

Nottinghamshire County Council

# Local Impact Report

## West Burton Solar Project



**Nottinghamshire  
County Council**

## **1. Introduction**

1.1 Nottinghamshire County Council has prepared this report in accordance with the advice and requirements set out in the Planning Act 2008 and the Advice Note One: Local Impact Reports Version 2, April 2012. The advice note reflects the IPC being abolished and the work of the IPC transferring to the Planning Inspectorate under the Localism Act 2011.

1.2 The Advice Note states that when the Planning Inspectorate (PINS) decides to accept an application it will ask the relevant local authorities to prepare a Local Impact Report and its preparation should be prioritised and indicate where the local authority considers that the development would have a positive, negative or neutral effect on the area. The Report may include any topics that they consider to be relevant to the impact of the development on their area as a means by which their existing body of knowledge and evidence on local issues can be fully and robustly reported.

1.3 In producing the Local Impact Report the council has not sought the views of local parish councils and local interest groups as to any particular matters that should be reflected in the report because the parish councils and other local groups have the opportunity, through the consultation process, to make their observations direct to PINS.

1.4 The Local Impact Report is intended to be used by the local authority as a means by which the existing body of local knowledge and evidence on local issues is fully and robustly reported.

1.5 The Local Impact Report has been written so as to incorporate the topic areas suggested in the Advice Note (set out above) and the obligations and proposed requirements submitted with the application for DCO.

## **2. The West Burton Solar NSIP Proposal**

2.1 The West Burton Solar Project is named after its grid connection point at the existing National Grid substation at the West Burton Power Station. The proposals comprise a number of land parcels described as West Burton 1, 2, and 3 for the solar arrays, grid connection infrastructure and energy storage; and the Cable Route Corridors. The sites are located approximately 7.4km to the south and up to 14.6km southeast of Gainsborough. The solar panel installations within each of the Sites will each have a generating capacity of more than 50MW and therefore each constitute an NSIP.

2.2 The proposal as made in Nottinghamshire consists of the cable route corridor linking the solar array Sites and associated substations and energy storage with the National Grid at the 400kV West Burton National Grid substation located to the west of the West Burton Power Station.

2.3 The Scheme will connect to the National Grid substation via a new 400kV substation constructed as part of the Scheme to provide the connections to the various solar Sites at 132kV or 33kV. The substations, cable connections and energy storage will be required for the duration of the Scheme. The substations and energy storage will be decommissioned and removed at the end of the lifetime of the Scheme. The underground cable ducts are anticipated to be decommissioned in situ to minimise environmental impacts.

## **3. Site Description and Surrounding Location**

3.1 The site lies predominantly within Lincolnshire within a mainly rural area the Nottinghamshire element comprises of the cable route corridor and substation

3.2 West Burton Power Stations are located within the Trent Valley. EDF closed the coal-fired power station (A) in 2023. A gas fired station (B) is also operational.

3.3 The river Trent and its valley forms a significant and predominantly open landscape feature.

3.4 The West Burton Substation Site sits between the villages of Sturton le Steeple and Bole.

3.5 North and South Wheatley contain a conservation area which is approximately 2.4km southwest of the Site. There are a number of listed buildings within the above-mentioned conservation areas. There are also listed buildings within the settlement of Bole which is situated to the north of the proposal.

3.6 The proposed pipeline is located within a mineral safeguarding area and minerals consultation area.

3.7 The Site is located within a Petroleum Exploration Development Licence (PEDL) area.

#### 4. Relevant Planning History and any Issues Arising

Table 1 – Planning History Nottinghamshire County Council - 'County Matters' sites, applications/permissions of note

Application Reference	Applicant for 'other development' and brief description		Distance from project	Status
<a href="#">1/22/01031/CDM</a>	Cotham P/S Rising Main	Construction of an underground foul water rising main. Land to the west of Cottam Power Station, Retford, DN22 0NP	Within the DCO project application boundary west of Cottam P/S	Granted 24/11/22 and constructed
<a href="#">1/22/00047/CDM</a>	Sturton le Steeple Quarry	Continuation of mineral working operations at Sturton le Steeple Quarry subject to a modification to the 'trigger date' for the interim restoration of the quarry. - Variation of conditions 67 and 68 to 31 December 2024 to afford sufficient time for additional surveys, to secure all necessary approvals under non-planning regimes and implementation works to take place prior to extraction recommencing	3km north of cable corridor to Cottam power station	Variation approved 20/04/2022. Relates to a longstanding permission for a new sand and gravel quarry. Permission has been implemented with enabling works, including new access but mineral extraction has yet to commence. Quarry is also allocated in the Nottinghamshire Minerals Local Plan. Quarry has been taken over by new operator with intentions to commence mineral extraction.
1/19/01556/CDM	West Burton/ Bole Ings ash fields	Variations of conditions 11, 13, 37 and 53 of planning permission 1/18/00234/CDM to enable full ash recovery from phase 1B/2 and revisions to method statement, restoration, landscaping and aftercare. - West Burton Power Station and Bole Ings Ash Disposal Site, Retford, DN22 9BL	6km north of cable corridor to Cottam p/s	Active PFA ash extraction operations. Up to 400,000 tonnes per annum extracted for sale to construction industry

<a href="#">1/21/01770/CDM</a>	Cottam power station ash fields	Variation of Condition 46 of Planning Permission 1/13/01359/CDM to defer the submission of a restoration and aftercare strategy for the former ash disposal site until 25th December 2025 to allow an extended period of time for the wider redevelopment of the Cottam Power Station site to be fully considered.- Cottam Ash Disposal Site, Outgang Lane, Retford, Nottinghamshire, DN22 0EU Proposal	700m to East of power station	Ash operations paused pending further time to allow wider development options at the former Power Station site
1/43/12/00006	South Leverton oil field	South Leverton Oil wells x4 sites	1.2km - 2km west of Cottam p/s cable corridor	Conventional oil extraction sites- with permission until 2032.
1/12/01027/CDM1/12/01028/CDM	Gainsborough Oil field	Gainsborough Oil wells- multiple existing well sites (approx. 7 within Notts)	9-10km N of Cottam p/s cable corridor (various sites)	Conventional oil extraction- mostly active and with permission until 2032. Ground water monitoring boreholes recently given permission
Multiple site permissions. S73 extensions of time granted 2021	Beckingham oil field	Beckingham Oil wells- multiple existing well sites (approx. 13 well sites)	10km+ NW of Cottam p/s cable corridor (various sites)	Conventional oil extraction- mostly active and with permission until 2032. Ground water monitoring boreholes recently given permission

## 5. Relevant development plan policies

5.1 In terms of mineral and waste policy which the County Council is responsible for, the following policies are relevant.

Nottinghamshire and Nottingham Waste Core Strategy (2013)

Policy WCS2: Waste awareness, prevention and re-use - Nottinghamshire County and Nottingham City Councils will lead by example and work together with district and borough councils, the waste industry, local businesses, communities and

voluntary groups to improve waste awareness and encourage measures aimed at waste prevention and re-use. All new development should be designed, constructed and implemented to minimise the creation of waste, maximise the use of recycled materials and assist the collection, separation, sorting, recycling and recovery of waste arising from the development.

## Nottinghamshire Minerals Local Plan (2021)

### Policy SP7: Minerals Safeguarding, Consultation Areas and Associated Minerals Infrastructure Minerals Safeguarding Areas

1. Locally and nationally important mineral resources, permitted reserves, allocated sites and associated minerals infrastructure will be safeguarded from needless sterilisation by non-minerals development through the designation of minerals safeguarding areas as identified on the Policies Map.
2. Non-minerals development within minerals safeguarding areas will have to demonstrate that mineral resources will not be needlessly sterilised as a result of the development and that the development would not pose a serious hindrance to future extraction in the vicinity.
3. Where this cannot be demonstrated, and where there is a clear and demonstrable need for the non-minerals development, prior extraction will be sought where practicable. Minerals Consultation Areas
4. District and Borough Councils within Nottinghamshire will consult the County Council as Minerals Planning Authority on proposals for nonminerals development within the designated Mineral Consultation Area, as shown on the Policies Map.
5. The Minerals Planning Authority will resist inappropriate non-minerals development within the Minerals Consultation Areas.
6. Where non-minerals development would cause an unacceptable impact on the development, operation or restoration of a permitted minerals site, mineral allocation, or associated minerals infrastructure, suitable mitigation should be provided by the applicant prior to the completion of the development.

### Policy MP2: Sand and Gravel Provision

1. An adequate supply of sand and gravel will be identified to meet expected demand over the plan period from:
  - a) The extraction of remaining reserves at the following permitted quarries:

MP2c Sturton Le Steeple

5.2 The entire western side of the River Trent lies within a Sand and Gravel Mineral Safeguarding Area, but that given relatively small land take involved for the cable route corridor we do not foresee any problems.

5.3 Sturton Le Steeple quarry (1/46/06/00014/) is operated by TARMAC. This site is not presently active. NCC would draw attention to Adopted Minerals Local Plan March 2021 (Policy MP2c) and Policies Map Inset 4. Adopted Minerals Local Plan | Nottinghamshire County Council Sturton le Steeple Quarry is an important source of sand and gravel and is a significant contributor to the resource landbank, as identified within the Adopted Nottinghamshire Minerals Local Plan March 2021.

5.4 Any cable routing needs to consider the likelihood of the re-opening of this quarry and not prejudice site access and operation.

## **6. West Burton A and STEP Project - potential impact of solar developments**

6.1 The West Burton A site has been selected by the UK Atomic Energy Authority (UKAEA) as a base for the development of the UK's first Nuclear Fusion Plant, with the potential to yield significant quantities of low carbon energy, generate employment opportunities and encourage investment in the region. Nottinghamshire County Council wishes to facilitate the implementation of this project and other potential future development opportunities at the site. The Spherical Tokamak for Energy Production, (STEP) fusion project is a long-term initiative which is not expected to be commissioned until 2040 with development consent to be gained between 2024 and 2032

6.2 Between 2024 and 2032, the design of the STEP facility will be further developed through detailed engineering design and, at the same time, planning permission to build the power plant will be sought. The aim is to have a fully evolved design and approval to build by 2032, enabling construction to begin. By 2040 STEP will bring the world's first commercially viable fusion plant into commission

6.3 On 6 February 2023 the Science and Innovation Minister, George Freeman, speaking at West Burton announced the creation of UK Industrial Fusion Solutions Ltd (UKIFS). The establishment of UKIFS will enable STEP to accelerate its journey towards delivery of electricity from fusion energy to the grid. The new body is established as a programme delivery organisation, driving performance and pace and engaging industry in this endeavour. The delivery of STEP will be led by UKIFS, as a wholly owned subsidiary of the UK Atomic Energy Authority (UKAEA), with Professor Sir Ian Chapman remaining as the UKAEA Group CEO.

6.4 Nottinghamshire County Council has played a key role securing STEP acting as the nominating body and working with EDF as the landowner, relevant Local Authorities and a wide range of stakeholders such as Bassetlaw District Council, Midlands Engine, D2N2 LEP, local universities and businesses to promote West Burton as the site for STEP. The Council continues to play a key role in promoting STEP by securing stakeholder engagement and ensuring major economic funding initiatives such as the East Midlands Investment Zone are secured because of the

presence of STEP in Nottinghamshire. The ongoing collaboration continues to evolve.

6.5 It is understood that the promoters of the West Burton Solar Project have not yet met with representatives of UKAEA to discuss the respective projects. The County Council is concerned that there should be adequate and proper liaison between the two projects.

6.6 The County Council wishes to develop a master plan for the area that ensures we work collaboratively with private sector partners (including solar farm promoters) to maximise the potential for clean and green energy development within the Trent Valley and that developments are sequenced correctly to best achieve the long term objectives.

6.7 Given the wider opportunities fostered by STEP It is imperative that any proposed cable route for the West Burton Solar Project does not sterilise development land or detract from future development plans and we wish to see effective arrangements built into the DCO , such as a pre commencement requirement, to ensure appropriate consultation with EDF, UK AEA and the relevant local authorities over the final cable routing to ensure this is achieved.

## **7. Impact on Local Wildlife Sites**

7.1 NCC would highlight the potential for impacts on local wildlife sites (LWS):

- North Leys Road (ditch), Coates LWS (5/3492)
- Coates Wetland LWS (2/416)

7.2 Impacts on these sites must be avoided, or if that is genuinely not possible, then appropriate mitigation and/or compensation put in place. There will presumably also be impacts on undesignated habitats including hedges, ditches and verges, and again the mitigation hierarchy should be followed, and losses kept to a minimum.

## **8. Impact on highways and rights of way**

8.1 Nottinghamshire County Council is the Highway Authority for area. This section of the LIR report reviews the outstanding issues associated with highways and transport aspects of the proposals and in particular the matters which require careful consideration.

8.2 The traffic associated with the provision of the grid connection would be unlikely to result in highway network capacity issues. However, there are roads on the grid connection construction routes within Nottinghamshire that are narrow with limited passing opportunities including North Street, Church Street (Sturton C of E Primary School), Low Holland Lane and Littleborough Road, Sturton le Steeple; Thornhill Lane and Northfield Road, North Leverton; Three Leys Lane and Fenton Lane, Fenton; Town Street, South Leverton; and Cottam Road, Broad Lane, and Headstead Bank, Cottam/Coates. Whilst these routes are very lightly trafficked, at



least where they are beyond the conurbations, there will still be people who will have cause to use them and will require access.

8.3 The following public rights of way are affected by the grid connection corridor.

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Sturton le Steeple Footpath no 17

Sturton le Steeple Restricted byway no 32 (Common Lane, north end)

Sturton le Steeple Footpath no 15

Sturton le Steeple Footpath no 39

Sheet 9

Sturton le Steeple Restricted Byway no 32 (Common Lane, south end)

Sturton le Steeple Bridleway no 5 (Fenton Lane)

North Leverton with Habbleshorpe Footpath no 18

Sheet 8

North Leverton with Habbleshorpe byway no 14 (Craikbank Lane)

North Leverton with Habbleshorpe Restricted byway no 25

8.4 It is noted that the submission is supported by an outline Construction Traffic Management Plan (CTMP), and that a full CTMP, substantially in accordance with the outline, is required to be submitted for approval in accordance with article 15 of the draft Development Consent Order (DCO). Whilst the outline CTMP scopes out how construction traffic will be managed, it does not address how conflict will be avoided with other traffic not associated with the proposed solar farm. That should be addressed including where powers are intended to be used in accordance with article 11 of the DCO (Temporary stopping up of streets and public rights of way) and what temporary alternative access arrangements are proposed.

8.5 The CTMP paragraph 7.2(xx) includes an intention to carry road condition surveys to identify and subsequently repair any damage attributable to construction activities at the Site. For the avoidance of doubt, that should include the cable route corridor.

8.6 The article 14 of the draft DCO (Agreements with street authorities) allows for agreements to be entered into for the purposes of article 8 (street works) and article 10(1) (construction and maintenance of altered streets). That provision should be extended to include article 9 (Power to alter layout, etc., of streets) and article 13 (Access to works). The provisions in articles 8, 9, 10, and 11 should be subject to the

street authority having first issued a licence or entered into an agreement in accordance with article 14. The street authority would wish to have the opportunity to approve the design and specification of any works within the streets listed in Schedule 4 to 8 and any other streets no matter how those works arise, the opportunity to inspect those works, and to recover associated costs.

8.7 However, the Highway Authority is satisfied that construction traffic and the need for highway works (including effects on public right of way) to facilitate the grid connection can be appropriately managed through the Construction Traffic Management Plan and provisions within the Development Consent Order.

## **9. Impact on Archaeology**

9.1 At the outset it is worth noting that Nottinghamshire CC archaeologists have had limited involvement with this scheme to date, as archaeological advice has largely been provided by Lincolnshire Archaeology who provide advice to Bassetlaw DC.

9.2 The West Burton scheme, as it affects Nottinghamshire, involves a cable trench with associated easement topsoil strip where the scheme runs through farmers' fields, and a substation and connection into the National Grid on part of the site of the West Burton power station. This is a rich landscape, where arable fields reveal archaeological remains through cropmarks identified by aerial photography. These remains appear as patterns in fields because of the differential growth of vegetation, particularly cereal crops, over buried features such as walls and ditches.

9.3 This area of the Trent valley and floodplain shows complex patterns of past riverine activity, with earlier channels of the river having deposited layers of alluvium and reworked areas of ground from the Late Palaeolithic onwards, both are processes which in some places still happen today. This in turn means that geophysical survey, often viewed as the acme of non-intrusive archaeological survey techniques, will work with variable degrees of success, further hampered by seasonal high ground water levels.

9.4 Extensive experience of comparing geophysical survey results with evaluation and excavation results (which many/most geophysicists lack) demonstrates geophysical survey alone cannot define areas of archaeological significance and should not be relied upon solely or even mainly for identifying areas of archaeological mitigation. A further complication is that early features, particularly relatively small discrete features such as prehistoric or early Mediaeval human burials, may not appear in geophysical results at all. Exactly this situation has been demonstrated at the Cottam Solar Project site, in Lincolnshire, where an unexpected group of human burials were identified through archaeological evaluation trial trenching but not through the geophysical survey. The archaeological mitigation scheme for that project is being undertaken by the same archaeological consultants as the West Burton scheme.

9.5 It would appear significant areas of the development site, including the cable route, have had no evaluation through trial trenching, which is considered unacceptable, and a major risk to the overall sustainable deliverability of the scheme.

9.6 The LIR prepared by LCC archaeological advisers notes the inadequacy of the archaeological work to date, and NCC archaeology agrees completely with their stance. The trial trenching of areas which have not shown geophysical anomalies should not be regarded as an optional extra, but as a professional archaeological requirement. While NCC archaeology do not work with percentage trial trenching as a standard at the outset of work, normal ranges for understanding complex landscapes, such as the Trent Floodplain and its adjacent higher ground, are found to be a minimum of 3-5% of the development site evaluated through trial trenching, particularly including “blank” geophysical survey areas plus an additional element for contingencies, such as unexpected human burials.

9.7 This kind of approach is the only safe way of ensuring a reasonable method of evaluating archaeological risk and mitigating it appropriately. It is unacceptable to have a written scheme of investigation for archaeological mitigation submitted as part of the ES which states, “The gully contained a loom weight and pottery dated from the Bronze Age to the medieval period” (3.13.5). This date range covers over 3000 years and indicates that even where there has been evaluation trial trenching, it has not adequately or systematically identified the nature of the archaeological deposits, leaving the development at high risk of causing significant damage to and unrecorded loss of the archaeological resource. One assumes that the gully is of Mediaeval date and the Bronze age material has been re-deposited into it from a disturbed adjacent feature, possibly, given the nature of surviving Bronze Age archaeology, a burial mound. This is the kind of assumption one should not have to make at this stage in a major development’s trajectory.

9.8 In light of the flaws in the approach to evaluating the route of the cable trench, the mitigation proposals are considered inadequate and rely on a flawed information base.

9.9 NCC archaeology prefer not to use the term “watching brief” in line with current HE advice as this has historic connotations of archaeologists watching archaeological deposits being removed by machines with scant record being made. Strip, map and sample (SMS) is our preferred term and approach, and our policy is to see complete easement strips subject to SMS, enhanced with select areas of excavation where features have been identified, plus genuine preservation in situ by avoidance of significant/ complex areas of archaeological activity.