

Modification proposal:	<b>Connection and Use of System Code (CUSC) CMP324: Generation Zones – changes for RIIO-T2 (CMP324) and CMP325: Rezoning – CMP324 expansion (CMP325)</b>		
Decision:	The Authority <sup>1</sup> directs that WACM2 of CMP325 be made and CMP324 should not be made <sup>2</sup>		
Target audience:	National Grid Electricity System Operator (NGESO), Parties to the CUSC, the CUSC Panel and other interested parties		
Date of publication:	11 November 2020	Implementation date:	1 April 2021

## Background

Great Britain is divided into geographic charging zones for the purposes of levying Transmission Network Use of System (“TNUoS”) charges. The CUSC applies different methods for determining charging zones for generation and demand. The transport model, which is used to derive the locational element of generator TNUoS, identifies the relative cost of new generation being added to every ‘node’ on the network (each point on the system at which a generator could connect, or is already connected). Generation zones are created by grouping nodes based on the similarity of their marginal costs, and their electrical and geographical proximity to each other. In order for the nodes to be located within the same zone, the marginal costs associated to them must be +/-£1/kW of each other, as described in the CUSC, paragraph 14.15.42. Demand is zoned using the 14 Grid Supply Point (GSP) Groups used for settlement.

Generation zones are reviewed at each Price Control, with RIIO T-2 starting in April 2021. NGESO had forecast that if the current zoning methodology were used to create zones for the next Price Control there would be 48 generation zones rather than the 27 in place today. The expansion constant, one of the key inputs for determining zonal prices, is also updated for the new Price Control. As described below, NGESO did not take into account a change to the expansion constant when they estimated that there would be a change to 48 generation zones under the current methodology.

NGESO (the “Proposer”) raised CUSC Modification Proposal CMP324 on 12 September 2019, because, in their opinion, a change to 48 zones in April 2021 would be a significant change that would create uncertainty for market participants. They characterised the current zoning criteria as overly complex and sensitive, leading to unpredictable volatility in charges for TNUoS-liable generation. They also argued that the current approach creates uncertainty for investors, who might not be able to forecast the TNUoS charges they will face over the lifetime of their asset because they cannot identify which charging zone they would be in.

CMP324 originally stated within its Defect that the modification was being raised to implement the alignment of generation and demand zones. That effectively prevented a

<sup>1</sup> References to the “Authority”, “Ofgem”, “we” and “our” are used interchangeably in this document. The Authority refers to GEMA, the Gas and Electricity Markets Authority. The Office of Gas and Electricity Markets (Ofgem) supports GEMA in its day to day work.

<sup>2</sup>This document is notice of the reasons for this decision as required by section 49A of the Electricity Act 1989.

Workgroup from considering any alternative rezoning methodologies and so CMP325 was raised by NGENSO to expand the scope, such that the Workgroup for CMP324 could assess alternative options for rezoning. These proposals have not been formally amalgamated by us, but have been presented to us as a package and as such we have assessed and made a determination on them together.

### **The expansion constant**

The expansion constant is an input to the transport model, which represents the annuitized cost of transporting 1MW of electricity over 1km of 400kV Overhead Line. It acts as a multiplier in the transport model, driving the calculation of marginal costs at each node. The expansion constant therefore has a material bearing on the extent to which those costs are within +/-£1/kW of each other, which is a key factor in the determination of generator charging zones, as described above. As a driver of calculated costs, the expansion constant also directly impacts the absolute values of the TNUoS charges ultimately levied on generators and demand.

On October 29<sup>th</sup> 2020, NGENSO raised CMP353, an urgent CUSC Modification Proposal titled 'Stabilising the Expansion Constant and non-specific Onshore Expansion Factors from 1st April 2021'. The purpose of this urgent modification is to maintain the current value of the expansion constant rather than to use what would otherwise be its new value for RIIO-T2. We will assess this separate modification proposal on its own merits.

There is a strong interaction between that modification and CMPs 324/325. In particular, the uncertainty in relation to the expansion constant means that it is unclear what the number and nature of the charging zones would be, in the absence of any changes under CMP324/325.

### **The modification proposals**

The Original Proposal, proposed in CMP324, is to align generation and demand zones and to remove the obligation to review zones at each Price Control. In practice this would create 14 charging zones for both generation and demand.

The follow-on Modification Proposal CMP325 allowed alternative options to be raised (with CMP324 and CMP325 then treated as one by the Workgroup and CUSC Panel). In addition to the Original Proposal, the Workgroup developed three Workgroup Alternative CUSC Modifications ("WACMs") under CMP325:

- WACM1 would inflate the current +/- £1/kW parameter used in the current methodology to +/-£2.25/kW (in line with RPI) and index link £2.25/kW for future Price Controls;
- WACM2 would use the current 27 TNUoS charging zones within the CUSC and remove the requirement of reviewing the zones each Price Control (effectively maintaining the current 27 zones in perpetuity); and
- WACM3 would keep the current 27 zones until March 2023, and then implement the Original Proposal of changing to 14 zones, aligned to demand, from 1 April 2023.

Of all proposed solutions, WACM1 is the only one which would still rely on the expansion constant as an input into rezoning.

### CUSC Panel<sup>3</sup> recommendation

At the CUSC Panel meeting on 31 July 2020, a majority of the CUSC Panel considered that the Original, WACM1 and WACM3 would better facilitate the CUSC charging objectives than the baseline. At the CUSC Panel meeting it was also recommended by majority that WACM2 did not better facilitate the CUSC Objectives than the baseline. As summarised in the table below, of the nine votes, four considered the Original Proposal would be the best option, four considered WACM1 would be the best option and one considered WACM3 would be the best option.

#### CUSC Panel CMP324/325 Vote

Panel Members	Vote 1: Does the Original, WACM1, WACM2 or WACM3 facilitate the objectives better than the Baseline?				Vote 2 – Which option is the best?
	Original	WACM1	WACM2	WACM3	Best option
Andy Pace	Yes	Yes	No	Yes	Original
Cem Suleyman	No	Yes	No	No	WACM1
Garth Graham	Yes	No	Yes	Yes	Original
Grace March	Yes	Yes	No	No	WACM1
Jon Wisdom	Yes	Yes	Yes	Yes	Original
Joseph Dunn	Yes	No	Yes	Yes	Original
Mark Duffield	No	Yes	No	No	WACM1
Andrew Enzor	No	Yes	No	No	WACM1
Paul Mott	Yes	No	Yes	Yes	WACM3

### Our decision

We have considered the issues raised by the CUSC Modification Proposal, the WACMs and the Final Modification Report (FMR) dated 13 August 2020. We have also considered the responses to the Workgroup and Code Administrator consultations, and the Panel recommendation, and have concluded that:

1. implementation of the WACM2 proposal will better facilitate the achievement of the relevant charging objectives of the CUSC;<sup>4</sup> and
2. directing that the modification be made is consistent with our principal objective and statutory duties.<sup>5</sup>

<sup>3</sup> The CUSC Panel is established and constituted from time to time pursuant to and in accordance with the section 8 of the CUSC.

<sup>4</sup> As set out in Standard Condition C5(5) of the Electricity Transmission Licence, see: <https://epr.ofgem.gov.uk/Content/Documents/Electricity%20transmission%20full%20set%20of%20consolidated%20standard%20licence%20conditions%20-%20Current%20Version.pdf>

<sup>5</sup> The Authority's statutory duties are wider than matters which the Panel must take into consideration and are detailed mainly in the Electricity Act 1989 as amended.

## Reasons for our decision

In our view the WACM2 proposal will better facilitate CUSC objectives (a) and (e), and is neutral against (b), (c) and (d).

Under both the baseline and WACM1, the number of generation zones would likely increase, owing in part to the projected change in the expansion constant. We believe in principle that a greater number of generation zones is better for cost-reflectivity. In our view, improved cost-reflectivity should aid competition by ensuring that users face charges that reflect the effect they have on the network. For new generation sites, cost-reflective charges act as a long-term investment signal, informing their choice of location. For existing sites, these charges ensure that users pay charges based on their relative impact on the network.

WACM1 and the baseline also present a significant degree of uncertainty. In the current circumstances, we believe that that level of uncertainty presented would be detrimental to competition. Both the baseline and WACM1 would lead to a significant change in the number of zones for 2021/22. Owing to the uncertainty created by the expansion constant update and subsequent modification proposal to maintain last year's figure, we, the Workgroup, Panel and wider industry have not been made aware of the number of zones that a reliance on the +/-£1/kW (index-linked or otherwise) would create. In practice, therefore, for the first year of the next Price Control, the baseline or WACM1 would create an unknown number of zones with unknown charges. If any review of the expansion constant were to take place, it could lead to a further rezoning process during the Price Control, following on from the initial change. In these circumstances, we think that options which could result in an unknown number of charging zones would not better facilitate competition.

Given the significant interaction between this modification and CMP353, and any future reform to the expansion constant methodology, we would expect NGENSO to revisit the issue of rezoning alongside the development of any future change to the expansion constant.

## Assessment against the applicable objectives

***(a) that compliance with the use of system charging methodology facilitates effective competition in the generation and supply of electricity and (so far as is consistent therewith) facilitates competition in the sale, distribution and purchase of electricity;***

The CUSC Panel was split as to whether WACM2 would better facilitate objective (a) or was neutral. Two Panel members voted that this option was negative against this objective.

A number of Panel members noted that the weakening of cost reflectivity and locational signals from fixing zones (under the Original, WACM2 and WACM3) could potentially distort competition in the long run, but in the short term would facilitate competition by providing stable and predictable investment signals. Several Workgroup consultation

responses also supported a change to fixed zones in the Charging Methodology as better facilitating effective competition.

#### *Our view*

Under the baseline and WACM1 there would be a significant change to generation zones next year. The exact change will not be known until a decision is made on CMP353. If CMP353 is approved, there would be 48 charging zones under the baseline and 21 zones under WACM1, in 2021/22. In that case, NGESO has proposed to review the expansion constant methodology in 2021. The exact nature of the proposed review and its implications are unknown, but this scenario may lead to a further change to zones during the Price Control. If CMP353 is rejected, we do not know what the charging zones would be in 2021/22 under the baseline or WACM1, because NGESO has not performed this analysis. This is a discussion of potential future outcomes and in no way fetters our discretion in respect of any future decision on CMP353.

In the context of CMP353, the other options presented (the Original Proposal, WACM2 and WACM3) create certainty for the number of generation zones. We consider that providing certainty on zoning for TNUoS charging will be beneficial for competition. In our view, maintaining the current zones (WACM2 and to a limited extent WACM3) provides a more stable investment signal to existing and new generator users. On Balance, we therefore consider WACM2 to be positive against objective (a).

***(b) that compliance with the use of system charging methodology results in charges which reflect, as far as is reasonably practicable, the costs (excluding any payments between transmission licensees which are made under and in accordance with the STC) incurred by transmission licensees in their transmission businesses and which are compatible with standard condition C26 (Requirements of a connect and manage connection);***

The majority of the CUSC Panel considered WACM2 to be neutral on facilitating objective (b). Four Panel members considered that WACM2 would not better facilitate this objective.

Some Panel and workgroup members noted that WACM2 is less negative against objective (b) than the Original Proposal and WACM3 as it is cost reflective of the network at the start of the current Price Control but that cost-reflectivity would be diluted over time as the network changes compared to at the start of RII01. Fixed zones were overall considered to be less cost reflective than flexible zones.

#### *Our view*

We believe in principle that a greater number of generation zones is better for cost-reflectivity. Neither the Proposer nor the Workgroup have offered clear evidence or a robust rationale of network cost-reflectivity in proposing to align generation zones with demand zones. As such, in fixing generation zones to a smaller number than is currently in place, we consider the Original Proposal and WACM3 to be negative against objective (b).

Under the fixed options (original, WACM2 and WACM3), cost-reflectivity may reduce over time as the network develops and the relative costs incurred by the Transmission Owners in respect of the choice of location on the part of generators change. In approving WACM2 our expectation is for zoning to be assessed alongside NGENSO's review of the expansion constant. On this basis, we consider WACM2 to be neutral on facilitating objective (b).

***(c) that, so far as is consistent with sub-paragraphs (a) and (b), the use of system charging methodology, as far as is reasonably practicable, properly takes account of the developments in transmission licensees' transmission businesses;***

Members of the CUSC Panel were divided in their views as to whether WACM2 would be neutral or negative in facilitating objective (c). One Panel member considered that WACM2 would better facilitate this objective.

Some Panel members noted that fixing zones indefinitely removes the opportunity to adapt to the changing network through zoning, and there is the risk that signals will not adequately capture future developments in the transmission system over time.

#### *Our view*

Similar to our view on objective (b), we think in principle that fixed zones could, over time, reduce the ability for the charging arrangements to account for developments in transmission businesses. The current 27 generation zones accounted for transmission businesses' developments in the period up until now by providing a relative signal as to the marginal costs of generation location, thereby reflecting the changing topology of the network.

On balance we consider adopting WACM2 to be neutral on facilitating objective (c) and the Original Proposal and WACM3 to be negative. We accept that the baseline and WACM1 could be positive against this objective if there were further evidence as to the ongoing appropriateness of the £1/kW variance, given this value was set in 1992. We think that it would be appropriate to consider this issue alongside the review of the expansion constant.

***(e) promoting efficiency in the implementation and administration of the system charging methodology.***

The majority of the CUSC Panel agreed that WACM2 would better facilitate objective (e). One Panel member considered that WACM2 would not better facilitate this objective.

Panel members highlighted that simplifying the Charging Methodology would be more efficient and that WACM2 and WACM3 would avoid short-term implementation shock. One respondent to the Code Administrator Consultation believes that fixing zones under the Original Proposal, WACM2 and WACM3 would facilitate objective (e) by removing the industry overhead associated with NGENSO's reassessment of the generation zones at regular intervals.

### *Our view*

We believe that WACM2 is positive against this objective because fixing the current 27 zones will have some efficiency benefits in the administration of the CUSC. The baseline and WACM1 would lead to future recalculations of charging zones and associated processes to implement any changes. By removing this process from the CUSC, WACM2 would simplify the administration and implementation of this aspect of the charging methodology.

### **Decision notice**

In accordance with Standard Condition C10 of the Transmission Licence, the Authority has decided that modification proposal CMP324: Generation Zones – changes for RIIO-T2 should not be made. In accordance with Standard Condition C10 of the Transmission Licence, the Authority, hereby directs that the WACM2 modification proposal CMP325: Rezoning – CMP324 expansion be made.

### **Andrew Self**

**Deputy Director, Electricity Access and Charging – Energy Systems Management and Security**

Signed on behalf of the Authority and authorised for that purpose