Transitional Regional Energy Strategic Planning (tRESP) consultation

Summary

- **Recognise logistics as a distinct energy user**
  The current framework underrepresents the scale and complexity of logistic demand. Logistics should be recognised as a core energy user with unique spatial, temporal and power requirements across depots, hubs, ports and strategic road network.
- **Include logistics specific demand projections**
  Pathways should integrate energy demand forecasts for HGVs, depots, ports and rail freight terminals
- **Plan for multimodal energy needs**
  Energy planning must encompass electricity, hydrogen and low-carbon fuel (LCF) to reflect the multiple pathways available for logistics decarbonisation – particularly for HGVs and long-haul operations where electrification is not yet viable.

About Logistics UK

Logistics UK is one of the country's largest business groups, and the only trade association which represents all of logistics. Our mission is to support, shape and stand up for a safe, sustainable and efficient logistics sector. Our membership of more than 20,000 includes global, national and regional businesses and SMEs spanning road, rail, inland waterways, sea and air as well as the customers of freight services, such as retailers and manufacturers. We deliver services, representation and thought leadership, helping members and policymakers to seize new opportunities for the sector and the economy as a whole.

The logistics sector

Logistics underpins our economy and is fundamental to our way of life. It supplies our hospitals, schools, factories, construction sites, shops and homes with everything they need, everywhere, every day – nothing moves without it.

The efficiency of logistics and the productivity of the economy are completely intertwined. Due to this relationship, Oxford Economics found in 2023 that getting the policy and infrastructure environment right for logistics would unlock up to £8 billion a year in productivity-led growth.

However, we are not currently going in the right direction. The UK fell from 4th to 19th place in the World Bank Logistics Performance Index over the past decade, largely as a result of border friction and underinvestment in transport corridors.

Logistics is a major sector in its own right. It contributes £185 billion to the economy each year (12% of UK non-financial GVA), is one of the UK's largest employers, providing good jobs with strong career progression.

Contexts for the Nations and Regions

1. **Are the Nations and Regions Contexts accessible, clear and easy to interpret? What improvements would you like to see?**

The Contexts provides a helpful strategic overview for the sector, but it is not yet detailed enough to inform real investment or operational decisions. While the broader strategic picture is valuable, the sector requires more granular, actionable data. At present, the information does not reflect what operators need to effectively plan for depot charging, shore power at ports, or rail freight electrification. What the sector would find most useful is:

1. **Freight specific geospatial layers**
    - Add ports, industrial cluster, rail terminals and key freight corridors to every regional map. This can be done through tools like ALFI and FEDZ provided by Midlands Connect.
    - Show planned HGV hubs, electrified bus depots, existing high power public charging, and grid connection points relevant to depots and ports.
2. **Capacity heatmaps and queue transparency**
    - Publish capacity available locally and connection queue status at freight nodes, with indicative timelines.
    - Provide standardised connection quote templates to enable comparisons between quotes.
3. **Actionable timelines**
    - Make near-term investment clear for operators. For example, where power is available now, where staged capacity is feasible, and where reinforcement is planned.
4. **Costs**
    - Include indicative energy costs.
    - Show non energy network charges and how they vary regionally so operators can compare total cost of ownership.
5. **Hydrogen, low carbon fuel (LCF) and multimodal interfaces**
    - Map potential hydrogen and LCF supply points where relevant to logistics.
    - Show interfaces with rail electrification and port shore power plans to support mode shift and maritime decarbonisation.
6. **Planning and permitting alignment**
    - Highlight planning constraints like conservation areas and typical consent timelines. Highlight any fast-track opportunities for energy assets.
7. **Resilience and contingency**
    - Add risk layers (e.g. network vulnerability and flood risk)

2. **How well do the Nations and Regions Contexts reflect your understanding of your nation or region?**

Slightly Well.

The nations and regions contexts are broadly consistent at a high level, highlighting demand growth areas, industrial clusters, and major urban centres but they underrepresent the realities of logistics. They lack sufficient detail on depot power at logistics parks, port and airport cargo needs, and HGV corridor electrification.

While the emphasis on growth around major industrial clusters is welcome, and there is some recognition of grid constraints, reinforcement plans, and ports as energy loads, key freight corridors for high-power HGV charging (M6, M60/M62, M1, M25, A14, M4/M5) are under mapped. Ports need clearer timelines for shore power and landside depot capacity, and major logistics parks (e.g. Thames Gateway, East Midlands Gateway) lack site level capacity signals and queue status.

In short, the contexts track the big picture but doesn't yet reflect on the ground experience of HGV charging and securing depot connections. Adding freight specific geospatial layers, transparent capacity and queue data with regional energy costs would align them with what operator's need in each nation and region.

3. **Do you agree with the elements and topics included in the Nations and Regions Context and is there anything missing that you would have expected to see?**

No.

The current elements are valuable, and we support their inclusion, but from a logistics perspective several critical areas are missing or underdeveloped. The sector needs geospatial layers covering ports, rail freight terminals, industrial clusters, and key freight corridors, along with clear visibility of depot power availability. Multimodal interfaces also require stronger alignment, specifically with rail freight electrification nodes and port shore power plans to enable mode shift and strengthen maritime links.

We agree the existing components provide a solid foundation. However, to be practically useful for logistics, the contexts must be more have more data which operationally specific for the sector, showing where freight nodes can connect, when capacity will be available, what it will cost, and how to access it, and for this to be presented consistently across all nations and regions.

4. **How do you envisage using the Nations and Regions Context(s)?**

The logistics sector sees the Nations and Regions Contexts as a practical decision-making tool for planning and delivering logistics decarbonisation. They can help identify where grid capacity exists or is most likely to be available, making it easier to prioritise depot electrification, charging hubs, hydrogen refuelling sites, and shore power investments. The data can also guide the rollout sequencing**,** matching freight demand hotspots with energy infrastructure timelines, so investment happens in the right places at the right time.

In addition, the Contexts can support engagement with local authorities, DNOs, and developers, providing a shared evidence base for planning and consenting. They could also be used to inform business case development by giving clear visibility of likely connection costs, timelines, and risks at regional and node level. In short, the Contexts can become a core reference point for relocation, planning, and low carbon logistics infrastructure.

5. **Do you have any feedback on the data selected for the specific topics included for the Nations and Regions Contexts?**

The data provides a strong regional framing, but freight decisions require node specific insight and views of key freight corridors.

NESO should include logistics demand forecasts covering depots and HGV hubs, port shore power loads, and rail freight terminals. This should be alongside publication of spare capacity and connection queue visibility with indicative connection lead times, while also providing regional energy cost.

6. **Do you have any feedback on how the data was presented visually?**

Yes.

The maps and charts offer a strategic oversight, which provide a narrative and are easy to skim, with regional breakdowns that help guide non specialists. To improve this NESO should clearly show where logistics nodes can connect, when capacity will be available, and what it will cost, so operators can move from using this for insights to using the maps as investment tools.

7. **What additional data do you think we should be considering either for tRESP or full RESP?**

To better support the logistics sector, NESO should incorporate current grid and connection capacity, show non energy network charges and how they vary regionally, and logistics geospatial layers. Add visibility of

existing and planned charging hubs, potential hydrogen production sites, pipeline routes, and refuelling points, plus low carbon fuel supply points.
On delivery risk and permitting, include planning constraints (e.g. conservation areas, flood zones), typical consent timelines and any fast-track pathways for energy assets, accompanied by land availability for substations and cabling at or near hubs.

Pathways

8. **The purpose of the tRESP Pathways is to drive consistency across DNO forecasting, as part of their business plans for 2028-2033 (ED3). Are the steps we are taking to drive consistency, via the baselining and alignment, clear and proportionate? Are the set of tRESP building blocks and the approach to creating Pathways fit for purpose?**

Yes.
The steps NESO are taking to drive consistency through baselining and alignment are clear and broadly proportionate. A single baseline with explicit alignment to the national tRESP Pathways will make ED3 forecasts comparable across DNOs and reduce modelling inconsistencies. The building-block (demand, supply, network, costs) keeps assumptions uniform and easier to update and understand.
However, regional alignment alone is too broad to guide investment decisions. Operators need granularity for ED3 and locating depots and logistic hubs. Grid connection realism is essential which will need to embed queue status, lead times and staged capacity in the forecasts, not just headline energy capacity. Pathways should also include indicative total electricity cost (wholesale energy, network, standing charges etc). Finally, it should incorporate low carbon fuel (LCF) and hydrogen nodes where relevant, so pathways do not assume all HGV duty cycles electrify on the same timeline.
The baselining and alignment approach is proportionate and clear, and the building blocks and pathways are fit for purpose. But the sector needs fit for purpose pathways for logistics which takes into consideration the required freight archetypes. With these refinements, DNO forecasts can underpin depot investment and corridor plans and accelerate a fair, efficient decarbonisation of the logistics sector.

9. **Will your organisation use the Pathways? If yes, which of the building blocks and for what purpose?**

Yes**.**
The logistics sector will use the Pathways to decide where and when to invest, what to buy, and how to relocate assets. They will focus on two building blocks: how power is generated and how demand is managed:

- **Solar PV:** This will be used to check which depots are good candidates for rooftop or on-site solar. Paired with batteries, daytime solar can cut costs by shaping tariffs and charging vehicles overnight.
- **Battery storage:** This will be used to evaluate depot battery projects to lower energy bills and manage peak demand.
- **Power plants:** This will primarily be used as a resilience and contingency factor for critical freight locations.
- **Hydrogen and fuel cells**: This will be used to explore hydrogen as a transitional option for larger HGVs on key corridors and for hard to electrify use cases.

The sector will feed all these signals into their total cost of ownership models to pick priority sites and derisk delivery for depot charging, HGV charging hubs, and port electrification.

Consistent Planning Assumptions (CPAs)

11. The objective of the tRESP CPAs is to drive consistency across DNO demand forecasting as an input to DNOs' network impact assessment to create their business plans for the ED3 period (2028-2033). Will your organisation use the tRESP CPAs for other purposes? If so, for what purpose? Is the format of the CPA value workbook usable for this purpose?

Maybe.

Operators and landlords could use CPAs to align their own capacity asks with DNO assumptions, plan smart-charging, and inform lease and grant applications.

Currently the categories are too broad and are simply encapsulated as EV charging. Logistics UK understands that this was required of NESO to more quickly develop the tRESP methodology, however, commercial vehicle (vans, HGVs) requirements and demand are different from private use vehicles (cars).

Logistics UK calls for a clear distinction to be made between car charging requirements and van and HGV charging requirements, which can include megawatt charging. This would remove ambiguity that can otherwise delay connections as well as improve the usability and format of the CPA value workbook.

12. Are the definitions of the CPAs clear, as described in the tRESP methodology and detailed design document and the tRESP CPA value workbook?

Neither agree nor disagree.

The definitions of each individual CPA are relatively well explained in both the "description" and "scope" columns in the tRESP CPA value workbook. Some may benefit from further explanation to enhance understanding. However, there are some questions which may need to be included into the descriptions to cover future variables.

Vehicle mileage – when considering mileage, commercial vehicles must be considered separately to private-use vehicles. Currently, regional averages for vehicle mileage do not reflect that commercial vehicles will very likely have higher mileage requirements and subsequently higher electricity demand requirements. Commercial vehicles travel much further, much more frequently, and therefore should be considered as being more energy intensive EVs than cars. It is also not clear why vehicle mileage as a CPA under the EV CPA List "Level of spatial granularity" is considered at the region level, rather than GB level. The nature of logistics can be regional but is more likely to be national or multi-regional. Therefore, for vehicle mileage for commercial vehicles, it would be more representative to consider this CPA at a national level.

EV Efficiency – for this CPA, NESO should consider how enhancements in battery-electric technologies will impact vehicle efficiency in the future. Additionally, how will the deterioration of battery health be monitored and factored into the CPA?

Distance in EV mode - Logistics UK agrees with the assumption that the use of electricity for hybrid vehicles is calculated differently than for fully electric vehicles. However, will the differing government phase-out dates for different vehicle types are being considered in the CPAs and pathways? For commercial vehicles, phase out dates extend through to 2040. The implications of these differing phase out dates for hybrid and ICE vehicles will impact the amount of required energy from the differing vehicle types, as some vehicle types will be electrified faster than others.

13. Based on the methodology, do you agree with the values established as tRESP CPAs in the value workbook? If not, are there any additional or alternative data sources which are more appropriate? Answers should refer to specific CPA numbers e.g. EV01 and adhere to these criteria:

- **Be based on a reliable source**
- **Be relevant**
- **Be up-to-date**
- **Be location-specific**

• Consider changes through time, and
• Consider weather and climate impact.

We agree that for electric vehicles, demand shift in response to dynamic pricing may not be considered as part of the tRESP, but that it will be considered for full RESP. For logistics operators, it is unlikely that charging vehicles will correspond to dynamic pricing as operations and delivery of customer expectations is likely to be prioritised ahead of cheaper electricity tariffs. There is a large diversity of logistics firms, and some may benefit from dynamic pricing or from overnight off-peak charging tariffs, however others will be unable to shift vehicle charging shifts based on electricity price as their customer needs require a different charging pattern which is likely to include peak-times.
For EV03 – how will battery degradation be factored into calculations for EV efficiency over time?

14. Do you agree with the scope and granularity of the assumptions in the CPA value workbook, considering the materiality and complexity of implementation of a more detailed or granular approach? If not, can you provide evidence to support the use of a more or less detailed or granular approach? See the value workbook for an overview and further detail of the scope and granularity of the tRESP CPAs.
Somewhat agree.
Logistics UK members are users of electric commercial vehicles. The assumption within the CPA value workbook is that there is expected to be little variation in demand between seasons for electric vehicles, which is not the experience of operators who are using these electric vehicles. During colder months in the winter season, batteries perform worse, and require additional charging. This variation should be considered regionally as well as seasonally, as areas like Scotland and the North of England experience much colder winters than the South. Therefore, variations in EV performance, and subsequently in electricity demand, will be higher in these areas during winter.
Logistics UK agrees with the consideration of HGV depots as a standalone “charger type” as noted in Table 1. We agree that having HGV depots listed this way will support a correct understanding of energy demand from depots which is expected to increase substantially as fleets electrify. A recent report published by Logistics UK highlights that 76.7% of HGV operators and 79.1% of van operators expect EV charging to take place at their depots (Logistics UK, Exploring current and future energy demand from road freight, Jun 2025).

Strategic Investment Need (SI Need)
15. Do you feel that the definition and framing of Strategic Investment Need (SI Need) is clear?
Somewhat agree.
Logistics UK understands that the SI Need aims to identify energy needs which are strategically significant enough to unlock system-wide value, accelerate decarbonisation and support long-term economic development.
Logistics underpins our economy and is fundamental to our way of life. It supplies our hospitals, schools, factories, construction sites, shops and homes with everything they need, everywhere, every day – nothing moves without it. The efficiency of logistics and the productivity of the economy are completely intertwined. Due to this relationship, Oxford Economics found in 2023 that getting the policy and infrastructure environment right for logistics would unlock up to £8 billion a year in productivity-led growth. However, we are not currently going in the right direction. The UK fell from 4th to 19th place in the World Bank Logistics Performance Index over the past decade, largely as a result of border friction and underinvestment in transport corridors.
As recognised by NESO, strategically significant energy needs must be enabled by the appropriate network investment in order to unlock the system-wide value. This must facilitate the decarbonisation of logistics. Logistics operations fall under the Scope 3 emissions of most businesses across the UK, hence facilitating

the decarbonisation of logistics would enable businesses from all sectors to address and reduce their Scope 3 emissions.

16. Are the emerging SI Need areas broadly aligned with the approach and framework we have set out, including the use of Strategic Value and Uncertainty as assessment criteria?

Somewhat agree.

Logistics hubs, and depots must be prioritised to unlock decarbonisation of the wider economy. The SI Need areas which are focused on identifying where strategic, often anticipatory, network capacity may be required to support regional and national priorities does not yet adequately recognise the importance of logistics.

17. Does the combination of RESP area narratives, maps, and hotspot descriptions provide a clear and helpful picture of where emerging needs are arising? Is the level of detail suitable for your purposes?

Somewhat agree.

The combination does build a helpful introductory picture to where emerging needs are arising, however the omission of energy demand from tRESP analysis of motorway service stations is unhelpful. Electrification of commercial vehicles will require sufficient grid upgrades and strategic investment in motorway services to provide operators with the confidence that they will be able to charge vehicles on route.

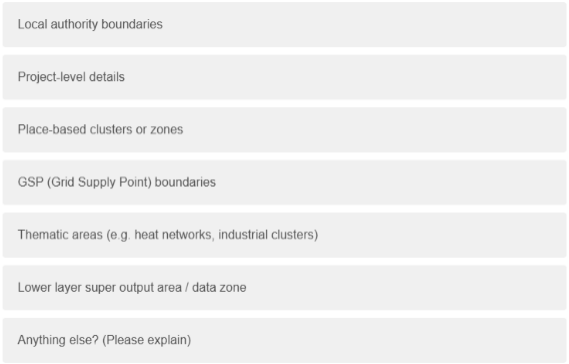
Logistics UK strongly welcomes the references in the RESP area maps to logistics decarbonisation. We agree that naming areas like ports and logistics hubs in the Solent region as key enablers of national decarbonisation is warranted, and reflective of the landscape. Nothing moves without logistics. No infrastructure can be built, no housing projects completed, no grid upgrades achieved without the logistics industry. Logistics is absolutely an industry which enables the decarbonisation of other industries nationwide.

The map is a useful start to understanding emerging needs. However, from a logistics perspective, many operators are being quoted huge sums to acquire grid connections at their depots. Therefore, the emerging needs may not be entirely reflective of the needs of logistics as many operators cannot afford to proceed with their electrification ambitions. Both timely and costly quotes are delaying operators from obtaining the necessary electricity at their depots, and this will impact the accuracy of the maps.

18. What level of geographic detail would be most useful in future versions? For example:

Local authority boundaries.

Anything else?
DNO boundaries.



19. Do you see a role for these outputs in supporting local planning, infrastructure alignment, investment proposals?

Yes.

These outputs should feed into local planning, factoring in both the current and future availability of power to different locations. For logistics hubs, their location is chosen strategically, for example alongside the strategic road network. The outputs of the RESP area narratives, maps, and hotspot descriptions should consider that logistics hubs which may require huge amounts of electricity in future, cannot move, and must have the opportunity to connect. Local planning should also consider how supporting these hubs can promote local

economic growth as well as provide employment for local communities. By identifying key logistics hubs as part of the RESP outputs, it can boost the efficiency and understanding of local planners, and reduce delays in procuring the necessary infrastructure, when used effectively.

20. Are there any locations you would expect to see identified as SI Need that are not currently being assessed? Please highlight these and, where possible, provide supporting information.

Yes.

Although ports are out of scope of the tRESP, it is pertinent to note that ports, similar to other transport hubs and industrial centres, would enable the decarbonisation not only of direct operations of a port or transport hub, but other users of those spaces. Ports are not only places where goods are moved but are often sites of significant storage and more 'static' business activity, for example warehousing, cargo handling, vehicle maintenance, cold storage among other energy-intensive operations.

Charging infrastructure must be prioritised at ports. Logistics hubs and ports must be recognised as Nationally Significant Infrastructure Projects (NSIPs) and Critical National Infrastructure (CNI) to prioritise these locations in connections queues to help ensure they receive the necessary power to decarbonise efficiently and cost-effectively. To support this SI Need, government should identify a UK Logistics Network and develop a 30-year infrastructure strategy. Ports and logistics hubs should be formally designated within this network to ensure strategic energy infrastructure planning.

Response to consultation

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