



MIC Administration Proposal for customers connected to the Transmission System

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Background

This document, prepared by ESB National Grid (ESBNG), outlines the proposed policy for dealing with requested MIC changes for customers connected to the transmission system receiving transmission service via the DTS-T tariff schedule. The proposal is not intended to deal with distribution connected customer MIC changes which are administered by ESB through the distribution connection agreement.

This document has been prepared for two main reasons:

1. On some date in the future ESBNG will apply an unauthorised usage charge to any customer which exceeds its contracted Maximum Import Capacity (MIC) value in a charging period. Due to this some customers may wish to revise their MIC to a more appropriate level to avoid incurring unauthorised usage charges after this date. It had been intended to implement this charge from July 01, 2002 however since some customers who have not left the PES do not have metering required to implement the tariff, ESBNG feels that the implementation of the Unauthorised Usage Charge as planned, given that it would apply largely to customers who have selected an independent sector supplier has the potential of providing a deterrent for customers to switch from the PES. It may also have the potential to encourage customers to unnecessarily switch back to the PES.
2. As a result of requests from system users who feel they currently have an inappropriate contracted MIC value for their needs to amend their MIC value to either over/under estimation of required MIC at application stage or due to a increase/decrease in required imports.

This paper has been presented in two sections, the first section addresses what policy may be adopted to deal with transmission connected customers who wish to change their MIC at some stage in the future. The second section addresses the issue of offering transmission connected customers an opportunity to amend their contracted MIC if they feel it does not reflect their needs. For a period of time reductions in MIC will be allowed without any financial penalty being imposed, for convenience this is later referred to as 'Grace Period' arrangements.

ESBNG intend to implement the Grace Period from September 01, 2002 to October 15, 2002 subject to receiving a CER decision on this proposal by August 31, 2002.

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Introduction

Demand customers who are charged on tariff schedule DTS-T have a contracted MIC value established in their connection agreement. An MIC value is extremely important because it generally represents the extent to which the transmission network has been designed to serve the customers and it places an upper limit on the total demand that a customer can place on the network. It therefore should be high enough to meet a customer's needs. Since Transmission Use of System (TUoS) tariffs are charged based on each customer's MIC value, an MIC value in excess of a customer's needs will result in that customer incurring capacity charges higher than necessary. Conversely if the MIC is set too low and a customer exceeds the agreed MIC then unauthorised usage charges will be applied in order to reflect the fact that the network has not been designed to meet these levels and to discourage use above the MIC. Unauthorised usage charges do not preclude ESBNG from instructing a customer to reduce demand or ultimately de-energising a customer if system security requires it. ESBNG appreciates the importance of efficient MIC levels and where possible would like to facilitate changes in MIC levels, however a number of issues need to be considered.

Existing tariff arrangements

Based on the existing tariff arrangements customers of the transmission system (including customers indirectly connected to the transmission system via the distribution system) pay a network capacity charge, which is designed to incentivise demand customers to optimally select a level of MIC that meets their capacity requirements.

Charging Bandwidth

This Network Capacity charge does not strictly levy the charge based on MIC. Expecting that some degree of variation may be required by customers the charge has been designed with a bandwidth to allow for seasonal and other variations in demand. Customers with an MIC below 20MW must pay for at least 80% of their MIC (multiplied by the appropriate distribution loss factor) in any given month. Customers above 20MW must pay for at least their MIC (multiplied by the appropriate distribution loss factor) less 4MW in any given charging period.

Unauthorised Usage Charge implementation

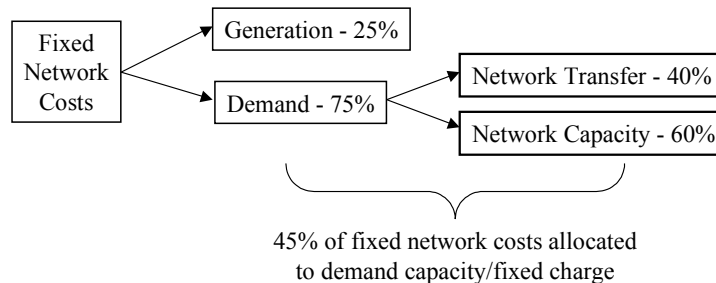
To date the Unauthorised Usage Charge has not been applied. In the future all metered energy consumed in excess of a customer's MIC shall be levied the Unauthorised Usage Charge. The charge does not currently apply as ESBNG has given customers time "to effectively transition onto the existing charging structure" and to date the required metering is not in place.

Section 1. MIC Administration Policy

The situation may arise where a customer wishes to change its MIC value after the Grace Period when it finds that its existing MIC no longer correctly matches its needs. If customers wish to decrease their MIC there are a number of issues to be considered in order to decide on a policy to be adopted to deal with such requests. This paper aims to outline the issues and propose a policy to deal with requests for MIC changes after the Grace Period has been complete.

Allocation of fixed network costs.

The main objective of the network capacity charge is to ensure that the necessary transmission network capacity is available to meet customers import requirements. Of the allowed revenue associated with network costs 75% are recovered from demand customers¹. Network costs recovered from demand customers are not recovered solely on a capacity basis but instead on a split basis between capacity and energy. 60% of allowed network costs are recovered on a capacity basis, through 'Network Capacity Charge' and the remaining 40% on an energy basis through 'Network Transfer Charge'. This effectively amounts to 45% of fixed network costs being allocated to the Network Capacity Charge.



In relation to the allocation to Demand of the allowed transmission revenue associated with the fixed network related costs, 60% is allocated to Demand on a fixed basis through a per MW, Network Capacity Charge, or equivalent.² This is considered appropriate as the transmission network is primarily a fixed cost that, while designed to meet system “coincident peak”³ at its core, must also be designed to meet the “non-coincident peak” at its extremities which would be represented best by a customer's MIC. This approach is favoured over other methods of peak demand charging such as the Triad (as, for example, used by NGC⁴), Pentad, or other coincident peak charging methods as it more properly reflects cost causation. Moreover though this approach and cost recovery of 40% of the fixed network costs via the variable (per MWh) Network Transfer Charge, we acknowledge that nearer to the core the network is “fungible”⁵. The network is fungible

¹ The remaining 25% is recovered from generation.

² The Network Capacity Charge under Tariff Schedule DTS-D2 is based on a per MWh during day hours as a proxy for per MW charging (this is discussed in more detail below).

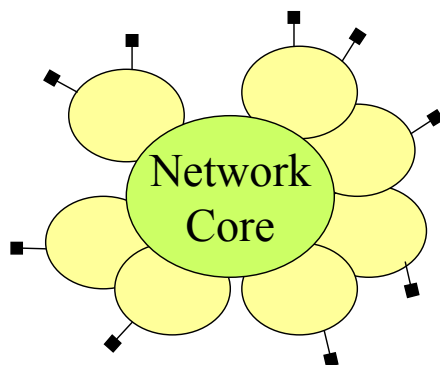
³ Within system planning criteria.

⁴ National Grid Company - TSO in England and Wales

⁵ Fungible is defined as something that is reusable, exchangeable or substitutable.

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at the core in that decreases in some demand customers utilisation are offset by increases by other customers without consequential changes in the core network.



This is, however, different as you approach the extremities of the network until you finally reach the connection point where the network is least fungible. At the extremities the network has been designed to meet the non-coincident demands which are represented in the tariffs by a customer's MIC requirement.

A customer reducing their overall demand either temporarily or permanently and thus not using their full import capacity for the entire charging period will immediately pay lower 'Network Transfer Charges'. Further reductions occur for operating below their contracted MIC through the structure of network capacity charge which incorporates a bandwidth (as mentioned above). Capacity charges are calculated based on the rules outlined in ESBNG's 'Statement of Charges'. A customer whose MIC is less than 20 MW and highest metered demand is less than 80% of their MIC will be charged based on 80% of their MIC. A customer with an MIC value greater than 20 MW will be charged based on their MIC value minus 4 MW, providing highest metered demand does not exceed this. These rules provide a reasonable tolerance in respect of the total capacity charges which customers are liable to pay under periods where demands are less than their MIC. If a customer wishes to reduce charges further then a more permanent reduction in their MIC would be required. Customers with either temporary or permanent reductions in demand additionally see an immediate reduction in charges through their System Services Charge and Capacity Margin Charge, which are levied on a variable basis.

For example: A customer on the DTS-T Tariff with an 80% load factor and 15 MW MIC and peak usage would see a typical monthly charge⁶ from ESBNG of € 78,416.42 (including VAT) for a unit cost of € 8.95/MWh. If the customer reduced their demand permanently by 10 MW to 5 MW, 80% load factor but with an MIC remaining at 15MW, their monthly charge would be € 36,069.48 (including VAT) for a unit cost of € 12.35/MWh.

⁶ Based on the current Statement of Chargers, October 2001, approved by the CER (including capacity margin charge).

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In setting policies to deal with MIC changes there are a number of issues which require careful consideration. These issues are detailed below:

Fairness and equity amongst customers

If a customer decides to reduce its MIC then this customer will contribute less to transmission network costs. Since the network was built to serve that particular customer's higher MIC, which they originally requested, then the issue arises whether that customer should be required to pay for the costs that it was responsible for imposing on the network. Alternatively these costs would have to be borne by all customers of the system. Orderly development of the network and some measure of fungibility in the network would suggest the possibility of a reasonable balance existing amongst customers reducing their requirement of the network (e.g. seeking a lower MIC), the remaining customers and new customers.

Asset Stranding

In the medium term decreases in MIC may lead to stranding of assets. When a new customer connects to the system the network is designed to meet that customer's peak requirements, understandably this can involve significant network development. If the network was developed to deliver a higher MIC some assets may become stranded when MIC values are reduced. In times of economic downturn it is likely that many customers could request a decrease in contracted MIC, this would lead to a significant amount of spare capacity. Any assets that are no longer used as a result of a decrease in MIC by a customer would of course become available for other customers in the future, however it may be some time if ever that this capacity will be used. We wish to note that as the transmission system is commonly looped to provide security of supply it has relatively few single line supplies whereas the distribution system would have extensive single line supplies. As such the risk of stranding transmission assets is much different than distribution assets and warranting of different treatment as a result.

TUoS Revenue shortfall

Reductions in individual MIC values have both short term and medium term implications for the TSO and system customers. Firstly there exists the issue of recovery of the transmission use of system revenue as allowed by CER. The level of network capacity charge for each class of demand customer is determined based on the sum of individual MIC values, consequently reductions to MIC values after tariffs for a particular charging period have been derived may lead to an under-recovery of allowed revenue. Insufficient recovery of transmission revenue in any given year would lead to higher TUoS charges in following years in order to recover the shortfall. Revenue shortfall issues could be dealt with through suitable shortfall mechanisms until their effects can be accounted for on a forecast basis and included in the design of the charge.

Reservation of capacity

It should be clear to customers who wish to amend their MIC value that should they wish to revert back to their original MIC at some time in the future, that modification charges may be payable. When a customer decreases its MIC value, any spare capacity will be made available to other customers. In this situation should the original customer later

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request to revert to its higher original MIC, further network development may be required in order to provide this and the customer would be required to go through the connection modification application process to obtain a higher MIC and may have to wait until necessary work has been completed before an MIC increase can be applied.

Harmony with Distribution Connection Agreements

Under Tariff DTS-D1, the MIC as specified in the Distribution Connection Agreement is used to derive the customer's share of the network capacity provided to deliver electricity to them via the distribution system. Due to a number of reasons customers connected to the distribution system who request a decrease in MIC have a different process to follow than that proposed in this paper. ESBNG feels since distribution connected customers have a different connection policy from customers connected to the transmission system it would not be appropriate to apply the same policy to customers connected to the transmission system.

ESBNG would like to facilitate MIC changes which customers feel are appropriate, however in order to address the problems mentioned above specific issues need to be considered to ensure that CER allowed transmission revenue is recovered each year, that those customers who cause network costs contribute towards these and that customers cannot inappropriately shift costs to other customers in order to improve their own situation.

Notice Provision to reduce MIC – Transmission Connection Agreements

If we consider a customer who requests to have their MIC value reduced, as they feel they no longer require that particular level of import. A possible solution to both the concerns surrounding apportionment of network cost responsibility amongst customers and revenue recovery would be to **require a period of notice for any decreases in MIC**. Upon review we consider a period of at least **eighteen months** would be appropriate. This period would require a departing or reducing customer to contribute reasonable revenues in respect of the capacity, which was once provided at their request, now being unutilised and would allow any MIC changes to be incorporated in tariff determination. This notice period would also ensure that customers requesting changes to MIC values are doing so as a result of permanent changing needs and not for the purpose of avoiding capacity charges in the short-term. During the notice period customers would be charged based on their existing MIC for the Network Capacity Charge, hence ensuring all customers pay a minimum of eighteen months capacity charges for the originally requested MIC which the network was built to facilitate. This proposed guideline would preserve the incentive for customers to estimate their required MIC as accurately as possible when initially agreeing on an appropriate MIC or when amending an existing MIC.

If for any reason a customer departs from the network without giving the notice required and paying the associated costs it has imposed, use of system charges in the period will likely under-recover the required revenue, ESBNG proposes that CER allow for this to be recovered in the following revenue period.

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Notice provision to Increase MIC – Transmission Connection Agreement

Customers who request an increase in MIC have less of an effect on tariffs. Where possible the network can be developed to meet their request and they will be charged capacity charges based on the higher MIC value when it is delivered. Customers who bring about the need to enhance the network would be required to apply for a modification to their connection agreement by going through the normal connection modification process and commit to the increased MIC by providing a guarantee bond before necessary network construction works begin. This bond will be calculated based on the increased MW requested multiplied by the monthly Network Capacity Charge (DTS–T tariff schedule) which applies on the date of the agreement multiplied by eighteen months. Customers in this situation would also be required to pay associated connection charges. Customers who request capacity that already exists will be granted the additional capacity without any connection costs being payable where there is no change to the shallow connection, obviously network capacity charges will be payable based on the higher MIC.

Temporary changes in MIC

The network is developed to provide each customer with their highest requested MIC, hence the costs of building the network is largely unrelated to whether a customer's MIC is temporary or permanent. A customer who wishes to have a higher MIC for only part of the year will impose the same network costs as a customer who requires that MIC for the entire year however customers who maintains a constant MIC would pay more capacity charges. If some customers were paying lower capacity charges for parts of the year but incurring the same network development costs as other customers then it is more than likely that Transmission Use of System (TUoS) charges would increase.

It is believed that not all change of MIC requests will be of a permanent nature. Some customers as a result of fluctuations in demand may find it beneficial to have different contracted MIC for certain periods of the year. These customers may wish to have MIC's revised upwards/downwards on a more frequent basis, perhaps seasonally. There exist a number of potential problematic issues if temporary changes to MIC values were to be facilitated. Firstly it would be difficult to plan the network without reasonable information about customer requirements. It would also be difficult to accurately establish the sum of all MIC's in advance for the purpose of tariff determination if some or all MIC values were to be on a temporary basis, tariff derivation and revenue recovery would become more complex and obscure under such conditions. As a result ESBNG propose that changes to MIC should be permanent in nature only.

Billing and effective dates of revised MIC

For billing purposes all MIC changes will be made effective from the 1st day of the following month.

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Connection Agreement Implementation

ESBNG intends to implement the finally approved administration policy within the industry standard transmission demand connection agreement currently under development. Prior to the full deployment of the agreement MIC revisions will be undertaken using a simple form of side letter agreement.

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Section 2. Implementation of ‘Grace Period’

It is anticipated that prior to the effective date of the MIC administration policy⁷ that all demand customers connected to the transmission system will be given the opportunity to request a reduction in their MIC value if they so wish. For historical reasons some customers have an MIC value that exceeds their requirements and so this offer allows customers to reduce their MIC value without paying a penalty.

ESBNG proposes to communicate with all transmission connected customers who have an agreed MIC value offering each of these the opportunity to request a reduction to their MIC value if they feel it is appropriate to do so within a specified time frame. This opportunity offers a once off MIC reduction and no financial penalties would be incurred by the customer as a result of reducing MIC during the Grace Period. After the Grace Period any customer wishing to decrease its MIC would be liable to give the period of notice as outlined in Section 1. It is anticipated that MIC reductions received in the Grace Period will be effective from November 01, 2002.

In the situation where a customer has an MIC value that is below their requirement, this customer would go through the normal connection modification process to request an increase. Obviously if a customer revises their MIC upwards they then pay capacity charges consistent with their increased MIC requirements. In dealing with requests for MIC increases, should access be limited, account will be taken of parties who have been importing above their contracted MIC on a regular basis or who have previously made known to ESBNG their requirement to increase their MIC.

⁷ Detailed in Section 1.

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SCHEDULE 1

The table below outlines the costs and timings involved with changing MIC values for transmission connected customers receiving service under tariff DTS-T

MIC Administration Policy			
	MIC Increase		MIC Decrease
	Capacity Available	Capacity Not Available	
Cost	NIL	Connection Charges Apply	18 Months Notice Period Required *
Timing	When the application has been processed by ESBNG	Dependant on works required	Notice period will begin on date when application has been received by ESBNG

** Charges based on current MIC will prevail until notice period has expired. Revised MIC applies thereafter.*

MIC Grace Period (01-Sep-02 to 15-Oct-02)	
MIC Decrease	
Cost	NIL if applied for by October 15, 2002
Timing	In effect for November 1, 2002