



9 September 2024

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## **National Grid Chesterfield to Willington Stage 1 consultation (non-statutory)**

### *Introduction and background*

We are responding on behalf of CPRE Derbyshire, the county group of the national countryside charity, CPRE. Our mission is the protection of the landscape and character of the Derbyshire countryside outside the Peak District National Park. We aim to preserve and enhance the beauty of the countryside while supporting thriving and sustainable rural communities.

We have read and analysed the consultation supporting materials, in particular the Project Background Document (PBD), the Strategic Options Report (SOR) and the Corridor Preliminary Routeing and Siting Study (CPRSS) to understand the detailed rationales and impacts of the various options proposed. We have also attended a number of the consultation events, in person and online, and conducted preliminary site visits to parts of the areas affected by the proposed 'emerging preferred corridor' (EPC). Our views have also been informed by the recent online meeting with the NGET project team (27 August) and this is referred to at several points in the comments below.

We are not, at this stage, questioning the need case outlined: i.e. to move more power across boundary B8 to help meet vital targets to decarbonise the electricity grid. However, we do have some technical queries regarding the merits of the Chesterfield to Willington connection (EDN-2) in relation to other strategic options (notably Chesterfield to Ratcliffe-on-Soar, EDN-1) including the claimed synergies between EDN-2 and the Brinsworth-High Marnham reinforcement.

### *Summary*

**In summary, our principal concern and feedback, at what we hope is an early and formative stage of the consultation and project development process, is the failure to fully assess and consult on the main alternative strategic option, namely Chesterfield to Ratcliffe-on-Soar (EDN-1). CPRE Derbyshire's view is that this key option has been set aside too early in the process and without detailed analysis or proper stakeholder engagement as to its merits/demerits. This may amount to a failure in due process, calling into question whether the Stage 1 consultation meets the principles for consultation set out in law.<sup>1</sup> We also raise a serious question as to whether lifetime costs have been properly assessed at the strategic options stage.**

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<sup>1</sup> The 'Gunning principles' as set out by Stephen Sedley QC as approved by Hodgson J in *R v. Brent LBC ex p Gunning* and endorsed by the Supreme Court in *R (Moseley) v Haringey London Borough Council* [2014] UKHL 56; [2014] 1 WLR 3947

As stated above, CPRE Derbyshire acknowledges the need to upgrade the national electricity transmission network but would prefer to see its planning set within the context of a national strategic land use framework which proactively identifies, with community input, the optimum locations for renewable energy and associated infrastructure. We also advocate for a rooftop revolution for solar energy and support renewables done well in the right places, close to the points of demand, to reduce the need for inefficient transfer of power over great distances.

CPRE Derbyshire believes decisions taken now, and heralded in this Stage 1 consultation, will have long term consequences. The proposed new pylon route would be a scar through the Derbyshire countryside for at least a century. We are concerned about its impact upon the landscape, amenity, biodiversity and heritage of our precious countryside. In affected areas, it would reduce both the usefulness and status of any affected land and encourage the proliferation of inappropriate renewable energy developments in the countryside.

In line with CPRE values, we will seek to protect and enhance our rural landscapes for current and future generations of local people and visitors; new overhead pylon lines through the most valued Derbyshire countryside should be a last resort. To achieve the best outcome in terms of new grid infrastructure, we will work with our members, affected communities and other key stakeholders to protect Derbyshire's rural landscapes.

**We therefore request National Grid reconsider the current 'emerging preferred corridor' and propose less damaging solutions, namely an alternative route and/or a wider variety of transmission methodologies which minimise the impact on our countryside.** Our full comments are detailed in the sections below.

#### *The need for better strategic planning*

CPRE branches in East Anglia, in response to the proposed new Norwich to Tilbury line, have recently published a report<sup>2</sup> detailing proposals for 'greening' the 'Great Grid Upgrade', of which Chesterfield to Willington is also part. This sets out a new vision of improved strategic planning of grid infrastructure with

- a) earlier and more meaningful engagement with communities, local authorities and other key stakeholders;
- b) improved mitigation through alternative routes and technologies (e.g. undergrounding; use of alternatively designed pylons, where appropriate/desirable); and
- c) the wider provision of benefits, both for communities and the local environment.

All of these should be employed in relation to the proposed B8 boundary reinforcement to ensure the avoidable impacts of an outdated overhead line (OHL) solution are not imposed on local communities and valued landscapes. The urgent need to address grid decarbonisation by 2030 should not mean a century of irreversible landscape damage. As stated above, major energy infrastructure developments also need to be planned within the context of a national strategic land use framework.<sup>3</sup>

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<sup>2</sup> <https://www.suffolksociety.org/wp-content/uploads/2024/05/Greening-the-Great-Grid-Upgrade.pdf>

<sup>3</sup> CPRE nationally has advocated for a national land use strategy for many years and gave evidence to a recent Parliamentary inquiry on the topic: <https://www.parliament.uk/business/lords/media-centre/house-of-lords-media-notices/2022/december-2022/land-use-in-england-needs-a-framework-to-tackle-conflicting-priorities-and-emerging-challenges-lords-committee/>

At this formative point in the planning process, we are extremely concerned that there has not been wider stakeholder engagement regarding the broader (strategic) corridor options. Instead, the Chesterfield to Willington EPC has essentially been presented, and is now being consulted on, as a *fait accompli*. This is unacceptable and again speaks to National Grid's *modus operandi* of imposing solutions on communities, as has been the case with the Norwich to Tilbury route.

#### *Feedback on strategic options*

We have examined the Strategic Options Report (SOR) but do not share the conclusion reached that the optimum option is Chesterfield to Willington (EDN-2). The SOR states, in its conclusion (para.12.1.4), that *"This option is the most advantageous of the options when balancing cost, technical performance and constructability. Further, this option has fewer environmental and socio-economic effects."* We disagree as the level of constraint analysis is so limited, especially in relation to environmental and socio-economic effects, as to render proper comparison of the four routes meaningless. Instead, it is clear that constructability and the technical constraints associated with the use of the Ratcliffe-on-Soar substation are the main driver on decision-making.

Elsewhere it is stated that *"...there are not considered to be any socio-economic factors that distinguish materially between the four options; however, EDN-1, EDN-2, and EDN-3 have materially shorter overhead line routes than EDN-4 and so are expected to have potentially fewer environmental and socio-economic effects"* (see SOR, p.87, para.11.2.7) and in para.11.4.4 the cost differences between EDN-1 and EDN-2 are said to not make any material difference – both could be the least cost option. In part, this also undermines the rhetoric about the difficulties associated with connecting at Ratcliffe-on-Soar, which appears to have been costed at £26.5 million (see SOR, p.55, Table 0.1), compared with the Willington substation at £17.6m (p.63, Table 0.2) – both being costed on the same basis, namely to 'facilitate generation and connect new circuits'.

In discussion with the NGET project team (27 August), we raised issues of comparative costs between OHL and cabling which is covered in the SOR. We also raised the issue of cost comparisons between AC OHL and undergrounded HVDC which had been quoted in the Electricity System Operator (ESO) East Anglia Network Study<sup>4</sup> of March 2024. In terms of economic rating, ESO concludes that *'...if a later delivery of 2034 is assumed then the undergrounded HVDC option as well as hybrid onshore and offshore options are comparable in ranking'*. The ESO conclusions state the methodology whereby: *'our economic analysis compares the cost of moving power around the system posed by each option compared to its capital cost. The capital cost and the cost of managing a lack of capacity in the system is borne by bill payers'*. This is then combined with the overall system impact and costs ranked.

We are concerned that this methodology was not used in the cost comparisons presented in the SOR. Appendix D of the SOR (see section 1.3, p.D0) clearly shows that the lifetime costs for transmission do not include the differential constraint costs of each strategic option on the same basis as in the ESO East Anglia study. This is a serious omission and potentially could be masking a very different picture of the true lifetime costs to be borne by bill payers. It is of vital importance that this issue is clarified and, if needs be, the lifetime costs re-run taking into account the cost of moving power around the system for each option.

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<sup>4</sup> see <https://www.nationalgrideso.com/document/304496/download>

Whilst we note and – to some extent – understand the constraints associated with the Ratcliffe site and its East Midlands Freeport status, a new connection at the site could also be seen as advantageous to its future use (significant quantum of both energy generation and consumption) and also helping with grid balancing. This could fit with ESO's most recent grid planning report ('Beyond 2030') which envisages much greater use of large-scale demand sources closer to sources of generation.<sup>5</sup>

In summary, a route between Chesterfield and Ratcliffe-on-Soar is the CPRE's strongly preferred option for the following reasons:

- the Ratcliffe site is already a brownfield, industrialised location (former power station);
- whilst the constraints of the planned East Midlands Freeport are acknowledged, there are also potential grid balancing advantages (as outlined above) and additional land could either be negotiated or purchased to help resolve constructability issues;
- the A617/M1 route provides an already heavily developed corridor where technical and construction constraints could be overcome by alternative technologies, including underground cabling solutions;
- comparative construction and lifetime costs are similar between EDN-1 and EDN-2; socio-economic and environmental factors are also estimated to be similar;
- the Chesterfield to Ratcliffe route enjoys widespread public and political endorsement due to minimised impact on high quality Derbyshire countryside and its communities.

As stated earlier, we also have strong concerns about lack of stakeholder engagement in the development of the strategic options and the lack of detailed testing of those options, so that a more nuanced and possibly improved set of options could have been developed after wider consultation and input. Instead, Chesterfield to Willington EDN-2 is presented as a *fait accompli*, severely limiting other potential less damaging options in terms of landscape, environmental and amenity (community) impact.

This could be seen to run counter to the first and second 'Gunning' principles of fair consultation, namely that '*consultation must be at a time when proposals are still at a formative stage. Second, that the proposer must give sufficient reasons for any proposal to permit of intelligent consideration and response*'.<sup>6</sup> The SOR's conclusion unfairly and unilaterally curtails that formative stage and – more worryingly – does so without sufficiently detailed comparison of the strategic options (i.e. the '*sufficient reasons*' required).

For this reason, we believe the SOR to be quantitatively and legally deficient and therefore should be re-run before proceeding further with the EPC, as explored in the CPRSS.

#### *Feedback on the Emerging Preferred Corridor (Chesterfield to Willington)*

Notwithstanding our view that the choice of the Chesterfield to Willington (EDN-2) option is premature, we have examined the CPRSS document and also – as an initial scoping exercise – visited a number of locations along the EPC, predominantly in sections 2 (Stretton to Ripley) and 3 (Ripley to Morley) which affect the high-quality landscapes of the Amber Valley

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<sup>5</sup> See p.43 'The role of strategic, flexible demand' in NGESO's 'Beyond 2030' report (March 2024), here: <https://www.nationalgrideso.com/document/304756/download>

<sup>6</sup> see footnote 1.

and the valued countryside east and south east of Belper between Ripley and Heanor and Heanor and Ilkeston.

These areas are predominantly within two National Character Areas:

- Character Area 50: Derbyshire Peak Fringe and Lower Derwent; and
- Character Area 38: Nottinghamshire, Derbyshire and Yorkshire Coalfield.

These are set out fully – and with their more detailed, fine scale landscape character types – in Derbyshire County Council’s The Landscape Character of Derbyshire<sup>7</sup> (DCC LCD, fourth edition, 2013). Further important supporting analysis, in relation to combined ecological and heritage sensitivities, is contained in the technical support document to the LCD: Areas of Multiple Environmental Sensitivity<sup>8</sup> (AMES, 2013).

The AMES document shows in particular that *‘the most sensitive areas, those classified as primary significance, are mainly associated with the Peak Fringe and Lower Derwent NCA. These occur as an almost continuous band from the Moss Valley in the north, through the Ashover Valley to Crich and Alderwasley in the south’* (section 3.0 Findings, para. 2, p.6). Parts of the current EPC swathe impinge strongly on these sensitive areas, notably in the Amber Valley (parts of which were formerly designated as a Special Landscape Area, indicating its high landscape value) and large parts of the EPC in section 3 fall in an area of secondary sensitivity.

Both these documents demonstrate the multiple landscape, heritage and ecological sensitivity of the proposed route. It is concerning that the EPC and graduated swathe has been proposed without reference to them and without full landscape and visual impact assessments (LVIAs), heritage impact assessments and ecological surveys. If the EPC is to be progressed, much more detailed analysis will be required to fully understand the nature of the multiple impacts and to inform the most appropriate mitigation, including alternative corridors and undergrounding where feasible.

The recently revised (May 2023) EN-5 Electricity Networks National Policy Statement states at para. 2.9.23 that *‘additionally, cases will arise where – though no part of the proposed development crosses a designated landscape – a high potential for widespread adverse landscape and/or visual impacts along certain sections of its route may result in recommendations to use undergrounding for relevant segments of the line’*. If the Amber Valley corridor of EDN-2 is to be pursued, the high landscape value of the area will likely justify such a recommendation.

We are aware that undergrounding is not a universal panacea and could result in other surface and subsurface impacts: environmental, ecological and heritage. Poor siting of sealing end compounds (SECs) can also bring further adverse visual impacts, especially if the SEC location is too close to the section of valued landscape that is undergrounded. This is a persistent and problematic issue in recent undergrounding proposals, either under NG’s VIP amenity project (e.g. the Peak East scheme near Dunford Bridge, Peak District National Park) or proposed undergrounding sections through AONB areas on the Norwich to Tilbury route.

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<sup>7</sup> <https://www.derbyshire.gov.uk/site-elements/documents/pdf/environment/conservation/landscapecharacter/the-landscape-character-of-derbyshire.pdf>

<sup>8</sup> <https://www.derbyshire.gov.uk/site-elements/documents/pdf/environment/conservation/landscapecharacter/technical-support-document-1-ames.pdf>

If undergrounding is to be a serious option, then careful consideration needs to be given to additional cabling to ensure that SECs are not detrimentally located.

It is noted from the CPRSS, that in respect of the majority of Corridor 3 (sections 3a-f: Stretton-Morley) and discounting the crossing of the Derwent Valley Mills World Heritage Site (DVM WHS, now obviated in the EPC), there are multiple constraints (ecology; landscape and visual, historic environment, socio-economic: see paras 7.5.8-5.5.24) that would merit consideration of undergrounding. This appears to be acknowledged in para. 7.5.12 where reference is made to sealing end compounds, where underground cabling begins/ends) as part of overall mitigation.

Given these constraints, an alternative option that should be explored more fully is the use of the southerly portion of corridor 5a to avoid sections 3a and 3b (Amber Valley). It is noted that the early section of 5a is already part of the EPC and there are already concerns about the impact on Hardwick Hall (acknowledged in the CPRSS: para. 7.7.10) and its setting that may require non-OHL solutions. We note the decision not to progress the southern portion of 5a (para. 9.3.9) but are not convinced that the constraints associated with that section (see paras 9.3.4 and 9.3.5) are greater than those in sections 3a and 3b or could not be overcome with non-OHL solutions. We do not believe it is right that the route through the Amber Valley should be favoured over an exposed ridge area (east of Astwith and Hardstoft) because of its lower (valley) topography and potential screening from intervening vegetation. Undergrounding would be the obvious solution to avoid significant visual impacts on either route.

#### *Corridor choices within EPC swathe*

Please note that these are initial comments (i.e. not fully concluded) but – as discussed in the meeting between the NGET project team and CPRE on 27 August – we wish to take advantage of the early opportunity to formatively influence route choices, despite lack of full LVIA, HIA and other impact studies at this stage. Some of the comments below reflect the initial responses of communities whose parish councils are also members of CPRE.

Stretton (3a and 3b): the western route (3b) around Stretton impinges strongly on the valued countryside of the Amber Valley (the former county designated Special Landscape Area – see attached map), especially adjacent to South Hill and Ogston, where pylons could skyline in views from Ogston Reservoir Site of Special Scientific Interest, an important site for birds (and a very popular visitor location, hence a key visual receptor) and Grade 2\* listed Ogston Hall in particular. Although the eastern route (3a) will be visible to more residents and could come close to a proposed solar farm development, on balance the 3a option will have less effect on valued countryside.

Oakerthorpe (options in 3c): west of Oakerthorpe impacts more heavily on the Amber Valley, the South Wingfield Conservation Area and the Grade 1 listed and Scheduled Monument Wingfield Manor. The darker blue (NG preferred) route east of Oakerthorpe is in the historic Alfreton Park estate (a non-designated heritage asset) and was in part the site of a proposed solar farm (refused on appeal in December 2022 for reasons of harm to landscape and heritage assets<sup>9</sup>). With pylons at 50m in height the easterly route would still affect the setting of Wingfield Manor. Both routes are damaging so CPRE recommends that this section be undergrounded.

<sup>9</sup> <https://acp.planninginspectorate.gov.uk/ViewCase.aspx?caseid=3299953>



Pentrich: in terms of protecting the valued landscape of the Amber Valley, a route to the east close to the A38 corridor is preferred but it is noted that due to topography this would impinge on many more residential properties.

Lower Hartsay: again, the easterly route is preferred.

Kilburn (3d, 3e and 3f): assuming there is not significant impingement on heritage assets associated with the eastern boundary of the Derwent Valley Mills World Heritage Site buffer zone (the WHS' protected setting), then westerly option 3d – which runs parallel with extant developed corridors (A38 and an existing power line) and has lower topography – is preferred initially to 3e. However, if 3e were to be progressed, our initial views are offered below.

Option to go east or west of Denby Pottery Village: our preferred option is to go west due to the lower land and avoiding more open countryside. Both options are problematic as they will affect the setting of the pottery works which is a Grade 2 listed building.

Around Smalley: the potential swathe between Denby Village and Smalley is quite wide, with the currently National Grid (NG) preferred route going directly down to Smalley. CPRE's preference is to go further east to Heanor Gate and follow Heanor Road to Smalley. This is because NG's preferred corridor will go straight through small woodlands (Flemstead Plantation and Redmoor Plantation). Going further east will affect Kidsley Park Farm, and there is already a potential threat of solar development on this land (application expected in 2025) that will cover land between Denby and Smalley.

Morley: the current corridor will cut through the small settlement gap between Smalley and Horsley Woodhouse. The preferred corridor of the NG is to go west under Horsley Woodhouse and staying west of Morley. This would dissect the open countryside between Horsley Woodhouse and Morley Smithy. CPRE's preference should be to instead route east of Morley (outside of the current EPC). Staying east would see the pylons going through the land between Wood Lane and Main Road. This land is more wooded and will cut across fewer public footpaths. This will mean the route will cross over from Smalley Crossing into Morley Hayes Forest (adjacent to the Morley Hayes golf course), but this is a better option than the westerly route which goes through open countryside and several woodlands; the westerly route also affects two historical parks listed on Derbyshire County Council's Historical Environment Record (HER).

Ockbrook and Borrowash: we note that the current blue swathe avoids the main built-up areas of the villages; however, it does cut through the only area of green belt between the villages which raises issues of the scheme's effects on openness, which will need clear policy justification.

#### *Preferred strategic corridors*

As highlighted above, CPRE Derbyshire strongly favours a more detailed assessment of the Chesterfield to Ratcliffe-on-Soar route (EDN-1: broadly the A617, M1 corridors) as a means to avoid significant unnecessary impacts on the county's high-quality landscapes, built heritage and rural communities.

Failing that, and within the confines of the Chesterfield to Willington route (EDN-2), CPRE Derbyshire strongly prefers options that broadly utilise already developed corridors such as A617/M1/A50 (most preferred) or A617/M1/A38. It is noted from the CPRSS preliminary

corridors, that the former corridor has not yet been scoped, albeit that (for both routes) the northerly sections fall broadly within Preliminary Corridor 5b (see CPRSS, section 6.9, p.104ff.). We note the preliminary appraisal summaries for this corridor, highlighting the ‘extremely technically constrained’ sections encountered in parts of the route. We also note the conclusions (section 6.11, especially para. 6.11.4) that *‘the significant level of technical complexity associated with facilitating engineering National Grid solutions to overcome constraints in the areas mentioned above would result in socio-economic, cost and programme impacts’*.

Despite this, our preliminary view remains that a route that runs in proximity to more heavily populated areas, allied to major transport and development corridors, and that may run parallel to existing transmission lines – but using undergrounding sections throughout to avoid visual disamenity – is preferable in principle to that taken through high quality open countryside.

As the recent CPRE report<sup>10</sup> on greening grid upgrades emphasised *‘A much more pro-active approach to alternatives (to OHL) is required if the onshore impacts of electricity transmission are to be minimised in rural areas. This must be the key starting point for the design of mitigation...’*, adding *‘(f)or the future, better grid design and delivery are key to both smooth consenting and social, i.e. community, consent’*. These are the principles that must be applied to the Chesterfield to Willington proposals if there is to be a grid fit for the 21<sup>st</sup> century, not one based on design principles and technology from the 1950s or earlier.

#### *Community engagement and benefits for affected communities*

As stated above, we already have concerns regarding lack of consultation at the earliest, formative stages of project planning (strategic options stage). This forms part of wider concerns that the current NG mode of public engagement in grid planning currently enjoys very poor levels of trust (equating with proposals not gaining social licence), which in turn engenders opposition to big grid projects.

Elsewhere CPRE have advocated a best practice approach to community engagement for grid planning, covering both route corridor design and delivery of community benefits.<sup>11</sup>

This involves a move beyond simple, reactive iterative consultation (the current NG model) to more participative engagement, with independently convened community forums inputting proactively into decisions affecting routeing, site selection, minimising effects, mitigating adverse effects, offsetting and enhancements. CPRE believe that time and effort spent getting this right from the start of the planning process would accelerate the overall development timescale significantly as formal consenting is eased when social licence is gained.

CPRE is also broadly supportive of the recent community benefits initiative for grid infrastructure consulted on by the previous government, albeit favouring wider community benefits rather than direct compensation for affected property owners. CPRE has stated a preference for a multi-strand community fund, akin to the EirGrid scheme operating in Ireland (which has sustainability, community and biodiversity streams under an umbrella framework of the UN Sustainable Development Goals, SDGs), with an especial focus on community energy projects and adding landscape enhancement projects to a nature

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<sup>10</sup> See footnote 2

<sup>11</sup> See *Greening the Great Grid Upgrade* (2024), p.25, paras 4.13-4.18 (*ibid.*, footnote 2).



recovery workstream. For this latter ambition, we see scope for community benefit funds to help enhance wider environmental net gains. This view is endorsed by CPRE Derbyshire.

We trust you will take these comments into consideration. Please do not hesitate to contact us if you would like any further information on or clarification of the issues raised.

Yours faithfully,

John Ydlibi

Chair

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