LANDMARK CHAMBERS

Planning, Property & Power Webinar Series

Electricity Networks

Thursday 4 September 2025

Your speakers for today

Richard Turney KC

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Welcome and Introduction

Richard Turney KC

EN-5 and the NSIP regime

Nick Grant

The NSIP regime (Planning Act 2008)

- Need a DCO for NSIPs (s.31)
- NSIPs set out in ss. 14-30A.
- S. 16 – installation of electric lines above ground with nominal voltage >132 kV, length of >2km, which is not a replacement line.
- SoS can issue direction for development to be treated as subject to the DCO regime (s. 35 PA 2008).
- Consent may be granted for NSIP development, and "associated development" (s. 115). See guidance on AD online.

The NSIP regime (Planning Act 2008)

Where a NPS “has effect” in relation to applied for type of development:

- SoS has to have regard to NPS, marine policy statements, local impact reports, prescribed matters, or other matters (s. 104(2));
- SoS has to decide application “in accordance with” the NPS (s. 104(3)) unless:

  -> it would lead to UK being in breach of international obligations;

  -> it would lead to SoS being in breach of stat duty;

  -> it would be unlawful by virtue of any enactment;

  -> the adverse impacts would outweigh the benefits;

  -> any condition prescribed for deciding an application otherwise than in accordance with the NPS is not met.

EN-5: to what does it apply?

§1.6.2-4

- Above ground electricity lines with
  - -> Nominal voltage is 132KV or greater
  - -> length >2km
  - -> not a replacement line
  - -> not otherwise exempt
- Other kinds of infrastructure and networks where those are (i) associated dev or (ii) s. 35
  - -> Underground cables
  - -> associated infrastructure (e.g. substations)
  - -> lower voltage overhead lines

EN-5: consideration alongside other ENPS

Intended to be read alongside EN-1 and EN-3 (see §2.1.1). So:

- EN-1 §4 contains general assessment principles, outlining e.g. how mitigation hierarchy applies. EN-5 indicates that applies to electrical transmission infra: §2.1.6.
- EN-1 §5 contains policies on the assessment of impacts. Again this applies to electrical transmission infra: EN-5 §2.1.1
- EN-3 contains information relevant to offshore wind, also relevant to EN-5: §1.3.2
- EN-1 introduces Critical National Priority (CNP) at §4.2. That applies to electricity transmission infra: EN-5 at §§1.1.5, 2.1.5, 2.1.6, 2.12.7.

EN-5: what it contains

EN-5 contains **additional** policies on (§2.1.3)

- Factors influencing site selection and design
- Biodiversity and geological conservation
- Landscape and visual
- Noise and vibration
- Electric and Magnetic Fields; and
- Sulphur Hexafluoride

Site selection and design

Recognises that siting often determined by start and end points and system capacity / resilience requirements (i.e. outside control of operator) §2.2.3

But still must consider good design and impact mitigation: §2.2.6

SoS has to bear in mind that functional constraints of **safety and security** may limit aesthetic appearance: §2.4.3-2.4.4

Holistic planning: govt envisages 'wherever reasonably possible' apps for generating stations and infra should be in a single application §2.7.2.

Strategic network planning: large exercises undertaken by NGESO, Holistic Network Design ("HND") and forthcoming Centralised Strategic Network Plans ("CSNP") aims to take strategic view of overall infrastructure need and so reduce impacts §2.8.1

Offshore/Onshore transmission

Co-ordination undertaken through HND and CSNP §2.12.5

It is expected more coordinated approach to offshore transmission expected §2.12.6

It is anticipated some transmission assets may be consented separately to the arrays. App may need to request SoS to make s. 35 direction §2.12.8

HND/CSNP usually a basis for identifying basis for coordinated transmission. HND work considered objectives for designs to be economic and efficient, deliverable and operable, and minimize impact on environment and communities. Assessment should acknowledge that work §2.13.1-4.

Opportunities for subsequent local co-ordination between projects should also be considered §2.13.4

Offshore/Onshore transmission

Radial proposals (i.e. from single windfarm to shore) should **only** considered where coordinated solution not feasible. Apps should show each co-ordination option considered and the assessment §2.13.9-13.

It is expected radial solutions will only cause less harm than coordinated approaches in "exceptional circumstances" §2.13.19.

SoS decision making:

- SoS will require applicants to explain the steps taken to pursue coordinated approaches.
- Evidence must drawn on NGESO work and supporting information.
- SoS must be satisfied options considered and evaluated appropriately.

Biodiversity and Geological Conservation

App assessment §§2.9.3-6	Mitigation §§2.10.2-4	SoS decision-making §2.11.1
• Risks to birdlife incl large birds (swans, geese) and perching birds • App must consider if line will cause any problems along length. Especially feeding/ hunting grounds	• Site lines away from or parallel to flight paths. • Make lines more visible (e.g. bird flappers, earth wire diversions, fluorescent colours for bird vision) • Construction methods e.g. lattice steel tower cross arms, insulators, and other elements	• SoS should be satisfied all feasible options for mitigation have been "considered and evaluated properly"

Landscape and visual

Application §§2.9.7-25	Mitigation §§2.10.5-8	SoS Consideration §2.11.2-6
<u>Legal duties</u> • In AONBs/National Parks – duty to 'seek to further' purposes. May go beyond mitigation • See too Sched 9 EA 1989 <u>Impacts</u> • Impossibility of full mitigation does not countermand need. Residual impacts *may* make proposal unacceptable in NP/Broads/AONBs. • If route leads to "particularly significant" LV impact, app should show "due consideration" given to "feasible alternatives" • Follow Holford/Horlock rules • Overhead lines starting point, presumption reversed in NP/Broads/AONB but not required if not feasible.	• In addition to Horlock/ Holford/Undergrounding: • Consider reinforcing extant line not building new one • Consider most suitable type of support structure (small tower footprint and volume) • Rationalisation/reconfiguration/undergrounding of existing networks • Landscaping/screening schemes /CPO/management plans	• Dev must comply with Horlock/Holford "so far as reasonably possible" • All feasible mitigations options "considered and evaluated appropriately" • Have special regard to nationally designated landscapes

Landscape and visual (underground/subsea)

Application §§2.9.7-25	Mitigation	SoS Consideration §2.9.25
• Overhead lines starting point, presumption reversed in NP/Broads/AONB but not required if not feasible.		• Where outside NP/AONB etc, if lots of harm, SoS shoud only grant DCO for underground/subsea if satisfied (1) the benefits accruing…clearly outweigh any extra economic, social or environmental harm (2) mitigation hierarchy followed and (3) technical obstacles surmountable • Satisfied app provided evidence to support decision on whether undergrounding appropriate

Noise and vibration

Application §2.9.26-43	Mitigation §2.10.9-10	SoS consideration §2.11.7-8
• All HV transmission lines have potential to generate noise. • May be caused / exacerbated by e.g. weather conditions, surface grease • Crackle and hum • For substation noise, use standard methods in line with BS • For OH line, use “an appropriate method” taking into account rainfall effects	• Positioning of lines • Ensuring appropriately sized conductor arrangement • QA through manufacturing and transport • Ensure conductors clean • Selection of quieter plants • ES should include info on maintenance arrangements	• Ensure appropriate assessment methodologies used • Ensure appropriate mitigation considered. Where appropriate mitigation in place, residual noise unlikely to be significant. • Noise from OH lines “unlikely” to lead to refusal. But may need to consider minimization “as far as is practicable”.

Electric and Magnetic Fields

Application §2.9.44-58	Mitigation §2.10.11-13	SoS decision §2.11.9-16
• All OH power lines produce EMF • Can have direct and indirect effects on human health, aquatic and terrestrial organisms • Exposure of public should comply with International Commission on Non-Ionizing Radiation Protection guidelines (1998) • Apps should show this with evidence. Should comply with Code of Practice *Demonstrating Compliance* (2011)	• App to consider height, position, insulation, and protection measures • App to consider optimal phasing of HV OH power lines, in accordance with Code of Practice *Optimum Phasing* (2012) • Follow new advice • If line will comply with current public exposure guidelines and policy on phasing, no further mitigation likely to be necessary (incl re-routing)	• SoS should be satisfied proposal in accordance with the guidelines. • SoS should **refuse** consent where app cannot demonstrate (i) compliance with Electricity Safety, Quality and Continuity Regulations 2022, (ii) Exposure levels referred to in Code of Practice (iii) Code of Practice on phasing • For aviation, SoS will look at Planning Circular 01/03 or successor on technical safeguarding zones.

Sulfur Hexafluoride

Application §2.9.59-64	Mitigation §2.10.14-25	SoS consideration §2.11.7
• SF6 an insulating gas. V potent GHG. • Apps to consider if SF6 can be avoided. • If not, Apps have to provide evidence explaining why, what alternatives considered, and why those are technically infeasible or require bespoke components which are "grossly disproportionate" • Accounting needs to be provided.	• As a rule, avoid SF6 • Acceptable if no proven SF6 alternative is "commercially available" and cost of bespoke one "grossly disproportionate" • Emissions monitoring and control to be compliant with F-gas regulation	• Only grant consent if (a) no SF6 *Or* (b) (i) no proven commercially available alternative (ii) Bespoke SF6-free alternative would be "grossly disproportionate" in terms of cost And (iii) Emissions monitoring/control measures compliant with F-gas regulation in place

Reforms and consultations

- DESNZ Consultation
- 08 July – 02 September
- Proposal 10: remove 132kV wooden pole lines from NSIP regime; increase 2km to 10km

Reforms and consultations

Infrastructure Planning (Onshore Wind and Solar Generation) Order 2025

EN-5

- April-May 2025 consultation on revised suite of ENPS
- Proposed changes include (i) endorsement of CSNP to accelerate consenting times and (ii) new set of Electricity Transmission Design principles in addition to Holford/Horlock.

NGESO CSNP

- Consultation on methodology took place 30 June – 1 August 2025
- Intended to be in place c. 2027

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Reform 2 – Consenting regimes

Permitted development & section 37

Odette Chalaby

Big picture
CP 2030 & NZ 2050

- CP by 2030, electricity demand to double by 2050
- 2x as much new transmission network infrastructure by 2030 as delivered in past decade
- 210,000 – 460,000km more distribution network cabling required by 2050

Image Credit: Instavolt electric car charger at Meole Brace by TCExplorer

- “Widespread dissatisfaction” w/ electricity network consenting and land access processes
- Minor infrastructure changes diverting resources
- Reform needed including:

  Permitted development

  S37 consents

  Necessary wayleaves

  Private streets

  Access rights

Department for Energy Security & Net Zero

Electricity Network Infrastructure: Consents, Land Access and Rights

Consultation on proposed reforms to processes associated with Electricity Network Infrastructure Build and Maintenance

Closing date: 2 September 2025

Why understanding these regimes matters

- Thaxted solar appeal (3319421 December 2023):

"9. .... [The Council] have agreed that the off-site cable route corridor does not, and did not, form part of the original application. The Parish Council …. consider that the omission of this route from the application does not give local residents the opportunity to comment upon this aspect of the proposal.

10.… However, nothing was drawn to my attention which would require a solar farm developer to include the cable route corridor in the planning application. …. Separate powers exist for statutory undertakers to carry out work for the transmission and distribution of electricity and the route will be determined having regard to the requirements of the statutory undertaker. …"

Why understanding these regimes matters

Thoroton solar appeal (3330045, October 2024):

- Appellant's evidence indicated two new terminal towers to connect substation to 132 kV line
- BUT none of the assessments referred to the towers
- Appellant said not seeking consent for towers – to be dealt with by statutory undertaker using separate powers
- BUT Inspector said towers formed part of application & required new assessments

Why understanding these regimes matters

- Timing matters – “Clean Power 2030 ready” projects attract extra weight
- Burcot (ref: 3350890, 2025) - ”significant weight” to grid connection where site would connect into existing substation and contribute to CP2030 targets
- See also:

  Southlands (ref: 3344509, 2024)

  Holly Lane (ref: 3347315, 2025)

  Old Malton (ref: 3342002, 2025)

Permitted development: GPDO Sch 2 Part 15

B. Development by statutory undertakers/ EA license holders consisting of

> *"the installation or replacement in, on, over or under land of an electric line and the construction of shafts and tunnels and **the installation or replacement** of feeder or service pillars or **transforming or switching stations or chambers reasonably necessary in connection with an electric line**…"*

BUT not where B.1(a)

> *"(i) it would consist of or include the installation or replacement of an electric line to which section 37(1) of the Electricity Act 1989 (consent required for overhead lines) applies; or*
>
> *(ii) it would consist of or include the installation or replacement at or above ground level or under a highway used by vehicular traffic, **of a chamber for housing apparatus and the chamber would exceed 29 cubic metres in capacity**"*

Substations

- 76% substations > 29m3 requiring PP
- Evidence PP takes on avg. 5 months, costs of > £20k
- More infrastructure and bigger stations increasingly required
- To avoid PP, network operators installing second substations rather than upgrading – inefficient, not cost effective, visually harmful

Proposed changes

- Increased threshold from 29 to 45 cubic metres where:
  a) not >3m height
  b) not within 5m of a dwelling

- For substations of 30-45 cubic metres, requirement for prior approval of LPA on siting and appearance if within:
  National Park
  National Landscape
  Heritage Coast

Section 37 consents (EA 1989)

- Installing or upgrading overhead lines generally requires s37 consent from SoS, regardless of environmental impacts
- TCPA s90(2) – grant of s37 consent can include deemed planning consent
- Exceptions to s37 requirement – including:

- nominal voltage of 20kV or less and for a single consumer

- land in occupation/control of person responsible for installation

- exceptions for minor works per 2009 Exemption Regulations (e.g. adjustments, temporary diversions, replacement of existing lines)

(BUT some exemptions disapplied in SSSIs, European Sites, National Parks/Landscapes)

Figure 8: (Left) A 33 kV two-phase overhead line (Right) A 20 kV three-phase overhead line

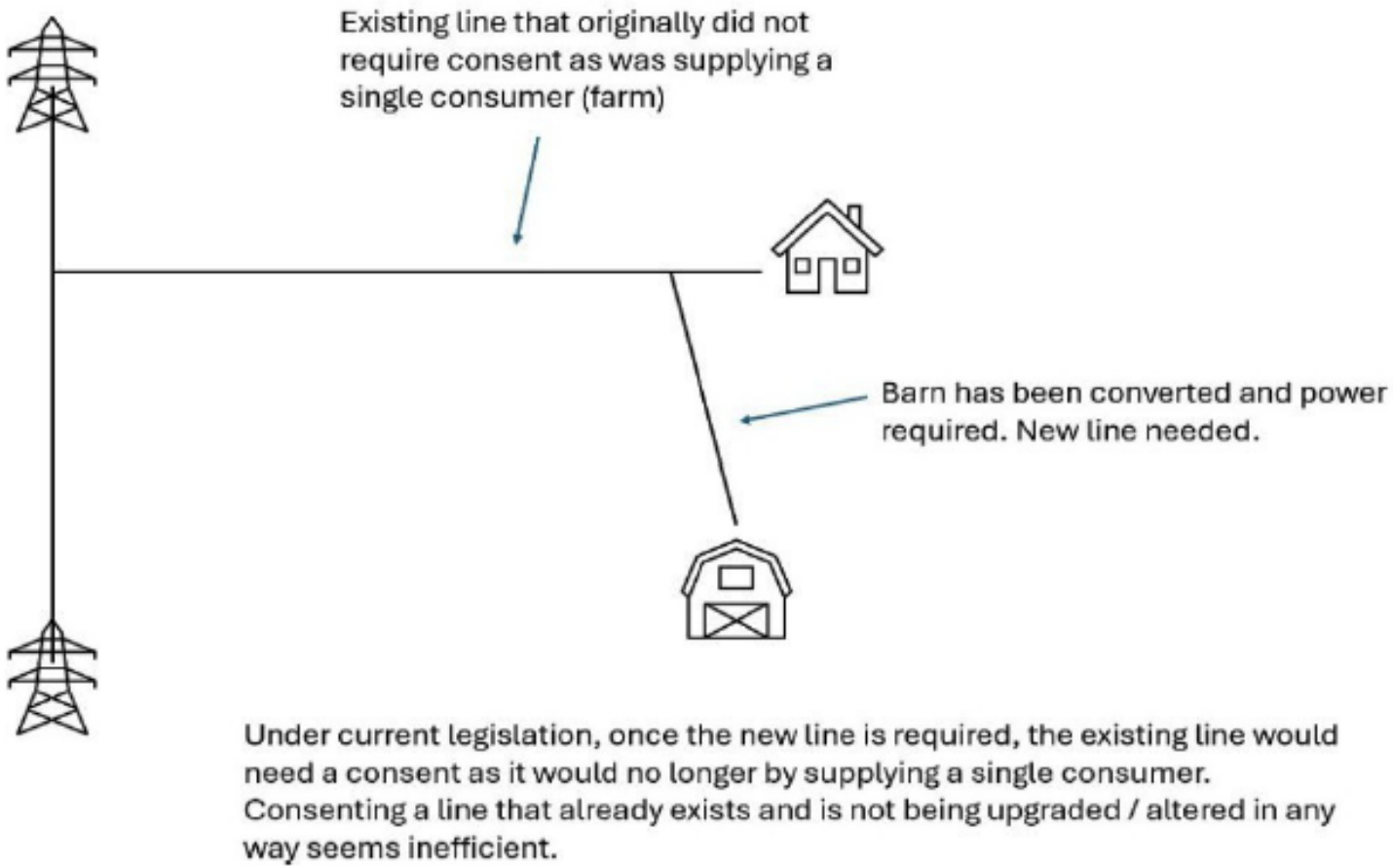
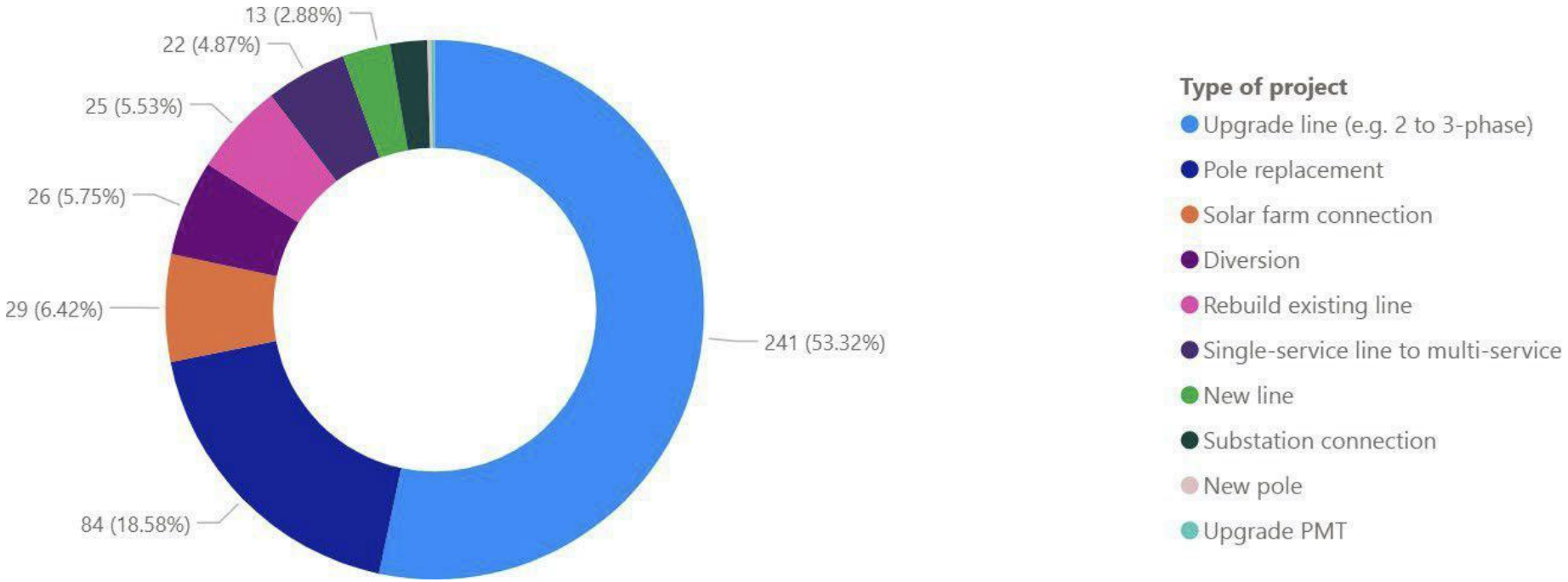


Figure 9: Illustration demonstrating a scenario in which an existing powerline would need consent where a new powerline has been added to supply a new customer

Section 37 consents (EA 1989)

- Consultation with LPAs, statutory bodies, and a public inquiry if they object
- ”lengthy timescales” “growing demand risks compounding existing delays”
- 161 applications/year 2019-2023, but 256 applications in 2024



Proposal: revise rules on when s 37 consent needed

Areas where more flexibility to be introduced:

- Upgrading single-phase (two-wire) to three-phase (three-wire) overhead lines
- Increasing the height of existing pole supports
- Increasing the nominal voltage of existing lines from 6.6 kV to 11 kV
- Increase nominal voltage threshold to 33 kV for up to four consumers
- Altering conductor type on low voltage networks
- Permanent diversions of a line

Key takeaways for developers/LPAs

- Consultation proposes strengthening statutory powers for electricity undertakers to carry out network upgrade works
- Understand what powers are available under separate consenting regimes and timescales/processes for these
- Be clear what network infrastructure upgrades fall within the scheme being assessed and what will be consented separately
- If a proposed development is CP 2030 ready re: (a) grid offer and (b) necessary network upgrades, can attract additional weight in planning balance

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Compulsory purchase under the Electricity Act 1989

Richard Turney KC

Statutory scheme in outline

- Paragraph 1 of Schedule 3 Electricity Act 1989 provides that the Secretary of State may authorise a licence holder to purchase compulsorily any land required for any purpose connected with the carrying on of the activities which he is authorised by his licence to carry on
- Land includes rights over land
- Paragraph 2 imposes a restriction on the purchase of land belonging to another licence holder
- Standard Licence terms enable reliance on this CPO power

CPO process

- CPO is made by the licence holder
- The Secretary of State is required to confirm the CPO under the process in the Acquisition of Land Act 1981
- If there are objections to the CPO, the confirmation process may proceed by written representations (if everyone agrees), by a hearing, or by an Inquiry
- The Inspector's recommendation is then considered by ministers and a final decision made

EA 1989 CPOs – key issues

- Requirement to be a licence holder at time of making CPO
- Consultation and negotiation with landowners
- Length of time required for making, objections, inquiry, and determination
- Interaction with other licence holders, and other statutory undertakers
- Scheme uncertainty where land requirements are critical to funding decisions
- Managing inquiry risks

Key tips – engagement

- Schemes may involve multiple land interests and different rights
- Many schemes promoted around “hot spots” where competition for land interests is high
- Need to show genuine attempt to acquire by agreement: can be difficult when scheme funding is contingent on land rights being in place
- Flexibility to accommodate landowner needs may be limited at early design stages

Key tips – timescales

- Time pressure to deliver schemes may sit uncomfortably with need for CPO
- Engagement on land issues needs to be integrated into scheme definition and design
- Engineering input into land negotiations: the art of the possible
- Early engagement with DESNZ/PINS to avoid delays in inquiries and determination

Key tips – other licence holders

- Need to engage with other licence holder and understand their use of the land
- Ofgem will not consent to CPO if it would put that undertaking at risk of not fulfilling its functions
- Often these issues are about detailed management of interfaces: technical engagement, rather than legal engagement, likely to be critical

Key tips – funding and uncertainty

- The threshold for confirmation of a CPO is a reasonable prospect of funding, not certainty as to funding
- Importance of understanding the timescales for funding decisions, and the commercial delivery model proposed
- Where contingent on Gvt funding, particularly in novel areas, need to fully explain the process that Gvt will follow and when final funding decisions will be made

Key tips – managing inquiry risks

- Keep in mind the high threshold for confirmation of a CPO: compelling case in the public interest
- How does CPO scheme interact with Gvt policy on Net Zero, CP2030, and Critical National Priority?
- Alternatives: clear articulation of how they have been considered and why they do not meet objectives (including significant cost differences, env effects, and deliverability issues)
- Be able to evidence a clear and consistent negotiation effort
- Try to resolve planning and permitting impediments in advance

EA CPOs – growing scope?

- Increasing PD thresholds and lowering DCO thresholds raise prospect of local consenting/PD for larger schemes
- Planning + CPO route *may* deliver faster outcomes than DCO and should be explored at an early stage in scheme design
- However, beware protracted CPO processes where multiple affected landowners (eg linear schemes)

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Wayleaves for electric lines: managing disputes & reform proposals

Kimberley Ziya

Government consultation

- Department for Energy Security & Net Zero
- Issued 8th July 2025
- What? *"changes to land access, rights and consents processes for electricity network infrastructure"*
- Why? *"to support the transition to Net Zero and secure Clean Power by 2030"*

Current position

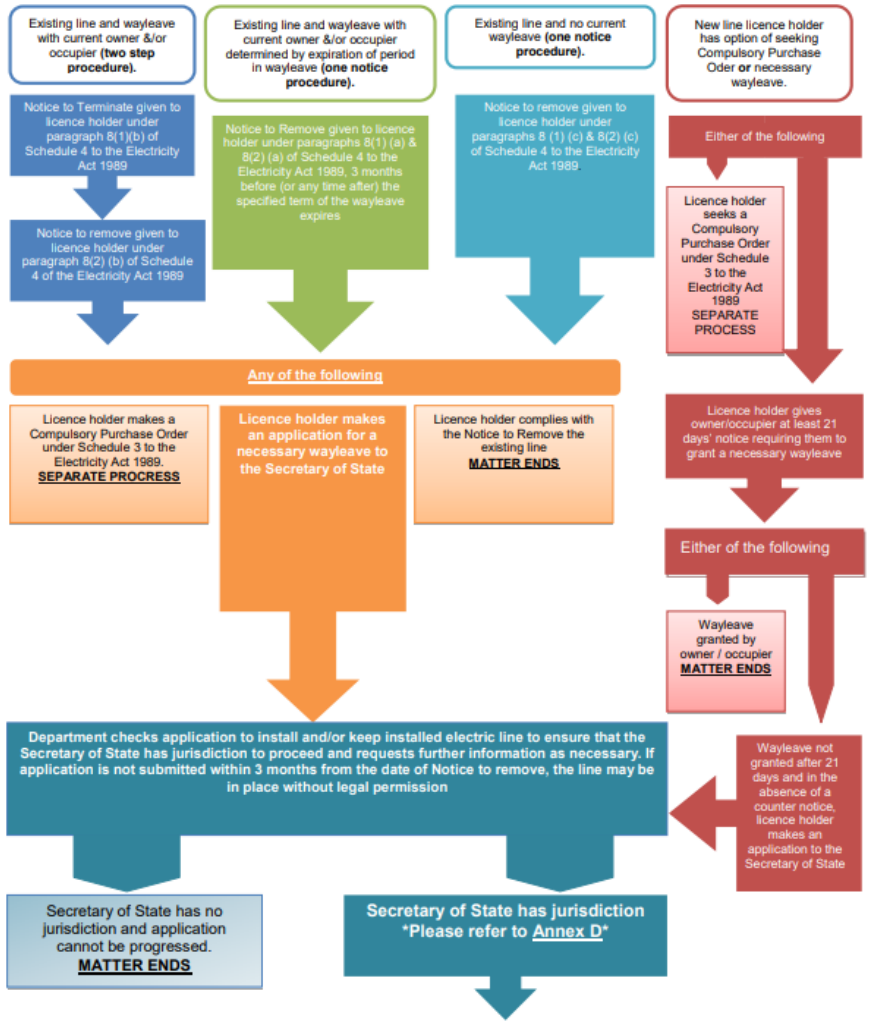
- Permission required to install and retain electric lines and associated equipment on, over or under private land
- Secured through: (a) contractual negotiation; or (b) compulsory procedures including **Necessary Wayleaves ("NW") under the Electricity Act 1989**
- Apps for NW determined by the SoS for Energy Security and Net Zero
- Application process: voluntary negotiation → notice → NW application → hearing process → decision
- Compensation dealt with separately (by agreement or Upper Tribunal)

Necessary wayleaves: statutory framework

- s.10, Electricity Act 1989 – grants powers to electricity licence holders as set out in sch.3 & 4
- sch.4, para 6 – provides for the acquisition of wayleaves
  - Where it is *"necessary or expedient to obtain the right to install and keep installed an electric line on, under or over any land"* or *"to keep an electric line installed on, under or over any land"* = "the necessary wayleave"
  - The SoS may on the application of the licence holder, grant the necessary way leave subject to such terms and conditions as he thinks fit
  - Prior to granting the NW, shall afford the occupier of the land and the owner an opp to be heard by a person appointed by the SoS
- sch.4, para 7 - compensation

Procedure rules and guidance

- Electricity (Necessary Wayleaves and Felling and Lopping of Trees) (Hearing Procedures) (England and Wales) Rules 2013
- Government guidance: https://assets.publishing.service.gov.uk/media/5a756afae5274a3edd9a4c25/wayleave_guidance.pdf - includes handy flowcharts



Purpose and scope of the hearing

- Why is it **necessary or expedient** for the electric line to cross the particular land in question?
  - **Any alternatives?**
  - **If so, what are the practical and cost implications?**
- If an existing line, why does it need to be retained?
- What are the effects of the electric line on the use and enjoyment of the land in question?

Problems with the current position

- **Too slow: applications can take up to 24 months (in addition to voluntary negotiation stage)**
  - 412 applications in 2024 – predicted to rise
- **Unbalanced: landowner can serve a Notice to Remove at no cost, triggering the statutory process but is not required to engage any further in it**
  - By contrast, LH have to spend time and money to present a case for retaining the equipment
- **Time and resource spent by the Department in reviewing applications which are not w/in their gift to determine**
  - All apps have to go through the statutory process, even if only issue in dispute is compensation

Reform proposals

1. Introducing a requirement for the Notice to Remove to include a reason for removal of an existing electric line and amend application submission timeframe for a necessary wayleave from 3 to 6 months.
2. Removing the requirement to obtain consent of both parties for the written representations procedure to apply.
3. Remove the requirement to appoint an external Inspector.
4. Supporting the use of virtual hearings where an Inspector considers this to be appropriate.
5. Increasing the standard duration of a Necessary Wayleave from 15 to 40 years.

What next?

Once the consultation has closed, we will carefully review the responses received. Using the feedback from the consultation, we will determine the viability of delivering the proposals as set out or make changes where necessary. We will then look to deliver these proposals over the next 18 months.

Post-consultation we will continue to engage closely with stakeholders to monitor whether the changes are supporting the government mission to deliver clean power by 2030, and to determine whether additional changes are needed.

Thank you

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