

CUSC Modification Proposal Form		At what stage is this document in the process?
<h1>CMP274;</h1> <h2>Winter TNUoS Time of Use Tariff (TToUT) for Demand TNUoS</h2>		<div style="display: flex; flex-direction: column; align-items: flex-start;"> <div style="border: 1px solid green; background-color: #27ae60; color: white; padding: 5px; margin-bottom: 5px;">01 Modification</div> <div style="border: 1px solid blue; background-color: #d9ead3; padding: 5px; margin-bottom: 5px;">02 Workgroup Report</div> <div style="border: 1px solid purple; background-color: #d9ead3; padding: 5px; margin-bottom: 5px;">03 Draft Modification Report</div> <div style="border: 1px solid orange; background-color: #d9ead3; padding: 5px;">04 Final Modification Report</div> </div>
<p><b>Purpose of Modification:</b></p> <p>This CUSC modification proposal aims to improve the cost reflectivity of demand transmission charges. It is proposed that the transmission charging methodology should include a Winter Weekday Time of use demand tariff which reflects the existing Demand Residual element of the existing methodology so that revenue recovery is levied over a longer period of assessment.</p>		
	<p><b>The Proposer recommends that this modification should be:</b></p> <ul style="list-style-type: none"> <li>assessed by a Workgroup Authority</li> </ul> <p>This modification was raised <b>29 September 2016</b> and will be presented by the Proposer to the Panel on <b>30 September 2016</b>. The Panel will consider the Proposer's recommendation and determine the appropriate route.</p>	
	<p><b>High Impact:</b></p> <p><b>Generators, Suppliers, Embedded Generation, Transmission Network Operators, HH Demand Customers</b></p>	
	<p><b>Medium Impact</b></p>	
	<p><b>Low Impact</b></p>	

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<b>Timetable</b>		 Any questions?
<i>The Code Administrator will update the timetable.</i>		Contact: <b>Code Administrator</b>
		 email address
		 telephone
		Proposer: <b>Sam Wither</b>
		 email address <a href="mailto:Sam.Wither@ukpowere.reserve.com">Sam.Wither@ukpowere.reserve.com</a>
		 telephone
		National Grid Representative: Insert name
		 email address.
		 telephone
<b>The Code Administrator recommends the following timetable:</b> <i>(amend as appropriate)</i>		
Initial consideration by Workgroup		dd month year
Workgroup Consultation issued to the Industry		dd month year
Modification concluded by Workgroup		dd month year
Workgroup Report presented to Panel		dd month year
Code Administration Consultation Report issued to the Industry		dd month year
Draft Final Modification Report presented to Panel		dd month year
Modification Panel decision		dd month year
Final Modification Report issued the Authority		dd month year
Decision implemented in CUSC		dd month year

**Guidance on the use of this Template:** Please complete all sections unless specifically marked for the Code Administrator. Green italic text is provided as guidance and should be removed before submission.

**Contact us:** The Code Administrator is available to help and support the drafting of any modifications, including guidance on completion of this template and the wider modification process. If you have any questions or need

# 1 Summary

## What

The HH TNUoS demand tariffs will be based on two separate tariffs:

**Locational charge element will be maintained** and allocated based on the **existing Triad methodology** of three highest peaks of UK transmission demand separated by 10 days.

**The demand residual** will be charged on a newly created **winter baseline methodology calculated across the 06:30- 10:30 & 16:30 - 20:30 weekly Monday - Saturday periods**. This will be calculated only across calendar days, excluding Sundays and bank holidays over the period of November to February.

It is envisaged that subject to the development of appropriate supplier systems associated with billing the proposed solution should be implemented no earlier than of 1st April 2020 or 3-years following a decision from the Authority to implement the modification proposal.

## Why

The current Triad charging methodology for Demand TNUoS charges is creating a number of distortions, winners and losers and potentially inefficient outcomes including investment decisions and system operability issues over the darkness peak. Changing the current Triad methodology to a time of use charge over the winter peak plus a winter baseline provides the following benefits;

- Improves transparency on a time of use tariff for TNUoS charging so that all users can understand the charging baseline rather than the current Triad where the Settlement periods are unknown until after the winter has concluded.
- Protects vulnerable customers as smartest users can avoid costs and vulnerable consumers are left exposed to pick up others avoided costs. Levels the playing field for all HH import and export users
- Improves cost reflective charging as charges measured over a wider baseline whilst retaining the winter peak concept.
- Protects Security of Supply as it smooths out impacts of active Triad management that is increasingly difficult for the System Operator to manage
- Relatively easy to implement with minimal system impacts of affected parties.
- This approach towards cost recovery ensures fair and equitable apportionment of costs to customers.
- Significantly reduces out or merit running of embedded generation removing potential distortions in the baseline of the winter wholesale energy price.
  - Environmental legislation restricts the majority of embedded generators running for greater than 500hrs per annum (MCPD) therefore significantly restricting ability for embedded generation to generate over the new Winter baseline
  - The variable cost of embedded generation and majority of DSR is high and further increased by increased running hours and therefore the new

winter baseline will not incentivise increased running hours and reduces out of merit running introducing distortions in the wholesale market. This new methodology will still incentive this type of capacity to 'peak lop' when wholesale prices incentivise this behaviour.

## How

It is proposed that the transmission charging methodology in Section 14 of the CUSC is modified so that it comprises a new component:

- A Winter Weekday demand tariff is introduced for Monday - Saturday day not including Sundays and bank holidays between November and February, 06:30 – 10:30 & 16:30 - 20:30.

It is proposed that the charging base for the demand tariffs in Section 14 of the CUSC will comprise:

- a Triad peak demand charge recovering the locational element of the demand TNUoS methodology.
- a Winter weekday charge based on recovering the residual element of the current demand TNUoS methodology.

## 2 Governance

### Justification for Standard Procedures

We propose the modification should follow the Standard procedure due to;

- Being linked to the current distortions being assessed as part of CMP264 & CMP265 and the recently submitted CMP271.
- Has potential to have a significant impact on demand users, embedded generators, suppliers and the Transmission System operator.
- Potential significant impact to security of supply over the peak winter darkness peak.
- Potential to negatively impact Capacity Market obligated parties from delivering their commitments and breaching their legislative duties resulting in termination and significant increase in costs for the end consumer.

### Requested Next Steps

This modification should be assessed by a Workgroup

## 3 Why Change?

This CUSC modification proposal aims to improve the cost reflectivity of demand transmission charges.

The proposal will better address the following effects of the defects in the current demand charging arrangements:

- **Inefficient Locational Signals from current demand TNUoS arrangements:** The current CUSC Transmission Network Use of System methodology distorts locational signals (the demand residual in effect swamps demand locational signals);
- **Self-Reinforcing effects:** Over incentivising peak demand reduction will reduce demand resulting in self-reinforcing effects as the half-hourly demand charging base reduces in size;
- **Distorted energy markets:** An embedded generator that chooses to generate to earn the current Triad avoidance payment can result in the embedded generator dispatching out of merit. Similarly DSR may also be incentivised to dispatch out of merit. In turn this distorts wholesale electricity prices; and
- **Distorted competition in capacity markets:** The peak charging incentives distorts the capacity market by creating incentives for investment in small scale peaking embedded generators and demand side management

The proposal will better reflect the investment costs in the transmission system.

The growth in intermittent generation connecting to the transmission system has changed the nature of investment planning in the Security Standard and the locational signals (National Electricity Transmission System Security and Quality of Supply Standard Version 2.2 March 5th, 2012). Traditionally, transmission investment has been driven by the need to ensure peak security in an environment dominated by conventional generators. However, due to the changing generation mix and increase in intermittent and embedded generators, transmission investment and use of system by users has is changing and therefore a wider baseline should be considered for cost allocation of the Transmission system.

The proposal will ensure the recovery of residual transmission costs in a fair and equitable manner.

The demand residual component is currently added to the locational component of the tariff to ensure cost recovery. This significantly distorts transmission charges and results in non-cost reflective outcomes. The issue was highlighted under CUSC Modification Proposals CMP264 and CMP265:

- CMP264 *“The existence of large non-cost reflective Triad avoidance values is likely to distort investment decisions by favouring small generation units over large ones that may be more efficient. This could cause more efficient investments which do not benefit from Triad avoidance to be abandoned or deferred while less effective ones, which do so benefit, go ahead. This would increase total system costs, which is likely to lead to higher costs for consumers. Cost reflective charges would lead to better investment decisions and lower costs for consumers”*.
- CMP265 *“A residual element added on a capacity basis (£/kW, irrespective of location) to ensure TNUoS charges recover the correct revenue. This element does not reflect cost” and “The effect of the net demand charging basis is thus that the value of the demand residual charge element is credited to the embedded generation, where there is an association with an embedded generator as part of*

*that Supplier's portfolio in that GSP group. This is not cost-reflective, as there is no logical reason for that credit, which is growing, to be given".*

This modification is different from CUSC Modification Proposals CMP264 and CMP265 since it addresses

- the cost recovery arrangements for the residual component of the demand tariff

This modification proposal is based on cost reflective winter time of use tariffs therefore improving the reflection of transmission investment drivers and efficient cost recovery.

The proposed implementation date is the later of 1st April 2020 or 3-years following a decision from the Authority to implement the modification proposal.

The proposed 3-year implementation after decision date will provide a sufficient lead time for adjusting billing and charging systems on part of NGET and suppliers. It also provides sufficient time to reflect the TNUoS changes into non-pass through customer contracts / tariffs. Typically, suppliers offer contracts / tariffs for 1, 2 and 3 years. It is only at the point of renewal that the new costs can be reflected into customer contracts. The 3-year delay implementation date therefore means that most customers will have their contract renewed after the decision date, resulting in cost reflectivity of TNUoS in customer prices. It also ensures that demand and generation investor certainty is maintained.

## 4 Code Specific Matters

### Technical Skillsets

Much of the existing expertise made available as part of the CMP264,265 modification process will be suited for use as part of this modification.

### Reference Documents

NA.

## 5 Solution

It is proposed that the transmission charging methodology in Section 14 of the CUSC is modified so that it comprises the following components:

- A peak demand tariff based on the current locational element of the demand TNUoS charge methodology using the existing Triad methodology for determining user charges.
- A Winter Weekday demand tariff based on the current Demand residual element of the demand TNUoS charge methodology.

The proposed solution should be implemented by **the later of 1 April 2020 or 3-years** following a decision from the Authority to implement the modification proposal.

## 6 Impacts & Other Considerations

### Does this modification impact a Significant Code Review (SCR) or other significant industry change projects, if so, how?

The modification proposal may impact on consideration of CUSC modification Proposals CMP264 and CMP265.

### Consumer Impacts

The modification proposal will promote cost reflectivity and efficiency in the demand charging arrangements. This should result in a positive impact on consumer welfare

## 7 Relevant Objectives

### Impact of the modification on the Applicable CUSC Objectives (Charging):

Relevant Objective	Identified impact
(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;	Positive
(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 accordance with the STC) incurred by transmission licensees in their transmission businesses and which are compatible with standard licence condition C26 requirements of a connect and manage connection);	Positive
(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*;	None
(d) Compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency. These are defined within the National Grid Electricity Transmission plc Licence under Standard Condition C10, paragraph 1; and	None
(e) Promoting efficiency in the implementation and administration of the CUSC arrangements.	Positive

\*Objective (c) refers specifically to European Regulation 2009/714/EC. Reference to the Agency is to the Agency for the Cooperation of Energy Regulators (ACER).

The modification proposal will better meet the following of the CUSC Objectives for the following reasons:

Objective (a): The underlying rationale of the proposed modification is to improve the CUSC Transmission Network Use of System methodology so that efficient economic signals are provided to Users when services are priced to reflect the incremental costs of supplying them. As a result of the proposed change transmission tariffs will better reflect the impact that Users of the transmission system at different locations on the Transmission Owner's costs, if they were to increase or decrease their use of the respective systems. The improved cost reflectivity of the transmission charges 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

Objective (b): The proposal will improve the CUSC Transmission Network Use of System methodology to better reflect the investment costs in the transmission system, maintenance of the transmission system and maintaining a system capable of providing a secure bulk supply of energy. Consequently, the use of system charging methodology as a result of the proposal will result in charges which reflect, as far as is reasonably practicable, the costs incurred by transmission licensees in their transmission businesses.

Objective (e): The proposal is based on existing charging principles and arrangements. The demand residual and locational tariffs are already calculated in the charging methodology.

## 8 Implementation

The proposed implementation date is the later of 1st April 2020 or 3-years following a decision from the Authority to implement the modification proposal.

The proposed 3-year implementation after decision date will provide a sufficient lead time for adjusting billing and charging systems on part of NGET and suppliers. It also provides sufficient time to reflect the TNUoS changes into non-pass through customer contracts / tariffs. Typically, suppliers offer contracts / tariffs for 1, 2 and 3 years. It is only at the point of renewal that the new costs can be reflected into customer contracts. The 3-year delay implementation date therefore means that most customers will have their contract renewed after the decision date, resulting in cost reflectivity of TNUoS in customer prices. It also ensures that demand and generation investor certainty is maintained.

## 9 Legal Text

To be completed in discourse with the workgroup.

## 10 Recommendations

### Proposer's Recommendation to Panel

Panel is asked to:

- Agree that Normal governance procedures should apply
- Refer this proposal to a Workgroup for assessment.