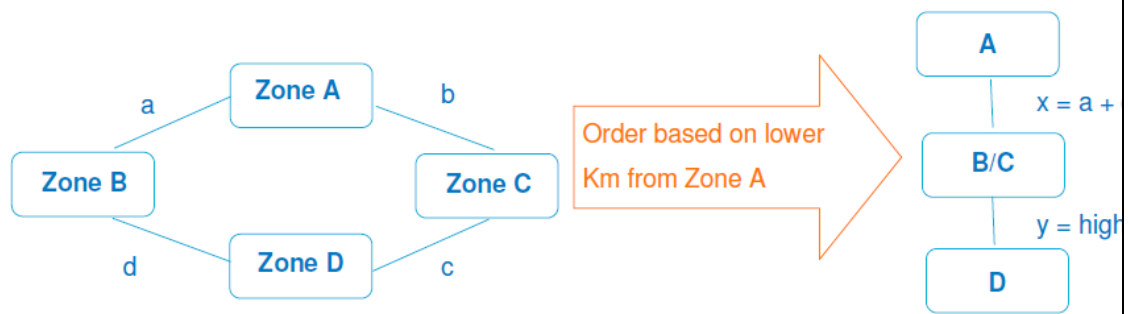


CMP324/5 Legal Text – WACM3

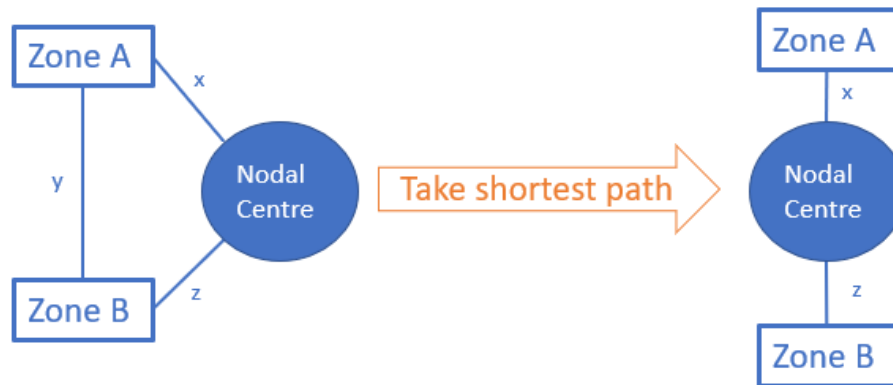
Current 27 zones with transition to GSP Groups

CUSC Ref	Text
14.14.5 vi) & vi)	vi.) The number of generation zones using the criteria outlined in paragraph 14.15.42 has been determined as 21. vii.) The number of demand zones has been determined as 14, corresponding to the 14 GSP groups.
14.15.3 7	Given the requirement for relatively stable cost messages through the ICRP methodology and administrative simplicity, nodes are assigned to zones. Typically, generation zones will be reviewed at the beginning of each price control period with another review only undertaken in exceptional circumstances. Any rezoning required during a price control period will be undertaken with the intention of minimal disruption to the established zonal boundaries. The full criteria for determining generation zones are outlined in paragraph 14.15.42. The number of generation zones set for 2010/11 is 20.
14.15.3 8	Demand zone boundaries have been fixed and relate to the GSP Groups used for energy market settlement purposes.
14.15.4 2	A number of criteria are used to determine the definition of the generation zones. Whilst it is the intention of The Company that zones are fixed for the duration of a price control period, it may become necessary in exceptional circumstances to review the boundaries having been set. In both circumstances, the following criteria are used to determine the zonal boundaries: <ol style="list-style-type: none">i. — Zoning is determined using the generation background with the most MW/km of circuits. Zones should contain relevant nodes whose total wider marginal costs from the relevant generation background (as determined from the output from the transport model, the relevant expansion constant and the locational security factor, see below) are all within +/- £1.00/kW (nominal prices) across the zone. This means a maximum spread of £2.00/kW in nominal prices across the zone.ii. — The nodes within zones should be geographically and electrically proximate.iii. — Relevant nodes are considered to be those with generation connected to them as these are the only ones, which contribute to the calculation of the zonal generation tariff <p><u>Between 1st April 2021 and 31st March 2023, the number of generation zones will be fixed to the 27 zones and the assignment of existing relevant nodes to these 27 generation zones will be fixed to those that are effective as of 31st March 2021 based on methodology in effect during the 2020/21 Financial charging year. From 1st April 2023, the number of generation zones and assignment of nodes to generation zones will be revised to 14 to align with the 14 GSP Groups as described in 14.15.38. Not Used Any newly created relevant nodes will be assigned to one of the fixed number of generation zones. Relevant nodes are considered to be those with generation connected to them.</u></p>
14.15.4 3	The process behind the criteria in 14.15.42 is driven by initially applying the nodal marginal costs from the relevant generation background within the DCLF Transport model onto the appropriate areas of a substation line diagram. Generation nodes are grouped into initial zones using the +/- £1.00/kW range. All nodes within each zone are then checked to ensure the geographically and electrically proximate criteria have been met using the substation

	<p>line diagram. The established zones are inspected to ensure the least number of zones are used with minimal change from previously established zonal boundaries. The zonal boundaries are finally confirmed using the demand nodal costs from the relevant generation background for guidance. <u>Not Used</u></p>
14.15.4 4	<p>The zoning criteria are applied to a reasonable range of DCLF ICRP transport model scenarios, the inputs to which are determined by The Company to create appropriate TNUoS generation zones. The minimum number of zones, which meet the stated criteria, are used. If there is more than one feasible zonal definition of a certain number of zones, The Company determines and uses the one that best reflects the physical system boundaries. <u>Not Used</u></p>
14.15.4 5	<p>Zones will typically not be reviewed more frequently than once every price control period to provide some stability. However, in exceptional circumstances, it may be necessary to review zoning more frequently to maintain appropriate, cost reflective, locational cost signals. For example, if a new generator connecting to the transmission system would cause the creation of a new generation zone for that generator alone, it may not be appropriate from a cost reflective perspective to wait until the next price control period to undertake this rezoning. If any such rezoning is required, it will be undertaken against a background of minimal change to existing generation zones and in line with the notification process set out in the Transmission Licence and CUSC. <u>Not Used</u></p>
14.15.5 0	<p>Connectivity is based on the existence of electrical circuits between TNUoS generation charging zones that are represented in the Transport model. Where such paths exist, generation charging zones will be effectively linked via an incremental km transmission boundary length. These paths will be simplified through in the case of;</p> <ol style="list-style-type: none"> I. Parallel paths – the longest path will be taken, <u>except where the zone connects directly to the nodal centre (see iii below)</u>. An illustrative example is shown below with x, y and z representing the incremental km between zones. <div data-bbox="324 1167 1088 1465" data-label="Diagram"> <pre> graph LR subgraph "Initial State" B[Zone B] -- x --> A[Zone A] B -- y --> C[Zone C] A -- z --> C end subgraph "Simplified State" A -- x --> B[Zone B] B -- y --> C[Zone C] end style A fill:#fff,stroke:#00a0e3,stroke-width:1px style B fill:#fff,stroke:#00a0e3,stroke-width:1px style C fill:#fff,stroke:#00a0e3,stroke-width:1px </pre> </div> <ol style="list-style-type: none"> II. Parallel zones – parallel zones will be amalgamated with the incremental km immediately beyond the amalgamated zones being the greater of those existing prior to the amalgamation. An illustrative example is shown below with a, b, c, and d representing the the initial incremental km between zones, and x and y representing the final incremental km following zonal amalgamation.

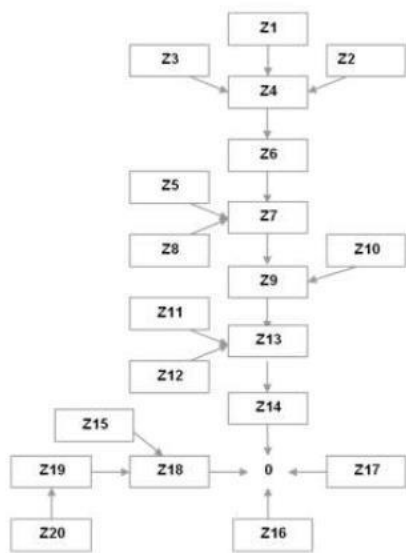


III. Nodal Centre paths – The shortest path will be taken where a zone connects directly to the nodal centre of the system. An illustrative example is shown below with x, y and z representing the incremental km between zones.



14.15.5
1

An illustrative Connectivity diagram is shown below:



The arrows connecting generation charging zones and amalgamated generation charging zones represent the incremental km transmission boundary lengths towards the notional

	centre of the system. Generation located in charging zones behind arrows is considered to share based on the ratio of Low Carbon to Carbon cumulative generation TEC within those zones.
14.15.5 2	The Company will review Connectivity at the beginning of a new price control period, and under exceptional circumstances such as major system reconfigurations or generation rezoning . If any such reassessment is required, it will be undertaken against a background of minimal change to existing Connectivity and in line with the notification process set out in the Transmission Licence and the CUSC.
14.29	<p>...</p> <p>Each node of the transmission network is assigned to a zone, <u>these zones are themselves fixed</u>. The result of this is to dampen fluctuations that would otherwise be observed at a given node caused by changes in generation, demand, and network parameters. The criteria used to establish generation zones are part of the methodology and are described in Paragraph 14.15.42.</p> <p>These zones are themselves fixed, for the duration of the price control period. hThe methodology does, however, allow these to be revisited in exceptional circumstances to ensure that the charges remain reasonably cost reflective or to accommodate changes to the network. In rare circumstances where such a re-zoning exercise is required, this will be undertaken in such a way that minimises the adverse impact on Users. This is described in Paragraph 14.15.45.</p> <p>...</p>