, wetland landscape of International significance. Reclaimed from the sea in Roman times, the Gwent Levels are a criss-crossed network of fertile fields and historic watercourses, known locally as reens. The Gwent Levels is home to an incredible diversity of wildlife, are renowned for the environmental value. The flat, low-lying area stretching from Cardiff, Newport and Monmouthshire is full of protected species including otters, grass snakes, bats, water vole and great-crested newts. The Town Council is concerned with the cumulative impact of proposals.

The Town Council was extremely concerned to learn that information about the opportunity to comment on the proposal was sent out on 19th December and that the closing date is 16th January. In terms of a Town Council with only one FTE, this is unacceptable. The office was closed due to annual leave through much of the period and council only had the chance to comment on 13th January.

The Gwent Levels have multiple designations which should protect them from damaging development, from neglect and bad land management. These include:

- Sites of Special Scientific Interest
- Landscape of Outstanding Historic Interest
- Special Landscape Area
- National Natural Resource

Despite these designations, the Levels are under constant and increasing threat from development. Their landscape, habitats and biodiversity are in sharp decline. There is a danger that we will soon reach a tipping-point of irrecoverable biodiversity and landscape loss. There has been a preference for the levels for industrial development over the past 20 -30 years because the area has not been afforded adequate protection by national and local governments and because land is relatively cheap. There has been significant interest in the Gwent Levels, because of the need to increase renewable energy, and commercial interests have seen that as an opportunity to make a lot of money.

The cumulative impact of the failure to protect green infrastructure on the levels in favour of further developments inconsistent with the principles of nature conservation and the declaration of a climate and nature emergency in Wales

The siting of an Llanwern Future Energy on the Gwent Levels and adjacent to the Llandeenny and Redwick Site of Special Scientific Interest is in direct conflict with the advice given in paragraph 6.4.25 of Planning Policy Wales 12 which states that development in or adjacent to a SSSI which is not necessary for the management of the site must be avoided. The proposed development is not necessary for the management of the site and must be avoided at all costs.

From: [REDACTED]
To: [Llanwern Solar Project](#)
Subject: FW: EIA Scoping opinion Consultation Response
Date: 16 January 2025 17:43:17
Attachments: [image001.png](#)
[image002.jpg](#)
[MCC EIA Scoping Response .pdf](#)

You don't often get email from [REDACTED]

Please also see comments below in relation to Environmental Health issues:

In response to the EIA scoping request for the above development I offer the following comments:

1. We would request that a comprehensive a noise impact assessment was submitted, having regard to relevant standards including BS 4142:2014+A1:2019 Methods for rating and assessing industrial and commercial sound. The noise impact assessment should make appropriate recommendations on noise mitigation where necessary and should have regard to the noise impacts of the construction, operational and decommissioning phases.
2. A Construction Environmental Management Plan should also be submitted, which identifies the steps and procedures that will be implemented to minimise the creation and impact of noise, vibration, dust from the site preparation, groundwork, and construction/decommissioning phases of the development.

Thanks

Cofion/Regards

Michael

Michael Richardson MSc. BSc. (Hons) CEnvH

Swyddog Arbenigol Iechyd yr Amgylchedd/Specialist Environmental Health Officer

Cyngor Sir Fynwy/Monmouthshire County Council

Iechyd yr Amgylchedd/Environmental Health

From: Bingham, Kate

Sent: 16 January 2025 16:45

To: llanwernsolarproject@planninginspectorate.gov.uk

Subject: EIA Scoping opinion Consultation Response

Please find attached comments on behalf of Monmouthshire County Council in relation to:
Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) – Regulations 10 and 11
Application by Future Energy Llanwern Limited (the Applicant) for an Order granting Development Consent for the Future Energy Llanwern Solar Project (the Proposed Development)

Cofion gorau/Kind regards,

Kate

Kate Bingham

Senior Development Management Officer

Monmouthshire County Council | Cyngor Sir Fynwy



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The Planning Service is operating remotely and there is no dedicated member of the team available at County Hall. People working within the Planning Service are fully available via the telephone, email or electronic communication. If we do not respond straight away please be patient - we will get back to you as soon as we can.

Mae'r Gwasanaeth Cynllunio yn gweithredu o bell a does dim aelod penodol o'r tîm ar gael yn Neuadd y Sir. Mae pobl sy'n gweithio o fewn y Gwasanaeth Cynllunio ar gael yn llawn dros y ffôn, drwy'r e-bost neu drwy gyfathrebu electronig.

EN010171 - EIA Scoping Notification and Consultation

- Proposal:** The construction, operation, maintenance and decommissioning of Future Energy Llanwern, a ground mounted solar farm with a generating capacity of over 350 MW for a temporary period of 40 years.
- Address:** Land To The South Of Llanwern Steelworks (approx. 2.5km) Comprising The Gwent Levels Between Whitson And Undy
- Applicant:** Future Energy Llanwern Limited

The recent EIA Scoping Opinion consultation information relating to a proposal for a Nationally Significant Infrastructure Project (NSIP) EN010171 Future Energy Llanwern Solar Project has been reviewed.

The very limited time available for the scoping exercise carried out by the Local Planning Authority has established that further information would be needed to inform an appraisal of the likely landscape and ecological impacts of the proposed development.

Information Reviewed:

Future Energy Llanwern EIA Scoping Report
EIA Section 5
EIA Section 5A
EIA Section 6
EIA Section 8
EIA Section 9
EIA Section 18 and 19

1.0 LANDSCAPE / GREEN INFRASTRUCTURE

1.1 Site Characteristics

The site location is within the Gwent Levels Redwick and Llandeenny SSSI, CADW Register of Historic Outstanding Landscape Wales, an area of archaeological sensitivity for (Caldicot, Rogiet, Magor Undy, Gwent Levels) and within the NRW identified Gwent Levels National Landscape Character Area (NLCA34). The site traverses the boundaries of Monmouthshire County and Newport city.

The proposal is for the construction, operation, maintenance and decommissioning of Future Energy Llanwern, a ground mounted solar farm with a generating capacity of over 350 MW for a temporary period of 40 years. The total development area covered is circa 548.3 hectares

The site is located within the Caldicot levels LCA. An analysis of the relevant sensitivity appraisals from LANDMAP information indicates that the LCA has been evaluated as;

Visual & Sensory; 85% High
Landscape Habitats; 90% Outstanding, 9% High
Historic Landscape; 95% Outstanding, 2% High,
Cultural Landscape; 98% Outstanding
Geological evaluations showing 97% of the LCA as Moderate

Defined on the landscape SPG as a unique landscape defined by its flat levels, historical character and fragile grasslands/reen system. A flat, open and exposed historic landscape of reclaimed

pasture, with a variety of regular / irregular field patterns, and drainage channels/reens. This LCA contains the Severnside Sub-Region settlement of Sudbrook. Field enclosures are regular and neat south of Undy and Magor Pill, with piecemeal patterns of extensive mature overgrown trees/hedgerows create a natural state of character. The historic reens, hedgerows and tree lines are mostly intact although powerlines and pylons impact on the natural environment

The National landscape character 34: Gwent levels highlights one of the characteristics of the landscape as being a distinctive coastal level landscape, open and exposed with wide views and patterns in the landscape formed by fields, hedge, coastal edge and linear corridors of energy transmission, transport and coastal edge.

The LANDMAP aspects areas also emphasise the open aspect of the flat landscape and patterns and networks formed by grassland, fields, hedges, scattered settlement and wooded fringes. The exceptionally high evaluation of all LANDMAP aspects underpins the multi-faceted character and depth of the LCA. The area is unique in Wales for its reclaimed landscape, high biodiversity and historical interest much of which lies in SSSI, & Area of Archaeological Sensitivity.

From a Landscape and GI perspective and in line with policy LC1 , LC5 and subsequent criteria , there is a presumption against new built development in the open countryside that would have a detrimental impact on Monmouthshire's valued landscape and character

1.2 Comments

a) Insufficient consultation time

An opportunity to comment on the EIA scoping opinion report has been limited. The presence of the application was indicated on 24.12.2024 with a response date of 16.01.2025. Return to work after Christmas break was 6th January and notification was provided to staff on the 6th January leaving only 9 working days as opposed to what should have been 17 working days within which to review, visit the site and provide an informed response. Insufficient consultation time has been provided at this early stage for a Nationally Significant Infrastructure Project which is disappointing.

Re section 5 5.6.12 and section 5A 1.7.3 there is currently insufficient time provided for MCC to consider the scope of the cumulative assessment to inform the cumulative assessment methodology for the LVIA.

The response therefore will not be a review of the assessment of likely significant effects on the landscape resource and visual amenity from the construction and operation of the proposed development as indicated in 5.2.1 and will only focus on what additional information is required to inform an appraisal of the likely landscape impacts of the proposed development as requested in document dated 19.12.2024 ref EN010171 ie to 'inform the Planning Inspectorate of the information you consider should be provided in the ES'

b) MCC Policy, SPG and further guidance

The EIA section 3.11 appears limited and should be appropriately informed by and reference the following:-

MCC Adopted Local Development Plan 2011-2021

- Strategic policies S10, S12,S13,S16,S17,
- Development management policies RE3, RE4, SD1, SD2, SD3, SD4, LC1, LC5, GI1, NE1, EP1, EP2, EP3, MV1, MV3, MV4, DES1

SPG

- Renewable Energy and Energy Efficiency SPG March 2016
- Green Infrastructure April 2015
- Landscape SPG 2019

Other guidance

- Archaeology Planning Advisory Note
- Emerging GI Strategy 2024
- Monmouthshire Strategic FCA
- Monmouthshire Renewable and Low Carbon Energy Assessment (October 2020)
- Monmouthshire Renewable Energy Background Paper - October 2024
- Emerging Replacement Local Development Plan 2018-2033
- The EIA should take into consideration emerging policies within the RLDP that would conceivably guide and impact on future sustainable energy production projects and delivery .Eg policies OC1, CC3, GI1,GI2,LC1,LC5,NR1,NR2, NR3 and PROW1
- Future Wales: The National Plan 2040 (WG, February 2021)
- Planning Policy Wales Edition 12 (WG, February 2024)
- Emerging Seascape Assessment for Monmouthshire
- The Severn Vision Report (2016)
- Vision for the Bristol Channel and Severn project Report (2022)
- NRW National level Seascape Assessment (SCA)
- NRW Monmouthshire SCA 29 area
- Living Levels Legacy Management Plan
- Living levels Landscape Conservation Action Plan
- Documents produced for the Sustaining the Gwent Levels Sustainable Management Scheme
- Gwent PSB Well-being Plan (August 2023)
- Taking Monmouthshire Forward - Community and Corporate Plan 2022 - 2028 (April 2023)

It is not clear who is being consulted. Suggested additional consultees:

- Severn Estuary Partnership Gwent Wildlife Trust
- RSPB
- Living Levels Partnership

c) Topic areas of the ES

The topic list suggested for the ES is insufficient and should include the following as separate chapters :-

- a. Green Infrastructure. There is little to no mention of GI within the ES. GI requires a separate chapter and assessment. GI Assessment should include the site and an appropriate study area from the redline site boundary. The assessment should include consideration of the existing GI assets and opportunities for enhancements that may also tie into proposed mitigation strategies and benefits to projects in association with environmental community partnerships for instance. This would form part of the step wise approach.
- b. Decommissioning. Section 2.8 is vague. A clear strategy for decommissioning as part of the ES needs to be provided which will be the default approach to the scheme inclusive of a step wise approach to the change from one use to another and how net biodiversity and GI benefits will be retained and managed, potentially by new or existing landowners. Alternative options such as extending the period of use or new equipment would be subject to separate planning approvals.
- c. Monitoring. The monitoring of the developments impact on the environment, habitats and species should be an integral element of the ES and development process. This should tie into the Landscape, GI and ecology sections and also consider the monitoring of cumulative impacts on the environment, habitats and species within the wider SSSI. Where negative impacts and decline of key species are recorded as a result of cumulative development to the detriment of the integrity of the SSSI and landscape character a clear plan of remedial action must be incorporated as part of the ES.

Documents that have not been included for consideration in support of the ES

The full LVIA inclusive of proposed viewpoint locations and photographs and has not been provided to support the ES. Comments are therefore based only on the draft ES

d) Brief review of EIA Scoping Report

LVIA

2. 5.0 Landscape and Visual

- a) Reg. 18 (5) stipulates that the developer must ensure that the ES is prepared by 'competent experts' and that the developer must include a statement "outlining the relevant expertise or qualifications of such experts. It is not clear from the EIA report who the competent experts are. They should be included within the report references
- b) 5.3.4 It is not clear how the initial study area of 5km from the scoping red line has been determined
- c) Table 5.1 should include a specific reference to NRW Local Seascape Character area 29 and relevant National Marine Character area 29 Severn Estuary Wales.
- d) Table 5.2 Landmap aspect areas is incomplete and requires cultural landscape services overall (or general) evaluation and summary to be completed
- e) Section 5.4.20 needs to acknowledge section 6.3.41 of MCC adopted LDP and specific policy relating to the Gwent Levels in the emerging RLDP deposit plan. The description of the landscape character within the MCC section of section 5 development is insufficient
- f) The 5km radius from the scoping red line and section 5.4.27 fails to consider more distant views from higher elevations looking towards the coastline edge with perception of coastline and interaction of historic field patterns and coast. Glint and glare and colour change may have a more distant impact. Cultural and historical connections between upland and coast appear to have been overlooked focussing mainly on visual receptors within 2km of the site as influenced by the ZTV 5.4.29. Table 3 should include Twmbarlwm and Mynydd Henllys ridge
- g) 5.5.7 the LEMP will also need to include on going management of net biodiversity and GI benefits gained during the lifecycle of the solar scheme to ensure this is not lost post operational period and after decommissioning. Decommissioning and then returning to a previous use may result in a net biodiversity and GI loss as secured beneficial habitat degrades opposed to retaining and enhancing the benefits achieved. This output would not align with the Wellbeing of future generations. The ES needs to fully address this.
- h) Re 5.5.9 it is not clear if a scheme of this magnitude should in fact be a phased development over a period of years rather than the 18months continual development as proposed (2.7.3) to ensure environmental impacts are gradual allowing habitats and species to adapt more fully to loss of space, light, breeding areas such as double hedgerows and grassland as well as allowing for a slower incremental development impact on landscape character and visual integrity. The ES and LVIA should therefore assess the potential landscape and visual effects over a longer period of the time and not be guided by 0-5 year planting programme on the assumption that all works will be undertaken at once. This will also allow for pre planting and establishment and will be a consideration as part of an appropriate stepwise approach .
- i) Re section 5 5.6.12 and section 5A 1.7.3 there is currently insufficient time provided for MCC to consider the scope of the cumulative assessment to inform the cumulative assessment methodology for the LVIA.
- j) Table 5 is vague on the operational activity or impact effects eg inappropriate and out of character security fencing and access gates in a rural historic landscape setting, change to land use and management, CCTV, poles and overhead higher voltage cabling and grid connection (2.5.10)?, colour change, glint and glare, reduction in species and habitats.
- k) Table 5.6. activities or impacts scoped out of assessment. It is considered that the following should be scoped into the assessment
 - a. Cumulative effects beyond 5km should be scoped in and include Twmbarlwm and Mynydd Henllys ridge
 - b. Insufficient time has been provided to consider Indirect effects upon landscape and visual receptors beyond 5km.
 - c. Insufficient time has been provided to consider impacts on Individual Residential Properties beyond 1km.
- l) The 17 proposed viewpoints are currently insufficient to provide a full assessment of impact .

- m) Table 19-2 summary of activities and impacts to be scoped out the EIA. With regard to chapter 5
- a. Disagree with scoping out receptors out with ZTV as discussed above
- b. Disagree with scoping out indirect effects upon landscape and visual effects beyond 5km
- c. Disagree with scoping out cumulative effects beyond 5km
- d. Disagree with scoping out indirect effects on seascape character

Appendix 5A LVIA methodology

The proposed methodology is acceptable and follows GLVIA guidelines. The use of six word scales to describe the magnitude of change is also acceptable.

e) Additional supporting information required

- a. The LVIA and EIA needs to be informed by an environmental colour assessment as part of the ES
- b. The LVIA and EIA needs to be informed by a dark skies impact assessment as part of the ES
- c. The LVIA needs to consider glint and glare, light reflectivity impacts on views from upland inland locations towards the coast. The solar glint and glare assessment in chapter 6 indicates a study area of 10km and focuses on the risk of accidents and pedestrians are not considered within the detailed glare assessment 6.4.6 or impact on landscape character.
- d. The ES needs to include a sequential test to demonstrate through an appropriately scaled assessment that there are no other suitable national locations for a scheme of this magnitude and impact. 4.12 Alternatives considered seeks to address this in the ES. Appropriate weighting should be provided to the SSSI and PPW 12 chapter 6 guidance when considering the site and alternatives
- e. The ES needs to provide a GI statement and clearly demonstrate that in compliance with PPW12 chapter 6 that a step wise approach has been undertaken. Although referenced in section 3.9.4 the onus is on the developer to demonstrate that a step wise approach has been adopted and applies to all elements of the scheme approach that impacts on the natural environment. This should also include considering a phased approach to development over an extended period of time to allow habitat, species, people to incrementally adapt to the dramatic change.

Observations

- o It is noted that gliding club sites within Monmouthshire have not been considered in terms of Glint and Glare assessment. Further clarity would be welcome to determine if these areas should be considered or not

1.3 Conclusion

The document contains insufficient information for Monmouthshire County Council to provide a formal Scoping Opinion under Regulations 13(2) of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 2017.

The topic list suggested for the ES is not comprehensive and not sufficient to address the relevant topic areas.

2.0 BIODIVERSITY

Sections 8.0 and 9.0 of the Scoping Report detail the approach to the ecological and ornithological aspects of the scheme respectively. It should be noted that the consultation response period for this application was unusually short at nine working days and therefore the below response is regarding chapters 8 and 9 only.

2.1 Ornithology

The proposed Ornithology approach comprises a desk study for designated sites and bird species within 2km of the red line boundary and the following baseline surveys:

- o Wintering Bird Surveys
- o Nocturnal Bird Surveys
- o Breeding Birds Surveys

Surveys have been undertaken over three survey seasons; 2019-20, 2020-21 and 2022-23. The level of baseline surveys is considered acceptable, although it should be noted that update surveys may be required if more than 24 months has expired since the previous survey. During the wintering bird surveys, eight species recorded are specifically named within the SPA/RAMSAR designation, with a number of other species recorded considered to be part of the wider SPA 'Waterbird Assemblage.'

Three Schedule 1 species recorded included barn owl, kingfisher and Cetti's warbler. The scoping report states that the Ornithology chapter will detail mitigation approaches, outline enhancement measures and include a cumulative assessment of impacts following CIEEM guidelines.

All ornithological elements have been scoped into the EIA, apart from the impact of the operational phase of the scheme on the Severn Estuary RAMSAR and SPA features. Whilst it is not detailed within Table 9-3, it would appear this is referring purely to disturbance (noise and visual). The attached table (Table 1) exhibits the impacts that it is understood will be scoped in and out of the EIA.

Whilst the majority of the above is agreed with, I would suggest that the disturbance impact of additional lighting on ornithological features of the SPA should be considered as part of the EIA and therefore this should be scoped into the assessment. Chapter 9 of the scoping report does not mention any potential impacts of lighting on foraging/roosting waders and without view of the baseline surveys/lighting proposals, it should not be scoped out at this time.

Given that the ornithological assessments are not currently available to review, it is not possible to comment on the acceptability of the likely mitigation and enhancement measures detailed within the scoping report.

2.2 Ecology

The proposed Ecological approach comprises a desk study for designated sites and bird species within 2km of the red line boundary and the following baseline surveys:

- Phase 1 Habitat Survey
- UK Habitat Classification Survey
- Hedgerow Assessment
- National Vegetation Classification (NVC) Survey
- Bat Activity Surveys
- Tree Potential Roost Feature Survey
- Great Crested Newt HSI and eDNA Surveys
- Dormice Nest Tube Survey
- Riparian Mammal Survey
- Aquatic Invertebrate Survey
- Terrestrial Invertebrate Survey

Surveys for reptiles, migratory fish and European eel were scoped out on the basis that presence is assumed and significant impacts were deemed unlikely. Given that presence is assumed and mitigation will be adopted where deemed appropriate, this is considered an acceptable approach.

Where over 24 months have expired since the previous surveys were undertaken, update surveys will be expected to be submitted to inform the application unless sufficient justification can be provided.

Table 8-3 of the report details elements of the scheme that have been scoped in or out of the EIA. Operational impact to roosting bats and dormice have been scoped out, although there could be

potential for lighting to impact upon both species if it is not located appropriately and mitigation is not implemented. Furthermore, the potential loss of hedgerows could result in a loss and fragmentation of dormice habitat. Therefore, it is advised that these two components are scoped into the EIA.

Furthermore, invertebrate features associated with the Newport Wetlands SSSI designation could be impacted at a population level by the proposals, and therefore this element should not be scoped out. It is agreed that habitat features of the designation will be unlikely to be impacted, whilst ornithological features will be considered in Chapter 9.

It is agreed that the following can be scoped out of the EIA:

- Severn Estuary RAMSAR/SAC/SSSI (Operation phase) - Habitat and species features considered unlikely to be impacted during operations
- River Usk SAC (Construction & operation phase) - Distance from development site (3.5km)
- Wye Valley & Forest of Dean Bat Sites (Construction and operation phase) - Outside of core sustenance area
- Magor Marsh SSSI - Habitat features unlikely to be impacted
- Water vole - agreed that species features considered unlikely to be impacted during operations
- Harvest mouse - agreed that species features considered unlikely to be impacted during operations

As above, given that the ecological assessments are not currently available to review, it is not possible to comment on the acceptability of the likely mitigation and enhancement measures detailed within the scoping report.

3.0 HIGHWAYS

The applicants Scoping Report, Section 12 Traffic and Transport sets out what the Highway Authority would generally require to support an application of this size and scale, however as the site is well within NCC boundary and only the A4810 where it passes through Magor from the M4 and a few minor roads are directly affected, so I would suggest that we are led by them in respect of highway requirements.

However as set out in Section 12 of the Scoping Report, a robust Transport Assessment and Construction Traffic Management Plan that thoroughly outlines what is required both during construction, operation and maintenance and decommissioning will be expected as a matter of course.

Tiffany Bate
Development Liaison Officer
UK Land and Property
[REDACTED]@nationalgrid.com

www.nationalgrid.com

SUBMITTED ELECTRONICALLY:
llanwernsolarproject@planninginspectorate.gov.uk

16 January 2025

Dear Sir/Madam

APPLICATION BY FUTURE ENERGY LLANWERN LIMITED (THE APPLICANT) FOR AN ORDER GRANTING DEVELOPMENT CONSENT FOR THE FUTURE ENERGY LLANWERN SOLAR PROJECT (THE PROPOSED DEVELOPMENT)

SCOPING CONSULTATION RESPONSE

I refer to your letter dated 19th December 2024 in relation to the above proposed application. This is a response on behalf of National Grid Electricity Transmission PLC (NGET).

Having reviewed the scoping report, I would like to make the following comments regarding NGET existing or future infrastructure within or in close proximity to the current red line boundary.

NGET has high voltage electricity overhead transmission lines, underground cables and a high voltage substation within the scoping area. The overhead lines and substation forms an essential part of the electricity transmission network in England and Wales.

Existing Infrastructure

Substation

- WHITSON 275 kV Sub Station
- Associated overhead and underground apparatus including cables

Overhead Lines

4YX 400kV OHL	CILFYNYDD - SEABANK – WHITSON IMPERIAL PARK – MELKSHAM
XL 275 kV OHL	IRON ACTON - WHITSON 1 IRON ACTON - WHITSON 2
XMO 275 kV OHL	CARDIFF EAST - USKMOUTH - WHITSON TREMORFA - USKMOUTH – WHITSON

Overhead Lines cont'd

XR 275 kV OHL

USKMOUTH - WHITSON 1

USKMOUTH - WHITSON 2

Cable Apparatus

- LLANWERN BSC 33 kV SGT4 Cable
- LLANWERN BSC 33 kV SGT1 Cable

I enclose plans showing the location of NGET's apparatus in the scoping area.

New infrastructure

Please refer to the Holistic Network Design (HND) and the National Grid ESO website to view the strategic vision for the UK's ever growing electricity transmission network. <https://www.nationalgrideso.com/future-energy/the-pathway-2030-holistic-network-design/hnd>

NGET requests that all existing and future assets are given due consideration given their criticality to distribution of energy across the UK. We remain committed to working with the promoter in a proactive manner, enabling both parties to deliver successful projects wherever reasonably possible. As such we encourage that ongoing discussion and consultation between both parties is maintained on interactions with existing or future assets, land interests, connections or consents and any other NGET interests which have the potential to be impacted prior to submission of the Proposed DCO.

The Great Grid Upgrade is the largest overhaul of the electricity grid in generations, we are in the middle of a transformation, with the energy we use increasingly coming from cleaner greener sources. Our infrastructure projects across England and Wales are helping to connect more renewable energy to homes and businesses. To find out more about our current projects please refer to our network and infrastructure webpage. <https://www.nationalgrid.com/electricity-transmission/network-and-infrastructure/infrastructure-projects>. Where it has been identified that your project interacts with or is in close proximity to one of NGET's infrastructure projects, we would welcome further discussion at the earliest opportunity.

These projects are all essential to increase the overall network capability to connect the numerous new offshore wind farms that are being developed, and transport new clean green energy to the homes and businesses where it is needed.

Specific Comments – Electricity Infrastructure:

- NGET's Overhead Line/s is protected by a Deed of Easement/Wayleave Agreement which provides full right of access to retain, maintain, repair and inspect our asset
- Statutory electrical safety clearances must be maintained at all times. Any proposed buildings must not be closer than 5.3m to the lowest conductor. NGET recommends that no permanent structures are built directly beneath overhead lines. These distances are set out in EN 43 – 8 Technical Specification for “overhead line clearances Issue 5 (2019)”.
- If any changes in ground levels are proposed either beneath or in close proximity to our existing overhead lines then this would serve to reduce the safety clearances for such overhead lines. Safe clearances for existing overhead lines must be maintained in all circumstances.
- The relevant guidance in relation to working safely near to existing overhead lines is contained within the Health and Safety Executive's (www.hse.gov.uk) Guidance Note GS 6 “Avoidance of Danger from Overhead Electric Lines” and all relevant site staff should make sure that they are both aware of and understand this guidance.
- Plant, machinery, equipment, buildings or scaffolding should not encroach within 5.3 metres of any of our high voltage conductors when those conductors are under their worse conditions of maximum “sag” and “swing” and overhead line profile (maximum “sag” and “swing”) drawings should be obtained using the contact details above.
- If a landscaping scheme is proposed as part of the proposal, we request that only slow and low growing species of trees and shrubs are planted beneath and adjacent to the existing overhead line to reduce the risk of growth to a height which compromises statutory safety clearances.
- Drilling or excavation works should not be undertaken if they have the potential to disturb or adversely affect the foundations or “pillars of support” of any existing tower. These foundations always extend beyond the base area of the existing tower and foundation (“pillar of support”) drawings can be obtained using the contact details above.
- NGET high voltage underground cables are protected by a Deed of Grant; Easement; Wayleave Agreement or the provisions of the New Roads and Street Works Act. These provisions provide NGET full right of access to retain, maintain, repair and inspect our assets. Hence we require that no permanent / temporary structures are to be built over our cables or within the easement strip. Any such proposals should be discussed and agreed with NGET prior to any works taking place.
- Ground levels above our cables must not be altered in any way. Any alterations to the depth of our cables will subsequently alter the rating of the circuit and can compromise the reliability, efficiency and safety of our electricity network and requires consultation with National Grid prior to any such changes in both level and construction being implemented.

To download a copy of the HSE Guidance HS(G)47, please use the following link:
<http://www.hse.gov.uk/pubns/books/hsg47.htm>

Further Advice

We would request that the potential impact of the proposed scheme on NGET's existing and future assets as set out above and including any proposed diversions is considered in any subsequent reports, including in the Environmental Statement, and as part of any subsequent application.

Where any diversion of apparatus may be required to facilitate a scheme, NGET is unable to give any certainty with the regard to diversions until such time as adequate conceptual design studies have been undertaken by NGET. Further information relating to this can be obtained by contacting the email address below.

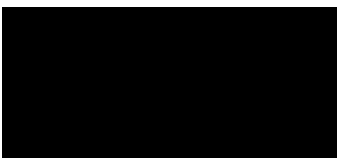
Where the promoter intends to acquire land, extinguish rights, or interfere with any of NGET apparatus, protective provisions will be required in a form acceptable to it to be included within the DCO.

NGET requests to be consulted at the earliest stages to ensure that the most appropriate protective provisions are included within the DCO application to safeguard the integrity of our apparatus and to remove the requirement for objection. All consultations should be sent to the following email address: box.landandacquisitions@nationalgrid.com

I hope the above information is useful. If you require any further information, please do not hesitate to contact me.

The information in this letter is provided notwithstanding any discussions taking place in relation to connections with electricity customer services.

Yours faithfully



**Tiffany Bate
Development Liaison Officer
Commercial and Customer Connections
Electricity Transmission Property Land and Property**



Legend

Fibre Cable

- Fibre Cable
- Commissioned

Buried Cable

- Buried Cable
- Commissioned

Towers

- Towers
- Commissioned

OHL 132Kv & Below

- OHL 132Kv & Below
- Commissioned

OHL 275Kv

- OHL 275Kv
- Commissioned

OHL 400Kv

- OHL 400Kv
- Commissioned



Substations

- Substations
- Commissioned

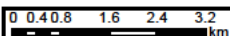
Notes





Electric Land Ownership	Towers
Electric Land Ownership - Leasehold	 Towers  Commissioned
Telecoms	OHL 132Kv & Below
RAMM	— Commissioned
Cable Accessories	OHL 275Kv
Link Box	OHL 275Kv
Oil Tank	— Commissioned
Fibre Cable	OHL 400Kv
Fibre Cable	OHL 400Kv
Commissioned	— Commissioned
Buried Cable	OHL Circuits
Buried Cable	— Commissioned
Commissioned	Substations
	Substations
	Commissioned

Notes



OS Disclaimer: Background Mapping information has been reproduced from the Ordnance Survey map by permission of Ordnance Survey on behalf of The controller of His Majesty's Stationery Office. © Crown Copyright Ordnance Survey National Grid Electricity Transmission (100024241) & National Gas Transmission (100024886)

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Printed By: Tiffany.Bate

Scale: 1:5,000



NG Disclaimer: National Grid UK Transmission. The asset position information represented on this map is the intellectual property of National Grid PLC (Warwick Technology Park, Warwick, CV346DA) and should not be used without prior authority of National Grid.

Note: Any sketches on the map are approximate and not captured to any particular level of precision.

Technical Guidance Note 287

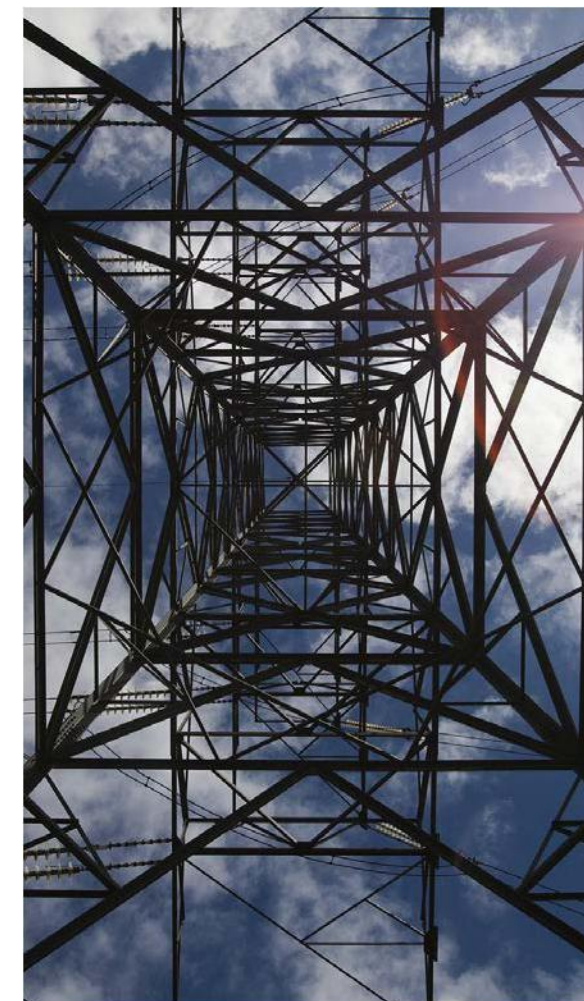
Third-party guidance for working near National Grid Electricity Transmission equipment

nationalgrid





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Disclaimer

National Grid Gas Transmission and National Grid Electricity Transmission or their agents, servants or contractors do not accept any liability for any losses arising under or in connection with this information. This limit on liability applies to all and any claims in contract, tort (including negligence), misrepresentation (excluding fraudulent misrepresentation), breach of statutory duty or otherwise. This limit on liability does not exclude or restrict liability where prohibited by the law, nor does it supersede the express terms of any related agreements.



Purpose and scope

The purpose of this document is to give guidance and information to third parties who are proposing, scheduling or designing developments close to National Grid Electricity Transmission assets.

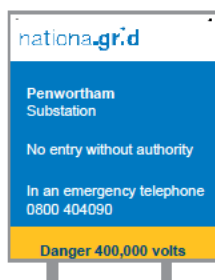
The scope of the report covers information on basic safety and the location of our assets – and also highlights key issues around particular types of development and risk areas.

In the case of electrical assets, National Grid does not authorise or agree safe systems of work with developers and contractors. However, we will advise on issues such as electrical safety clearances and the location of towers and cables. We also work with developers to minimise the impact of any National Grid assets that are nearby.

How to identify specific National Grid sites

Substations

The name of the Substation and emergency contact number will be on the site sign.



Overhead Lines

The reference number of the tower and the emergency contact number will be on this type of sign.



Contact National Grid

Plant protection

For routine enquiries regarding planned or scheduled works, contact the Asset Protection team online, by email or phone.

www.lsbud.co.uk

Email: assetprotection@nationalgrid.com

Phone: 0800 001 4282

Emergencies

In the event of occurrences such as a cable strike, coming into contact with an overhead line conductor or identifying any hazards or problems with National Grid's equipment, phone our emergency number 0800 404 090 (option 1).

If you have apparatus within 30m of a National Grid asset, please ensure that the emergency number is included in your site's emergency procedures.

Consider safety

Consider the hazards identified in this document when working near electrical equipment



Part 1

Electricity transmission infrastructure

National Grid owns and maintains the high-voltage electricity transmission network in England and Wales (Scotland has its own networks). It's responsible for balancing supply with demand on a minute-by-minute basis across the network.

Overhead lines

Overhead lines consist of two main parts – pylons (also called towers) and conductors (or wires). Pylons are typically steel lattice structures mounted on concrete foundations. A pylon's design can vary due to factors such as voltage, conductor type and the strength of structure required.

Conductors, which are the 'live' part of the overhead line, hang from pylons on insulators. Conductors come in several different designs depending on the amount of power that is transmitted on the circuit.

In addition to the two main components, some Overhead Line Routes carry a Fibre Optic cable between the towers with an final underground connection to the Substations.

In most cases, National Grid's overhead lines operate at 275kV or 400kV.

Underground cables

Underground cables are a growing feature of National Grid's network. They consist of a conducting core surrounded by layers of insulation and armour. Cables can be laid in the road, across open land or in tunnels. They operate at a range of voltages, up to 400kV.

Substations

Substations are found at points on the network where circuits come together or where a rise or fall in voltage is required. Transmission substations tend to be large facilities containing equipment such as power transformers, circuit breakers, reactors and capacitors. In addition Diesel generators and compressed air systems can be located there.

Part 2

Statutory requirements for working near high-voltage electricity

The legal framework that regulates electrical safety in the UK is *The Electricity Safety, Quality and Continuity Regulations (ESQCR) 2002*. This also details the minimum electrical safety clearances, which are used as a basis for the Energy Networks Association (ENA) TS 43-8. These standards have been agreed by CENELEC (European Committee for Electrotechnical Standardisation) and also form part of the *British Standard BS EN 50341-1:2012 Overhead Electrical Lines exceeding AC 1kV*. All electricity companies are bound by these rules, standards and technical specifications. They are required to uphold them by their operator's licence.

Electrical safety clearances

It is essential that a safe distance is kept between the exposed conductors and people and objects when working near National Grid's electrical assets. A person does not have to touch an exposed conductor to get a life-threatening

electric shock. At the voltages National Grid operates at, it is possible for electricity to jump up to several metres from an exposed conductor and kill or cause serious injury to anyone who is nearby. For this reason, there are several legal requirements and safety standards that must be met.

Any breach of legal safety clearances will be enforced in the courts. This can and has resulted in the removal of an infringement, which is normally at the cost of the developer or whoever caused it to be there. Breaching safety clearances, even temporarily, risks a serious incident that could cause serious injury or death.

National Grid will, on request, advise planning authorities, developers or third parties on any safety clearances and associated issues. We can supply detailed drawings of all our overhead line assets marked up with relevant safe areas.



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Your Responsibilities - Overhead lines

Work which takes place near overhead power lines carries a significant risk of coming into proximity with the wires. If any person, object or material gets too close to the wires, electricity could 'flashover' and be conducted to earth, causing death or serious injury. You do not need to touch the wires for this to happen. The law requires that work is carried out in close proximity to live overhead power lines only when there is no alternative, and only when the risks are acceptable and can be properly controlled. Statutory clearances exist which must be maintained, as prescribed by the Electricity Safety, Quality and Continuity Regulations 2002.

Under the Health and Safety at Work etc. Act 1974 and Management of Health and Safety at Work Regulations 1999, you are responsible for preparing a suitable and sufficient risk assessment and safe systems of work, to ensure that risks are managed properly and the safety of your workforce and others is maintained. Your risk assessment must consider and manage all of the significant risks and put in place suitable precautions/controls in order to manage the work safely. You are also responsible for ensuring that the precautions identified are properly implemented and stay in place throughout the work.

Work near overhead power lines must always be conducted in accordance with GS6, 'avoiding danger from overhead power lines', and any legislation which is relevant to the work you are completing.

.

What National Grid will provide

National Grid can supply profile drawings in PDF and CAD format showing tower locations and relevant clearances to assist you in the risk assessment process.

What National Grid will not provide

National Grid will not approve safe systems of work or approve design proposals

Part 3

What National Grid will do for you and your development

Provision of information

National Grid should be notified during the planning stage of any works or developments taking place near our electrical assets, ideally a minimum notification period of 8 weeks to allow National Grid to provide the following services:

Drawings

National Grid will provide relevant drawings of overhead lines or underground cables to make sure the presence and location of our services are known. Once a third party or developer has contacted us, we will supply the drawings for free.

400kV

The maximum nominal voltage of the underground cables in National Grid's network

Risk or impact identification

National Grid can help identify any hazards or risks that the presence of our assets might bring to any works or developments. This includes both the risk to safety from high-voltage electricity and longer-term issues, such as induced currents, noise and maintenance access that may affect the outcome of the development. National Grid will not authorise specific working procedures, but we can provide advice on best practice.





Risks or hazards to be aware of

This section includes a brief description of some of the hazards and issues that a third party or developer might face when working or developing close to our electrical infrastructure.

Land and access

National Grid has land rights in place with landowners and occupiers, which cover our existing overhead lines and underground cable network. These agreements, together with legislation set out under the *Electricity Act 1989*, allow us to access our assets to maintain, repair and renew them. The agreements also lay down restrictions and covenants to protect the integrity of our assets and meet safety regulations. Anyone proposing a development close to our assets should carefully examine these agreements.

Our agreements often affect land both inside and outside the immediate vicinity of an asset. Rights will include the provision of access, along with restrictions that ban the development of land through building, changing levels, planting and other operations. Anyone looking to develop close to our assets must consult with National Grid first.

For further information, contact Asset Protection:

Email: assetprotection@nationalgrid.com
Phone: 0800 001 4282

Electrical clearance from overhead lines

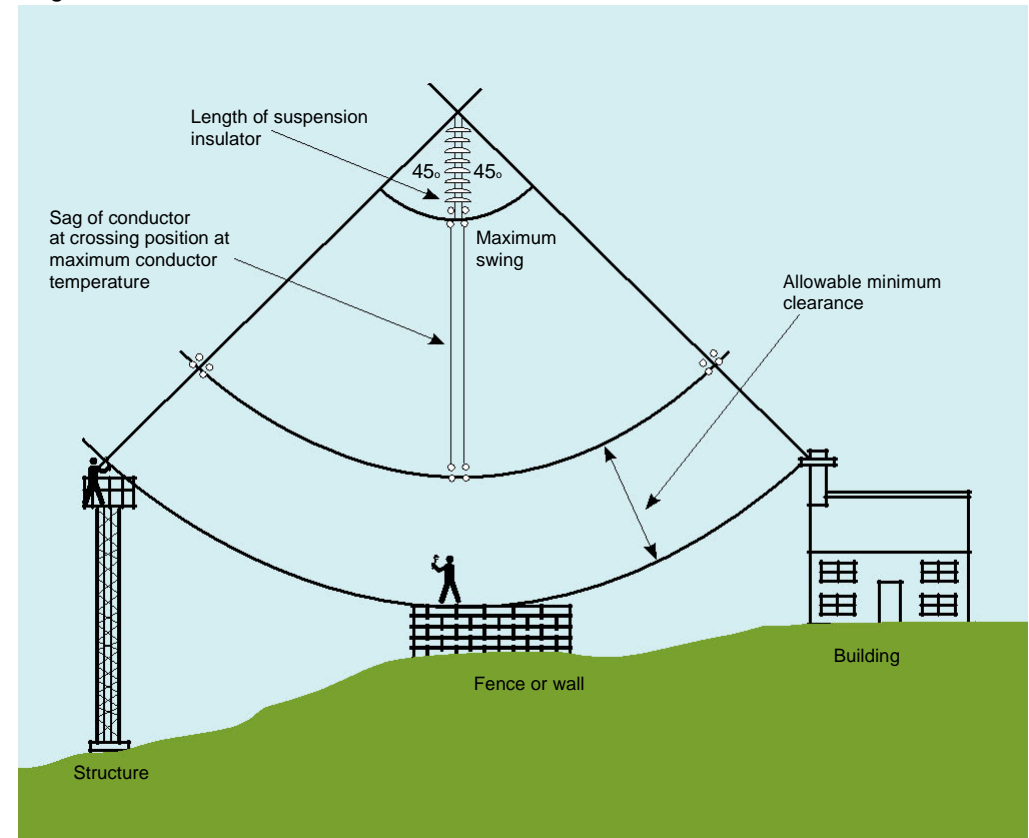
The clearance distances referred to in this section are specific to 400kV overhead lines. National Grid can advise on the distances required around different voltages i.e. 132kV and 275kV.

As we explained earlier, *Electrical Networks Association TS 43-8* details the legal clearances to our overhead lines. The minimum clearance between the conductors of an overhead line and the ground is 7.3m at maximum sag. The sag is the vertical distance between the wire's highest and lowest point. Certain conditions, such as power flow, wind speed and air temperature can cause conductors to move and allowances should be made for this.

The required clearance from the point where a person can stand to the conductors is 5.3m. To be clear, this means there should be at least 5.3m from where someone could stand on any structure (i.e. mobile and construction equipment) to the conductors. Available clearances will be assessed by National Grid on an individual basis.

National Grid expects third parties to implement a safe system of work whenever they are near Overhead Lines.

Diagram not to scale



There should be at least 5.3m between the conductors and any structure someone could stand on

We recommend that guidance such as *HSE Guidance Note GS6 (Avoiding Danger from Overhead Power Lines)* is followed, which provides advice on how to avoid danger from all overhead lines, at all voltages. If you are carrying out work near overhead lines you must contact National Grid, who will provide the relevant profile drawings.

7.3m

The required minimum clearance between the conductors of an overhead line, at maximum sag, and the ground

Section continues on next page »



The undergrounding of electricity cables at Ross-on-Wye

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Underground cables Underground cables operating at up to 400kV are a significant part of the National Grid Electricity Transmission network. When your works will involve any ground disturbance it is expected that a safe system of work is put in place and that you follow guidance such as *HSG 47 (Avoiding Danger from Underground Services)*.

You must contact National Grid to find out if there are any underground cables near your proposed works. If there are, we will provide cable profiles and location drawings and, if required, on-site supervision of the works. Cables can be laid under roads or across industrial or agricultural land. They can even be layed in canal towpaths and other areas that you would not expect.

Cables crossing any National Grid high-voltage (HV) cables directly buried in the ground are required to maintain a minimum separation that will be determined by National Grid on a case-by-case basis. National Grid will need to do a rating study on the existing cable to work out if there are any adverse effects on either cable rating. We will only allow a cable to cross such an area once we know the results of the re-rating. As a result, the clearance distance may need to be increased or alternative methods of crossing found.

For other cables and services crossing the path of our HV cables, National Grid will need confirmation that published standards and clearances are met.

Impressed voltage

Any conducting materials installed near high-voltage equipment could be raised to an elevated voltage compared to the local earth, even when there is no direct contact with the high-voltage equipment. These impressed voltages are caused by inductive or capacitive coupling between the high-voltage equipment and nearby conducting materials and can occur at distances of several metres away from the

equipment. Impressed voltages may damage your equipment and could potentially injure people and animals, depending on their severity. Third parties should take impressed voltages into account during the early stages and initial design of any development, ensuring that all structures and equipment are adequately earthed at all times.

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next page »



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Earth potential rise

Under certain system fault conditions – and during lightning storms – a rise in the earth potential from the base of an overhead line tower or substation is possible. This is a rare phenomenon that occurs when large amounts of electricity enter the earth. This can pose a serious hazard to people or equipment that are close by.

We advise that developments and works are not carried out close to our tower bases, particularly during lightning storms.

Noise

Noise is a by-product of National Grid's operations and is carefully assessed during the planning and construction of any of our equipment. Developers should consider the noise emitted from National Grid's sites or overhead lines when planning any developments, particularly housing. Low-frequency hum from substations can, in some circumstances, be heard up to 1km or more from the site, so it is essential that developers find adequate solutions for this in their design. Further information about likely noise levels can be provided by National Grid.

Maintenance access

National Grid needs to have safe access for vehicles around its assets and work that restricts this will not be allowed.

In terms of our overhead lines, we wouldn't want to see any excavations made, or permanent structures built, that might affect the foundations of our towers. The size of the foundations around a tower base depends on the type of tower that is built there. If you wish to carry out works within 30m of the tower base, contact National Grid for more information. Our business has to maintain access routes to tower bases with land owners. For that reason, a route wide enough for an HGV must be permanently available. We may need to access our sites, towers, conductors and underground cables at short notice.

30m

If you wish to carry out work within this distance of the tower base, you must contact National Grid for more information

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previous page

Fires and firefighting

National Grid does not recommend that any type of flammable material is stored under overhead lines. Developers should be aware that in certain cases the local fire authority will not use water hoses to put out a fire if there are live, high-voltage conductors within 30m of the seat of the fire (*as outlined in ENA TS 43-8*).

In these situations, National Grid would have to be notified and reconfigure the system – to allow staff to switch out the overhead line – before any firefighting could take place. This could take several hours.

We recommend that any site which has a specific hazard relating to fire or flammable material should include National Grid's emergency contact details (found at the beginning and end of this document) in its fire plan information, so any incidents can be reported.

Developers should also make sure their insurance cover takes into account the challenge of putting out fires near our overhead lines.

Excavations, piling or tunnelling

You must inform National Grid of any works that have the potential to disturb the foundations of our substations or overhead line towers. This will have to be assessed by National Grid engineers before any work begins.

BS ISO 4866:2010 states that a minimum distance of 200m should be maintained when carrying out quarry blasting near our assets. However, this can be reduced with specific site surveys and changes to the maximum instantaneous charge (the amount of explosive detonated at a particular time).

All activities should observe guidance layed out in *BS 5228-2:2009*.

Microshocks

High-voltage overhead power lines produce an electric field. Any person or object inside this field that isn't earthed picks up an electrical charge. When two conducting objects – one that is grounded and one that isn't – touch, the charge can equalise and cause a small shock, known as a microshock. While they are not harmful, they can be disturbing for the person or animal that suffers the shock.

For these reasons, metal-framed and metal-clad buildings which are close to existing overhead lines should be earthed to minimise the risk of microshocks. Anything that isn't earthed, is conductive and sits close to the lines is likely to pick up a charge. Items such as deer fences, metal palisade fencing, chain-link fences and metal gates underneath overhead lines all need to be earthed.

For further information on microshocks please visit www.emfs.info.



200m

*The minimum distance that
should be maintained from
National Grid assets when
quarry blasting*



Specific development guidance

Wind farms

National Grid's policy towards wind farm development is closely connected to the *Electricity Networks Association Engineering Recommendation L44 Separation between Wind Turbines and Overhead Lines, Principles of Good Practice*. The advice is based on national guidelines and global research. It may be adjusted to suit specific local applications.

There are two main criteria in the document:

- (i) The turbine shall be far enough away to avoid the possibility of toppling onto the overhead line
- (ii) The turbine shall be far enough away to avoid damage to the overhead line from downward wake effects, also known as turbulence

The toppling distance is the minimum horizontal distance between the worst-case pivot point of the wind turbine and the conductors hanging in still air. It is the greater of:

- the tip height of the turbine plus 10%
- or, the tip height of the turbine plus the electrical safety distance that applies to the voltage of the overhead line.

To minimise the downward wake effect on an overhead line, the wind turbine should be three times the rotor distance away from the centre of the overhead line.

Wake effects can prematurely age conductors and fittings, significantly reducing the life of the asset. For that reason, careful consideration should be taken if a wind turbine needs to be sited within the above limits. Agreement from National Grid will be required.

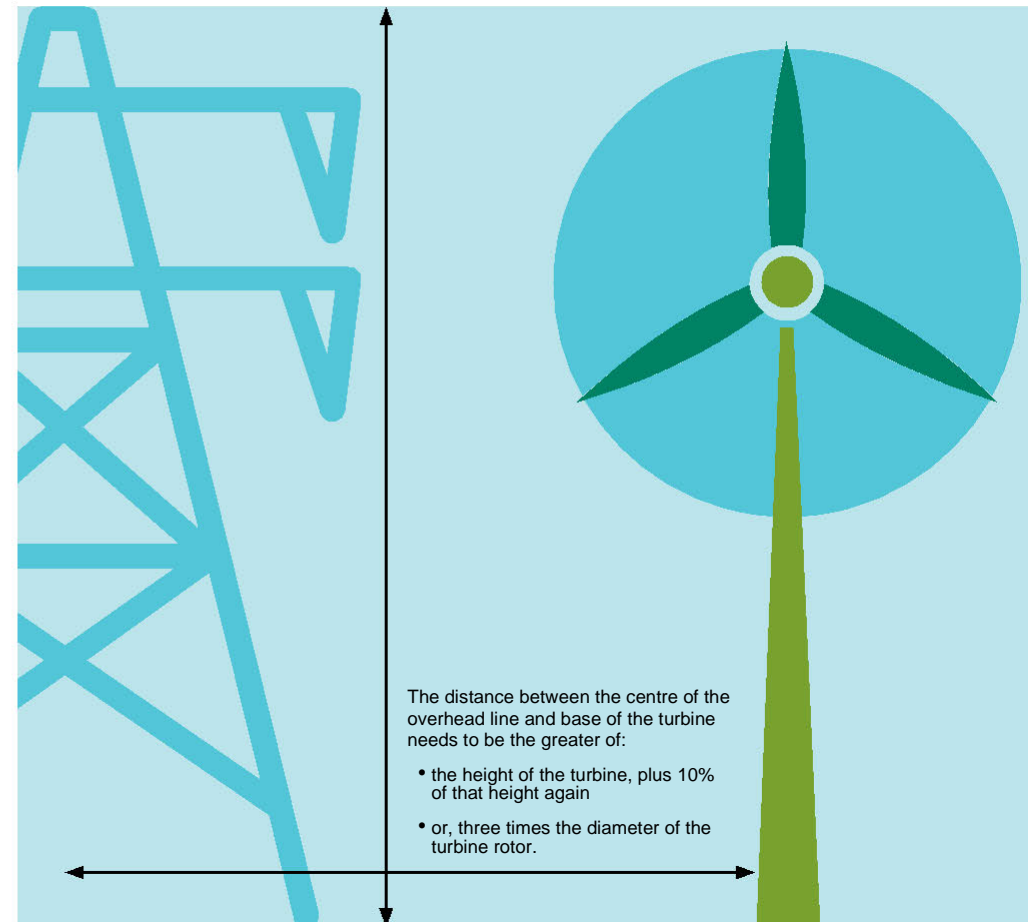
Commercial and housing developments

National Grid has developed a document called *Design guidelines for development near pylons and HVO power lines*, which gives advice to anyone involved in planning or designing large-scale developments that are crossed by, or close to, overhead lines.

The document focuses on existing 275kV and 400kV overhead lines on steel lattice towers, but can equally apply to 132kV and below. The document explains how to design large-scale developments close to high-voltage lines, while respecting clearances and the development's visual and environmental impact.

Section continues on next page »

Diagram not to scale



Turbines should be far enough away to avoid the possibility of toppling onto the overhead line



« Section continued from previous page

The advice is intended for developers, designers, landowners, local authorities and communities, but is not limited to those organisations.

Overall, developers should be aware of all the hazards and issues relating to the electrical equipment that we have discussed when designing new housing.

As we explored earlier, National Grid's assets have the potential to create noise. This can be low frequency and tonal, which makes it quite noticeable. It is the responsibility of developers to take this into account during the design stage and find an appropriate solution.

Solar farms

While there is limited research and recommendations available, there are several key factors to consider when designing Solar Farms in the vicinity of Overhead Power Lines.

Developers may be looking to build on arable land close to National Grid's assets. In keeping with the safety clearance limits that we outlined earlier for solar panels directly underneath overhead line conductors, the highest point on the solar panels must be no more than 5.3m from the lowest conductors.

This means that the maximum height of any structure will need to be determined to make sure safety clearance limits aren't breached. This could be as low as 2m. National Grid will supply profile drawings to aid the planning of solar farms and determine the maximum height of panels and equipment.

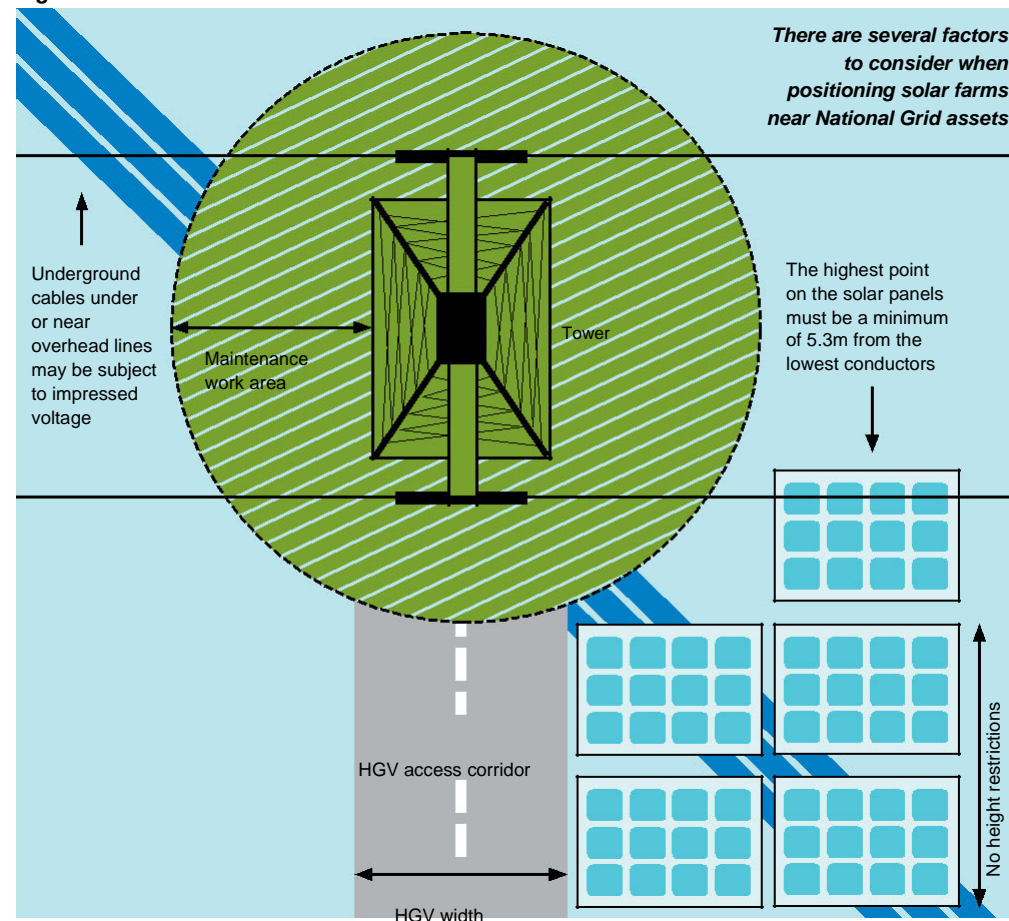
Solar panels that are directly underneath power lines risk being damaged on the rare occasion that a conductor or fitting falls to the ground. A more likely risk is ice falling from conductors or towers in winter and damaging solar panels.

There is also a risk of damage during adverse weather conditions, such as lightning storms, and system faults. As all our towers are earthed, a weather event such as lightning can cause a rise in the earth potential around the base of a tower. Solar panel support structures and supply cables should be adequately earthed and bonded together to minimise the effects of this temporary rise in earth potential.

Any metallic fencing that is located under an overhead line will pick up an electrical charge. For this reason, it will need to be adequately earthed to minimise microshocks to the public.

For normal, routine maintenance and in an emergency National Grid requires unrestricted access to its assets. So if a tower is enclosed in a solar farm compound, we will need full access for our vehicles,

Diagram not to scale



Including access through any compound gates. During maintenance – and especially re-conductoring – National Grid would need enough space near our towers for winches and cable drums. If enough space is not available, we would require solar panels to be temporarily removed.



Asset protection agreements

In some cases, where there is a risk that development will impact on National Grid's assets, we will insist on an asset protection agreement being put in place. The cost of this will be the responsibility of the developer or third party.

Contact details

Emergency situations

If you spot a potential hazard on or near an overhead electricity line, do not approach it, even at ground level. Keep as far away as possible and follow the six steps below:

- Warn anyone close by to evacuate the area
- Call our 24-hour electricity emergency number: 0800 404 090 (Option 1)¹
- Give your name and contact phone number
- Explain the nature of the issue or hazard
- Give as much information as possible so we can identify the location – i.e. the name of the town or village, numbers of nearby roads, postcode and (ONLY if it can be observed without putting you or others in danger) the tower number of an adjacent pylon
- Await further contact from a National Grid engineer

¹ It is critically important that you don't use this phone number for any other purpose. If you need to contact National Grid for another reason please use our Contact Centre at www2.nationalgrid.com/contact-us to find the appropriate information or call 0800 0014282.

Routine enquiries

Email:
assetprotection@nationalgrid.com

Call Asset Protection on:
0800 0014282

Opening hours:
Monday to Friday 08:00-16:00

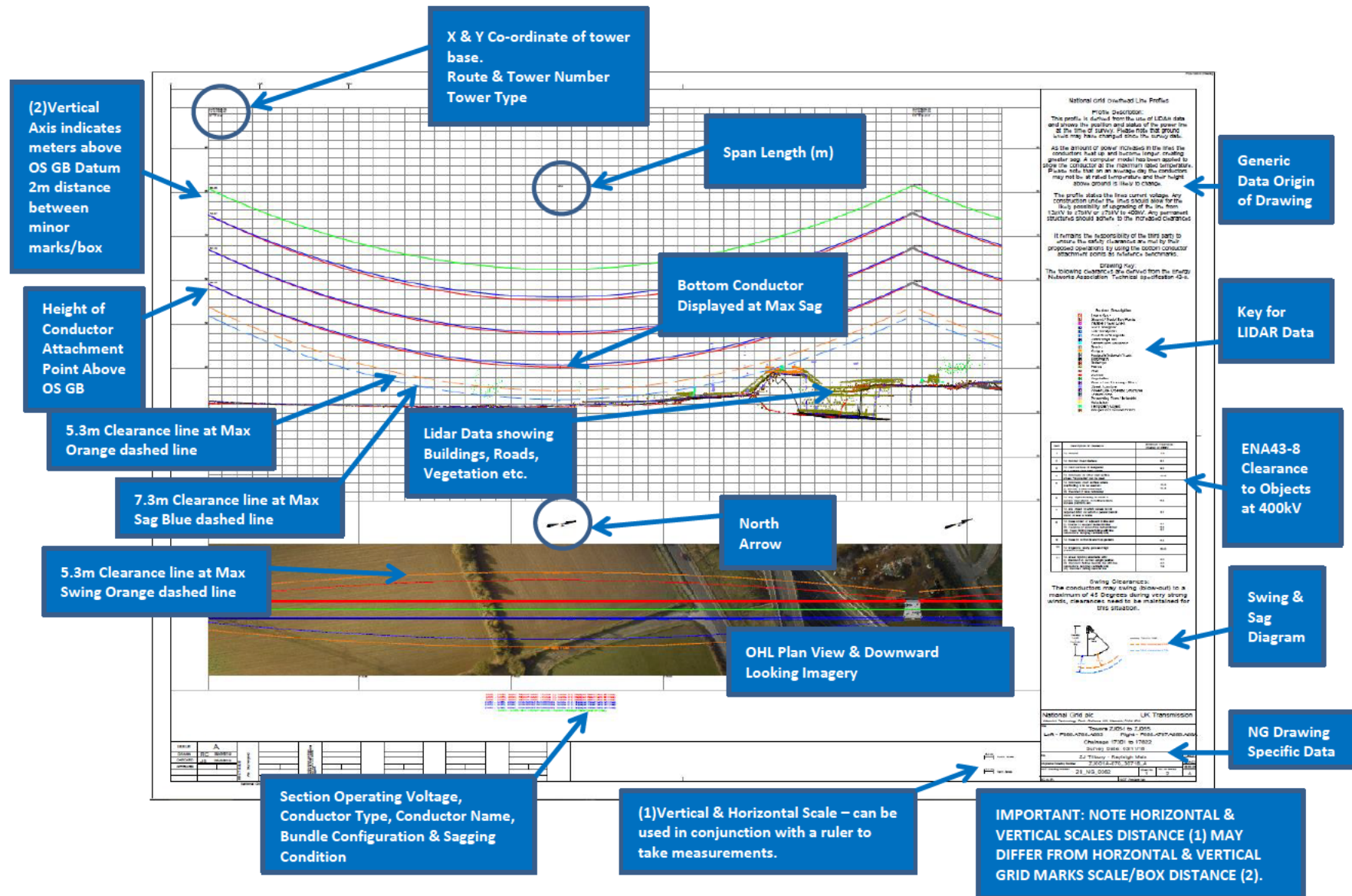
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14 APPENDIX A



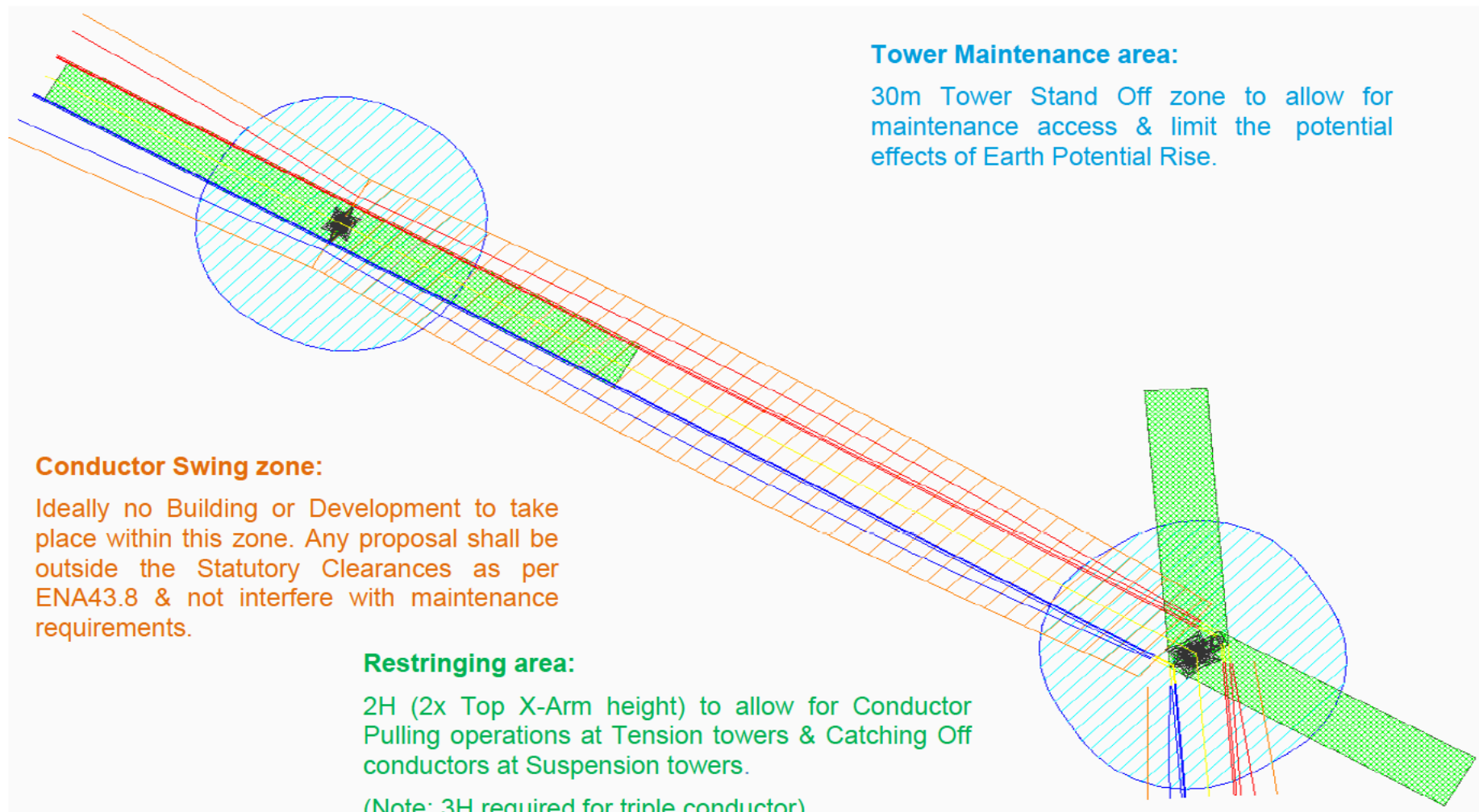
OHL Profile Drawing Guide



15 APPENDIX B



OHL Tower Stand Off & Reconducting Area



Todd Brumwell
EIA Advisor
Planning Inspectorate
Environmental Services
Operations Group 3
Temple Quay House
2 The Square
Bristol
BS1 6PN

Sally Parish
Highways Development Management
South West Operations Directorate
Ash House
Falcon Road
Sowton Industrial Estate
Exeter
EX2 7LB

www.nationalhighways.co.uk

16 January 2025

Via email:
llanwernsolarproject@planninginspectorate.gov.uk

Dear Todd,

EN010171 - Request for EIA Scoping Opinion for Future Energy Llanwern Solar Project, Wales

Thank you for inviting National Highways to provide comments on the above request for a scoping opinion. National Highways is a statutory consultee on planning applications under the Town and Country Planning (Development Management Procedure) Order 2015. In discharging this responsibility, we act as a proactive partner and welcome the opportunity to provide advice on the scope of any Environmental Statement pursuant to the procedures set out in the Town and Country Planning (Environmental Impact Assessment) Regulations 2017, which also identifies National Highways as a statutory party.

The development comprises the construction and operation of a 400MW solar photovoltaic (PV scheme) within the Gwent Levels across a 548.3ha site at Monmouthshire and Newport. Our comments relate to matters arising from our responsibilities to manage and maintain the strategic road network (SRN) and specifically the M4 and Prince of Wales Bridge, M48 and Severn Bridge, M49 and M5. We have therefore set out below both the general and specific areas of concern that National Highways would expect to see considered as part of any Environmental Statement. Comments relating to the local road network should be sought from the appropriate Local Highway Authority.

General aspects to be addressed by the applicant

- An assessment of transport-related impacts of the proposal should be carried out and reported as described in the Department of Levelling Up, Housing and Communities planning practice guidance on *'Travel Plans, Transport Assessments and Statements in decision-taking'*.

- The Transport Assessment (TA) should consider the traffic impact through both the construction and operational phases of development. The assessment years should align with the requirements set out in Paragraph 50 of DfT Circular 01/2022.
- Environmental impacts arising from any disruption during construction, including traffic volume, composition or routing change and transport infrastructure modification should be fully assessed and reported, along with the environmental impact of the road network upon the development itself.
- Adverse changes to noise and air quality should be considered, including in relation to compliance with the European air quality Limit Values and/or Local Authority designated Air Quality Management Areas (AQMAs) and World Health Organisation (WHO) criteria.
- In accordance with paragraph 59 of DfT Circular 01/2022 'The Strategic Road Network and the Delivery of Sustainable Development', no new connections are permitted to National Highways' drainage network. In the case of an existing 'permitted' connection, this can only be retained providing the flow, rate and quality of the discharge into the highway drainage system remains unaltered or results in a betterment.

Location specific considerations


- The TA should consider the impact of the development on the operation on the SRN (including during the construction phase), and specifically at the M4 and Prince of Wales Bridge, M48 and Severn Bridge, M49 and M5, in line with national planning practice guidance and DfT Circular 01/2022 'The Strategic Road Network and the Delivery of Sustainable Development'. The TA should be supported by up to traffic data to ensure any assessment reflects current network operating conditions. Where the proposals would result in severe congestion or an unacceptable safety impact, necessary infrastructure/mitigation will be required in line with current policy.
- The effects of the proposed development should be assessed cumulatively with other schemes and we would expect the applicants to agree an appropriate list of schemes, including committed development in the area, with the Local Planning Authority.
- Given the scope of the development an assessment of any potential glare from the facility should be undertaken and mitigation provided in terms of positioning or screening as deemed necessary.
- It is acknowledged that the development is unlikely to have a significant impact on the SRN once completed. It is however important that during the construction of the development appropriate consideration is given to the timing of works and potential diversion routes to ensure any impact upon the operation of the SRN is fully understood and managed. At the application submission stage, these issues will need to be addressed as part of a construction traffic management plan.

National Highways' comments are only advisory as the responsibility for determining the requirement for the scope and form of any EIA Report rests with the Local Planning Authority.

Our comments imply no pre-determined view as to the acceptability of the proposed development in traffic, environmental or highway terms.

Yours sincerely,



Sally Parish
South West Operations Directorate
 [@nationalhighways.co.uk](mailto:[redacted]@nationalhighways.co.uk)

llanwernsolarproject@planninginspectorate.gov.uk

Ein cyf/Our ref: CAS-271144-R8D5
Eich cyf/Your ref: EN010171

Dyddiad/Date: 16 January 2025

Annwyl Syr/Madam/Dear Sir/Madam,

PLANNING ACT 2008 (AS AMENDED) AND THE INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2017 (THE EIA REGULATIONS) – REGULATIONS 10 AND 11

SCOPING CONSULTATION REGARDING AN APPLICATION BY FUTURE ENERGY LLANWERN LIMITED (THE APPLICANT) FOR AN ORDER GRANTING DEVELOPMENT CONSENT FOR THE FUTURE ENERGY LLANWERN SOLAR PROJECT (THE PROPOSED DEVELOPMENT)

Thank you for consulting Cyfoeth Naturiol Cymru (CNC)/Natural Resources Wales (NRW) about the above, which we received on 19 December 2024. We have reviewed the information provided in the 'Future Energy Llanwern EIA Scoping Report' Revision 1, document reference: EN 010171/SCP/1 dated December 2024.

Please note that the comments provided herein are made without prejudice to any further advice NRW may need to give, or decisions NRW may need to take, should different circumstances or new information emerge that NRW will need to take into account.

The comments provided in Annex I include those matters within NRW's remit that we consider will need to be taken into account and applied to the Environment Impact Assessment (EIA) and the resulting Environmental Statement (ES). In order to aid review, where possible our comments are provided under the chapter headings from the Scoping Report.

Our comments above only relate specifically to matters included on our checklist, *Development Planning Advisory Service: Consultation Topics* (September 2018), which is published on our [website](#). We have not considered potential effects on other matters and do not rule out the potential for the proposed development to affect other interests.

We advise the applicant that, in addition to planning permission, it is their responsibility to ensure they secure all other permits/consents/licences relevant to their development. Please refer to Annex II and our [website](#) for further details.

If you have any queries on the above, please do not hesitate to contact us.

Yn gywir / Yours faithfully,

Lindy Marshall

Uwch Cynghorydd - Cynllunio Datblygu/Senior Advisor - Development Planning
Cyfoeth Naturiol Cymru/Natural Resources Wales

Annex I

NRW ADVICE AND COMMENTS ON 'FUTURE ENERGY LLANWERN EIA SCOPING REPORT' REVISION 1, DOCUMENT REFERENCE: EN 010171/SCP/1 DATED DECEMBER 2024.

3.0 Legislation and Planning Policy Overview

Welsh Planning Policy

1. The proposal is located within three of the Gwent Levels SSSIs (Site of Special Scientific Interest). Planning Policy Wales, Edition 12 (PPW12) contains new and strengthened policy on the protection of SSSIs within the planning system. The updated PPW12 also provides further clarity on the application of the stepwise approach, specifically relating to statutory designated sites which includes SSSIs.
2. PPW12 states 6.4.25 *'development in a SSSI which is not necessary for the management of the site must be avoided. This is a matter of principle to ensure that these sites can continue to fulfil their role at the heart of resilient ecological networks. What may be necessary for the management of a site will need to be considered on a case by case basis but it is likely to be limited to activities needed to meet its conservation objectives, including restoration and nature recovery, as well as site management infrastructure, natural flood management and other appropriate nature based solutions.'* 6.4.26 *'There is a presumption against all other forms of development in a SSSI as a matter of principle and this presumption should be appropriately reflected in development plans and development management decisions.'*
3. This policy position is also reflected in Future Wales (FW) Policy 9 (Resilient Ecological Networks and Green Infrastructure). Considered together, they form a significant part of the national policy framework for development management decisions regarding development within a SSSI.
4. We note the applicant sets out in section 4.13.3 of the Scoping report what they determine to be exceptional circumstances to justify a development within the Gwent Levels SSSIs. We also note in section 4.13.4 that full site selection and alternatives assessment will be presented in the ES.
5. In addition, there is a requirement in Policy 9 of FW to secure the maintenance and enhancement of biodiversity. It is unclear whether the proposed development would result in a net loss of SSSI features or supporting habitat of features. We advise this is further considered within the ES. Further details on selected features is provided below.
6. Policy 9 of FW places importance on safeguarding and creating/enhancing ecological networks, maximising green infrastructure, and integrating nature-based solutions into the built environment. Safeguarding areas involves identifying land that is important for expanding or connecting ecological networks. The policy focus is on creating large-scale, resilient, and functional ecological networks. Consideration of this should be included in the EIA.
7. Policy 9 identifies the Gwent Levels as a National Natural Resource Areas (NNRA). Welsh Government letter: [COP15, Biodiversity Deep Dive, Section 6 Duty and the Planning System1 \(20 December 2022\)](#) states that NNRA's: *'indicate broad areas where*

nationally important ecological networks/green infrastructure exist as a basis for promoting action to protect and enhance biodiversity and improve the resilience of ecosystems and recognising the importance of strategic green infrastructure. The importance of these areas should be given particular attention when identifying development proposals.'

8. In addition to identifying the Gwent Levels as a nationally important ecological network, Future Wales also provides a national overview of Resilient Ecological Connectivity (page 25) – connectivity being an important attribute for ecosystem resilience. This overview identifies the Gwent Levels as currently having low resilience. Its resilience (Diversity, Extent, Condition and Connectivity) could be easily increased with appropriate management and restoration, as long as 'space for nature' is properly safeguarded.
9. The reasoned justification for Policy 9 states that '*safeguarding will ensure that areas of land that are potentially important for expanding or connecting ecological networks, adapting to climate change or other pressures, or which provide key ecological services, are not compromised by development. Safeguarding should in the first instance be undertaken at a large scale, reflecting the landscape scale approach advocated by the Welsh Government's Natural Resources Policy.*'
10. 'Resilient' ecological networks are networks of habitats in good condition that connect protected sites such as SSSIs and biodiversity hotspots. Protected sites should be considered as key areas within a resilient ecological network.
11. The Gwent Levels are an important and significant ecological network on a national scale, with the SSSI designation playing a fundamental role, but currently achieving low ecosystem resilience. One reason for this is the continuing pressures from development as identified in the [South East Wales Area Statement](#). Due to the scale of the proposed development, further consideration should be given within the Environmental Statement (ES) on how the proposals can link to the wider ecological network. In addition, as identified in section 4.14, the cumulative impacts of any current/future projects should be taken into consideration when assessing wider impacts on the designated features.

8.0 Ecology

12. The ES for this development should include sufficient information to enable the decision maker to determine the extent of any environmental impacts arising from the proposed scheme on legally protected species, including those which may also comprise notified features of designated sites affected by the proposals.
13. Evaluation of the impacts of the scheme should include: direct and indirect; secondary; cumulative; short medium and long term; permanent and temporary; positive and negative, and construction (including impacts of construction site access) operation and decommissioning phase impacts on the nature conservation resource, landscape and public access.

Description of the Project

14. The entire scheme should be described in detail. This description should cover construction, operation and decommissioning phases and include detailed, scaled maps and drawings as appropriate.

Illustrations within the Environmental Statement

15. Any maps, drawings and illustrations that are produced to describe the project should be designed in such a way that they can be overlaid with drawings and illustrations produced for other sections of the Environmental Impact Assessment (EIA) such as biodiversity.

Description of Biodiversity

16. The ES should include a description of all the existing natural resources and wildlife interests within and in the vicinity of the proposed development, together with an assessment of the significance of any likely impacts.

Baseline Surveys

17. We note Table 8-2 'Baseline Survey Methods' outlines the surveys type, date and methods used.
18. We note that a Phase 1 Habitat Survey was carried out in 2019 and a UK Habitat Classification Survey (UKHC) survey carried out in 2023. Any update to the 2019 survey of the site should utilise the Phase 1 Habitat Survey methodology or cross clarification be provided between the two methodologies for habitats present on site.
19. If other further surveys are proposed, they should be undertaken in accordance with the JNCC Phase 1 survey guidelines (Handbook for Phase 1 habitat survey. JNCC, Peterborough 2010 Edition) and should be undertaken and completed during the summer to ensure the best chance of identifying the habitats present.
20. Maps should be provided, detailing the extent of the site covered by each survey effort. We advise that the detail of surveys is submitted to confirm whether the extent of area covered by each is appropriate, to provide enough information about the existing habitat and species on site. This should be used to inform the design, layout and proposed mitigation.
21. We disagree that an assessment within the ES of the impacts on the River Usk SAC located 3.7km away should be scoped out. We provide further detail in support of this point under the functionally linked land section below.

Gwent Levels SSSIs

22. As previously outlined, the proposal is located within three of the Gwent Levels SSSIs as outlined in Table 8-1 Designated Sites. The SSSIs are notified for the range of aquatic plants and invertebrates associated with the reens and the smaller ditches of the drainage system. This abundance and diversity are due to the variety of reen types, their

management regimes and regular maintenance of reens. The management of water levels through the Internal Drainage District (IDD) in NRW is an important part of the ongoing management of the SSSI. This rotational reen and ditch management also suits the habitat requirements of the UK's rarest bumblebee, the shrill carder bee (*Bombus sylvarum*) which is a special feature of the SSSI.

23. The special interests of the SSSI are dependent on the water quality, water quantity, the existence of the drainage system and its continued management. Any development which has an adverse impact on any of these factors will have an adverse impact on the wildlife for which the area was notified. The ES should fully consider the likely significant effects of the proposed development on the special interests the SSSIs are designated for. Further details are provided below.

Baseline Conditions - Habitats

24. We advise current land use information to be presented clearly on a map for each area/field on site with additional information tabled if necessary. This should include for example which fields are arable, grazed by sheep or cattle, unmanaged or hay cut.
25. The long-term ditch management on the Gwent Levels with surrounding traditional pasture led to the establishment of the SSSI habitat. Changes to this can fundamentally alter the ecosystems on site. One example is that poaching by cattle along the margins of reens and ditches and within the fields provides habitat and egg laying sites for aquatic and terrestrial invertebrates. Therefore, changes to the poaching regime from the proposed development should be assessed.
26. We note section 8.9.1 states: 'some surveys did not fully cover fields due to the presence of livestock including calves at foot. It is considered that sufficient data has been gathered across remaining fields to infer any results from inaccessible locations to inform the forthcoming assessment and any mitigation measures.' Full details of the surveys including which fields were not covered should be submitted.

Ditch Surveys

27. Section 8.4.10 states that 'targeted surveys showed that the reens and ditches vary in habitat quality.' These surveys will need to have covered the majority of the site so that a ditch management plan can utilise the information obtained, to inform which ditches are most open and holding the greatest diversity of flora and fauna. Ditch and reen surveys of the site by the applicant should be clearly presented on a map with any details tabulated as this will inform requirements for a ditch management program in a Landscape Ecological Management Plan (LEMP) and which areas would be prioritised if permission is granted.
28. Definitive assessments to confirm the baseline conditions of the habitat and species features of the sites across the Gwent Levels have been undertaken by CCW and NRW since 2009 and we have provided the applicant with the reports.

Grassland surveys

29. We note in section 8.4.8 that '*small numbers of semi-improved grassland and marshy grassland fields are present supporting a higher plant diversity.*' More detailed surveys than Phase 1 will likely be required for any fields where the greatest floral biodiversity is identified. Erecting solar panels and associated infrastructure on such fields should also be avoided. Those fields rich in flora are better placed for enhancement opportunities. Those highest in species diversity can form key areas to design in habitat connectivity through the site to support the shrill carder bee feature and other wildlife.
30. Some fields within Gwent Levels Whitson SSSI have been identified by NRW surveys in 2022/2023 as high conservation value. These surveys have identified MG5 *Cynosurus cristatus* – *Centaurea nigra*, some of which are atypical-with damp/inundation elements which raises their ecological value, species-rich MG6 and MG11 also add to the combination/mixture of habitats. Other fields on the Gwent levels provide a complex mix of habitats and being adjacent to watercourse provides even greater diversity. This mix of habitats and associated species (for instance shrill carder bee) raises the combined value of the area. We note there are areas within the submitted red line planning boundary that are identified as habitat of interest for further assessment and others that are semi-improved grassland. Further consideration of areas that have been identified with high ecological value should be given within the ES.

Grips

31. The ridge and furrow landscape and gripped fields are part of the Gwent Levels historic landscape that is unique to Wales. They provide hydrological connections to the ditches and reens and provide wetter channels in the fields which provide habitat for invertebrates.
32. Aerial imagery maps of the site show there are fields within the application boundary that have grips, which should be highlighted as part of the land surveys, and avoided for construction works. Historic grips have the potential to be permanently damaged by the proposal, and therefore alter the existing drainage patterns. Damage to the grips can affect the hydrological connectivity of the interconnected drainage system and therefore could significantly affect the quantity and flow rate of water entering the SSSI reen and ditch network. In turn, this has the potential to affect the ability of the SSSI flora and fauna to survive in the watercourses and should be assessed.

Invertebrates including shrill carder bee surveys

33. We welcome that surveys, as outlined in Table 8-2 Baseline Survey Methods, have been undertaken for invertebrates including shrill carder bees in 2020 and 2023. The forage plant of each sighting of shrill carder bee should be provided.
34. These surveys should be across the extent of the site, as shrill carder bee may be using ditch and hedgerow margins in areas where the floral diversity away from field margins is low. Without a map, it is unclear from Table 8-2 whether the surveys of each sub-unit

will be sufficient coverage of the site. The survey information should be used to inform any mitigation plan for the site and design in habitat connectivity.

Habitat management schedule

35. A LEMP (or similar approved documents secured through the permission) would be a key mechanism to detail ditch management, grassland management for shrill carder bee features and secure a schedule for monitoring for the flora and fauna on site.
36. Section 8.8.1 states '*losses of important vegetation will be compensated for through the planting/creation of new habitats.*' The expectation would be to avoid loss of important vegetation areas from development in the SSSI. Habitat enhancement should be targeted to areas where they are most likely to be successful (discussed further under Grassland management below) and any new habitat established on site before construction. Taking an early opportunity to commence the habitat management avoids an interim period where habitat is lost from site during construction with no nearby enhanced habitat in place to support wildlife displaced from site. This approach will be more effective and supports a better outcome for the SSSI. This is particularly important for grassland habitat, to enable it to establish prior to construction.
37. A LEMP should be designed using the survey information gained on site and include a clear schedule of when habitat management will be undertaken throughout construction and operation of the site.

Ditch management

38. Most of the ditches within the application boundary should be managed on rotation over the 40-year lifetime of development. This should be detailed in a LEMP. This should include vegetation management; hedge removal where the ditch is assessed to be shaded; de-weeding of ditches and, when required, desilting/casting where a ditch is infilling with silt resulting in flows/hydrological connections being limited. The areas where ditch management is prioritised should account for other wildlife on site such as dormice and be based on site surveys and advice from NRW. Management of the main ditches and IDD reens would continue by NRW and suitable access should be given to continue these duties.
39. We welcome plans in section 8.7.1 to open up the ditches on the southern-most bank. Ditches that are currently open to sunlight on one side should be maintained as such during the lifetime of the development.
40. A ditch management program would increase the suitability of the watercourses to support the SSSI invertebrate features, so their diversity and abundance should increase on site and be retained during the lifetime of the project. Ditch management should aim to create shallow margins which are better able to support invertebrate fauna than steep sided ditches.

41. The LEMP would need to be established using the ditch survey information for the site. Details should include:

- Management of ditches in line with NRW advice and methodology provided to landowners across the SSSIs.
- Ditch management between 1 Sept – 28 Feb to avoid the bird breeding season. Timing of works in this period of the year also avoids disturbance to the ditch flora when it is flourishing.
- Ditches closest to reens running through the site being managed first to allow water to feed into the ditches. Areas near to reens higher in diversity should be prioritised to optimise opportunities for colonisation.
- Annual review of ditch management/walk over assessment for scrub encroaching on ditch banks for the development lifetime,
- Keeping hedges low to avoid ambush predation in any lapwing area will be positive for the aquatic SSSI features by keeping the ditches open to sunlight in these areas.
- The locations of any planting of any gappy areas in north hedgerows to connect dormice habitat. For any planting of gappy hedges on northern banks, the species should be selected from NRW's Gwent Levels native tree list. Plants should be of UK native provenance (grown in British nurseries) to remove the risks of importing diseases that our plants have no resistance to and pests that have no natural predators in the UK. British grown plants are far more likely to do well in our conditions than those that have been imported.

42. Fencing of buffer zones should be avoided as it limits natural processes, i.e. grazing and ditch management occurring which in turn changes the unique conditions for flora and fauna (poaching for invertebrates). Where there is fencing of ditch buffer zones to prevent grazing, it must be ensured there is ample space for machinery to undertake hay cuts and ditch management during operation of the development. Access to buffers by sheep from October to February would be possible but grazing of buffers in the spring or summer would limit establishment of flower rich habitats.

Creation of new ditches

43. We support the principles to create new ditches to build flood storage capacity into system however, this will need careful consideration to ensure no detriment to existing reens and ditches and their ability to hold adequate water to support SSSI features. We have concerns over the availability of water in this area of the Gwent Levels. Further details should be provided within the ES at the long term resilience of this proposal.

Grassland management to enhance shrill carder bee habitat

44. Metapopulations of shrill carder bee are now limited to five key areas across the UK. The Baseline Evaluation of SSSIs undertaken by NRW in 2020, assessed that of the six Gwent Levels SSSIs Redwick & Llandeenny and Magor & Undy were unfavourable for shrill carder bee. We consider there are opportunities across the Gwent Levels including on this large site, to provide habitat to support the expansion of the shrill carder bee range and increase its abundance within this SSSI to provide resilience. We will review

the shrill carder bee surveys once received but note that nine worker bees were found during the surveys. We advise there will be opportunities in particular to connect the areas where these bees were located.

45. There appear to be no landscape wide studies relevant to the UK about whether solar panels may interfere with flight patterns and cause habitat fragmentation. Due to the uncertainty of the effects of solar farms on the shrill carder bees, and to enhance habitat within this SSSI, its likely well-connected mitigation areas are required. This is also particularly important to ensure potential significant cumulative effects, with other projects on the Gwent Levels SSSIs, can be adequately mitigated.
46. For foraging, shrill carder bees require both extensive areas of flower-rich grassland for their sources of nectar and tussocky grassland areas for nesting. Buffer and mitigation fields should be managed to provide a diversity of flowering species in particular long necked flowers to suit feeding requirements of this bee. Suitable forage includes *Lotus corniculatus*, *Trifolium arvense* and *Centaurea nigra*. Late hay cuts should provide flower rich habitat for this late emerging species. Depending on the existing land use, it may be determined that two cuts per year are needed annually to enhance biodiversity. There should be wide strips of vegetation alongside reens and ditches that are hay cut.
47. Areas within the proposed development where the shrill carder bee have been found and where there are fields of greater botanical diversity should be prioritised for management and enhancement to support this species and wider biodiversity. Habitat connectivity from these key areas must be designed into the LEMP and development plans for the site. It should not be the case that the fields, which are less suitable for solar panels and infrastructure connections are left for mitigation. Mitigation fields should be chosen due to them being the most likely to support the features of the SSSI at locations where connectivity within and to area outside the site will be most beneficial. We advise careful consideration of placement of the panels is given in the ES.
48. Choosing the most appropriate fields for mitigation at the outset is important. Any fields proposed for mitigation that are not diverse and improved agricultural land, should be considered for soil nutrient testing pre-permission to establish if they could be suitable fields for habitat creation to design into the layout of the site. Wildflowers will be unlikely to establish on fields high in nutrients. Any fields with high phosphorous, are less preferable and more likely fail or take longer for establishment of a diverse flora. Nutrient stripping would be needed on fields with higher nutrients and if unsuccessful, one contingency could be relocation of mitigation fields at a later stage. Another measure to reduce vigour of rank grassland species is to have yellow rattle in the seed mix. We have attached '*Living Levels Project document: Method Statement – Species-rich grassland creation, enhancement, and restoration*', for reference.
49. Land use surveys can also help inform whether appropriate management will enable reestablishment of floristic diversity on site without seeding, or whether a combination of a trial of seeding on some fields and others to be managed for natural recovery of floristic diversity. The preference would be locally sourced seed.
50. Regarding the bee's nesting habitat, the Conservation Strategy for the shrill carder bee, *Bombus sylvarum* in England and Wales 2020-2030 is available on the Bumblebee

Conservation Trust website. It states '*there is currently little data on or knowledge of Shrill carder bee nesting and hibernation sites. Nests appear to be associated with rough long grass with a litter layer and have been found on the surface or just below ground. There is some evidence that there is a preference for a sunny exposure and a south/southeast facing slope*'. Cutting buffers and mitigation fields on rotation should create the rough margins that would suit shrill carder bee nesting requirements. Identification of better areas for this may be identified by the submitted surveys.

51. We recommend the applicant contact Bumblebee Conservation Trust given their involvement with shrill carder bee in the area through the [Natur am Byth](#) project to assist in their development of their ES.

Environment (Wales) Act 2016 Section 16 - Land Management Agreements

52. Some fields at the proposed development are within existing s16 Land Management Agreements under the Environment Act Wales 2016 which NRW are funding for conservation benefits to the SSSI that include example ditch management, grassland management (hay cuts/ seeding) and grip restoration. The ES should consider the consequential effect of development We can provide a map of s16 land on request.

Weed Management by Herbicides

53. Section 8.7.1 outlines the benefit of reducing pesticide and herbicide by replacing agriculture with a solar development. However, it is our understanding from the operational Llanwern solar development in the area (Newport City Council reference 18/0198) that machine management of weeds across the site is unsuccessful, particularly under solar panels and herbicide use is necessary. It has been found that the sheep grazing the site avoid such weeds, and they are affecting the inverter stations, cable crossings and growing under and up through the panels.
54. Structures on site should be designed to limit the use of herbicide. Herbicide use across development sites within SSSIs should be kept to a minimum and will require a herbicide permit and SSSI consent from NRW. This should be considered further within the ES.

Functionally linked land

55. We note there are fields proposed for development adjacent to the sea wall. Adequate consideration should be given of functionally linked land that supports features of River Usk and Severn Estuary SAC, SPA and Ramsar site, given the sensitivity of the features.
56. The reens and ditches but also the grassland habitats of the Gwent Levels all have functional linkage providing supporting habitat for essential life cycle processes of some or all the features of the SPA, SAC and SSSI, and contributes a proportion of the whole estuary population of various species.
57. Therefore, effects upon these sites could reduce the estuary populations of the species, which may have an adverse effect on site integrity in view of the conservation objectives

of the site. For example, given the reed and riparian habitats connects with the River Usk SAC it is known that commuting otters are supported in the wider environment, and this is confirmed in the Scoping report. The potential impacts including barriers to moving across the site during construction and operation should be considered, especially given the scale of the proposal.

58. Key background on functionally linked land is provided in the following Natural England report: Chapman, C. & Tyldesley, D. (2016) Functional linkage: How areas that are functionally linked to European sites have been considered when they may be affected by plans and projects - a review of authoritative decisions. Natural England Commissioned Reports, Number 207. Available online at: <http://publications.naturalengland.org.uk/publication/6087702630891520>

Severn Estuary

59. The implications of construction works should be assessed in the ES including noise impacts. The wintering bird surveys along the Severn Estuary should inform which areas are most sensitive to avoid construction close to the sea wall in the wintering period. NRW have commissioned a survey of disturbance in 2024 "Monitoring Noise and Visual Disturbance at Severn Estuary SPA/SAC/Ramsar/SSSI" which can be shared on request.

Protected Species

60. The site should be comprehensively assessed for its potential to support protected species such as great crested newts, dormice, bats, otters and water voles. Protected species surveys should be carried out by suitably qualified, experienced and where necessary, licensed surveyors in accordance with published best practice guidance, where this exists.
61. We note that some protected species survey work has been carried out in the past. We advise that surveys older than 2 years are updated and the EIA is based on the results of the updated surveys. The results of older surveys may be included as contextual historical information in the Environmental Statement.
62. Where such species may be also notified features of nearby designated sites (SSSI, SAC or SPA sites), we advise that they are considered in the context of being both a notified feature of such sites and a legally protected species in their own right.
63. The ES should identify the likely impacts of the proposals on protected species and detail all of the mitigation that will be put in place to address those impacts. It should also identify if any protected species licences may be required for the development.

Great Crested Newts

64. We note that surveys for great crested newt (GCN) have occurred at across three different years at various locations across the site. Only the 2023 data is considered in

date currently. We advise that the planning application is supported by up to date surveys for the full application site.

65. We advise the use of Habitat Suitability Index (HSI), eDNA and traditional survey techniques, with the latter used to confirm likely population sizes affected by the proposed development where GCN presence has been confirmed.
66. It should be noted that HSI is principally designed to assess the suitability of habitat within ponds for GCN. Careful consideration will therefore have to be given as to how it can be applied to assess the suitability of habitat for GCN within reens and ditches across the application site, and the use justified. For all waterbodies within the application site, we advise that they are assessed for their functionality for GCN throughout all life cycle stages, including potential use for foraging and newt dispersal throughout the landscape and not just focusing on potential to support breeding GCN.
67. Surveys should be carried out in accordance with English Nature's Great Crested Newt Mitigation Guidelines and NRW's guidance on the use of eDNA testing for GCN licensing:
- Great Crested Newts mitigation guidelines ([Great Crested Newts mitigation guidelines](#))
 - [Natural Resources Wales / The use of environmental DNA test for Great crested newt licensing purposes](#)

Dormouse

68. We note that dormouse surveys were carried out in 2023. These are still considered in date. Adequacy of the surveys will depend on the survey methodology employed and distribution of tubes across potential dormouse habitat. Where dormouse habitat is present across the site, we advise that the application includes descriptions of its condition/favourability for the species. Surveys should follow the best practice guidance set out in: English Nature's Dormouse Conservation Handbook (2nd Ed) [EN DORMOUSE HANDBOOK \(4663\)](#)

Riparian Mammal Survey – Otters and Water Voles

69. We note that only one survey for riparian mammals (water voles and otters) has been carried out, in March 2024. Surveys for water voles should accord with the guidance in The Water Vole Mitigation Handbook (Dean et al, Mammal Society 2016). This advises two survey visits at least two months apart in the periods mid-April to end June and July/September. Therefore, the 2024 survey does not accord with published best practice survey guidance for water voles; we advise that this is addressed.
70. Water vole surveys targeted to particular locations (e.g. where there will be new or modified reen crossings and buffers thereof) may be sufficient, providing that all solar farm infrastructure will otherwise be situated outside the SSSI reen/ditch buffers AND there are no enhancement works proposed for the reens/ditches themselves. If however, as we anticipate, the development proposals that will include new watercourse crossings and/or works to the SSSI ditches/reen to restore/maintain them in favourable condition, we advise that the application includes the results of water vole surveys for all of the ditches and reens concerned.

71. Surveys for otters should be sufficient to ascertain use of the site across the seasons and whether or not the proposed works shall impact upon a more significant resting place such as a natal site which may be located in dense scrub within 200m of the proposed development works.

Bats

Tree Potential Roost Features

72. We note the reference to 2019 and 2021 datasets. Given the age of the datasets, the transient nature of tree roosts and the weathering that trees and their roosts are exposed to, we advise updated surveys of the application site are carried out in accordance with Bat Conservation Trust's 'Bat Surveys for Professional Ecologists. Good Practice Guidelines 4th Ed', published 2023. It is not acceptable to leave such surveys to the post-consent pre-construction phase.

Bat Activity Surveys

73. We note that bat activity surveys were carried out between April-October in 2023, and it appears that these comprised monthly walked transects and automated detector surveys (in accordance with the 3rd Edition of the survey guidelines). These surveys are currently considered in-date. We advise that the project ecologist assesses the methodology employed for adequacy of approach, and the application includes the results of updated survey data (in accordance with the current guidelines) to address any gaps in the data/survey coverage.

European Eel

74. We note in section 8.4.20 that eel presence is assumed across the site. We note and agree with this.

9.0 Ornithology

Terrestrial Ornithology

75. We note and welcome the surveys for breeding birds within Table 9-2 Baseline Survey Methods. We consider these to be in line with industry best practice.

76. However, we note no specific surveys for breeding/foraging barn owls have been undertaken. Without such surveys it may not be possible to fully assess the impacts of the scheme on this species. We therefore recommend that the ES includes either:

- A species-specific survey for barn owls during the breeding season to assess the impacts on the scheme on foraging barn owls and identify the potential for breeding barn owls. Such as survey for barn owls [Barn Owl Survey Methodology and Techniques for use in Ecological Assessment | CIEEM](#)
- In lieu of additional surveys, a robust mitigation/enhancement package aimed at retaining and promoting barn owls on site. This should include how appropriate habitat will be retained and managed for the life time of the scheme, and the provision of suitable nest boxes.

77. Determining the importance of species and populations identified from surveys should refer to Wales specific resources and publications where practical. Relevant population estimates can be found in, but no limited too, [Hughes et al. 2020 \(Wales\)](#) and [Woodward et al. 2020 \(UK/Britain\)](#). County Bird Reports, the Welsh Bird Reports, as well as Birds of Wales/Adar Cymru (Pritchard et al. 2021) may also contain relevant information.
78. In section 9.5.14 for clarity, NRW expects [Birds of Conservation Concern Wales 4 \(BoCCW4\)](#) to be used as the “BoCC” reference. We welcome the inclusion of species listed on Section 7 of the Environment Act (Wales) 2016. Species listed under Schedule 1 of the Wildlife & Countryside Act 1981 (as amended) should also be included here.
79. Details of appropriate mitigation (following the step-wise approach) for any likely significant effects identified should be provided along with appropriate enhancements. In some instances, mitigation may need to take the form of curtailment or redirection of activities during particular times of year. Where buffer distances are required or need to be considered then reference should be made to [Goodship & Furness 2022](#) or alternative published references for species not listed within Goodship & Furness 2022.
80. Details for a scheme of post-construction monitoring of any migration should be provided. This should include, where appropriate details of metrics to determine the effectiveness of any mitigation/enhancement/compensation measure, and details of alternative strategies if primary approaches are shown not to be delivering results as expected.

Marine Ornithology

81. We are satisfied with the designated sites and elements scoped in for further assessment. We would advise that Llandegfedd Reservoir SSSI and Flatholm SSSI are also scoped into the ES. Llandegfedd Reservoir is designated for wintering widgeon, pochard and teal, and Flatholm is designated for breeding lesser black-backed gull (LBBG) which may utilise the Development Area and estuary for feeding during the breeding season. Note that LBBG are included in the Severn Estuary SPA.

10.0 Water Environment and Flood Risk

82. We note and are in general agreement with Chapter 10.0 Water Environment and Flood Risk and note that the proposed Development has the potential to affect the water environment and flood risk during the construction, operation and decommissioning phases.

Internal Drainage District (IDD)

83. We note that a number of reens have been identified on the site. We advise that in addition, we have identified the following IDD interests.

- Mead Lane Reen
- Broadmead Reen
- South Mead Reen
- Meres Reen

- Newport Road Reen
- Porton Reen
- Cockstreet Reen
- Pill Street Reen
- Pratt Reen South

We advise that the placement of structures should not hinder maintenance of reens and that appropriate buffers for maintenance are maintained. We advise that further consideration on potential impacts of the scheme for maintenance on reens is provided in the ES. This should include both pre and post construction scenarios.

Hydrology

84. We note in Hydrology section 10.4.15 it states “in the summer, water levels are kept high to provide drinking water for stock and in winter the boards are removed to allow floodwater to drain into the Severn Estuary”. This is partly incorrect, in summer water levels are kept higher, minimum 600mm for silt coverage to comply with SSSI to protect invertebrates. Stock drinking water is a benefit and it is not our responsibility to provide water for this purpose.
85. Within Table 10-7 Legislation and Policy Relevant to the Water Environment and Flood Risk reference is made to the ‘Environmental Permitting (England and Wales) Regulations 2016 (as amended)’. We advise that under this regulation Flood Risk Activity Permits (FRAP) may also be required for any proposals that have the potential to affect any of the statutory main river watercourses within the site, including any access arrangements that cross such watercourses whether within the site or outside its planning boundary. Further information is available here on our website Natural Resources Wales / Flood risk activity permits
86. Section 10.9 Mitigation notes that potential impacts to the water environment and flood risk arising from the Proposed Development will be avoided as much as possible through the design process and through careful construction and the use of standard good practice measures. We note that an outline Construction Environmental Management Plan (CEMP) will be provided in the ES.
87. Section 10.7.6 notes that *‘all cables would be cut at depth below ground level and left in the ground, thus reducing the overall impact of decommissioning on sensitive features. It is also proposed that any new crossing points would remain in-situ to avoid damage or disturbance to watercourses’*. Although we note and agree that any cables left in situ would unlikely damage watercourses on decommissioning, we have concerns that there could be potential future contamination risk. Further details are given below in ground conditions.

Water quality monitoring

88. We advise that any reen and ditch surveys should inform water quality monitoring, particularly which areas are holding water all year round for water quality tests. We have already provided guidance documents for water quality monitoring to the applicant. We recommend that preconstruction there is a 1-year baseline, with two samples undertaken

in winter and two samples undertaken in summer. The key risks are likely to be increased sediment from construction and fuel spills.

11.0 Ground Conditions

89. We note in Table 11-12 Elements Scoped in or Out of Further Assessments that all phases including the operational and decommissioning phases for the elements presented will be assessed which we agree with.

90. We advise this detail includes provision on how the assessment of the operational phase and decommissioning phase for the decades of operation and the potential impacts that operations could have on ground conditions.

91. In addition to the above, we note the following should also be considered as part of the submitted ES:

- Assessment of the potential for the release of hazardous chemicals via component degradation and leaching from the solar farm infrastructure over the decades of operation into the local environment resulting in pollution of soils and groundwater.
- If infrastructure is left in the ground in perpetuity as part of decommissioning, such as buried cables installed within groundwater, that the potential for that infrastructure to slowly degrade and release hazardous chemicals into the environment is considered. Release of hazardous chemicals from buried cabling may take place through component degradation and chemical leaching over time. A Decommissioning Assessment should be drafted with estimated costs for various decommissioning actions/activities and estimated durations. The fate of the solar panels should also be considered, and alternatives found to landfilling the solar panels as this will likely result in the release of hazardous substances to the local environment.
- Consideration of the chemical composition of the different components proposed for the solar farm and choose those components that possess the least potential to cause environmental impacts either through a fire event or through component degradation and chemical leaching.

Annex II Advice for the Applicant/Developer

Permits/Licences/Consents

As the scheme may require one or more consents for which we are the consenting body, we would refer the applicant to the [NRW table of consents](#). This table sets out the determination period for consents for which we are the consenting body.

Species licensing

Where a European Protected Species is identified and the development proposal is predicted to likely contravene the legal protection they are afforded, a licence should be sought from NRW. The ES should include consideration of the requirements for a licence and set out how the works will satisfy the three requirements as set out in the Conservation of Habitats and Species Regulations 2017 (as amended). One of these requires that the development authorised will 'not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status (FCS) in their natural range.' These requirements are translated into planning policy through Planning Policy Wales (PPW), edition 12, dated February 2024, sections 6.4.35 and 6.4.36 and Technical Advice Note (TAN) 5, Nature Conservation and Planning (September 2009). The relevant decision maker should take them into account when considering development proposals where a European Protected Species is present.

Flood Risk Activity Permit (FRAP)

A Flood Risk Activity Permit (FRAP) (Environmental Permitting (England & Wales) Regulations 2016) may also be required for any proposals that have the potential to affect any of the statutory main river watercourses within the site, including any access arrangements that cross such watercourses whether within the site or outside its planning boundary. See our website for further information: [Natural Resources Wales / Flood risk activity permits](#).

Technical Memorandum

Project #: 1712	Project: WFREH HIA	Client: Kerry Murton, NRW St. Mellons
Document: see footer	Author: Dr Rob Low	Date: December 2020
Subject: Ecohydrological impact assessment on the proposed Wentlooge Farmers' Renewable Energy Hub, Gwent Levels		

1 Background & the work reported here

The proposed Wentlooge Farmers' Renewable Energy Hub (WFREH)(PINS¹ reference DNS/3216558) is located (centred on NGR 327700 182000, 125 ha) immediately east of the village of Marshfields on the Gwent Levels, between Cardiff and Newport in South Wales. An Environmental Impact Assessment, prepared in support of the application at the request of PINS, has been documented through an Environmental Statement (ES)(Savills, 2020a). Further environmental assessment information was provided in Savills (2020b) in response to a request from PINS.

The proposed WFREH lies wholly within land designated for nature conservation under the St. Brides SSSI²; the interest features for which the site is designated are reed and ditch habitats, insects and other invertebrates, and Shrill Carder Bee.

NRW³ was consulted about the WFREH by PINS. It replied through a letter dated 21st August 2020 (NRW, 2020) saying that it had 'significant concerns with the proposed development as submitted', and including five requirements and seven proposed planning conditions, relating primarily to nature conservation.

In order to support its planning review role NRW commissioned Dr Rob Low (Rigare Ltd) to carry out an ecohydrological impact assessment (E-HIA) on the WFREH proposal, considering specifically the SSSI interest features with water-related environmental supporting conditions. It was noted that the assessment should address Sections 1.1 and 1.4 of NRW (2020), and specific questions arising through correspondence.

This report documents the E-HIA, as requested.

The following approach was taken for the E-HIA:

1. Identify SSSI interest features with water-related environmental supporting conditions.
2. Identify Hydrological Supporting Conditions (HSCs) for the above – the concept of HSCs is explained in Appendix A.

These stages are reported in Section 2.

3. Develop pre- and post-development ecohydrological conceptual models – the nature of conceptual models is also explained in Appendix A. This stage is reported in Section 3.

It is worth noting that construction phase hydrological impacts are not covered in Section 3.

4. Carry out E-HIA, informed by the results of 1-3 above, and including construction phase impacts. This stage is reported in Section 4.

¹ Planning Inspectorate

² Site of Special Scientific Interest

³ Natural Resources Wales

2 SSSI interest features and Hydrological Supporting Conditions

2.1.1 SSSI interest features

The interest features listed for the St. Brides SSSI are as follows:

Reen and ditch habitat.

- Terrestrial; standing water, ditch network, and other.

Plant species, including *Rununculus trichophyllus*, *Potamogeton berchtoldii*, *Lathyrus nissolia*, *Thalictrum flavum*

- Plant; *Potamogeton trichoides*.
- Assemblage; Assemblage of Aquatic and Marginal RDB & Nationally Scarce Vascular Plants - *Hydrocharis morsus-ranae*, *Potamogeton trichoides*, *Oenanthe fistulosa*, *Sagittaria sagittifolia*.

Insects and other invertebrates (aquatic) including *Chrysogaster macquarti*, *Hydaticus transversalis*, *Stenomicroa cogani*.

- Animal; *Coenagrion pulchellum*, *Odontomyia ornate*, *Hydrophilus piceus*, *Plateumaris braccata*, *Hydaticus transversalis*.
- Assemblage; grazing levels invertebrate assemblage.

Shrill Carder Bee *Bombus sylvarum*

The current assessment concentrates on the SSSI interest features which have water-related environmental supporting conditions. These are the plant and invertebrate species and assemblages which are associated with the reens and ditches.

2.1.2 Hydrological supporting conditions

Literature reviews and analysis⁴ relating to ditch plant assemblages at six locations across the Gwent Levels (*pers comm.*, Jon Graham, ecologist), which it is assumed are generically representative of the ditch plant communities within proposed footprint of the WFREH, has shown that information relating to HSCs is available as follows:

- Wet zone groups, defined partly by water level range; Drake *et al* (2010).
- Species trophic status, pH range and water level range; Mountford and Henry (2006).
- Ellenburg values for nitrogen and salt tolerance; Hill *et al* (2004).

From the above it is proposed that the variables through which HSCs for ditch plant communities can best be defined, which are also, importantly, potentially sensitive to the proposed development of the WFREH are:

- Ditch water level regime; the E-HIA concentrates on this variable as it has significant potential sensitivity.
- Ditch water nutrient concentration; brief comments are made about this variable as it has more limited sensitivity.

Suspended solid concentration was not identified directly as a variable through which HSCs could be defined through the literature review but, since there is a risk of increased suspended solid concentrations during construction, it has been assessed within the E-HIA.

The E-HIA was carried out at a qualitative level in the first instance, and therefore the metrics and thresholds/bounds (see Appendix A) which define HSCs through the above variables are not discussed here.

⁴ Part of a project (at the time of writing) which is investigating the ecohydrological effects of field underdrainage.

No specific information has been found on HSCs for ditch invertebrate communities, and it has been assumed that they are broadly aligned with those for the plant communities.

3 Conceptual models; assessment of hydrological impacts

Water level in the reens and ditches is identified in Section 2 as a key variable through which HSCs can be defined. The following conceptual models, for pre- and post-development ecohydrological functioning, identify the primary variables and mechanisms which control water levels in the reens and ditches.

3.1 Pre-construction

Water supply

The primary water supply to ditches is drainage from adjacent fields. Traditionally, fields on the Gwent Levels have been drained through a *ridge and furrow* system which routinely consists of an orthogonal grid of shallow, linear drainage lines (furrows) separated by higher ground (ridges). Pickup (2015) notes that ridges were often five to seven yards from crest to crest, although there was considerable variation⁵.



Figure 3.1-1. Oblique aerial photograph looking south-east across the area of the proposed WFREH (February 2020)(supplied kindly by Nick Beddoe, Savills). The orthogonal ridge (dry ground) and furrow (standing water) topography within the fields can be seen.

The ridge and furrow field topography can be seen in the oblique aerial photographs provided as Figure 3.1-1 and 3.1-2. These were taken during relatively wet conditions (February 2020), which allows the lines of furrows to be identified more readily through the presence of standing

⁵ The field drainage terminology used here is that from Pickup (2015) which identifies ridges, furrows and grips. The first two are described in the main text above. Grips are described as shallow trenches which are dug at the base of furrows, and sometimes at right-angles to them. They required frequent cleaning to maintain their function. It is possible that ridge and furrow micro-topography developed over a long period of time through repeated clearance of grips, with arisings cast on to adjacent ridges. Limited inspection on the ground within the proposed WFREH, and inspection of aerial photograph coverage of the whole site, suggests that only ridges and furrows are present.

It is worth noting that furrows are often referred to as grips; the distinction between furrows and grips, as defined in Pickup (2015), is maintained here for clarity.

water. It is worth noting that a distinction between deeper major furrows and shallower/higher minor furrows can also be made (e.g. Figure 3.1-2); the two types of furrows are thought to behave in the same way hydrologically, so they are treated equally in this assessment.

All, or at least the large majority, of the fields within the proposed area for the WFREH have ridge and furrow morphology and drainage.



Figure 3.1-2. Oblique aerial photograph looking south-west across the area of the proposed WFREH (February 2020)(supplied kindly by Nick Beddoe, Savills).

Figure 3.1-3 is a schematic cross-section along a generic ridge-furrow-ridge transect, whilst Figure 3.1-4 is a longitudinal transect along a furrow to a ditch. They show:

- The Gwent Levels is an open and largely tree-less landscape, and therefore rainfall falls evenly on to the ground.
- The substrate (soils and shallow superficial deposits) is clay- and silt-rich and is therefore poorly permeable. This means that infiltration capacity is low, and rainfall predominantly runs off the sloping ridges into adjacent furrows.
- The fields are grazed by sheep or cattle, particularly during the warmer months (approximately April to October), which means that the grass is kept relatively short. In turn, this means that water runs off the ridges to the furrows fairly rapidly.
- Water runs along the furrows, under the hydraulic gradient towards the lower water levels in the adjacent ditch. The draining water flows through pipes beneath higher elevation headlands which are formed from the material excavated from the ditches (originally, and through regular clearance). No evidence of functional headland pipes was found during a visit to the north-western part of the proposed WFREH site.
- Subsurface hydraulic gradients which drive shallow groundwater flow to the furrows and the ditches will exist, but the very low permeability of the substrate will mean that the amount of groundwater flow will be insignificant compared to surface flows; this explains the need for the ridge and furrow systems within the fields to effect drainage by surface runoff to ditches.

- Water is lost from the fields through evapotranspiration⁶, heavily concentrated during the warmer months.

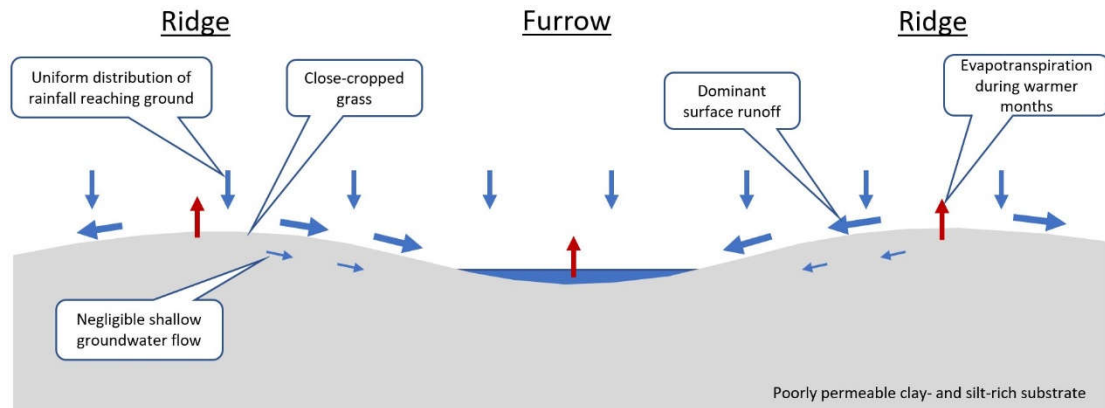


Figure 3.1-3. Schematic cross-section across a ridge-furrow-ridge field profile, illustrating the pre-construction conceptual model.

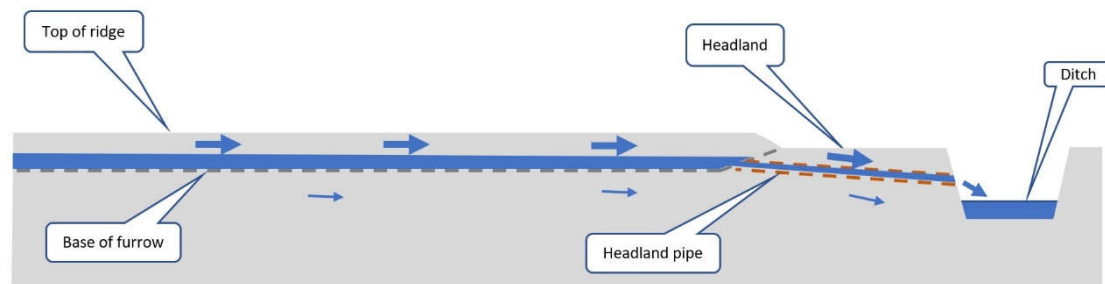


Figure 3.1-4. Schematic cross-section along the line of a furrow to a ditch, illustrating the pre-construction conceptual model. Aspects which are common with Figure 3.1-3, such as rainfall and evapotranspiration, are not illustrated to increase clarity.

- Discharge from headland pipes into ditches is relatively high during and immediately after significant rainfall events, but it continues at a lower and decreasing rate as the furrows drain down as the hydraulic gradient reduces. Water from light and/or short rainfall events can be accounted for entirely by evapotranspiration or slow infiltration to the soil profile, with little or no discharge to ditches.

Water is also supplied to any one point in a ditch:

- From upstream flow. For the local ditches around fields, upstream flow is provided by runoff elsewhere on the adjacent field, or from nearby fields.
- Direct rainfall.

Water retention and discharge

The water level regime in a ditch is sensitive to the hydraulic efficiency of the channel, and also the existence of any downstream water level controls which are designed to maintain water in the ditches. In short:

- Plant growth and/or sedimentation within a ditch will reduce the hydraulic efficiency of the channel. If hydraulic efficiency is reduced, assuming the same discharge condition, the absolute water level in the ditch will be higher, and flood peaks will dissipate more slowly, when compared to a ditch with higher hydraulic efficiency. Culverts can also reduce the

⁶ A hydrologist's portmanteau term for evaporation from open water (in the furrows after rainfall) and transpiration (from grass on the ridges).

hydraulic efficiency of a channel locally and transiently, if their capacity is exceeded during periods of higher flow.

- Downstream water level controls include tilting or stop-board weirs (Figure 3.1-5), tidal gates which cause 'backing-up' of ditch flow, and pumping to maintain a water level. The influence of a water level control at any one point depends on its distance from the point at which water levels are controlled, the efficiency of the channel between the two points and the gradient of the channel (which are artificially maintained).



Figure 3.1-5. A tilting weir (left) and stop-board weir (right) within the Gwent Levels. Water control (or penning) levels are managed by the Internal Drainage District, with higher control levels during the summer for local water availability, and lower control levels during the winter to reduce flood risk.

The interplay of these controls varies spatially and temporally across the Gwent Levels, meaning that it is routinely difficult to identify the discharge-related controls on water level at any one location and time, but the downstream controls are generally more important unless local ditches are heavily occluded with vegetation or sediment. In the current context, the scope of the conceptual model can be limited by noting that the direct influence of the landowner (or tenant/developer) extends only to the hydraulic efficiency of the ditches within their land.

Water is also lost from ditches through evapotranspiration during the warmer months. The amount of water lost will increase with increasing dominance of plant growth within the ditch.

It is worth noting that water retention and discharge within the ditch system are thought to be the dominant controls on local ditch water level regimes.

3.2 Post-construction (operational)

The Flood Consequences Assessment (FCA)(App 13.1, Savills, 2020a) gives details of the proposed solar panel installations as follows:

- The panels will be mounted on a pressed-steel post mounted frame. The supporting posts will simply be driven (or 'piled') into the ground. Supporting posts at the nearby Llanvern solar farm⁷, which are assumed to be similar to those to be used for the WFREH, can be seen in Figure 3.2-1. They have a maximum cross-sectional dimension of not more than 150 mm.
- The solar arrays are 2.9 m in height, with the lower edge c. 1.0 m above ground; the latter varies in order to accommodate a level array on undulating ground.

⁷ Centred on NGR 337700 184000, close to Goldcliff on the Gwent Levels to the east of the Usk Estuary, and around 10 km east-north-east of the proposed WFREH.

- The individual panels which comprise the array are separated by gaps which accommodate thermal expansion and water discharge to ground along the lower edge. The gaps between panels at the Llanwern solar farm can be seen in Figure 3.2-1; they are c. 25 mm across.

The solar arrays proposed for the WFREH (Section 4, App 13.1, Savills, 2020a) have been added (Figure 3.2-2) to a simplified version of Figure 3.1-3 to illustrate their predicted effect on field hydrology, the most important aspects being:

- The solar panels cause the uniform pre-development distribution of rainfall reaching the ground to be replaced, beneath the panels, by concentrating runoff at a small scale from the bottom edge of each panel. Rainfall will also be re-distributed beneath the panels to some degree by wind eddying effects. The area of ground covered by each individual panel (its 'catchment') is relatively small (c. 1-1.75 m), meaning that the post-development spatial distribution of rainfall reaching the ground will only be slightly different to that of the pre-development case. Nevertheless, this change is likely to cause slight acceleration of runoff towards furrows and, in turn, to surrounding ditches.
- The supporting posts will be driven into the poorly permeable substrate, with no significant hydrological effect.
- Where a supporting post is coincident with a furrow, the width of the post will be small relative to the width of the furrow, meaning that water will be able to flow along the furrow to either side of the support. Again, the supporting post will have no significant hydraulic effect on the surface flow.
- Potential evapotranspiration in the shade of the panels will be reduced because of lower temperatures, although the effect on actual evapotranspiration could be offset somewhat by taller vegetation beneath the panels. Irrespective, this is thought very unlikely to have a significant hydrological effect.



Figure 3.2-1. Photograph showing solar panel arrays at the Llanwern solar farm, which was under construction at the time of writing. The 25 mm gaps between the panels can be seen at centre, and the supporting posts at bottom-right.

Savills (2020a, App 13.1, Section 4) states that underground cables will be used to link inverters, battery storage and grid connection. Onions (2020) notes that cable trenches will be located to avoid running along furrows. Cable ducts will be laid onto, and covered with, sand, and the trench will be backfilled with the original ground, maintaining the substrate sequence as much as possible. The backfill will be compressed to reproduce the original subsurface condition as much as possible.

Figure 3.2-3 shows a cable trench during the construction phase of the Llanwern solar farm.

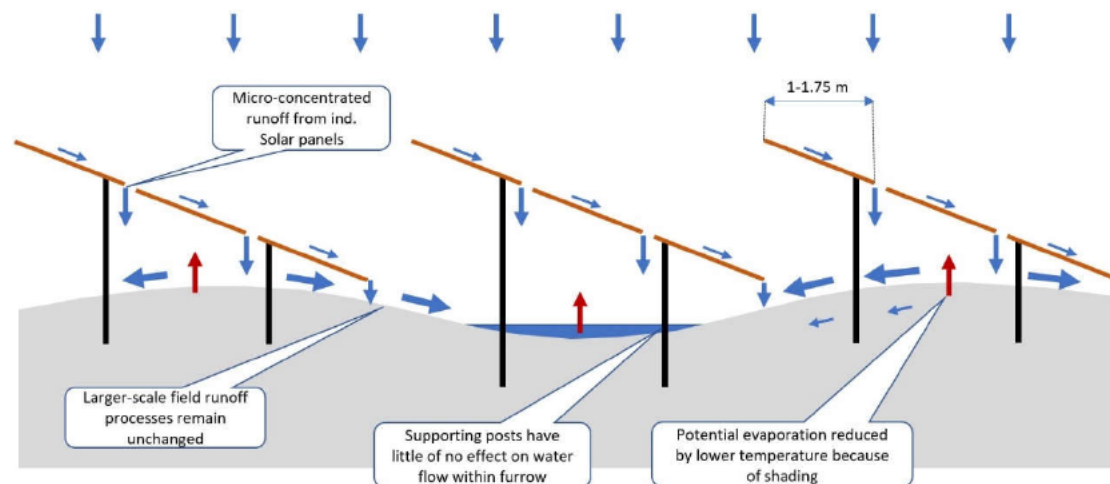


Figure 3.2-2. Schematic cross-section across a ridge-furrow-ridge field profile; a simplified version of Figure 3.1-3, but illustrating the hydrological effects of solar panel arrays on field hydrology.



Figure 3.2-3. Photograph of a cable trench during the construction phase of the Llanwern solar farm. The black cable duct tubes can be seen in the backfilled trench; the blue ropes are for pulling the cables through the ducts.

Savills (2020a, App 13.1, Section 4) notes that where cables pass under ditches a 'no-dig' installation method will be used⁸⁹, presumably using mechanical moles, with the finished cable being 1.5 m below the bed of the ditch.

Figure 3.2-4 is a schematic cross-section which illustrates the likely hydraulic effects of the cable trenches:

- There would almost certainly be an increase in rainfall infiltration to the trench backfill, although this would decrease through time as the backfill settled and consolidated.
- The sand in which the cable ducts are laid would have a significantly higher permeability than the natural substrate and would provide a potential pathway for groundwater flow.
- The cable trenches, and moled cable runs beneath ditches, would be separated from the ditches by 1.5 m of undisturbed ground. The latter would represent a poorly permeable barrier to groundwater flow from the cables runs to the ditches, meaning there would be minimal flow.

In summary, as noted in Section 3.1, shallow groundwater flow is a very minor component of field drainage, and it is considered very unlikely that the installation of underground cables will significantly increase its importance.

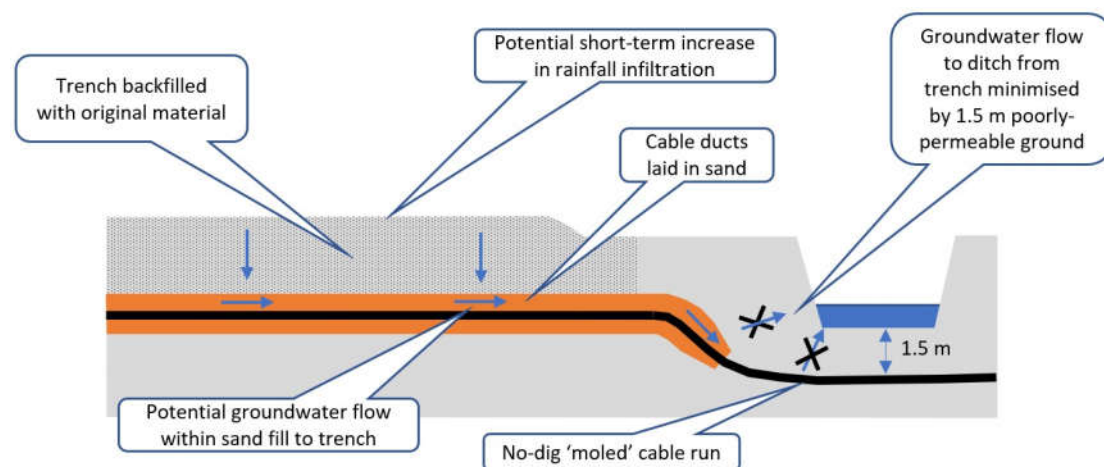


Figure 3.2-4. Schematic cross-section illustrating the likely hydrological effects of underground cables with subsurface ditch crossings.

⁸ This is in contrast to the Llanwen site where cables are brought to the surface to pass over the top of ditches on frame bridges.

⁹ It is worth noting that the Outline Construction and Environmental Management Plan within Savills (2020b) appears to contradict Onions (2020, also part of Savills, 2020b) in saying that cables will cross over the top of reens; this would have no significant hydrological effect.

4 Assessment of ecohydrological impacts

4.1 Hydrological supporting conditions for ditch plant and invertebrate communities

4.1.1 *Water levels in ditches*

Water supply to ditches

Compared with the pre-development hydrological functioning, as detailed in Section 3.1, the following hydrological effects of installation of solar panel arrays and associated infrastructure are anticipated (summarized from Section 3.2):

- The solar panels will cause micro-concentration of rainfall incident on the ground surface. This is likely to cause a slight acceleration of runoff towards fields and, in turn, to surrounding ditches.
- Where supporting posts are coincident with furrows, their width (c. 150 mm) is sufficiently small that they will not influence flow or water levels within furrows.
- The extensive ground-shading and sheltering from wind caused by installation of the arrays is likely to cause a change in the amount of water lost to evapotranspiration from the system.
- Installation of underground cables is very unlikely to alter shallow groundwater flow significantly.

In summary, it is considered likely that the installation of solar panel arrays will cause a slight acceleration of runoff from the traditionally-drained fields into the surrounding ditches. Installation of underground cables is very unlikely to have a significant effect on the hydrological functioning of the fields.

Water retention within, and discharge along, ditches

As noted in Section 3.1, the direct influence of the landowner (or tenant/developer) extends only to management of ditches within their land. The water level regime in ditches is sensitive to the hydraulic efficiency of the ditch channel, which is in turn sensitive to the amount of within-ditch plant growth or sedimentation. It is therefore concluded that there will be no significant impacts of ditch water levels if an appropriate ditch clearance ('de-weeding' and de-silting) cycle is agreed with NRW and observed.

Conclusion

The most significant change to ditch water level regimes caused by installation of solar panel arrays will be during and immediately after rainfall events. In the pre-development case, ditch water levels rise transiently in response to rainfall, and fall relatively quickly as water discharges through the ditch system. In the post-development case this will still occur, but because of the slight acceleration of runoff from the fields, water levels are likely to rise to a slightly higher level before subsiding to normal levels. Provided that appropriate ditch clearance cycles are observed, this change is considered very unlikely to be significant in relation to HSCs for ditch plant and invertebrate communities.

4.1.2 *Ditch water nutrient concentrations*

Construction and operation of the solar farm alone will not have a significant effect on ditch nutrient concentrations.

Ditch nutrient concentrations will remain sensitive to fertiliser applications for agricultural purposes during the operational period, and the latter should be managed accordingly.

4.1.3 *Ditch water suspended solid concentrations*

The risk of increases in suspended solid concentrations will only be significant during the construction phase, when there is a high possibility that the ground surface will be broken up along tracks. Measures to reduce this risk to an acceptable level, such as protection of wet furrow crossings and installation of sediment traps towards the end of furrows, are available and should be included in the agreed full Construction and Environmental Management Plan (CEMP).

4.2 Ridge-furrow micro-topography

The largest risk to the ridge-furrow micro-topography will be during the construction phase, in relation to; 1) sediment mobilisation and mass soil movement caused by vehicle movements along tracks, or 2) cable trench ground surface completions. Measures to reduce this risk to an acceptable level, and for post-construction restoration of micro-topography along lines of vehicle movement after construction if necessary, should be included in the agreed full CEMP.

Consideration should be given to re-instatement of headland drainage pipes, where necessary, before or during construction, in order to ensure that field drainage systems are working to full effect.

It is thought that there is very little risk that the micro-topographical form of the ridge and furrow system will change significantly during the operational period of the solar farm. This is primarily because the grass cover will be maintained, which in turn minimises sediment movement. Measures should also be included in the CEMP to ensure that the risks are kept low, e.g. prohibition of vehicle movements away from made-up tracks during periods of soil saturation.

5 Recommendations

5.1 WFREH-specific

- An appropriate ditch-clearance cycle should be agreed with NRW and observed, in order to secure; 1) ditch plant community biomass and succession, and 2) flood management.
- Consideration should be given to re-instatement of headland drainage pipes, where necessary, before or during construction, in order to ensure that field drainage systems are working to full (and traditional, heritage-valued) effect.
- Interception of headland drainage pipes with cable trenches should be rigorously avoided.
- The CEMP should be carefully developed and agreed with NRW, to manage aspects including; 1) minimisation of sediment mobilisation towards and into ditches, 2) protection of the ridge and furrow micro-topography during construction, and rigorous post-construction restoration measures to be employed if aspects of the protective measures fail to work, and 3) management of operational phase vehicle movements which could damage the ridge and furrow micro-topography during periods of soil saturation.

5.2 General

It has been concluded, with significant confidence, that if certain provisions are met the installation and operation of the WFREH is very unlikely to have a significant effect on either the HSCs for the ditch plant and invertebrate SSSI interest features, or the ridge and furrow micro-topography and traditional drainage functioning of the fields involved. However, it is important to note that installation of solar panel arrays is very likely to cause a slight acceleration of runoff from fields into ditches. This is thought to be insignificant in terms of its local effect in relation to SSSI interest features, but it is not necessarily insignificant in other contexts. For example, if solar farms are installed over a large proportion of the Gwent Levels, the aggregate effect of a slight acceleration in runoff from the large area involved could have significant consequences for downstream drainage. This could cause an increase in downstream flood risk.

It is strongly recommended that the flood risk consequences of widespread installation of solar farms on the Gwent Levels, if this is a possibility, are assessed in detail. Developing the scope and approach for such an assessment is beyond the remit of the current study, but it is worth noting that the effects of solar array installation on runoff dynamics could be assessed at the local level through pre- and post-development hydrological monitoring. This would need to include:

- Dipwells within fields to monitor soil water levels.
- Stilling wells in ditches to monitor ditch water levels.

Water levels in both these types of installation would be measured at high frequency using automatic water level recording devices.

- A raingauge.

Consideration should also be given to a technique for directly and continuously monitoring runoff from furrows into ditches. This is a significant technical challenge but, if it could be solved, it would allow monitoring of the hydrological variable which is most likely to be directly affected by installation of solar farms.

Dr Rob Low, December 2020.

rob@rigare.co.uk, 07866 552926.

References

- Drake, C.M, Stewart, N.F., Palmer, M.A. & Kindemba, V. L., 2010. The ecological status of ditch systems: an investigation into the current status of the aquatic invertebrate and plant communities of grazing marsh ditch systems in England and Wales. Technical Report. Buglife – The Invertebrate Conservation Trust, Peterborough.
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- Onions, C., 2020. Response to aspects of NRW (2020) relating to the FCA (App 13.1, Savills, 2020a). Clive Onions Consulting Engineer, 22nd October 2020.
- Savills, 2020a. Environmental Statement, Wentlooge Farmers' Renewable Energy Hub. Available at <https://dns.planninginspectorate.gov.uk/projects/wales/wentlooge-renewable-energy-hub/?ipcsection=docs&stage=app&filter1=Application+Documents&filter2=Environmental+Statement>, accessed 6th November 2020.
- Savills, 2020b. Response to formal request for additional information under Regulation 15(2) of the DNS (Wales) Regulations. Proposed Renewable Energy Hub (Ref. 3216558), Wentlooge Farmers' Solar Scheme Ltd.

Appendix A: Explanation of technical terms

Hydrological supporting conditions

Wetland plant communities can be associated with more-or-less specific hydrological supporting conditions which allow survival and competitive advantage of constituent species, often through functional adaptations (e.g. Mitsch and Gosselink, 2000). A significant effort was made to collate information on hydrological supporting conditions for a wide range of wetland and other habitats in the UK (~2000-2010), in order to support hydrological impact assessments under the EU Habitats and Water Framework Directives; the resulting information was reported primarily in a series of Ecohydrological Guideline publications, e.g. Environment Agency (2010).

Three elements can be considered in order to define hydrological supporting conditions:

- A variable, which describes a fundamental property of the incident hydrological regime, such as the depth of the water table below the ground surface, the rate or velocity of flow in a channel, or the pH of soil water.
- A metric (or metrics) which describe important characteristics of the behaviour of the variable, such as the annual range of water level, and the lowest or highest annual water levels.
- Thresholds or bounds which describe the limits within which the metric(s) should fall in relation to favourable or unfavourable supporting conditions.

Whilst some progress has been made in defining hydrological supporting conditions, there are still many and significant uncertainties in relation to all three elements above, and in relation to most wetland communities¹⁰.

Ecohydrological conceptual models

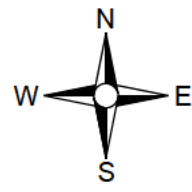
Conceptual model (or *conceptual understanding*) is a term which has historically been used, *inter alia*, in the discipline of hydrogeology, but which is also useful in an ecohydrological context. A conceptual model essentially describes how a system works, by identifying the significant controlling primary variables and mechanisms, and describing how these combine to result in key aspects of system behaviour.

An ecohydrological conceptual model for a wetland usually identifies the primary variables and mechanisms which combine to control the variables through which hydrological supporting conditions are defined, within specific areas of a site. The simplest conceptual model will identify the mechanisms of water supply to, water retention within, and water loss from, a wetland. Refinements can address, for example, spatial and temporal variations in these processes at various relevant scales.

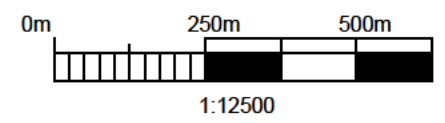
Conceptual models should be context-specific, and should follow Einstein's maxim that *everything should be made as simple as possible, but not simpler*. They are usually conveyed through diagrams, maps and narrative text.

Conceptual models are needed to support site management decision-making, and should be refined in a context-specific way according to the site management question at hand. For example, if an assessment of the possible impact of a planned nearby groundwater abstraction on groundwater discharge to a wetland is required, the conceptual model should describe the variables and processes which form the potential impact pathway(s) in appropriate detail.

¹⁰ This is perhaps reflective of ecohydrology being a relatively young interdisciplinary field.



LEGEND:
EIA Scoping Application Boundary



Rev.	Date:	Note:	By:
-	01/07/2024	First Issue - Draft	ICS

FUTURE ENERGY LLANWERN
DRAFT

Consultant:
Lighthouse Development Consulting

Web: https://www.lighthouse-dc.co.uk/			
Site: CALDICOT RENEWABLE ENERGY HUB			
Drawing Title: Capacity Plan			
Drawing No or Client Ref: DW09 - 1		Revision: -	Scale: 1:12,500 @ A1
Drawn: IS	Approved By: NB	Date: 01/07/2024	CAD Ref: LH22-DW09 - Capacity Plan (2013)

From: [REDACTED]
To: [Llanwrn Solar Project](#)
Subject: Statutory Consultation - Network Rail
Date: 15 January 2025 10:03:09
Attachments: [Outlook-2nv54hav.png](#)
[Outlook-saue3o51.png](#)
[Outlook-Twitter_bi.png](#)
[Outlook-ycewb11g.gif](#)
[Outlook-Email sign.png](#)

OFFICIAL

Dear Sir / Madam,

I write in respect of this statutory consultation concerning the construction, operation, maintenance and decommissioning of Future Energy Llanwrn: a ground mounted solar farm with a generating capacity of over 350 MW for a temporary period of 40 years. Having considered the details of the consultation, I can confirm that Network Rail wishes to make the following comments:

Network Rail is a statutory undertaker responsible for maintaining and operating the railway infrastructure as well as all its associated assets and estates. Network Rail owns, operates, maintains, and develops the main rail network. Since Network Rail aims to protect and enhance its railway infrastructure, any proposed development from a third-party developer, which is near the railway line or could potentially affect Network Rail's specific assets and/or land interests, will need to be carefully considered.

Impact on Infrastructure

The applicant's proposal may involve interactions with Network Rail's operational railway. As such, it is strongly advised that the applicant take all potential areas of concern to Network Rail into account in their documentation for consideration at planning. In addition, it is imperative that Network Rail's Asset Protection Team are consulted directly to ensure that risks to the railway infrastructure are safely managed due to all construction-related activities associated with the applicant's proposed development.

Investigation and Mitigation

Network Rail would have an interest in understanding the full impact of the applicant's proposed development on all of Network Rail's infrastructure in the vicinity. This further understanding should identify improvements and/or mitigations required to facilitate the proposed development; as such, these will need to be funded by the applicant to ensure the safe and efficient running of the operational railway.

An Asset Protection Agreement/Structures Agreement with Network Rail will be required before proceeding with any design or construction work alongside, above or below Network Rail's Infrastructure. Therefore, we request that the applicant engages with Network Rail's Asset Protection team.

Network Rail have their own standard protective provisions, which must be included on the face of the DCO as a minimum. To request a copy of these protective provisions and discuss any other agreements that will need to be entered into with Network Rail, it is recommended that the applicant contact both Natasha Manning and Tony Ridley through each of their respective emails:

[REDACTED]@networkrail.co.uk and [REDACTED]@networkrail.co.uk

Several legal and commercial agreements might also need to be entered, for example, method statements, connection agreements, property agreements as well as any other relevant legal and commercial agreements that are deemed necessary. Please note that this list is not exhaustive and will need to be reviewed once more details of the scheme are discussed between both parties. It should also be acknowledged that any easements required by the applicant would need to go through Network Rail's clearance process as well as all other relevant rail industry processes.

It must be mentioned that the applicant should be made aware of the likely possibility that they may be responsible for any charges and/or costs associated with Network Rail in relation to their proposed DCO.

Please note that Network Rail reserves its position in relation to any further information received about the applicant's proposed DCO and/or its impacts.

Thank you again for providing Network Rail with the opportunity to comment on this statutory consultation. I trust that the above comments have been made clear, however, if you do require any further information or have any other queries, please do not hesitate to contact me.

Regards,

Tony Ridley

Surveyor – Property Services

Land & Property (Eastern)

[REDACTED]
W: www.networkrail.co.uk/property

[REDACTED]@networkrail.co.uk

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Ask Grant Hawkins
for/Gofynnwch
am
Our Ref/Ein Cyf 24/1050
Your Ref/Eich Cyf
Tel/Ffôn
Direct Dial/Rhif
DX 99463 Newport (Gwent) 3
E-Mail/E-Bost planning@newport.gov.uk



Planning Inspectorate
Environmental Services
Operations Group 3
Temple Quay House
2 The Square
Bristol, BS1 6PN

By email only

15th January 2025

Dear Mr Brumwell,

PROPOSAL: EIA Scoping Opinion for a Nationally Significant Infrastructure Project (NSIP) of a 350 MW Solar Farm over approximately 548Ha

SITE: Land At Grid Reference 339828 183131 South Row Redwick Newport South Wales

APPLICATION TYPE: Consultation

I am writing in response to your request to the Council for a comment on the scope of a prospective Environmental Statement for the above Nationally Significant Infrastructure Project (NSIP), as defined in the Planning Act 2008 (as amended).

On review of the submitted information, the Council agrees with the applicant's assessment that the proposal is EIA development. The Development falls under 'Schedule 2' of the EIA Regulations (2017) as it constitutes "*Industrial installations for the production of electricity...*" and that owing to the size and location of the Proposed Development there is the potential for the Proposed Development to have significant effects on the environment and as such it requires a supporting Environmental Statement.

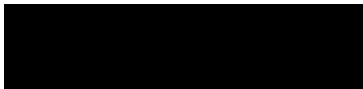
Topic	Scoped In/Out by Applicant	Council's Comments
LVIA	In	Agreed – Opportunities for enhancement should be considered in order to meet requirements of PPW12 - Chapter 6.
Glint & Glare	In	Agreed – Highways Officer supports conservative assessment of Glint & Glare Assessment for road users.
Cultural Heritage and Archaeology	In	Agreed – All Heritage assets above and below ground within 5km radius are to be investigated in the ES. Impact assessment of the proposed development on these designated assets both direct and indirect is

		<p>required. Those closer to the boundary of the application site should be thoroughly investigated, as should those which have direct visuals of the development site. The report notes that this assessment would be done in line with Cadw guidance, using a staged approach to assessing impact on setting, this is supported. It would also consider the contribution that each asset makes in the form of a table, noting high-low significance.</p> <p>A similar table which outlines the level of impact the solar array would have on each asset should be aided by a visual assessment of views in to and out of the asset, and how it would be impacted.</p> <p>ASIDOHL – Specific Assessment of impacts on the Historic Landscape required to the recommended methodology.</p>
Ecology	In	Agreed – Stepwise Approach to be followed; avoidance, minimise, mitigation/restore, compensation and enhancement to be identified.
Ornithology	In	Agreed – It is noted that the Severn Estuary SAC has previously been scoped out, however the associated bird impact is to be considered during Construction and Operation within this section, and this is supported.
Water Environment & FRA	In	<p>Agreed.</p> <p>Scheme will require SAB Approval.</p> <p>Newport Local Development Plan Policy SP3 – Flood Risk missed out in Table 10-7</p> <p>Agreed that Flood Consequences Assessment is required.</p>
Ground Conditions	<p>In - Effects on soils, agricultural land and land contamination</p> <p>Out – Effects of Geodiversity, ground stability, mineral resource.</p>	Agreed.
Traffic & Transport	In (No specific matters have been scoped out).	<p>Agreed - Key Issues to be during construction/decommissioning phase, but Highways Officer would anticipate being addressed through a Construction Traffic Management Plan.</p> <p>Active Travel Links to be scoped in, including PROWs, and Wales Coastal Path</p>
Noise & Vibration	In	Agreed.

Climate Change Resilience	Out	Agreed - All matters scoped out other than In Combination Climate Impacts that will be addressed throughout other sections of the ES.
Greenhouse Gas Assessment	In - Construction Phase Elements Out – Operational phase.	Agreed
Socio-Economics	In	Agreed

I trust the above is acceptable, however please make contact should you require any further information.

Yours Sincerely



Grant Hawkins

7th January 2025

Our Ref: C1788607

Dear Sir/Madam

Nationally Significant Infrastructure Project

Application by Future Energy Llanwern Limited (the Applicant) for an order granting development consent for the Future Energy Llanwern Solar Project (the Proposed Development)

Pre-Application Consultation Stage

Thank you for including Public Health Wales (PHW) in the pre-application consultation phase of the above application. PHW is the national public health agency for Wales and works in collaboration with the seven health boards within Wales to protect and promote health and wellbeing. The Environmental Public Health Service (EPHS) in PHW has reviewed the applicant's scoping report and associated documents.

PHW recognises this project as a Nationally Significant Infrastructure Project (NSIP). We are encouraged by any projects that mitigate the impacts of climate change by reducing reliance on fossil fuels and the transition to renewable energy sources.

The 'one health approach', specifies the need for collaborative, multisectoral and transdisciplinary approaches, local, regional, national and global levels. We believe that optimising health outcomes relies on an understanding of the connections between people and the environment. The elements of this development for our EPHS are noise, air quality, landscape, ground conditions, electromagnetic fields (EMF), transport, water resources, climate, community benefit and health.

The site plan comprises a significant area of landscape with areas for solar photovoltaic (PV) modules, transformers and their associated structures, onsite cabling and grid connection infrastructure. Consideration should be made of the impacts upon receptors nearest the site, including noise and air pollution during both the construction and operational phases. The proposal should include consideration of any environmental impacts on the health of the local community.

We support the embedded environmental design measures outlined in the scoping document, including drainage, flood risk and noise. Mitigation strategies should be implemented to avoid any chemical spillages, noise or other pollution to the environment during the construction, operation and decommissioning stages of the development.

We are pleased to see that an environmental impact assessment (EIA) has been considered. We are also pleased to see that electromagnetic fields (EMF) have been considered. We would recommend that UKHSA EMF specialists (the UK lead agency for radiation matters) are requested to review this element of the project moving forward.

PHW works closely with health boards across Wales. Since this project is located within Aneurin Bevan University Health Board (ABUHB), we will work with the relevant Director of Public Health (DPH) to make them aware of the project and around any health concerns that may arise from the project. There may be some aspects of the development relating to health of the population that can be fielded directly by the DPH, as the lead for local public health issues.

We hope this response has been useful and welcome correspondence on any points of clarity or concerns raised.

Yours sincerely,

Environmental Public Health Service in Wales

From: [REDACTED]
To: [Llanwern Solar Project](#)
Cc: [Fire Safety \(External\)](#)
Subject: EN010171 - Future Energy Llanwern Solar Project - EIA Scoping Notification and Consultation
Date: 06 January 2025 16:41:19
Attachments: [image001.jpg](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)
[image008.png](#)
[image013.jpg](#)
[image014.jpg](#)

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Dear Sir/Madam

Thank you for notification of the above scoping report.

Please accept this email as acknowledgment of receipt of the formal notification. South Wales Fire and Rescue Service have looked at the report and have no comments to make at this stage. Further comment/s will be made at the full planning application stage.

Kind Regards,

Dominic Lijertwood

Rheolwr Gwylfa

Diogelwch Tân i Fusnesau

Pencadlys Gwasanaeth Tân ac Achub

De Cymru
Parc Busnes Forest View
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CF72 8LX

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Dominic Lijertwood

Watch Manager

Business Fire Safety

South Wales Fire and Rescue Service

Headquarters
Forest View Business Park
Llantrisant

CF72 8LX

[REDACTED]

[REDACTED]@southwales-fire.gov.uk



From: Llanwern Solar Project <llanwernsolarproject@planninginspectorate.gov.uk>

Sent: 19 December 2024 16:11

Subject: EN010171 - Future Energy Llanwern Solar Project - EIA Scoping Notification and Consultation

Dear Sir/Madam

Please see attached correspondence on the proposed Future Energy Llanwern Solar Project.

From: [REDACTED]
Subject: LSBUD Ref: 35773536
Date: 23 December 2024 09:10:54
Attachments: [image001.png](#)
[plan LSBUD Ref 35773536.pdf](#)
[SSW22.pdf](#)
[582901117.pdf](#)

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Good morning,

I write with regard to an enquiry you recently made using the Linesearch Before-U-Dig website (EN010171).

There are three high pressure gas pipelines in the vicinity of the enquiry area and I have attached a plan which shows these as orange dotted lines. The pipeline to the north is owned and operated by Seabank Power Ltd, and maintained on their behalf by Wales & West Utilities Ltd. It is 1.05m in diameter, of welded steel construction and operates at pressures up to 80bar (0.5 tonnes per square inch). The two pipelines to the south of the plan are owned and operated by Wales & West Utilities Ltd, 300mm and 600mm diameter, of welded steel construction and operate at pressures up to 35bar.

Due to the extreme pressures involved, strict guidelines apply to any works in close proximity to these pipelines and I have attached a copy of our document WW/SP/SSW/22 which details these.

I would appreciate it if you would review this information then contact me and let me know what type of work your enquiry relates to, whether any excavation work is involved and how close to the pipelines it is likely to be. Depending upon the type of work planned, a degree of on-site supervision by Wales & West Utilities personnel may be necessary.

If you do not have this information, but you can put me in touch with someone who does, please supply me with their contact details and I will be happy to deal with them directly.

If you have any additional queries or require any additional information then please do not hesitate to contact me.

I look forward to hearing from you soon.

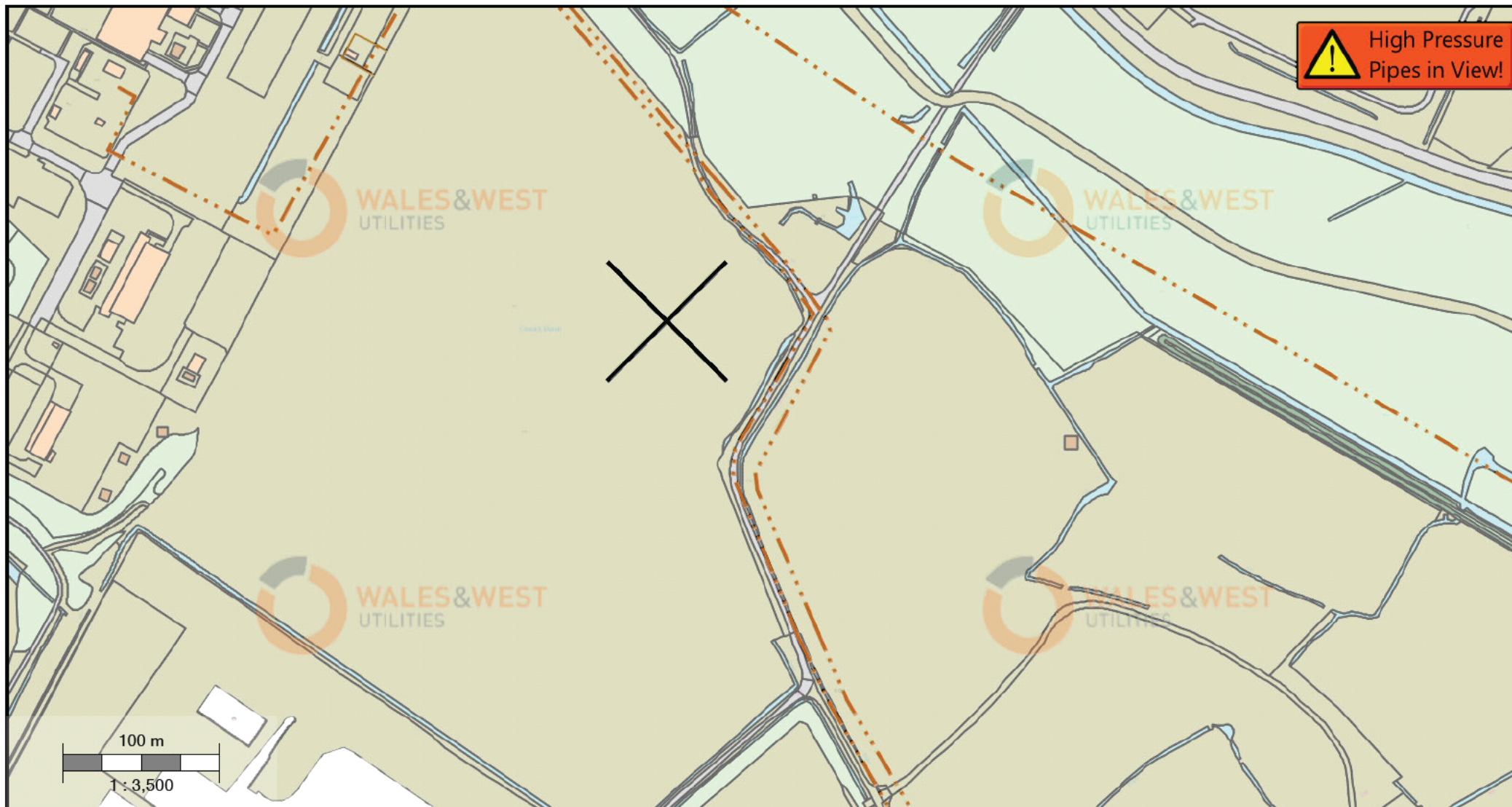
Kind regards






Jake Myers | Pipelines & Capital Delivery CP Integrity Technician (Southwest)

[REDACTED]
Wales & West Utilities | Bristol Depot | 101 Glenfrome Road | Bristol | BS2 9UY



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User ID:	Jake.Myers	<div><div></div>Low Pressure</div> <div><div></div>Medium Pressure</div> <div><div></div>Intermediate Pressure</div> <div><div></div>High Pressure</div>	TITLE: LSBUD Ref 35773536	<div><div></div>WALES&WEST UTILITIES</div>
Date:	23/12/2024	Some examples of plant items:	<p>The plan shows those pipes owned by Wales & West Utilities (WWU) in its role as a Licensed Gas Transporter (GT). The information shown on this plan is derived from historic information and may have involved re-scaling plans, and the accuracy of it cannot be guaranteed. Service pipes, valves, syphons, stub connectors, etc. may not be shown but their presence should be anticipated. No warranties are therefore given in respect of it. WWU, its employees and contractors do not accept any liability for any inaccuracy or incompleteness in it.</p> <p>You must use safe digging practices, in accordance with HS(G)47, to establish the actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that this information is provided to all persons (either direct labour or contractors) working for you or near gas apparatus. The information shown on this plan should not be used beyond 28 days from the date of issue of this plan as it is subject to updating.</p> <p>The plan also provides indications of gas pipes owned by other GTs, or otherwise privately owned, which may be present in the area. This information is not information of WWU and WWU is unable to verify this information or to confirm whether it is accurate or complete. It is supplied voluntarily to assist the user in determining whether to make contact with other GTs or others. The user must obtain such information from the other GT or person concerned. WWU, its employees and contractors do not accept any liability for this information or any inaccuracy or incompleteness in it.</p>	<p>Wales & West Utilities Ltd., Wales & West House, Spooner Close, Celtic Springs, Coedkernew, Newport, NP10 8FZ.</p>
Grid Ref:	Easting: 354028 Northing: 182156	Valve  Diameter Change  Depth of Cover  Material Change  Syphon 		Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright and database right 2024. All rights reserved. Ordnance Survey License number 0100044308.
Internal Use Only				

Member Details

Name	Seabank Power Ltd	Contact	Matt Thomas
Email	[REDACTED]@seabank.co.uk		

Contact Details

Name	Miss Jackie Webb	Phone	[REDACTED]
Company	National Gas Transmission	Mobile	[REDACTED]
		Fax	Not Supplied
Address	National Grid House, Gallows Hill, Warwick Technology Park Warwick WAR CV34 6DA		
Email	[REDACTED]		

Enquiry Details

Enquiry priority	Normal	Enquiry Type	Initial Enquiry
Preferred plan size	A3	Work category	Planning Applications
Start date	21/12/2024	Work activity	Solar Farm
End date	21/12/2024	Work type buffer*	1000 metres
Scheme/Reference	EN010171 For National G	Site size	50 metres diameter
Working on behalf of	Other	Authority/Utility	Other
Site Contact Name	Jackie Webb	Site Phone No	07811021561
Description of Works	llanwernsolarproject@planninginspectorate.gov.uk Future Energy Llanwern Solar Project		
Confirmed location	353966 182212		
OS grid reference/s	353991 182214 353991 182217 353990 182219 353989 182221 353988 182224 353987 182226 353985 182228 353984 182230 353982 182231 353980 182233 353978 182234 353976 182235 353973 182236 353971 182237 353969 182237 353966 182237 353964 182237 353961 182237 353959 182236 353957 182235 353954 182234 353952 182233 353950 182232 353948 182230 353947 182228 353945 182226 353944 182224 353943 182222 353942 182220 353941 182217 353941 182215 353941 182212 353941 182210		
Enquiry Postcode	BS110YL		

A map showing the proposed site is attached on the second page.

Site Map



[Open Map](#)

V3.1.8

* The WORK TYPE BUFFER is a distance added to the search area based on the Work type chosen.

End of Transmission



SPECIFICATION FOR

**SAFE WORKING IN THE VICINITY OF PIPELINES AND
ASSOCIATED INSTALLATIONS OPERATING ABOVE 2
BARG - REQUIREMENTS FOR THIRD PARTIES**

JUNE 2013

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- A SITE DOCUMENT CONTROL FORM

FOREWORD

This Specification was approved, by Chris Clarke, Director of Asset Management and HS&E Dept on 21st June 2013 for use by managers, engineers and supervisors throughout Wales & West Utilities Limited.

Documents are revised, when necessary, by the issue of new editions. Users should ensure that they are in possession of the latest edition by referring to the document library available on the company intranet.

Compliance with this document does not confer immunity from prosecution for breach of statutory or other legal obligations.

BRIEF HISTORY

First published as T/SP/SSW22 Editorial update to reflect merger October 2002 Revised and reissued. Revised and Reissued as T/SP/SSW/22 Editorial update to comply with GRM	October 2001 November 2002 November 2003 June 2004 August 2004	EPSG/L01/283 EPSG/A03/10125 EPSG/T04/1209
Document revised to remove reference to Transco and replace with WWU Ltd.	May 2006	
Document revised to reflect WWU management structure, include IP pipelines and update letters	June 2013	

KEY CHANGES (Identify the changes from the previous version of this document)

Section	Amendments
1	Scope extended from any pipe operating above 7bar to above 2bar gauge
5 & 6	References added to T/PR/P/18
8	References added to wind turbine development near pipelines

USE

This document is provided by Wales & West Utilities Limited for information and reference.

MANDATORY AND NON-MANDATORY REQUIREMENTS

In this document:

must: indicates a mandatory requirement.

should: indicates best practice and is the preferred option. If an alternative method is used then a suitable and sufficient risk assessment must be completed to show that the alternative method delivers the same, or better, level of protection.

ENDNOTE

Comments

Comments and queries regarding the technical content of this document should be directed to:

Asset Management & HSE Dept
Wales & West Utilities Ltd
Wales & West House
Spooner Close
Coedkernew
Newport
NP10 8FZ

Buying documents

Contractors and other external users should direct their requests for further copies of Wales & West Utilities documents to the department or group responsible for the initial issue of their contract documentation.

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SPECIFICATION FOR

SAFE WORKING AND DEVELOPMENT IN THE VICINITY OF PIPELINES AND ASSOCIATED INSTALLATIONS OPERATING ABOVE 2 BARG - REQUIREMENTS FOR THIRD PARTIES

INTRODUCTION

This specification is for issue to third parties carrying out work in the vicinity of high pressure gas pipelines (above 2 bar gauge) and associated installations and is provided to ensure that individuals planning and undertaking work take appropriate measures to prevent damage.

Any damage to a high-pressure gas pipeline or its coating can affect its integrity and can result in failure of the pipeline with potential serious hazardous consequences for individuals located in the vicinity of the pipeline if it were to fail. It is therefore essential that the procedures outlined in this document are complied with when working near to a high pressure, above 2 bar gauge, pipeline. If any work is considered by Wales & West Utilities to be in breach of the requirements stipulated in this document then the Wales & West Utilities responsible person will suspend the work until the non-compliances have been rectified.

The Pipelines Safety Regulations state that “No person shall cause such damage to a pipeline as may give rise to a danger to persons” (Regulation 15). Failing to comply with these requirements could therefore also result in prosecution by the Health and Safety Executive (HSE).

The requirements in this document are in line with the requirements of the IGE (Institution of Gas Engineers) recommendations IGE/SR/18 Edition 2 - Safe Working Practices To Ensure The Integrity Of Gas Pipelines And Associated Installations and the HSE’s guidance document HS(G)47 Avoiding Danger from Underground Services.

It is the responsibility of the third party to ensure that any work carried out also conforms with the requirements of the Construction and Design Management Regulations and all other relevant health and safety legislation.

**WHEN CARRYING OUT WORK IN THE VICINITY OF A HIGH PRESSURE PIPELINE
FOLLOW THE FOLLOWING PROCESS**

CONTACT WALES & WEST UTILITIES

Contact Wales & West Utilities to obtain formal consent - Section 2 of this document.

Note: at least 7 days' notice prior to commencement of the work is normally required



CONSIDER SAFETY

Consider the safety requirements - Section 3 of this document.



INFORM Wales & West Utilities AND REQUEST PIPELINE LOCATION

Inform Wales & West Utilities prior to carrying out work and arrange for Wales & West Utilities to locate the pipeline - Section 4 of this document

Note: at least 7 days' notice is normally required



OBSERVE RESTRICTIONS

Observe Wales & West Utilities restrictions on the allowed proximity of mechanical excavators and other power tools and the measures to protect the pipeline from construction vehicles when carrying out the work – Sections 5, 6 and 7 of this document.

Note: Wales & West Utilities may wish to supervise the work, consult Wales & West Utilities to confirm whether or not this is the case.



SPECIFIC ACTIVITIES

If work involves any of the following activities:

- No-Dig Techniques
- Increase in Cover
- Piling
- Demolition
- Hot Work
- Blasting
- Surface Mineral Extraction
- Deep Mining
- Landfilling
- Pressure Testing
- Seismic Surveys
- Wind Turbines

Comply with the requirements in Section 8 of this document



CONSULT WALES & WEST UTILITIES

Consult Wales & West Utilities prior to any backfilling over, alongside or under the pipeline and obtain Wales & West Utilities agreement to proceed. Normally Wales & West Utilities require 48 hours notice prior to backfilling - Section 9 of this document.

IMPORTANT: This flowchart should be used in conjunction with the entire SSW22 document and not in isolation, AND if at any time during the works the pipeline is damaged even slightly then observe the precautions in Section 10 of this document.

IF IN DOUBT CONTACT Wales & West Utilities

1. SCOPE

This specification sets out the safety precautions and other conditions affecting the design, construction and maintenance of services, structures and other works in the vicinity of Wales & West Utilities pipelines and associated installations operating at pressures greater than 2 bar gauge, located in both negotiated easements (see Section 12), in public highways and within the wider area of interest around a pipeline.

2. FORMAL CONSENT

High pressure pipelines are generally laid across country within an easement agreed with the landowner or within the highway.

As the required arrangements for working within an easement and working within the highway differ, this document has been structured to highlight the specific requirements for these two types of area where work may be carried out.

Generally, normal agricultural activities are not considered to affect the integrity of the pipeline, however consult Wales & West Utilities prior to undertaking deep cultivation in excess of 0.5m.

In all other cases no work shall be undertaken in the vicinity of the pipeline without the formal written consent of Wales & West Utilities.

Any documents, handed to contractors on site by Wales & West Utilities must be signed for by the site manager. Wales & West Utilities will record a list of these documents using the form in Appendix A, and the contractor should maintain a duplicate list.

2.1 Within an Easement

The promoter of any works (see Section 12) within an easement must provide Wales & West Utilities with details of the proposed works including a method statement of how the work is intended to be carried out.

Work must not go ahead until formal written consent has been given by Wales & West Utilities. This will include details of Wales & West Utilities protection requirements, contact telephone numbers and the emergency telephone number.

On acceptance of Wales & West Utilities requirements the promoter of the works must give Wales & West Utilities 7 working days' notice, or shorter only if agreed with Wales & West Utilities, before commencing work on site.

2.2 Within the Highway

Work must be notified to Wales & West Utilities in accordance with the requirements of The New Roads and Street Works Act (NRSWA) and HS(G)47.

The promoter of any works within the highway should provide Wales & West Utilities with details of the proposed works including a method statement of how the work is intended to be carried out. This should be submitted 7 working days before the planned work is to be carried out or shorter, only if agreed with Wales & West Utilities. If similar works are being carried out at a number of locations in close proximity a single method statement should be adequate.

Work should not go ahead until formal written consent has been given by Wales & West Utilities. This will include details of Wales & West Utilities' protection requirements, contact telephone numbers and the emergency telephone number.

2.3 Within the Area of Interest

Certain other activities, such as the development of adjacent land with buildings, or other constructions which may have an impact on the safe operation of above 2 bar gauge pipelines, must also be notified to Wales & West Utilities, for example the construction of wind turbines, masts or aerials.

Developers should ensure early consultation with Wales & West Utilities in respect of such development, rather than relying on local authority planning consultation, which may lead to substantial late changes to design or constraints on the planned development.

3. HS&E CONSIDERATIONS

3.1 Safe Control of Operations

All working practices must be agreed by Wales & West Utilities prior to work commencing. All personnel working on site must be made aware of the potential hazard of the pipeline and the actions they should follow in case of an emergency. The Site Document Control Form (Appendix A) should be used to record the list of relevant documents that have been provided by Wales & West Utilities to the contractor.

3.2 Deep Excavations

Special consideration should be given to the hazards associated with deep excavations. The HSE document CIS08 'Safety in Excavations' provides further guidance and is available on the HSE web site www.hse.gov.uk

3.3 Positioning of Plant

Mechanical excavators must not be sited or moved above the pipeline unless written authority has been given by the Wales & West Utilities responsible person.

Mechanical excavators must not dig on one side of the pipeline with the cab of the excavator positioned on the other side.

Mechanical excavators and other traffic must be positioned far enough away from the pipeline trench to prevent trench wall collapse.

3.4 General

Activities associated with working in the vicinity of pipelines operating above 2 bar gauge may have impact on the safety of the general public, Wales & West Utilities staff and contractors, and may affect the local environment. Contractors must carry out suitable and adequate risk assessments prior to the commencement of work to ensure that all such issues are properly considered and risks mitigated.

4. PIPELINE LOCATING

The third party should give 7 working days' notice (or shorter as agreed with Wales & West Utilities) to ensure that the pipeline is suitably located and marked out by Wales & West Utilities prior to the work commencing.

Prior to work commencing on site the pipeline must be located and pegged or suitably marked out by Wales & West Utilities personnel. In exceptional circumstances with the prior agreement of Wales & West Utilities the locating and marking out of the pipeline could be carried out by competent third parties on behalf of the contractor as long as Wales & West Utilities is assured of their competence and the procedures to be followed.

Safe digging practices, in accordance with HSE publication HS(G)47 should be followed as both direct and consequential damage to gas plant can be dangerous both to employees and to the general public.

Previously agreed working practices should be reviewed and revised based on current site conditions. Any changes must be agreed by the Wales & West Utilities responsible person.

The requirements for trial holes to locate the pipeline or determine levels at crossing points must be determined on site by the Wales & West Utilities responsible person.

The excavation of all trial holes must be supervised by the Wales & West Utilities responsible person.

5. SLABBING AND OTHER PROTECTIVE MEASURES

No protective measures including the installation of concrete slab protection should be installed over or near to the Wales & West Utilities pipeline without the prior permission of Wales & West Utilities. Wales & West Utilities will need to agree the material, the dimensions and method of installation of the proposed protective measure. The method of installation must be confirmed through the submission of a formal written method statement from the contractor to Wales & West Utilities.

Where permanent slab protection is to be applied over the pipeline Wales & West Utilities should carry out a survey (Pearson or DCVG Survey) of the pipeline to check that there is no existing damage to the coating of the pipeline prior to the slab protection being put in place. In addition the pipeline records should be consulted to determine whether any other investigations or remedial works would be needed in advance of the slab construction, e.g. reference to T/PR/P/18. Wales & West Utilities must therefore be contacted prior to the laying of any slab protection to arrange this survey. The Safety precautions detailed in Sections 3 and 6 of this document should also be observed during the installation of the pipeline protection.

6. EXCAVATION

6.1 In Proximity to a Pipeline in an Easement

Third parties must not excavate unsupervised, with a powered mechanical excavator closer than 3 metres to the Wales & West Utilities located pipeline or with hand held power tools closer than 1.5 metres. Any fitting, attachment or connecting pipework on the pipeline must be exposed by hand. All other excavation must be by hand.

Consideration may be given to a relaxation of these limits by agreement with the Wales & West Utilities responsible person on site and only whilst he remains on site. In this case a powered mechanical excavator must not be allowed to excavate closer than 0.6 metres to the nearest part of the pipeline.

Where sufficient depth of cover exists, following evidence from hand dug trial holes, light tracked vehicles may be permitted to strip topsoil to a depth of 0.25 metres, using a toothless bucket.

No topsoil or other materials should be stored within the easement without the written permission of Wales & West Utilities.

No topsoil or materials should be stored over the pipeline.

No fires should be allowed in the easement strip or close to above ground gas installations.

After the completion of the work the level of cover over the pipeline should be the same as that prior to work commencing unless agreed otherwise with the Wales & West Utilities responsible person.

No new service shall be laid parallel to the pipeline within the easement. In special circumstances, and only with formal written agreement from Wales & West Utilities, this may be relaxed for short excursions where the service shall be laid no closer than 600 mm to the side of the pipeline.

Where work is being carried out parallel to the pipeline within or just alongside the easement a post and wire fence must be erected as a protective barrier between the works and the pipeline.

6.2 In Proximity to a Pipeline in the Highway

Removal of the bituminous or concrete highway surface layer by mechanical means is permitted to depth of 300 mm, although the use of chain trenchers to do this shall not be permitted within 3 metres of the pipeline. The Wales & West Utilities responsible person may want to monitor this work.

Where the bituminous or concrete highway surface layer extends below 0.3 metres deep it should only be removed by handheld power assisted tools under the supervision of the Wales & West Utilities responsible person. In exceptional circumstances, and following a risk assessment, these conditions may be relaxed by the Wales & West Utilities responsible person.

Third parties should not excavate, unsupervised, with a powered mechanical excavator closer than 3 metres to the located Wales & West Utilities pipeline or with hand held power tools closer than 1.5 metres. Any fitting or attachment must be exposed by hand.

In special circumstances consideration may be given to a relaxation of these rules by agreement with the Wales & West Utilities responsible person on site and only whilst he remains on site only whilst he remains on site and only whilst he remains on site to supervise this work..

The use of 'No dig' techniques is covered in Section 8.1.

Any new service running parallel to the pipeline should be laid no closer than 600 mm to the pipeline (see Section 6.4).

6.3 Crossing Over a Pipeline

Where a new service is to cross over the pipeline a clearance distance of 600 mm between the crown of the pipeline and underside of the service must be maintained. If this cannot be achieved the service must cross below the pipeline with a clearance distance of 600 mm.

In special circumstances this distance may be reduced at the discretion of the Wales & West Utilities responsible person on site.

6.4 Crossing Below a Pipeline

Where a service is to cross below the pipeline a clearance distance of 600 mm between the crown of the service and underside of the pipeline should be maintained.

The exposed pipeline must be suitably supported. The Wales & West Utilities responsible person must be consulted and a stress analysis may be required in order to establish support requirements. The stress analysis should be carried out by individuals with demonstrated expertise in this area, Wales & West Utilities can be consulted for advice on suitable specialists. Wales & West Utilities may request a copy of the stress analysis to confirm its adequacy.

Specific additional constraints apply to Wales & West Utilities pipelines that fall under the requirements of T/PR/P/18.

All supports must be removed prior to backfilling.

The exposed pipelines must be protected by matting and suitable timber cladding.

6.5 Cathodic Protection

Cathodic Protection is applied to all of Wales & West Utilities above 2 bar gauge buried steel pipelines and is a method of protecting pipelines with damaged coatings from corrosion by maintaining an electrical potential difference between the pipeline and anodes placed at strategic points along the pipeline.

Where a new service is to be laid and similarly protected, Wales & West Utilities will undertake interference tests to determine whether the new service is interfering with the cathodic protection of the Wales & West Utilities pipeline.

Should any cathodic protection posts or associated apparatus need moving to facilitate third party works reasonable notice, typically 7 days, should be given to Wales & West Utilities. Wales & West Utilities will undertake this work and any associated costs will be borne by the third party.

7. CONSTRUCTION TRAFFIC

Where existing roads cannot be used construction traffic should ONLY cross the pipeline at previously agreed locations. All crossing points will be fenced on both sides with a post and wire fence and with the fence returned along the easement for a distance of 6 metres. The pipeline shall be protected at the crossing points by temporary rafts of either sleeper or reinforced concrete construction, constructed at ground level. The Wales & West Utilities responsible person will review ground conditions, vehicle types and crossing frequencies to determine the type and construction of the raft required.

Notices directing traffic to the crossing points should be erected.

8. SPECIFIC ACTIVITIES

This section details the precautions that need to be taken when carrying out certain prescribed activities in the vicinity of the pipeline. Consult Wales & West Utilities if you are intending to undertake one of the listed prescribed activities and/or you require further advice on whether the work that you are intending to undertake has the potential to affect the pipeline.

8.1 No-Dig Techniques

Where the contractor intends using no dig techniques then a formal method statement must be produced for all work that would encroach (either above or below ground) within the pipeline easement. This method statement must be formally agreed with Wales & West Utilities prior to the commencement of the work. Wales & West Utilities may wish to be present when the work is being carried out and must therefore be given adequate advance notice before the commencement of the work.

8.2 Increase in Cover

A pipeline integrity assessment must be provided for situations involving a final cover depth exceeding 2.5 metres. This assessment should take due account of both soil 'dead' loading and ground settlement due to earthworks. Embankment design and construction over pipelines must give consideration to prevention of any instability. Expert advice may need to be sought which can be arranged through Wales & West Utilities.

8.3 Piling

No piling will be allowed within 15 metres of a pipeline without an assessment of the vibration levels at the pipeline. The peak particle velocity at the pipeline should be limited to a maximum level of 75 mm/sec. In any event the ground vibration shall be monitored by the contractor and the results available to the Wales & West Utilities Responsible person at their request. A typical monitoring device would be the Vibrock V801 seismograph and tri-axial geophone sensor.

Where ground conditions are of submerged granular deposits of silt and sand, an assessment of the effect of vibration on settlement and liquefaction at the pipeline shall be made.

Expert advice may need to be sought which can be arranged through Wales & West Utilities.

8.4 Demolition

No demolition should be allowed within 150 metres of a pipeline without an assessment of the vibration levels at the pipeline. The peak particle velocity at the pipeline must be limited to a maximum level of 75 mm/sec. In any event the ground vibration shall be monitored by the contractor and the results available to the Wales & West Utilities Responsible person at their request.

Where ground conditions are submerged granular deposits of silt or sand, an assessment of the effect of vibration on settlement and liquefaction at the pipeline shall be made.

Expert advice may need to be sought which can be arranged through Wales & West Utilities.

8.5 Blasting

No blasting should be allowed within 250 metres of a pipeline without an assessment of the vibration levels at the pipeline. The peak particle velocity at the pipeline must be limited to a maximum level of 75 mm/sec. In any event the ground vibration must be monitored by the contractor and the results available to the Wales & West Utilities Responsible person at their request.

Where ground conditions are of submerged granular deposits of silt or sand, an assessment of the effect of vibration on settlement and liquefaction at the pipeline shall be made.

Expert advice may need to be sought which can be arranged through Wales & West Utilities.

8.6 Surface Mineral Extraction

An assessment must be carried out on the effect of surface mineral extraction activity within 100 metres of a pipeline. Consideration should also be given to extraction around groundbeds and other pipeline associated plant and equipment.

Where the mineral extraction extends up to the pipeline easement, a stable slope angle and stand-off distance between the pipeline and slope crest must be determined by Wales & West Utilities. The easement strip should be clearly marked by a suitable permanent boundary such as a post and wire fence, and where appropriate, slope indicator markers shall be erected to facilitate the verification of the recommended slope angle as the slope is formed, by the contractor. The pipeline easement and slope needs to be inspected periodically to identify any signs of developing instability. This may include any change of slope profile including bulging, the development of tension cracks on the slope or easement, or any changes in drainage around the slope. The results of each inspection should be recorded.

Where surface mineral extraction activities are planned within 100 metres of the pipeline but do not extend up to the pipeline easement boundary, an assessment, by Wales & West Utilities must be made on whether the planned activity could promote instability in the vicinity of the pipeline. This may occur where the pipeline is routed across a natural slope or the excavation is deep. A significant cause of this problem is where the groundwater profile is affected by changes in drainage or the development of lagoons.

Where the extraction technique involves explosives the provisions of section 8.5 apply.

8.7 Deep Mining

Pipelines routed within 1 km of active deep mining may be affected by subsidence resulting from mineral extraction. The determination of protective or remedial measures will normally require expert assistance, which can be arranged through Wales & West Utilities.

8.8 Landfilling

The creation of slopes outside of the pipeline easements may promote instability within the vicinity of the pipeline. An assessment should therefore be carried out, by Wales & West Utilities, on the effect of any landfilling activity within 100 metres of a pipeline. The assessment is particularly important if landfilling operations are taking place on a slope in which the pipeline is routed.

8.9 Pressure Testing

Hydraulic pressure testing will not be permitted within 8 metres of the pipeline unless suitable precautions have been taken against the effects of a burst. These precautions should include limiting of the design factor to 0.3 for the third party pipeline for a distance of 6 metres either side of the Wales & West Utilities pipeline, and the use of mill tested pipe or sleeving.

8.10 Seismic Surveys

Wales & West Utilities must be advised of any seismic surveying work in the vicinity of pipeline that will result in Wales & West Utilities' pipeline being subjected to peak particle velocities in excess of 50 mm/sec. In any event the ground vibration near to the pipeline shall also be monitored by the contractor whilst the survey work is being carried out.

Where the peak particle velocity is predicted to exceed 50 mm/sec, the ground vibration should be monitored by the contractor and the results available to the Wales & West Utilities Responsible person at their request.

8.11 Hot Work

The Wales & West Utilities responsible person on site should supervise all welding, burning or other 'hot work' that takes place within the easement.

8.12 Wind Turbines

Wales & West Utilities must be advised of any planned development of wind turbines in the vicinity of an above 2 bar gas pipelines to ensure the development does not impact on the future safe operation of the pipeline. Industry guidance states that any wind turbine must be sited no closer than 1.5 times the proposed height of the turbine mast away from the nearest edge of the pipeline.

9. BACKFILLING

Third parties must provide Wales & West Utilities with 7 days' notice, or shorter notice only if agreed with Wales & West Utilities, of the intent to backfill over, under or alongside the pipeline. This requirement should also apply to any backfilling operations alongside the pipeline within 3 metres of the pipeline. Any damage to the pipeline or coating must be reported to the Wales & West Utilities responsible person in order that damage can be assessed and repairs can be carried out.

Minor damage to pipe coating and damage to test leads will normally be repaired by Wales & West Utilities free of charge.

No backfilling should be undertaken without Wales & West Utilities agreement to proceed. When backfilling, the pipeline should be surrounded by at least 300mm of soft fill (i.e. stone dust) containing no stones, bricks, lumps of concrete, etc. The Wales & West Utilities responsible person will stipulate the necessary consolidation requirements.

If the pipeline has been backfilled without the knowledge of the Wales & West Utilities responsible person then he will require the material to be re-excavated in order to enable the condition of the pipeline coating to be confirmed.

10. ACTION IN THE CASE OF DAMAGE TO THE PIPELINE

If the Wales & West Utilities pipeline is damaged, even slightly, and even if no gas leak has occurred then the following precautions must be taken immediately:-

- ◆ Shut down all plant and machinery and extinguish any potential sources of ignition.
- ◆ Evacuate all personnel from the vicinity of the pipeline.
- ◆ Notify Wales & West Utilities using the free 24 hour emergency telephone number **0800 111 999**¹
- ◆ Notify the Wales & West Utilities responsible person or his office immediately using the contact telephone number provided.
- ◆ Ensure no one approaches the pipeline.
- ◆ Do not try to stop any leak.

¹ * All calls are recorded and may be monitored

11. REFERENCES

NRSWA	New Roads & Street Works Act
HS(G)47	Avoiding Danger from Underground Services
IGE/SR/18	Safe Working Practices to Ensure the Integrity of Gas Pipelines and Associated Installations
T/PR/P/18	Working on Pipelines Containing Defective Girth Welds or Girth Welds of Unknown Quality
CIS08	Safety in Excavations (HSE document)

12. GLOSSARY OF TERMS

Contractor:	the person, firm or company with whom Wales & West Utilities enters into a contract to which this specification applies, including the Contractor's personal representatives, successors and permitted assigns.
Easement:	Easements are negotiated legal entitlements between Wales & West Utilities and landowner and allow Wales & West Utilities to lay, operate and maintain pipelines within the easement strip. Easement strips may vary in width typically between 6 and 25 metres depending on the diameter and pressure of the pipeline. Consult Wales & West Utilities for details of the extent of the easement strip where work is intended.
Liquefaction:	Liquefaction is a phenomenon in which the strength and stiffness of the soil is reduced by earthquake shaking or other rapid loading. Liquefaction occurs in saturated soils, that is, soils in which the space between individual particles is completely filled with water. When liquefaction occurs, the strength of the soil decreases and the ability of the soil to support pipelines or other components is reduced.
Pearson Survey:	a survey used for locating coating defects on buried pipeline services.
DCVG Survey:	Direct Current Voltage Gradient, a survey for locating and grading coating defects on buried pipeline service
Promoter of new works:	the person or persons, firm, company or authority for whom new services, structures or other works in the vicinity of existing Wales & West Utilities pipelines and associated installations operating above 7 bar gauge are being undertaken.
Wales & West Utilities responsible person:	the person or persons appointed by Wales & West Utilities with the competencies required to act as the Wales & West Utilities representative for the purpose of the managing the particular activity.
Wayleave:	general term which is considered equivalent to 'easement' in this document.

APPENDIX A

SITE DOCUMENT CONTROL FORM - SAMPLE

Emergency Telephone No. **0800 111 999***
Plant Protection Telephone No. **02920278912**

SITE DOCUMENT CONTROL FORM

Activity Reference:

Activity Location:

Site Manager:

(name & telephone number)

Wales & West Utilities Contact:

(name & telephone number)

The following documents were issued to *(individual's name)*

..... **of**
(company name and address)

.....
by *(Wales & West Utilities representative)*

..... **on**
(date).....:-

Documents:-

(List of documents)

Signed : *(by the recipient)*

Date of signature :

SITE DOCUMENT CONTROL FORM

Emergency Telephone No. 0800 111 999*

Plant Protection Telephone No. 02920 278912

SITE DOCUMENT CONTROL FORM

Activity Reference:

Activity Location:

Site Manager:

(name & telephone number)

Wales & West Utilities Contact:

(name & telephone number)

The following documents were issued to (Individuals Name)

.....**of**
(company name and address)

by *(Wales and West Utilities representative)*

.....**on**
(date) :-

Documents:-

Signed :

Date of signature :