

DCMDG Issues Form

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Document Control	
Issue Title:	<i>Provide targeted relief from residual charges for electric bus depots</i>
Issue Number*:	14
Other Info	<i>Some linkages to DCP412 and DCP420</i> <ul style="list-style-type: none"> • DCP420 - Provide targeted relief from residual charges for electric vehicle charging sites • DCP412 - Allocation of banding for TCR Charges for 'Peaky' Final Demand Customers
Attachments:	Zenobē's analysis on pre- & post- TCR charges for bus depots
Date Submitted	08/10/2025

*Assigned by DCUSA Secretariat

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Nature of Issue
<p>Bus depots are being disproportionately impacted by the 2023 Targeted Charging Review (TCR) which restructured residual network charges so that they are based on grid connection capacity rather than consumption. This reform has led to steep and inflexible cost increases for depots despite the comparatively low stress they place on the grid relative to other large-connection users.</p> <p>This issue has been raised via both DCP412 and DCP420 for EV charging sites but our assessment indicates that neither proposal adequately captures the operational realities of electric bus depots, nor the commercial impact thereon.</p> <p>Further cost escalation is expected following sharp increases in forecast transmission charges set out in NESO's latest outlook - additional costs that depots would not have incurred under the pre-TCR regime. Together these developments present a serious threat to the economic viability of depot electrification and by extension the nationwide rollout of zero-emission buses (ZEBs) that sit at the heart of the government's net zero ambitions.</p> <p>Prior to the TCR, network charges were largely determined by consumption with peak demand levies (TRIADs) applied to users contributing most to system stress. While some consumers reduced costs through demand-side management to avoid TRIAD periods - prompting concerns over inequitable cost distribution - the TCR's reform has inadvertently penalised sectors such as public transport. Electric bus depots require high-capacity connections to enable simultaneous fleet charging but primarily operate off-peak, placing minimal stress on the transmission system.</p>

By shifting residual Transmission Network Use of System (TNUoS) charges to a capacity-based model, the TCR has exposed depots to disproportionate fixed costs unrelated to actual network impact. Zenobe analysis shows residual charges at a large Midlands depot have risen by more than 500% - an annual increase of approximately £130,000 equating to an additional £705,000 over a standard 15-year vehicle contract. NESO forecasts further significant increases in TNUoS tariffs beginning with a rise of more than 94% year on year in 2026/27, compounding the issue well into the next decade. Please see the annex for full projections of cost increases out to 2029/30.

While depot electrification necessitates securing high-capacity grid connections to enable simultaneous overnight charging, these connections are rarely if ever fully utilised across a 24-hour period. Bus fleets typically charge during limited off-peak windows meaning the grid connection often sits idle for much of the day. Despite this, network charges under the TCR make no allowance for utilisation or flexibility - depots must pay for their full contracted capacity year round even though their actual demand is both predictable and concentrated in periods of low system stress. This structure unfairly penalises operators who have had to oversize their connections for operational reliability rather than continuous consumption, locking them into cost structures that fail to reflect their genuine impact on the grid.

Although intended to deliver greater cost reflectivity and fairness, the TCR has instead created a systemic disadvantage for electrified depots - assets with high connection capacity but low peak time demand - undermining both the economics and pace of fleet decarbonisation across the UK.

Solution Overview – If Known

Solution Description	<p>In order to minimise unnecessary duplication and resolve the issue with the urgency it demands, we suggest that DCP420 be extended to explicitly include bus depots within its definition of eligible EV charging sites. This would ensure that depot-based fleet charging operations are recognised as part of the same category of flexible, off-peak users that DCP420 seeks to address. Our analysis shows that DCP412 would not encompass all bus depots, as unlike public forecourts - where operators are not in control of utilisation - bus depots do regularly utilise their capacity, but this occurs predominantly overnight when system demand is low.</p> <p>We recognise that DCP420 is in the later stages of implementation but understand that a second consultation is due shortly. We are willing to work at pace and coordinate with major UK bus operators to ensure this inclusion does not delay the code modification process. Expanding the scope in this way would avoid the need for a separate code modification, provide a timely resolution to a live and growing issue, and deliver a fairer charging structure that better reflects how capacity is utilised at depots while supporting wider net zero objectives.</p> <p>We would welcome opinions on this or an alternative approach. To that end, we are willing to raise a separate urgent code modification if required.</p>
Lead Time For Implementation	N/A

Annex:

Figure 1. Projected annual TNUoS costs for a real small bus depot electrified by Zenobe

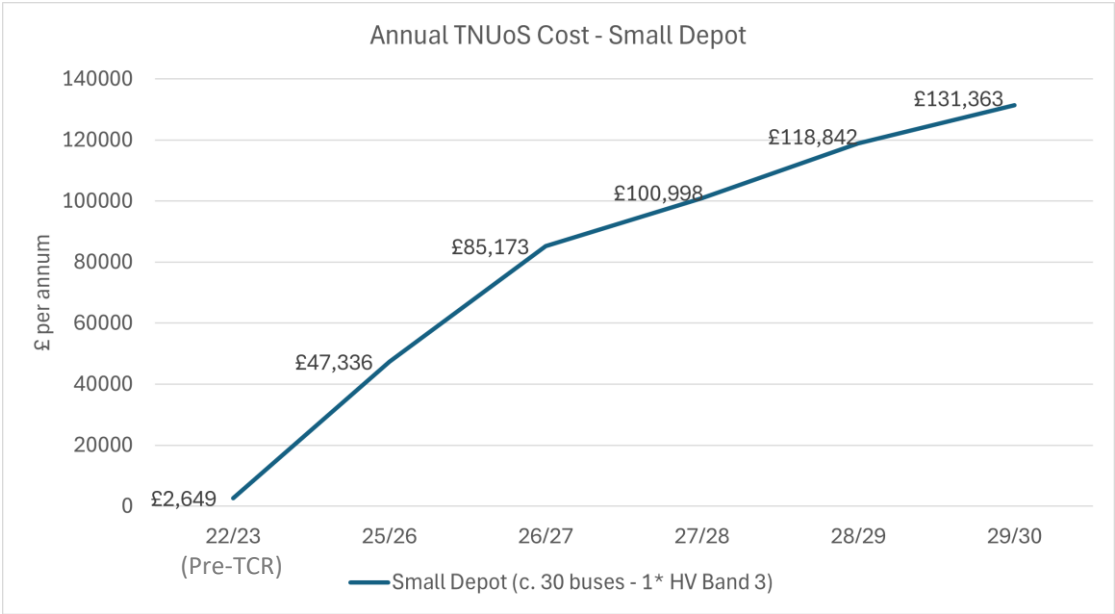


Figure 2. Projected annual TNUoS costs for two medium bus depots electrified by Zenobe

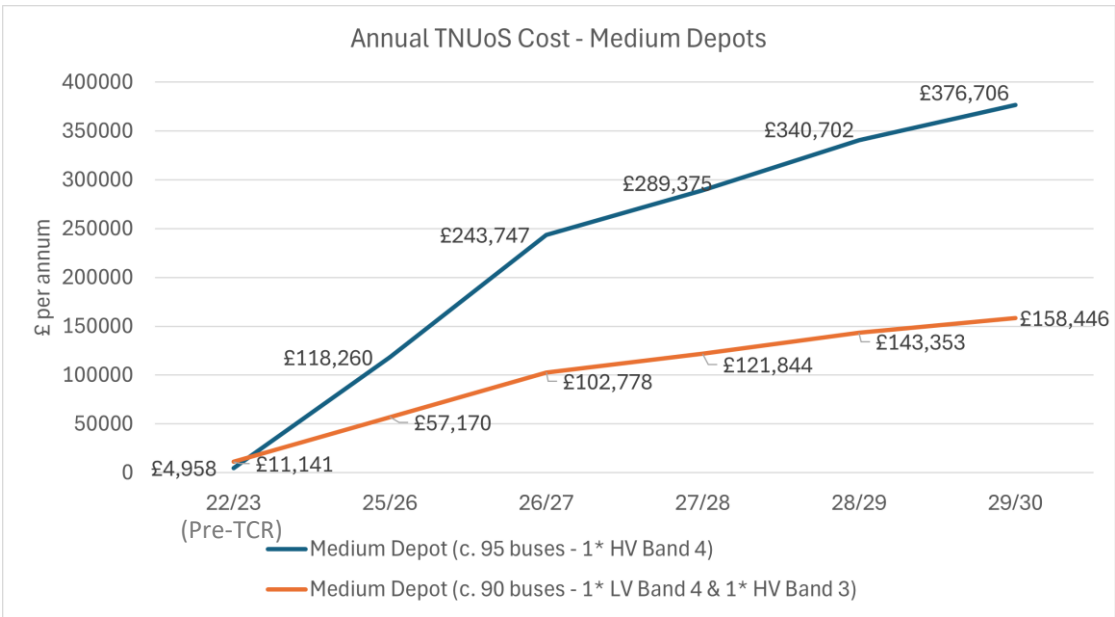


Figure 3. Projected annual TNUoS costs for a large bus depots electrified by Zenobe

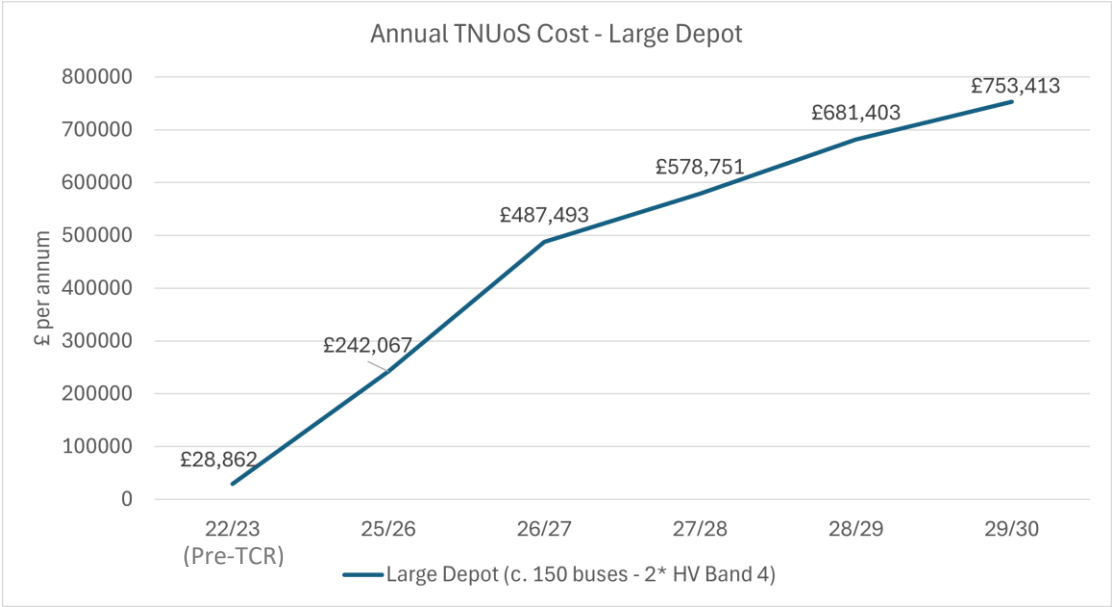


Figure 4. Real 24-hour charging profile of a typical Zenobe-electrified bus depot

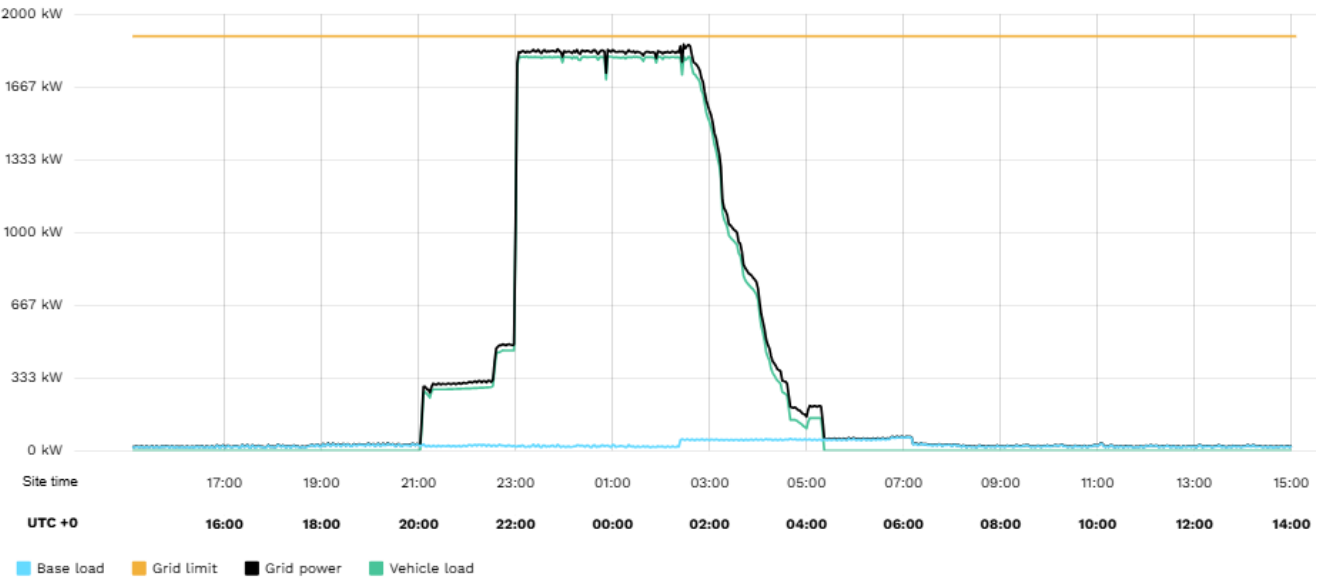


Figure 5. Detailed breakdown of post-TCR cost projections

Depot Size	Medium	Medium	Large	Small
No. of Buses Capacity	95 Buses 4500	90 Buses 1000 & 1500 = 2500	150 Buses 3000 & 3000 = 6000	01 Buses 1800
Triads	22/23	22/23	22/23	22/23
TNUOS Usage KW	95.87	203.73	587	52.73
Triad Unit Cost £/KW	£60.85	£64.34	£57.85	£59.11
2022-2023 TRIAD Cost £ p.a	£4,958.49	£11,141.15	£28,862.20	£2,649.46

TCR	25/26	25/26	25/26	25/26
Supply Types	HV Band 4	1 * LV Band 4 & 1 * HV Band 3	2 * HV Band 4	HV Band 3
TCR Cost per day	£323.99906	£156.62912	663.196242	129.688819
TCR Cost p.a.	£118,259.66	£57,169.63	£242,066.63	£47,336.42
Increase £	£113,301.17	£46,028.48	£213,204.43	£44,686.96
Increase %	2285%	413%	739%	1687%

TCR	26/27	26/27	26/27	26/27
Supply Types	HV Band 4	1 * LV Band 4 & 1 * HV Band 3	2 * HV Band 4	HV Band 3
TCR Cost per day	£667.79913	£281.58433	£1,335.60	£233.35
TCR Cost p.a.	£243,746.68	£102,778.28	£487,493.38	£85,173.22
Increase £	£238,788.19	£91,637.13	£458,631.18	£82,523.76
Increase %	4816%	823%	1589%	3115%

TCR	27/28	27/28	27/28	27/28
Supply Types	HV Band 4	1 * LV Band 4 & 1 * HV Band 3	2 * HV Band 4	HV Band 3
TCR Cost per day	£792.80894	£333.81920	£1,585.62	£276.71
TCR Cost p.a.	£289,375.26	£121,844.01	£578,750.53	£100,998.37
Increase £	£284,416.77	£110,702.86	£549,888.33	£98,348.91
Increase %	5736%	994%	1905%	3712%

TCR	28/29	28/29	28/29	28/29
Supply Types	HV Band 4	1 * LV Band 4 & 1 * HV Band 3	2 * HV Band 4	HV Band 3
TCR Cost per day	£933.42908	£392.74810	£1,866.86	£325.60
TCR Cost p.a.	£340,701.62	£143,353.06	£681,403.23	£118,842.38
Increase £	£335,743.13	£132,211.91	£652,541.03	£116,192.92
Increase %	6771%	1187%	2261%	4386%

TCR	29/30	29/30	29/30	29/30
Supply Types	HV Band 4	1 * LV Band 4 & 1 * HV Band 3	2 * HV Band 4	HV Band 3
TCR Cost per day	£1,032.07214	£434.09800	£2,064.14	£359.90
TCR Cost p.a.	£376,706.33	£158,445.77	£753,412.66	£131,362.73
Increase £	£371,747.84	£147,304.62	£724,550.46	£128,713.27
Increase %	7497%	1322%	2510%	4858%