

CONNECTION COSTS

What Industrial and Commercial
Businesses Are Afraid Of



Evidence from businesses navigating new and
upgraded electricity connections



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For further information on the [Full Evidence Report](#) and press queries, please contact external.affairs@theade.co.uk



THE ISSUE | IN BRIEF

When an industrial site decides whether to electrify, the decision is usually anchored to a physical asset. A furnace or a boiler reaches the end of its life, and the operator chooses between a like-for-like fossil replacement and an electrified alternative. The choice binds the site for the life of the new plant, often twenty years or more. The grid connection sits on the critical path of that choice, and for many sites it is the one element of the business case that cannot be pinned down in time.

This report documents a specific failure. Industrial and commercial businesses cannot obtain, early enough to support a credible investment decision, an estimate of what a new or upgraded electricity connection is likely to cost. High headline prices are only part of the problem. Businesses often lack an early cost range they can use in a business case. When a figure arrives, they may be unable to distinguish dedicated assets, shared network works and transmission-related costs. By then, the business may already have committed money and staff time.

Core finding: Businesses cannot obtain a credible connection-cost range early enough to support an investment decision.

Connection timing is part of the cost faced by a business. Delays create staff and adviser costs, and technical work may need to be repeated as designs age. A quoted price has limited value if it may change across a five-year delivery period. For industrial sites, the risk is concentrated around fixed asset-replacement dates. If the connection arrives after the replacement decision, the site may install another gas asset that remains in service for twenty years or more.

WHAT BUSINESSES ARE AFRAID OF



Unknown total cost

No credible estimate is available before the business has committed time and money.



Reinforcement and shared-asset allocation

Quotes often omit the apportionment calculation, so the customer cannot check or challenge their share.



Transmission pass-through

Costs and delays that originate upstream arrive late, unexplained and outside the DNO's control.



First mover exposure

Whoever connects first may pay for capacity that later users benefit from.



Ongoing network charges

Where relevant, uncertainty about future charges becomes tangled with the one-off connection cost and inflates the perceived risk.



Internal costs of delay

Staff time, adviser fees and repeated studies accumulate while dates move, and investment windows close.



Entering the process too early

The only route to a firm answer is a formal application, which commits resource and can reserve capacity before the project is commercially ready.



THE ISSUE | WHY TIMING MATTERS

The timing matters because the surrounding system is being redesigned now. Ofgem's Demand Connections Reform and the End-to-End Connections Review cover the customer process, data visibility and practical connection routes. ED3 will set the distribution funding and incentives that support those requirements. Regional Energy Strategic Plans are being established, and their value will depend on the demand information they receive. The UK Industrial Strategy has also made demand connections an industrial investment issue. Decisions taken across these processes over the next two years will determine what an industrial customer can know, and when, for the rest of the decade.

Demand Connections Reform

Practical routes, self-build, flexibility and hybrid connections

ED3

Distribution funding, outputs and incentives

UK Industrial Strategy

Connections as an industrial investment issue

End-to-End Connections Review

Quote quality, data visibility, dates and accountability

Regional Energy Strategic Plans

Demand evidence translated into regional plans





THE ISSUE | WHAT THE RESEARCH FOUND

Cost information arrives too late

Businesses cannot establish a credible connection-cost range before committing money and staff time. Published methodologies explain the charging rules, but customers cannot turn them into a site-specific estimate. One customer described the process as “a black box, and a number comes out the other end”. A DNO participant also said that the line items in its own offers were difficult to interpret.

There is no benchmark for an actual quote

The scan of all six DNO groups found that formal charging rules are standardised through the Distribution Connection and Use of System Agreement (DCUSA), but published prices still resolve to “price on application” above small low-voltage jobs. One group publishes both starting and average prices: its typical small business connection starts at £1,900 and averages £18,100. The comparison shows how little a starting price tells a customer. For larger I&C demand connections, the scan found no public, comparable dataset of actual issued quotes across DNO regions. A customer holding a £10 million figure for two kilometres of network therefore has no like-for-like public benchmark against which to assess it. Ofgem and government face the same gap.

For larger I&C demand connections, no public, comparable dataset of actual issued quotes exists across DNO regions.

Customers, Ofgem and government therefore lack a like-for-like benchmark for judging whether a figure is reasonable.

Transmission risk can emerge after commitment

The highest cost and date exposure occurred at the interface between the DNO, the transmission owner and NESO. In the evidence, customers could pay application and acceptance fees before the assessment that determined whether upstream work would add cost or delay.



THE ISSUE | WHAT THE RESEARCH FOUND

Delay is part of the connection cost

Businesses incur staff, adviser and design costs while dates move. A quoted price has limited value if the delivery date cannot be relied on. For industrial sites, a missed asset-renewal window can result in another fossil-fuel investment lasting around twenty years.

Deterred demand is missing from official data

Businesses need cost and timing information to mature a project, but firm information is usually available only through formal application. Applying requires fees and enough project maturity to commit, and it may reserve network capacity. Some businesses therefore remain outside the process, so their potential demand is not recorded.

1. Cost information is needed to mature the project.
2. A firm answer is available only through formal application.
3. Formal application requires fees and enough maturity to commit.

Result: the business stays outside the process, so its demand for a connection is not recorded.

A smaller recorded queue can therefore coexist with substantial deterred demand. Existing performance metrics do not capture projects that stop before application. The evidence does not indicate deliberate deterrence; it shows that this missing demand is not measured.

Early engagement works, but access is inconsistent

The evidence also records effective practice within the current framework. Early conversations identified capacity options, and named contacts improved communication. These enquiry routes require modest resource, but access depends on the organisation and sometimes the individual reached.



THE STUDY | WHAT WE DID

27 research sessions

937 coded evidence items

6 GB DNO groups reviewed

9 composite cases and vignettes

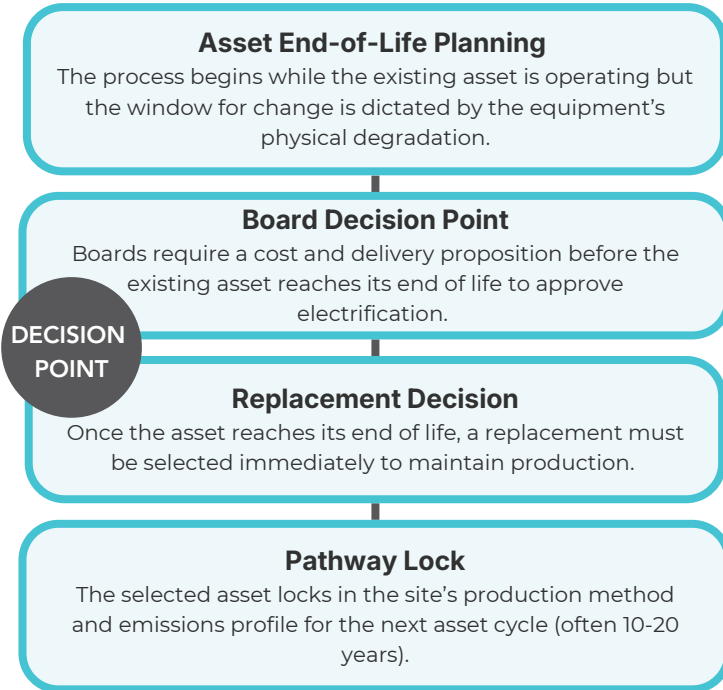
This report draws on 27 research sessions conducted in mid-2026, coded into 937 evidence items. The evidence spans the connection system: distribution network operators, NESO, the regulator, government policy teams, trade bodies, connections consultancies and high-volume intermediaries, and industrial, commercial and data-centre customers.

Alongside the interviews, a structured scan recorded what all six GB DNO groups publish about connection charges. The composite cases combine evidence from several participants to illustrate recurring mechanisms in the dataset. They combine evidence from multiple participants, are not intended to identify individual companies, and are not statistically representative.

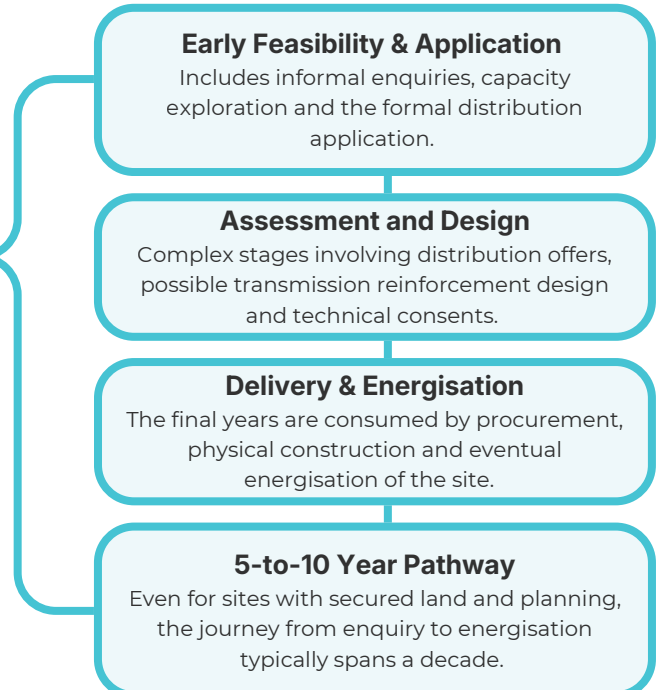
Figures are participant-reported and approximate. The full evidence report sets out the method and its limits.

THE TWO CLOCKS THAT DECIDE INDUSTRIAL ELECTRIFICATION

TIMELINE A: THE INDUSTRIAL INVESTMENT CLOCK



TIMELINE B: THE CONNECTION CLOCK



RISKS AND CONSEQUENCES



Asset Cycle Average: 10-15 Year Renewal Window

WHAT HAPPENS TO REAL BUSINESSES?

The full evidence report presents six composite case studies and three vignettes. The three selected here show how the headline findings affect investment decisions. Each composite combines evidence from several participants and is written to avoid describing a single identifiable company.





CASE STUDY

THE MANUFACTURER DETERRED BEFORE THE FIRST FORM

The first composite concerns an energy-intensive manufacturer on a dispersed site outside the main industrial clusters. When its main process-heat asset approached the end of its life, the business needed a step change in import capacity to electrify. Replacing the asset with another fossil-fuel system would commit the site to that technology for around twenty years, so the connection needed to align with the replacement decision.

The business did not submit a formal application. It had not fixed its final capacity requirement, and applying would have committed fees and reserved capacity before the board had approved the project. The energy manager instead explored the options through liaison meetings with the network operator, a high-level enquiry route that provided a yes-or-no answer subject to design, and conversations with the trade body.

The informal response did not refuse the connection, but it indicated that delivery could take several years. For this composite site, the indicated date fell after the planned rebuild. A trade body for energy-intensive industry reported that signals of this kind can lead potential applicants to stop before formal application. Its sector evidence described the timing mismatch directly: if equipment expires in two years and the connection takes eight, the site cannot wait regardless of the quoted price.



CASE STUDY

THE MANUFACTURER DETERRED BEFORE THE FIRST FORM

The site also could not obtain an indicative cost range without entering the formal process. In the absence of comparable information, sector accounts of expensive connections became a substitute for data. Electricity was discussed internally at around five times the cost of gas per unit, and no capital support was in view. The energy manager could not present a business case that the board could approve, so the project paused before application. The trade body described dispersed sites in this position as “sat on the fence”.

This creates a wider evidence gap. Since the project never entered the queue, it is absent from DNO, regulator and government datasets. A government participant reported that industry is not applying at the scale required for net zero, while no existing process counts projects abandoned before application.

Deterred projects disappear from the data. A project that never applies is absent from queue statistics, network plans and government monitoring.

Policy implications from this case: decision-grade information at enquiry stage, systematic measurement of deterred demand, and a route for uncertain demand to become visible without a premature application.

WHY INDUSTRIAL ELECTRIFICATION DEMAND DISAPPEARS

The Asset Renewal Window

Industrial electrification decisions are usually anchored to a physical asset reaching the end of its life, creating a narrow window for investment.

The Time-Cost Quantity

For industrial sites, delay converts to terminal internal cost, a connection offer arriving after an equipment renewal window closes has no value at any price.

INTERNATIONAL GAP

£10M
ESTIMATE

£2M
ESTIMATE

UK GERMANY

QUEUE DATA

Information Required to Mature

- Credible Cost Range
- Connection Date
- Board Approved Business Case

The Formal Barrier

- Formal Application
- Fees (£5k-£20k)
- Land Rights Commitments

DETERRENCE RESULT

Because they lack early data to justify the fee, projects pause, return to gas, or move abroad without ever appearing in the queue.

ENTRANCE TRAP & THE BLACK BOX

1.Information Required to Mature

Businesses need a credible cost range and connection data to build a board approved business case.

2.The Formal Barrier

A firm answer is only available via a formal application, which requires fees between £5k-£20k and potentially land rights.

3-7 YEAR

"HIDDEN" DELAYS

Transmission impact assessments can add millions in cost and years of delay without warning.

One Connection, Three Institutions

DNO
Transmission Owner
NESO

No single body owns delivery date.

SOLUTION

40%

Offer Acceptance Rate

One DNO reported that providing early "connection surgeries" and budget support increased offer acceptance from 10-15% to over 40%.

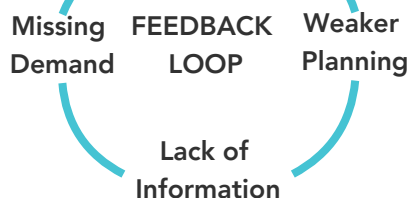
Demand Register

NESO should implement a non-bidding demand register for rough estimates to help projects become visible without premature fees.

Decision-Grade Information

Policy must mandate itemised quotes, published benchmark data on actual costs, and indicative cost ranges at the enquiry stage.

Abandonment





CASE STUDY

TWO KILOMETRES, TEN MILLION POUNDS, FIVE YEARS

2 km

new network

£10m

indicative UK
connection cost

5 years

indicative
delivery period

The second composite concerns an energy-intensive business that reached formal feasibility and received an indicative connection proposition. The proposition covered roughly two kilometres of new network, cost about £10 million and had a delivery period of about five years. Participants stressed that the site was not remote and that two kilometres was a modest distance for a connection of this scale.

The figure came with little decomposition. The business could not see how much covered sole-use assets, how much related to reinforcement, what triggered any reinforcement element, which works were contestable, or what assumptions supported the estimate. Evidence from experienced intermediaries explains why the number was difficult to test. Quotes draw on framework contractor rates, design fees, land rights and risk elements that intermediaries can only partly reconstruct, while published methodology rates do not reliably match quoted figures.

The £10 million estimate sat alongside a second barrier. On participant testimony, running the electric process would cost around two and a half times the gas equivalent at current UK prices. The group compared the UK option, with a £10 million connection charge and a five-year wait, against overseas alternatives with lower connection costs and a smaller electricity-gas price differential. The sector body judged that the UK option would struggle in that comparison. Consultancy evidence described a related live decision: one global manufacturer prioritised a German electrification project over similar UK sites mainly because UK connection timing was uncertain.



CASE STUDY | TWO KILOMETRES, TEN MILLION POUNDS, FIVE YEARS

UK option

£10m

connection estimate

5 years

delivery period

German sister site

£2m

comparable works indicated

Earlier certainty

supports capital allocation

The project was not formally cancelled, but it moved down the group's capital programme. The five-year lead time created a sequencing problem. To electrify at the next rebuild, the business would have needed to apply several years before a board commitment existed. That is the premature commitment businesses described avoiding.

The connection quote is one of the few components of this international comparison that UK policy directly controls.

Policy implications from this case: itemised quotes with the apportionment calculation shown, published benchmark data on actual quotes, and connection cost exposure treated as a matter of industrial strategy.



CASE STUDY

ONE CONNECTION, THREE INSTITUTIONS

The third composite concerns a large development requiring tens of megawatts. It applied to its DNO and received a conditional offer subject to transmission impact assessment. That assessment would progress only after acceptance, so the customer had to accept and pay before the transmission implications were examined. An intermediary put the initial quote cost at £5,000 to £20,000 and acceptance at about £50,000 to £100,000. In the intermediary's experience, the later assessment could add a year and millions of pounds to the project after those commitments had been made.

Transmission work added structural delay, but there was no single MW threshold that applied to every demand project. The outcome depended on the local network, the relevant grid supply point and the upstream impact. In the evidence, a scheme of roughly 30 MW required a transmission impact assessment with an indicative minimum timescale of around eight months. Some heat-decarbonisation schemes in the 5 to 10 MW range also triggered transmission modification processes. Across the schemes described by intermediaries, connection dates slipped by several years; examples included a project moving from 2027 to 2033 and another from 2028 to 2037. In one account, repeated requests did not produce an explanation of the delayed date.





CASE STUDY | ONE CONNECTION, THREE INSTITUTIONS

For the customer, this was one connection. Delivery depended on separate processes run by the DNO, the transmission owner and NESO. When the date moved, no single body explained the cause, the next action and the available remedy. Ofgem's evidence adds an important qualification: interface friction may explain months of delay, while genuine network constraints account for much of the longer slippage. In either case, the customer lacked a clear account of why its date had changed.

The customer experiences one connection, but responsibility is split across three institutions.

The clearest examples of this interface came from data-centre projects. The report uses them to explain the institutional handoff, while keeping their scale and policy context separate from industrial electrification. Industrial and heat-decarbonisation schemes also encountered the same interface at lower capacities.

Policy implications from this case: transmission dependencies disclosed before acceptance, commitment re-sequenced against risk, a single accountable contact, and service standards that extend across the DNO, transmission owner and NESO processes.



CASE STUDY | ONE CONNECTION, THREE INSTITUTIONS

CUSTOMER **DNO** **NESO** **TRANSMISSION**
(Distribution Network Operator) (National Energy System Operator) **OWNER**

1. Application & Initial Assessment

The Customer submits a demand connection application to the DNO, who assesses local distribution-network impacts.

2. Distribution Offer

The DNO prepares a distribution offer, which may be conditional on further transmission assessment.

£55,000 to £120,000 Total Commitment

This represents the combined cost of obtaining a DNO quote (£5k-£20k) and accepting the offer (£50k-£100k) before further assessment occurs.

Financial and contractual commitment occurs at the point of quote and acceptance, based on the initial DNO offer.

RISK GAP

3. Upstream Assessment Triggered

After the customer accepts the offer and pays, the DNO progresses the assessment to NESO and the Transmission Owner.

4. System Studies & Infrastructure Design

NESO coordinates system studies while the Transmission Owner designs and costs necessary infrastructure reinforcements.

Material upstream risk regarding transmission capacity and reinforcement are only fully revealed after the customer has committed funds.

5. The Revised Outcome

The final outcome returns to the DNO, often resulting in a revised date, additional conditions, or a contract variation for the customer.

CONSEQUENCES OF THE SEQUENCING PROBLEM

SIGNIFICANT TIMELINE SHIFTS

Case studies show connection dates moving from 2031 to 2033, or in extreme cases, from 2027/28 to as late as 2037.

Project 1: 2031 > 2033



Project 2: 2027 > 2033



Project 3: 2028 > 2037



UNEXPECTED FINANCIAL ESCALATION

Projects have faced multi-million pound cost increases and individual contract variations exceeding £100,000 after the initial acceptance.



VARIABLE ASSESSMENT THRESHOLDS

There is no universal MW threshold; even a 1 MW request in a constrained area can trigger a multi-institution transmission assessment.



'One Connection'

The customer expects the DNO offer to be the final answer, but the actual outcome is determined by three separate institutions with distributed accountability.



WHY INDUSTRIAL DECARBONISATION STALLS BEFORE IT STARTS

Connection "Black Box"

Businesses cannot obtain a credible connection-cost range early enough to support an investment decision, leading to project abandonment before a formal application is even made.

The Deterred Demand Gap

Projects abandoned before application are 'statistically invisible', absent from queue statistics, network plans and government monitoring.

INFORMATION GAPS

GAP 1: The Predictive Gap (Before the Quote)

Businesses lack indicative ranges and confidence levels; they often only see generic "Price on Application" labels that offer no guidance for large-scale work.

GAP 2: The Explanatory Gap (Inside the Quote)

Quotes arrive without engineering rationales, missing clear breakdowns of sole assets vs shared reinforcement or the apportionment calculations used.

GAP 3: The Comparative Gap (Outside the Quote)

No DNO publishes actual issued quotes, leaving customers, Ofgem and government without a benchmark to judge if a £10 million figure is reasonable.

WHAT BUSINESSES NEED

Decision-Grade Visibility

DNOs should provide **indicative cost ranges at the enquiry stage** with stated assumptions and confidence levels.

Institutional Accountability

Establish a **single accountable contact** for connections that span DNO, Transmission (NESO) and Transmission Owner boundaries to explain date shifts.

Published Benchmarks

Ofgem should require the publication of an **anonymised dataset of actual issued quotes and delivery timelines** to provide a market benchmark.

The Cost of Uncertainty (Case Comparisons)

International Competitiveness: UK vs Germany

UK

£10M

5 YEARS

GERMANY

£2M

Comparable

participant
reported a 2km
network estimate
took 5 years

comparable
German sister site
was indicated at
roughly £2 million

The Starting Price vs Reality

£18,100

£1,900

one DNO's
starting price

actual average
nearly 10 times
higher than the
indicated entry
point

"I don't think I understand how connection costs are calculated at all. I think it is a black box, and a number comes out the other end" - Participant

WHAT NEEDS TO CHANGE

The evidence need comes first. The policy vehicle follows.



RECOMMENDATIONS | NEEDS AND POLICY ROUTES

The table links each evidenced need to the policy or regulatory process that could address it. Detailed recommendations for DESNZ, Ofgem, NESO and DNOs follow.

WHAT BUSINESSES NEED	WHERE THIS COULD BE ADDRESSED	EVIDENCE*
Earlier indicative cost visibility, as a range with stated assumptions and a confidence level, before formal commitment	DNO pre-application services; ED3 Larger Connections Incentive and Connections Strategy requirements; End-to-End Connections Review	Cases 1 and 2
Clearer allocation of reinforcement and shared-asset costs, with the apportionment calculation visible	Ofgem charging work; minimum offer-content standards; ED3	Case 2
Transmission dependencies and pass-through disclosed before acceptance	End-to-End Connections Review requirements on dates, cross-institution reporting and customer remedies; transmission assessment sequencing	Case 6
A mechanism for non-committal demand signalling with no fees, capacity reservation or queue obligations	NESO demand register; outputs to Regional Energy Strategic Plans; DNO investment planning through ED3	Case 1
Recognition that timelines create internal business costs, with disclosure and remedies where dates move	End-to-End Connections Review requirements on connection dates, reasons for change, cross-institution accountability and customer remedies	Cases 2 and 6

RECOMMENDATIONS | NEEDS AND POLICY ROUTES

WHAT BUSINESSES NEED	WHERE THIS COULD BE ADDRESSED	EVIDENCE*
Published benchmark data on actual connection quotes, costs and timelines	Ofgem reporting requirements; ENA and DNO data publication	Case 2 and published-information scan
Better support for industrial sites without specialist energy resource	DNO pre-application engagement; DESNZ support design; trade bodies	Case 1
Separate reporting of industrial electrification and data-centre demand where policy purposes differ, with shared planning for overlapping network needs	DESNZ analysis and support design; NESO queue and system planning; Regional Energy Strategic Plans	Case 6
Practical delivery routes that reduce dependence on the incumbent model	Ofgem Demand Connections Reform, Connect pillar; greater self-build; standard flexible demand products; defined hybrid and conversion routes	Cases 3 to 5

Most of these needs concern information design and process sequencing, and existing regulatory mechanisms can deliver them. Targeted support for upfront connection costs is the main funding exception.

*See Full Evidence Report for the complete set of case studies.



RECOMMENDATIONS | FOR DESNZ

Include upfront connection costs in targeted industrial electrification support

A site may need support before a formal connection offer exists, but obtaining that offer can require spending money and maturing the project. Where a formal offer is unavailable, DESNZ should allow a documented indicative DNO cost range as evidence, with any award reconciled against the later formal offer. Upfront connection support should remain distinct from ongoing electricity-price support. In the manufacturing composite, the UK connection estimate was around £10 million with a five-year wait, alongside an operating-cost disadvantage.

Align industrial electricity-cost support with electrification

The final BICS design does not apply an individual-business electricity-intensity test; eligibility is assessed at sector level, with exemptions then pro-rated at site level according to electricity used for eligible manufacturing. DESNZ should work with DBIST to ensure that electrification projects can understand, before investment, how new electrical load will be treated under BICS and the separate British Industry Supercharger rules. Where future electricity use affects site-level support calculations, guidance should allow forward-looking engineering evidence.

Commission measurement of deterred demand for connections, jointly with Ofgem

Projects abandoned before formal application appear in no queue statistic. Periodic sector surveys, enquiry-stage data and demand-register records should be used to count deterred and paused projects. The result should sit alongside queue measures. A targeted innovation project may be a suitable delivery route, but a specific fund should be named only after its scope and timing are confirmed.



RECOMMENDATIONS | FOR DESNZ

Recognise asset-renewal windows in support design

A connection offer that arrives after a site's renewal window closes has no value at any price. Support schemes and any prioritisation criteria should treat a documented renewal window as material.

Separate industrial electrification and data-centre demand where the policy purpose requires it

Government should report them separately when assessing industrial decarbonisation, support eligibility and the source of queue pressure. Network planning should also recognise their overlap in location, capacity need and possible connection solutions. This avoids using data-centre evidence as a proxy for industrial need while retaining evidence relevant to shared network problems.

RECOMMENDATIONS | FOR OFGEM

The recommendations below map onto two live Ofgem workstreams. Quote quality, data visibility, connection dates and cross-institution accountability sit within the End-to-End Connections Review. Self-build, flexible demand and hybrid routes sit within the Connect pillar of Demand Connections Reform. ED3 supplies the funding and incentive framework.

Make quote transparency an enforceable minimum standard through the End-to-End Connections Review

Offers should separate sole-use assets, reinforcement, contestable work, non-contestable work, design and administration. They should show the apportionment calculation, state the assumptions under the minimum scheme and explain which connection strategies were considered. Itemisation without reasoning cannot be challenged.



RECOMMENDATIONS | FOR OFGEM

Require published benchmark data on actual quotes through the End-to-End Connections Review's data-visibility work

A regularly published, anonymised dataset should cover connection quotes, component costs, cost per unit of capacity and delivery timelines by region and voltage. Customers would gain a benchmark, while Ofgem would gain an oversight tool. No institution currently provides this at comparable scale for larger I&C demand connections across GB.

Use ED3's Larger Connections Incentive and Connections Strategy requirements to strengthen pre-application support for major demand

Ofgem's May 2026 methodology decision did not introduce a separate strategic-demand incentive, so DNO business plans and the larger-connections framework are the practical route for this service. DNOs should report whether customers receive an indicative cost range with stated assumptions, known constraints and a confidence level. Reporting should cover enquiry-stage demand as well as formal applications, so performance cannot improve simply because potential applicants stop before the measured process. One operator reported that early support increased offer acceptance from around 10 to 15% to over 40%.

Use the Connect pillar of Demand Connections Reform to widen practical delivery routes. Ofgem should test greater self-build and high-voltage asset ownership for capable demand customers. It should also require standard flexible, non-firm and ramped-demand products, with defined routes for co-location, export-to-import conversion and hybrid assets.

Use the End-to-End Connections Review to set cross-institution service standards and remedies

A date change caused by transmission assessment, a gate decision or transmission-owner delivery should identify the responsible process, the reason and the next decision date. One named contact should give the customer that explanation. Reporting obligations and remedies should follow the effect on the customer instead of stopping at the DNO boundary.



RECOMMENDATIONS | FOR NESO

Establish the in-development demand register for uncertain industrial demand

It should accept ranges and rough, non-binding estimates, protect commercially sensitive information and return something useful to each registering site. NESO should coordinate contact with DNOs. The resulting demand picture should feed into Regional Energy Strategic Plans and DNO investment planning through ED3. Register data supports planning; formal applications remain the stronger signal of committed demand.

Publish dates and criteria for gate and assessment steps, with a rapid clarification route

Customers described criteria open to multiple interpretations, clarification requests left unanswered and key steps with no published dates. Ambiguous criteria need a binding ruling route; process steps need published timescales.

Support a single accountable contact for connections that span institutions

Where a connection crosses DNO, transmission-owner and NESO processes, one institution should own the customer relationship throughout. When a date moves, the named contact should explain the cause and set out the next action.



RECOMMENDATIONS | FOR DNOs

Provide indicative cost ranges at enquiry stage, with assumptions and confidence levels stated

The customer brings a minimum viable plan: rough pathway, locations, approximate capacity as a range, timing and current energy use. The DNO returns indicative options, ranges, known constraints, what would change the number, and a confidence level. The test for the product is whether a customer can take it into an investment decision knowing what it does and does not promise.

Show the reasoning in every offer

Disclose the apportionment calculation, the assumptions under the minimum scheme and the options considered. This would allow customers to understand and challenge the figure.

Disclose upstream dependencies in any conditional offer

Where an offer depends on transmission assessment or gate decisions, say which body, which process, which dates are provisional and what could move them, before acceptance fees are taken.

Make early non-binding conversations a defined, resourced service

Early liaison and enquiry routes changed outcomes in several accounts, and DNOs reported that pre-application support can filter the queue. Access should not depend on who the customer happens to reach.

Industry and trade bodies have a supporting part: helping members assemble minimum viable electrification plans, and pooling anonymised quote and timeline evidence that would strengthen the benchmark dataset recommended above.

ABOUT THIS STUDY

This headline report and the full evidence report are published together by [ADE: Demand](#). The study ran through 2026 as a case-study-led research programme, announced in ADE: Demand's March 2026 [Connections and Industrial & Commercial Demand publication](#). [ADE's reports and publications page](#) carries the organisation's published outputs. The full evidence report contains all six case studies, the three vignettes, the condensed literature review, the method note, the DNO published-information annex and the complete recommendations.

All case studies are composite and anonymised. Figures are participant-reported and approximate. They indicate where risk concentrates and have not been independently audited.

ADE embraces the responsible use of artificial intelligence to support research and publication. Human expertise, judgement and editorial oversight remain central throughout the research process, and all outputs are reviewed and approved prior to publication.

For the full evidence report or to discuss ADE: Demand's work on industrial and commercial electricity connections, please contact ADE: Demand.

