

## **CONSULTATION DOCUMENT**

### **Modification Proposals to the Use of System Charging Methodology**

#### **GB ECM 03**

#### **LDTEC Charges**

*and*

#### **GB ECM 04**

#### **Multiple STTEC Charges**

1 December 2005

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## Introduction of LDTEC Charges and Multiple STTEC Charges

### Executive summary

- 1 This document sets out for consultation National Grid's proposals for revising the Transmission Network Use of System (TNUoS) Charging Methodology in response to CUSC Amendment Proposal 094 (CAP094), which, if approved, would create additional transmission access products.
- 2 This consultation has been placed on National Grid's industry information website<sup>1</sup>.

### Introduction

- 3 National Grid is obliged under its Transmission Licence:
  - (a) to make revisions to the Charging Statements in order that the information set out in these statements shall continue to be accurate in all material respects;
  - (b) to keep the Use of System Charging Methodology at all times under review;
  - (c) to make such modifications of the Use of System Charging Methodology as may be requisite for the purpose of better achieving the relevant objectives, which are:
    - (i) to facilitate 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;
    - (ii) to result in charges which reflect, as far as reasonably practicable, the costs incurred by National Grid in its Transmission Business; and
    - (iii) to take account of the developments in National Grid's Transmission Business.
- 4 In addition National Grid is obliged under Condition C7 of its Transmission Licence to ensure that National Grid shall not make charges that discriminate between classes of customer.
- 5 Before modifying the TNUoS Charging Methodology, National Grid is required by the Transmission Licence to consult CUSC Users on the proposed modification and allow them a period of not less than 28 days within which to make written representations, except with the consent of the Authority.
- 6 The purpose of this document is to consult on National Grid's proposals to modify the TNUoS Charging Methodology regarding the determination of generation charges in relation to Limited Duration TEC (LDTEC) and Multiple

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<sup>1</sup> See [www.nationalgrid.com/uk/Electricity/Charges/](http://www.nationalgrid.com/uk/Electricity/Charges/) for National Grid's industry information website

Contiguous Blocks of STTEC (MCB STTEC), where this is a separate access product to Short Term Transmission Entry Capacity (STTEC).

- 7 It is proposed that these modifications would better meet the Relevant Objectives described in Licence Condition C5 paragraphs 5(a), (b) and (c), as listed above.

### The structure of this document

- 8 This document does not describe in detail the various products that have been proposed under CAP094. Supporting information on these and other matters relating to CAP094 can be found on National Grid's industry website.
- 9 Given the various combinations of LDTEC and MCB STTEC that could be implemented depending on which alternative of CAP094 is approved, if any, National Grid has raised two proposals to modify the TNUoS Charging Methodology.
- 10 These proposals have been separately identified and justified against the Relevant Objectives but have been consulted upon together, as the issues and nature of the proposals are similar. This approach will enable only those modifications to be implemented that correspond to any of the new access products introduced should the Authority approve of CAP094.

### Background

- 11 Presently, generators that wish to access the GB transmission system can do so by either purchasing Transmission Entry Capacity (TEC) or STTEC. TEC provides an annual access right, while STTEC provides a 4, 5 or 6 week access right and does not confer any future rights to its holder.
- 12 The proposals for LDTEC would 'fill the gap' between STTEC and TEC by providing an access right between 7 and 45 weeks in a single financial year with a single application. A variety of different types of LDTEC have been developed and therefore there are a number of options within CAP094:

Name	Description
OP	Original Proposal
WGAA 1	Simple Block LDTEC (SB LDTEC)
WGAA 2	Profiled Block LDTEC (PB LDTEC)
WGAA 3	Indicative Profiled Block LDTEC (IPB LDTEC)
WGAA 4	Multiple Contiguous Block STTEC (not separate product)
WGAA 5	PB LDTEC + IPB LDTEC (not separate product)
WGAA 6	IPB LDTEC + MCB STTEC (not separate product)
CAA1	MCB STTEC (separate)
CAA2	IPB LDTEC + MCB STTEC (separate)
CAA3	SB LDTEC + MCB STTEC (separate)

- 13 In addition to the proposals for LDTEC, Multiple Contiguous Blocks of STTEC have been proposed. Where this is a separate product to STTEC, new charging arrangements are required and these are considered in this document. This product has been called Multiple STTEC. It should also be noted that an alternative form of MCB STTEC has also been proposed that 'wraps-round' the existing STTEC products and does not create a new product.

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In this case, as no new product is created, we believe the existing STTEC charging arrangements would apply.

- 14 More information on the access products associated with CAP094 can be found on National Grid's industry website.

### **Explanation of the issues**

- 15 The introduction of any new access product requires a charging methodology to be developed to allow National Grid to levy appropriate charges for the use of the product.
- 16 This consultation considers the arrangements for charging for LDTEC (in any of the forms it might take) and Multiple STTEC.

### **Initial thoughts consultation on LDTEC charging**

- 17 Due to the variety of products that were developed by the CUSC Working Group and the uncertainty this created during the development of CAP094, National Grid believed it would be inefficient to formally propose charging arrangements until there was clarity in the access products proposed. As a result, National Grid prepared an Initial Thoughts consultation on the principles upon which the charging arrangements would be developed, to expedite the development of the formal proposals.
- 18 There were 5 responses to this consultation and these have been placed on National Grid's industry website. National Grid sought views on a number of specific areas; these are summarised below together with National Grid's views on the issues raised and how these have informed the proposals contained in this document.

### **Adoption of the principles established for STTEC**

- 19 Views were requested on whether it would be appropriate for LDTEC Charges to adopt the charging principles established by STTEC, specifically that charges for short-term access should not undermine TEC and should therefore be locational. The majority of respondents that commented on this matter believed it would be appropriate to adopt these principles. Respondents stated this was necessary to ensure that TEC was not undermined and to avoid perverse interactions between STTEC and LDTEC. As previously stated, National Grid consider it is important that TEC is not undermined by short-term products and the relative attractiveness of TEC and other access products should not vary locationally. Therefore, we concur with these views.
- 20 Another responded took a different view and stated that STTEC Charges should be reviewed, given that following the implementation of BETTA STTEC has been used because TEC has not been available within year. As noted previously, National Grid does not believe the case has yet been made to justify changing the charging arrangements for STTEC although there may be a need to consider how STTEC and TEC interact where both products are purchased in the same year. Notwithstanding this, we do not believe it would be prudent to conduct such a review until the Authority has considered CAP094 and the associated charging proposals.

**The differences between LDTEC and TEC and the case for a premium**

- 21 National Grid sought views on whether the differences between TEC and LDTEC tended to protect or undermine TEC. Two parties believed the differences between these products tended to ensure that TEC would not be undermined, broadly citing the reasons outlined in the Initial Thoughts consultation documentation. This led them to believe that little or no premium was required. Other respondents did not agree. Of these, one suggested it was more finely balanced but cost would be the chief driver to determine the relative usage of the products. The same respondent outlined a methodology that would result in a 23% premium for the longest use of LDTEC. Another respondent that also disagreed believed a “significant” premium would be justifiable, as there were significant financial costs associated with mis-forecasting TEC. This party also postulated that LDTEC could be more flexible than STTEC and that this should be reflected in the pricing of LDTEC. A different respondent believed it was difficult to assess what premium was appropriate for LDTEC but the charging methodology should guard against peaking plant gaining access for the peak period using LDTEC and pay less than they would for using TEC.
- 22 National Grid believes it is important that TEC should remain the prime product by which parties gain access to the transmission system. National Grid is concerned that were TEC to be undermined, its ability to discharge its licence and statutory duties to develop an efficient, economic and coordinated transmission system could be adversely affected. Specifically, National Grid considers the purchase of TEC a key element of obtaining information upon which the transmission system is developed and ensuring that access charges continue to provide appropriate locational cost reflective signals, which facilitates competition in generation.
- 23 National Grid consider the key differences between TEC and LDTEC are:
- (a) TEC provides an annual option to the same level of capacity the following year subject to meeting CUSC obligations whereas LDTEC does not; and
  - (b) LDTEC is a riskier product than TEC as the availability of access may vary from year to year or even within year.
- 24 In addition, given the current scarcity of access rights following the implementation of BETTA, Users that decide to reduce their TEC may face a considerable delay before such rights were available again in the future. Against this background, National Grid’s view is that the majority of generators would place more value on retaining a long-term access right, i.e. holding TEC, than any short-term gain through a reduction of transmission charges.
- 25 National Grid believes a premium charge for short-term products (i.e. sub-annual) can be justified where there is a prospect that TEC will be undermined by the use of such products. Accordingly, given our assessment of the above factors, in positive charging zones we do not believe a premium above the annual equivalent TNUoS charge is necessary to protect TEC from LDTEC. Equally we do not believe a discount would be appropriate, as this could provide perverse incentives between short-term and long-term access.
- 26 National Grid does not believe this is inconsistent with charging arrangements for STTEC, which was intended for use predominantly over system peak. The

charges for STTEC only result in a premium when it is used throughout the year (i.e. not for short periods over system peak). This arrangement has not resulted in any discernable migration away from TEC nor precluded the use of STTEC. In contrast, LDTEC has been designed to operate in timescales up to nearly a year and access is not limited to system peak. National Grid believes this difference, more than any relative difference in the flexibility of the products, should be reflected in the charging arrangements for LDTEC and therefore the basis for the decision on any premium.

### **The linkage between LDTEC charges and TNUoS tariffs**

- 27 National Grid sought views as to whether it would be appropriate to link LDTEC charges to TNUoS tariffs in positive generation charging zones and, in negative zones, to set the corresponding LDTEC charge to zero. Most parties supported such an approach, to avoid undermining TEC and to give consistent locational signals. One party stated that charges should be completely consistent with the arrangements for TEC i.e. in a given zone the maximum LDTEC capacity requested should be charged according to the corresponding TNUoS tariff or, failing that, at least linked to TNUoS. Another party, however, believed LDTEC charges should be based solely on the non-locational element of generation TNUoS charges.
- 28 National Grid is required by its Transmission Licence to not make charges that discriminate between classes of customers. We are concerned that were LDTEC charges based on the non-locational component of generation TNUoS tariffs, the cost of LDTEC relative to TEC would vary from zone to zone such that those Users in high positive charging zones would be able to secure greater benefit from using LDTEC than those in marginally positive zones. National Grid believes such an approach would be discriminatory. Accordingly, National Grid continues to believe that charges for short-term access should be linked to TNUoS tariffs.
- 29 In negative generation charging zones, National Grid believe a negative charge would need to be accompanied by complex arrangements (for example, a “proving run”) to ensure that the additional access provided by LDTEC had been used. This could be further complicated if interaction between LDTEC and TEC allowed parties to receive multiple TRIAD payments. In this respect, we believe LDTEC charges should mirror the arrangements in place for STTEC, which sets a zero charge in these zones.
- 30 National Grid notes that respondents to previous consultations on charging for new short-term access products have expressed concerns regarding the appropriateness of basing charges on tariffs derived from a long-run cost model. National Grid notes such an approach is arguably less cost reflective than a short-run charging approach, which would tend to price short-term access at zero or close to zero. However, we believe any reduction in the cost reflectiveness of charges needs to be considered against a broader desire to not destabilise the charging regime for TEC, which could have a negative impact on facilitating competition in generation and the efficient and economic development of the transmission system.

### **Tariff profiles**

- 31 The Initial Thoughts consultation presented a number of temporal tariff profiles. These were characterised as flat, up-front, peak and seasonal. A number of parties believed an up-front approach would be justifiable since it would enable

- any premium to be “tuned” so that the premium for longer periods could be lower than that for shorter periods, and to also recognise the value of flexibility for low load-factor plant. One party believed that there were merits in the flat, upfront and peak / off-peak approaches. Another respondent advocated a seasonal approach, as this would be a refinement to National Grid’s rationale for STTEC charges.
- 32 National Grid does not consider the peak or seasonal approaches appropriate, as LDTEC is not intended to be a peak or seasonal product. If such an approach were adopted we believe there could be a risk that more marginal or highly flexible plant may be encouraged to use the product during the low seasons or off-peak periods when access would be cheapest which may undermine TEC in these circumstances.
- 33 In contrast, National Grid believes there are merits in the flat and up-front approaches. The flat approach would be similar to the arrangements for charging for TEC and the relative attractiveness of LDTEC would be constant throughout the year. However, assuming there is no annual equivalent premium for LDTEC and all other things being equal, the flat charging approach could undermine STTEC, as there would be a discontinuity in the charging liability between access for 6 weeks (provided by STTEC) and 7 weeks (provided by LDTEC). National Grid considers LDTEC to be additional to STTEC rather than a replacement and therefore does not currently believe a flat charging approach would be appropriate.
- 34 An up-front approach, on the other hand, would address this issue by enabling LDTEC charges to resemble those for STTEC when it is used in STTEC timescales and those for TEC when used for longer periods. While such an approach could encourage parties to acquire access rights for longer periods than necessary (as this approach would provide access at a lower marginal cost after a certain duration of use), National Grid believes the likelihood of this is low given there will be a charge for holding capacity regardless of whether it is used or not. Accordingly, National Grid believes the up-front approach should be adopted. National Grid considers the higher tariff rate associated with this approach should apply for the initial 17 weeks of use. This would avoid creating a perverse incentive to use LDTEC rather than STTEC in the period between November and February i.e. the period over which STTEC was envisaged to be used.
- 35 Since no restrictions have been proposed on the number of LDTEC applications that can be made each year by a generator, the charging proposals need to consider the treatment of multiple applications for LDTEC. National Grid sought views on how an up-front approach should cater for this. Two respondents believed multiple applications should be independently, as they are assessed at different times and this would encourage Users to purchase longer periods of LDTEC. Another respondent believed only incremental capacity requested in subsequent applications should incur the higher tariff rate of an up-front approach.
- 36 National Grid believes the application fee associated with LDTEC will provide an incentive for Users to not make multiple LDTEC applications in the same year. We believe it would be discriminatory if two parties with the same total duration of access faced different charges according to whether the access was obtained by a single or multiple applications (all other things being equal). Accordingly, National Grid does not consider it appropriate for the charging methodology to consider multiple LDTEC periods independently; nevertheless,

the methodology must be robust against situations where incremental capacity is requested in subsequent LDTEC applications.

### **Capacity driver**

- 37 Views were sought on the capacity driver for determining charges for LDTEC. Most respondents that commented on this supported a peak-based approach, as they believed this was consistent with charging for TEC and was the driver upon which network costs are incurred. Some of these respondents also took the view that generators could manage their exposure to charges with the capping arrangements proposed for accepting LDTEC offers. However, one respondent took an alternative point of view and believed charges should be based on the weekly peak capacity allocated to the User.
- 38 National Grid notes that wherever possible the charging arrangements for TEC and LDTEC should be consistent and that drivers for transmission charges should reflect underlying costs. In the context of LDTEC, however, where the costs of provision are zero or close to zero, National Grid believes access charges should be proportional to the capacity available to a User.
- 39 TEC provides an annual access right, which allows a User to export up to a defined maximum capacity value at any point within the year. TNUoS charges levied for TEC are proportional to this capacity. In contrast, the access rights available with LDTEC can vary throughout the year. Therefore, a charge based on the average or weekly capacity would be more proportional to the capacity available to the User than a peak-based driver.
- 40 Against this background, National Grid intends to use the weekly capacity accepted by the User for each period, as this avoids potential complications that might arise from using average capacity values with the up-front approach. In the case of PB LDTEC, the chargeable capacity will be derived from the profile of access offered to the User subject to any cap and, in the case of IPB LDTEC, will be the capacity accepted by the User, which corresponds to the capacity removed from the market and potentially available to that User.

### **Use of LDTEC and TEC in the same year**

- 41 National Grid also requested views on how the use of LDTEC and TEC in the same year should be treated in the charging methodology. Three broad approaches were described. These ranged from taking no consideration of future TNUoS payments when levying LDTEC charges through to taking full consideration of such payments.
- 42 The majority believed there should be no consideration of future TEC payments. A variety of reasons were cited. One party considered the two products were completely independent and the charging arrangements should not therefore interact; another believed such an approach would allow parties to obtain additional access with no additional charge; while another contended that use of TEC and LDTEC in the same year does not indicate TEC has not been undermined, as the quality of planning information would be reduced. One party, however, thought a “full consideration” approach would be justifiable to ensure that, in the absence of underlying cost driver to suggest otherwise, the liability associated with a given level of capacity should not markedly vary according to the choice of access product. The same party believed the other approaches would, to varying degrees, result in a double charge in instances where LDTEC is being used before TEC is available.

- 43 It is important to differentiate between when LDTEC is requested relative to a TEC request made by a User. Where the LDTEC is used prior to TEC being available as a result of successful previous request for TEC, National Grid does not believe TEC has been undermined nor that the quality of the planning information has been degraded. Therefore the premium that would arise from not taking consideration of future TEC in these circumstances cannot be justified. Accordingly, National Grid has sympathy with the argument that where LDTEC is purchased prior to TEC being available (i.e. the products are temporally separated) and this is not incremental to the level of TEC purchased it would be inappropriate to not take full consideration of the payments that will be made for TEC to calculate LDTEC charges. National Grid does not believe this would allow parties to obtain free access since parties could still be charged for the use of LDTEC albeit at a rate that would not result in a premium charge in the year. Alternatively, in the event, however unlikely, that a User is able to purchase TEC via a request made after to obtaining LDTEC, the LDTEC and TEC would be considered incremental to each other.

#### Application / Request Fee

- 44 Views were sought on the appropriateness of a number of cost drivers to determine the fee for assessing applications for LDTEC. National Grid identified a number of drivers and these are outlined below together with the justification for the driver.

Parameter	Justification
Duration requested	Longer periods of access require more analysis to determine the capacity available.
Max MW requested	More extensive analysis is required for larger capacity requests, since there are a greater number of scenarios that the application must be assessed against.
Rolling confirmation (IPB LDTEC only)	Additional and ongoing work will be required for National Grid to reconfirm access on a weekly basis. While this might rely on existing processes, there will be an incremental cost associated with this that should be recovered.
Combined PB LDTEC & IPB LDTEC request	Additional resource will be required to prepare two offers for the User.

- 45 Since National Grid believes the resource required to assess applications for LDTEC and STTEC are similar, it was proposed that the application for LDTEC should be based on that for STTEC and scale linearly with the assessment duration. Additional charges on this base amount were indicated for the other cost drivers outlined above.
- 46 Most parties agreed with the drivers identified. One party suggested that application fees for LDTEC should scale more than linearly with the assessment duration, as they believed the assessment of longer access periods was more complex than the shorter assessment associated with STTEC. The same party also believed such an approach would ensure that security of supply was not compromised by numerous LDTEC applications and

the consequential impact this would have on limited assessment resource. Another party disagreed stating that there should be economies of scale for assessing applications for longer durations. A different respondent questioned whether it would be appropriate to levy an additional charge for rolling assessments where the User declines the LDTEC offer.

- 47 National Grid remains of the view that the drivers identified are appropriate. National Grid expects the resource requirement to assess applications for LDTEC will be a function of the duration of the assessment period. Until further experience has been had of processing LDTEC applications, we believe the linear relationship outlined ensures that these charges remain cost reflective. Since the additional effort required to consider larger requests for short-term capacity is expected to be less significant than the other drivers identified, National Grid has proposed to not include an additional element of the application fee for this driver at this stage. Clearly, National Grid will keep this position under review and may introduce such a charge if necessary at a later date.
- 48 National Grid continues to believe the application fee should be paid up-front and in full before it considers a valid application has been received and resource is committed to assess such an application. However, where a proportion of this fee recovers the cost of future works that are contingent on an offer being accepted i.e. that part of the fee relating to the rolling confirmation, this element of the fee should be refundable where such an offer is later rejected. This would ensure that the application fee remains cost-reflective.

#### **Proposed Modification for LDTEC Charges (GB ECM-03)**

- 49 Modification GB ECM03 proposes to change the Use of System Charging Methodology to allow National Grid to charge for additional short-term capacity provided by LDTEC (in any of the forms proposed).

#### **Proposed changes to the Use of System Charging Methodology**

- 50 The arrangements for the LDTEC tariff and the LDTEC Request Fee are considered separately below.

#### ***LDTEC tariff***

- 51 National Grid's proposals are based on our views having conducted a consultation on the charging principles for LDTEC.
- 52 In **positive charging zones** an up-front tariff profile is proposed. For the initial 17 weeks (consecutive or not) of capacity proved by LDTEC in a given charging year, the LDTEC tariff would be derived from equivalent zonal STTEC charges. For the remaining weeks of the year, LDTEC tariff would be set to collect the balance of the annual TNUoS liability for that zone:

Initial 17 weeks (high rate):

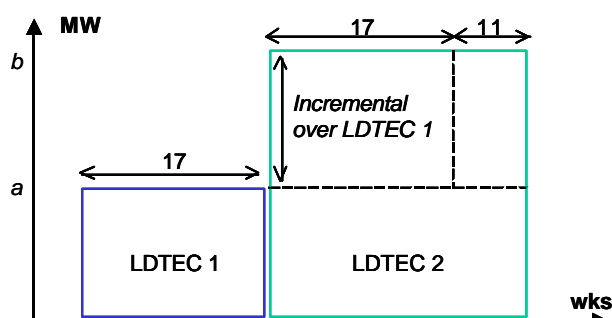
$$\text{LDTEC tariff (£/kW/week)} = \frac{FT_{Gi} \times 0.9 \times 7}{120}$$

Remaining 35 weeks (low rate):

$$\text{LDTEC tariff (£/kW/week)} = \frac{FT_{G_i} \times 0.1 \times 7}{365 - 120} \times (1 + P)$$

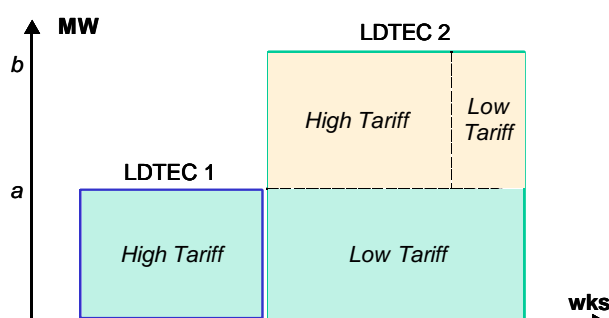
where  $FT$  is the final annual TNUoS tariff expressed in £/kW;  
 $G_i$  is the generation TNUoS zone; and  
 $P$  is the premium in % above the annual equivalent TNUoS charge as determined by National Grid.

- 53 While National Grid has initially proposed there should not be any premium associated with the longest duration of LDTEC in the year, i.e.  $P = 0\%$  in the equation above, the methodology includes provision for this to be revised at a later date should this be deemed necessary.
- 54 The LDTEC Charge for each LDTEC Period is given by the sum of the liabilities associated with each incremental amount of LDTEC purchased. The charging liability for each incremental amount of LDTEC, relative to any LDTEC purchased previously in the Financial Year, is the sum of:
- the product of the higher tariff rate and capacity purchased at this increment for the first 17 weeks (whether consecutive or not) in a Financial Year (i.e. a STTEC-equivalent charge for the first 17 weeks)
- and
- the product of the lower tariff rate and capacity at this increment purchased for any additional weeks (whether consecutive or not) within the same Financial Year (i.e. the balance of the annual TNUoS liability).
- 55 The figures below illustrate how this would work in practice.



In **LDTEC Period 1** the incremental LDTEC is  $a$ .

In **LDTEC Period 2** the incremental LDTEC is  $(b - a)$ .



The **high tariff (HT) rate** applies to the first 17 weeks of capacity  $a$  and  $(b - a)$ .

The **low tariff (LT) rate** applies to the remaining 28 weeks of capacity  $a$ , and 11 weeks of capacity  $(b - a)$ .

The LDTEC Charge for LDTEC Period 1 is:

$$HT \times a \times 17.$$

The LDTEC Charge for LDTEC Period 2 is:

$$HT \times (b - a) \times 17 + LT [(b - a) \times 11 + a \times 28].$$

- 56 LDTEC Charges will be collected in equal monthly instalments for each month in which LDTEC is purchased.
- 57 The LDTEC Charge for this profile of capacity would be the same regardless of whether the capacity was purchased in two LDTEC Periods, as shown, or in a single LDTEC Period.
- 58 Where a User has purchased TEC prior to LDTEC and both in the same year, LDTEC Charges will be determined by applying the appropriate LDTEC tariff to any LDTEC that is incremental to the TEC purchased, and the equivalent weekly TNUoS tariff applied to LDTEC that is not incremental.
- 59 In **negative charging zones** National Grid propose the LDTEC tariff should be zero. We believe this is appropriate to avoid complex proving runs and to be consistent with the equivalent arrangements for STTEC.
- 60 As per STTEC, it is not intended to include forecast LDTEC or the anticipated revenue from possible future LDTEC purchases in the DC load-flow (DCLF) Transport and Tariff Models. It is not, therefore, the intention of this proposal to change the existing arrangements for tariff setting for TEC. National Grid believes this is appropriate as the expected volumes of LDTEC are low.
- 61 National Grid believes this proposal is not discriminatory and will neither undermine TEC nor STTEC, as the proposed charges resemble those of STTEC in the short-term and the differences between LDTEC and TEC tend to ensure that TEC will remain the primary access product. Furthermore, while the marginal cost of provision is zero, or close to zero, an LDTEC charge that provided discounted access over the year might be expected to destabilise charging arrangements for TEC.
- 62 Nevertheless, if these proposals were implemented, National Grid would closely monitor the use of LDTEC and TEC. If there were evidence of TEC substitution, National Grid would consider revising the charging arrangements for LDTEC and / or seek suitable revisions to the CUSC. As noted above, the proposed methodology does not preclude National Grid revising the level of any premium at a later date, subject to the required notice periods.
- 63 Appendix 1 provides further examples of how the charges for LDTEC will be determined in a number of circumstances.

#### ***LDTEC Request Fee***

- 64 It is appropriate that an application fee should be levied to cover the works undertaken to assess each request by a User for LDTEC and is for the amount published in the Statement of Use of System Charges.
- 65 Due to the nature of LDTEC, it is proposed that this fee should be fixed according to a price schedule, paid in full prior to commencing assessment

work, and only be refundable in limited circumstances. Specifically, where a User withdraws its application in accordance with the CUSC, or where the User declines an offer and any outstanding assessment work is not required. Where such a refund is made this would relate to the remaining assessment time.

- 66 It is proposed the fee should be comparable to STTEC application fees, as we believe the amount of work is comparable to assessing applications for STTEC. National Grid has identified a number of drivers that affect these fees and these have been reflected in the relevant charging statement.
- 67 The fee may be revised once the actual cost of processing LDTEC applications become available.

#### **Justification for Proposed Modification for LDTEC Charges**

- 68 The proposed modification would better meet the Relevant Objectives in Licence Condition C5 of:
- to facilitate 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;
  - to result in charges which reflect, as far as reasonably practicable, the costs incurred by National Grid in its Transmission Business; and
  - to take account of the developments in National Grid's Transmission Business.
- 69 The modification will achieve these objectives in the following manner:
- by ensuring the appropriate treatment between Users incurring generation TNUoS Charges (for use of TEC) and STTEC Charges (for use of STTEC);
  - by setting charges that facilitate the use of a flexible access product, competition in generation will be enhanced;
  - by ensuring that TEC remains the primary access product, the cost-reflective charging arrangements for TEC would not be destabilised and consequently would not undermine the investment signals derived from applications for TEC;
  - by introducing a cost-reflective application fee; and
  - by ensuring that the charging methodology reflect developments with GB transmission system i.e. CAP094.

#### **Proposed Modification for Multiple STTEC Charges (GB ECM-04)**

- 70 Modification GB ECM-04 proposes to change the Use of System Charging Methodology to allow National Grid to charge for additional short-term capacity provided by Multiple STTEC.

## Proposed changes to the Use of System Charging Methodology

- 71 The arrangements for the Multiple STTEC tariff and Multiple STTEC Request Fee are considered separately below.

### **Multiple STTEC tariff**

- 72 National Grid propose that the tariff for Multiple STTEC purchased in **positive charging zones** should be based on those proposed for LDTEC, since both these products can be requested and used over the same time horizon:

Initial 17 weeks (high rate):

$$\text{Multiple STTEC tariff (£/kW/week)} = \frac{FT_{G_i} \times 0.9 \times 7}{120}$$

Remaining 35 weeks (low rate):

$$\text{Multiple STTEC tariff (£/kW/week)} = \frac{FT_{G_i} \times 0.1 \times 7}{365 - 120} \times (1 + P)$$

where  $FT$  is the final annual TNUoS tariff expressed in £/kW; and  
 $G_i$  is the generation TNUoS zone; and  
 $P$  is the premium in % above the annual equivalent TNUoS charge as determined by National Grid.

- 73 While National Grid has initially proposed there should not be a premium associated with the longest duration of Multiple STTEC in the year, i.e.  $P = 0\%$  in the equation above, the methodology includes provision for this to be revised at a later date should this be deemed necessary.
- 74 The product of the appropriate Multiple STTEC tariff and the chargeable capacity shall give the Multiple STTEC Charge. The chargeable capacity for Multiple STTEC will be determined according to the capacity removed from the market by the request so as to be consistent with the provisions proposed for LDTEC.
- 75 Where there are multiple successful requests by a User in the same year for Multiple STTEC, any incremental capacity above previous Multiple STTEC Blocks in the same charging year will be charged at the higher Multiple STTEC tariff rate for an initial 17 weeks before reverting to the lower tariff rate. The lower rate will apply to capacity that is not incremental provided this has been purchased for more than 17 weeks.
- 76 Where a User has purchased TEC prior to Multiple STTEC and both in the same year, Multiple STTEC Charges will be determined by applying the appropriate Multiple STTEC tariff to Multiple STTEC that is incremental to the TEC purchased, and the equivalent weekly TNUoS tariff applied to Multiple STTEC that is not incremental.
- 77 This would mean the cost of a given duration of access provided by accepted Multiple STTEC or LDTEC offer(s) would be the same, all other things being equal.
- 78 As with the proposals for LDTEC, National Grid believes this proposal is not discriminatory and will not undermine TEC, as the proposed charges resemble

those of STTEC in the short-term (providing a premium for flexibility in the short-term) and the differences between Multiple STTEC and TEC tend to ensure that TEC will remain the primary access product.

79 In **negative charging zones** National Grid propose the Multiple STTEC tariff should be zero. We believe this is appropriate to avoid complex proving runs and to be consistent with the equivalent arrangements for STTEC.

80 As with STTEC, it is not intended to include forecast Multiple STTEC or anticipated the revenue from possible future Multiple STTEC purchases in the DC load-flow (DCLF) Transport and Tariff Models. It is not, therefore, the intention of this proposal to change the existing arrangements for tariff setting for TEC. National Grid believes this is appropriate as the expected volumes of Multiple STTEC are low.

#### ***Multiple STTEC Request Fee***

81 It is appropriate that an application fee should be levied to cover the works undertaken to assess each request by the User for Multiple STTEC and is for the amount published in the Statement of Use of System Charges.

82 The application fee for Multiple STTEC should be linked to the charging arrangements presently in place for processing applications for STTEC, since the resource required to make multiple offers for each access block within a Multiple STTEC application are similar. However, we believe there may be some economies in the resource required following the first in a series of offers. This has been reflected in the proposed application fee structure for Multiple STTEC. National Grid proposes the entire application fee should be paid up-front and only be refundable in those circumstances outlined in the CUSC.

83 The fee may be revised once the actual cost of processing Multiple STTEC applications become available.

#### **Justification for Proposed Modification for Multiple STTEC Charges**

84 The proposed modification would better meet the Relevant Objectives in Licence Condition C5 of:

- to facilitate 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;
- to result in charges which reflect, as far as reasonably practicable, the costs incurred by National Grid in its Transmission Business; and
- to take account of the developments in National Grid's Transmission Business.

85 The modification will achieve these objectives in the following manner:

- by ensuring the appropriate treatment between Users incurring TNUoS Charges (for use of TEC) and STTEC Charges (for use of STTEC);
- by setting charges that facilitate the use of a flexible access product, although arguably less flexible than LDTEC, competition in generation will be enhanced;

- by ensuring that TEC remains the primary access product, the cost-reflective charging arrangements for TEC would not be destabilised and consequently would not undermine the investment signals derived for applications for TEC;
- by introducing a cost-reflective application fee; and
- by ensuring that the charging methodology reflect developments with GB transmission system i.e. CAP094.

## **Common aspects of Proposed Modifications**

### **Implementation Date**

- 86 National Grid believes the implementation date for these proposals should be 28 days following submission of the charging conclusion reports to the Authority. However, to avoid these proposals being unnecessarily vetoed, National Grid propose to submit these once we believe the Authority is in a position to make a decision on CAP094.
- 87 We do not believe that mid-year implementation would be problematic for the proposed methodologies.
- 88 National Grid notes the requirement in the CUSC to not give less than two months notice before revising use of system charges, unless the Authority has consented to a shorter period. National Grid believes such consent may be required for these proposals.

### **Proposed changes to the Statement of the Use of System Charging Methodology**

- 89 National Grid has not included changes to the Statement of the Use of System Charging Methodology in this document. Given the interaction between the text of the statement and the Authority's decisions on CAP094 and these charging proposals, we do not intend to publish draft text until these have been made. Nevertheless and time permitting, National Grid would intend to seek views on the textual changes to the statement in advance of these being made.

### **Indicative impact on Use of System Charges**

- 90 A new LDTEC tariff and an LDTEC Request Fee, and a new Multiple STTEC tariff and Multiple STTEC Request Fee have been proposed. Indicative tariffs and fees are provided in Appendix 2.
- 91 National Grid anticipates the expected revenue from LDTEC and Multiple STTEC is expected to be relatively small. As a result, it is reasonable to expect the revenue collected from generation and demand TNUoS charges to be unchanged given a fixed revenue requirement to be collected from use of system charges.

### **Impact on other industry documents**

- 92 This modification proposal has been progressed as a consequence of CAP094. This charging proposal does not, however, require changes to any other industry document to enable it to be implemented.

**Responses to this consultation**

- 93 Comments and views are invited on all issues raised in this consultation document. In order that your comments can be included in National Grid's report to the Authority, responses should be received by **6 January 2006**.
- 94 If you wish to comment on this modification proposal, these should be sent to:
- email to [Adam.Brown@uk.ngrid.com](mailto:Adam.Brown@uk.ngrid.com)
  - by writing to:  
  
Adam Brown  
Commercial Frameworks  
National Grid  
National Grid House  
Warwick Technology Park  
Gallows Hill  
Warwick  
CV34 6DA
- 95 Please mark clearly any responses that should be treated as confidential, the details of which will not be made public.
- 96 Queries regarding this consultation made to Adam Brown on 01926 655839.

## Appendix 1: Illustrations of LDTEC charging

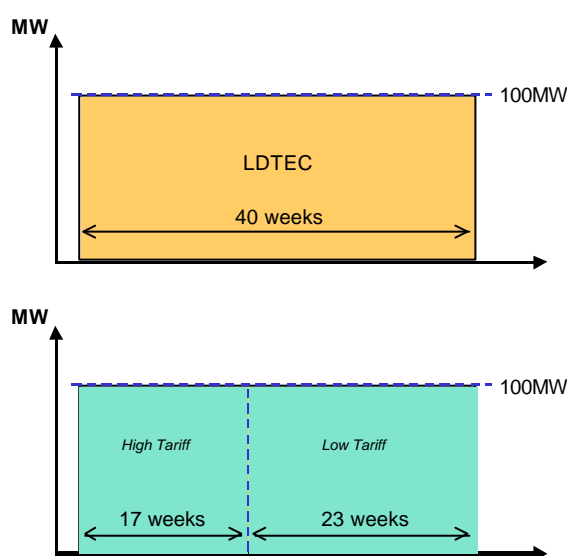
In each illustration the following has been assumed:

- ❑ a TNUoS tariff of 12.16 £/kW;
- ❑ an LDTEC higher tariff rate of 0.64 £/kW/week; and
- ❑ an LDTEC lower tariff rate of 0.03 £/kW/week.

Application fees have not been considered.

### Illustration 1 – Single LDTEC Period, no TEC

A User makes a single successful application for LDTEC (say, SB LDTEC). The access rights available to the User are shown in the figure below.



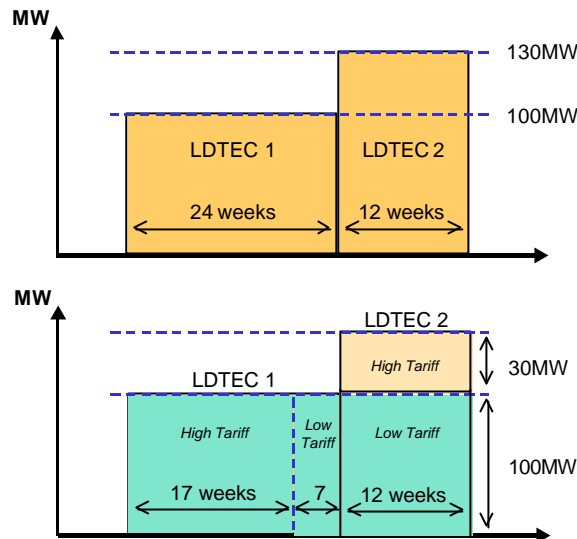
The incremental LDTEC is 100 MW, as no LDTEC has been purchased previously within the Financial Year. The charge for the LDTEC Period is given by:

$$\begin{aligned}
 &17 \text{ weeks} \times 0.64 \text{ £/kW/wk} \times 100 \text{ MW} + && \text{(high tariff)} \\
 &23 \text{ weeks} \times 0.03 \text{ £/kW/wk} \times 100 \text{ MW} = \text{£1.16m} && \text{(low tariff)}
 \end{aligned}$$

This would be payable in 10 monthly instalments of £116k.

### Illustration 2a – Multiple LDTEC Periods, no TEC

A User successfully applies for two LDTEC Periods in a single year (say, both IPB LDTEC) where the capacity accepted in the second period is higher than that of the first, as shown in the following figure.



In LDTEC Period 1 the incremental LDTEC is 100 MW. The LDTEC Charge for the LDTEC Period 1 is:

$$17 \text{ weeks} \times 0.64 \text{ £/kW/wk} \times 100 \text{ MW} + \text{(high tariff)}$$

$$7 \text{ weeks} \times 0.03 \text{ £/kW/wk} \times 100 \text{ MW} = \text{£1.11m} \quad \text{(low tariff)}$$

In LDTEC Period 2 the incremental LDTEC is 30 MW. The LDTEC Charge for the LDTEC Period 2 is:

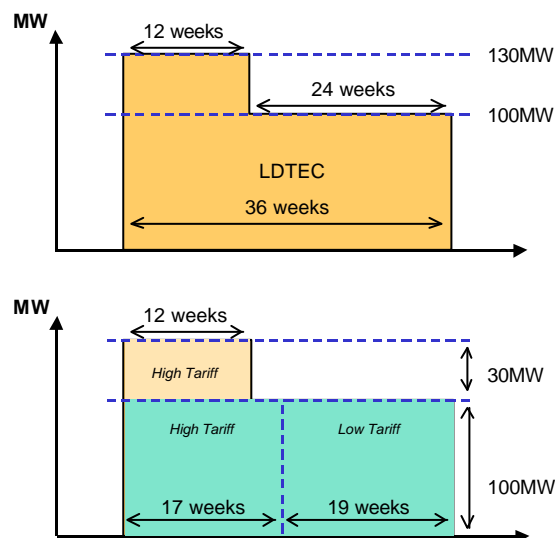
$$12 \text{ weeks} \times 0.64 \text{ £/kW/wk} \times 30 \text{ MW} + \text{(high tariff)}$$

$$12 \text{ weeks} \times 0.03 \text{ £/kW/wk} \times 100 \text{ MW} = 0.27\text{m} \quad \text{(low tariff)}$$

The total charge for using LDTEC is £1.38m.

### **Illustration 2b – Same total capacity provided in a single application**

In this instance the same total amount of LDTEC is provided albeit in a different order and obtained in a single application.



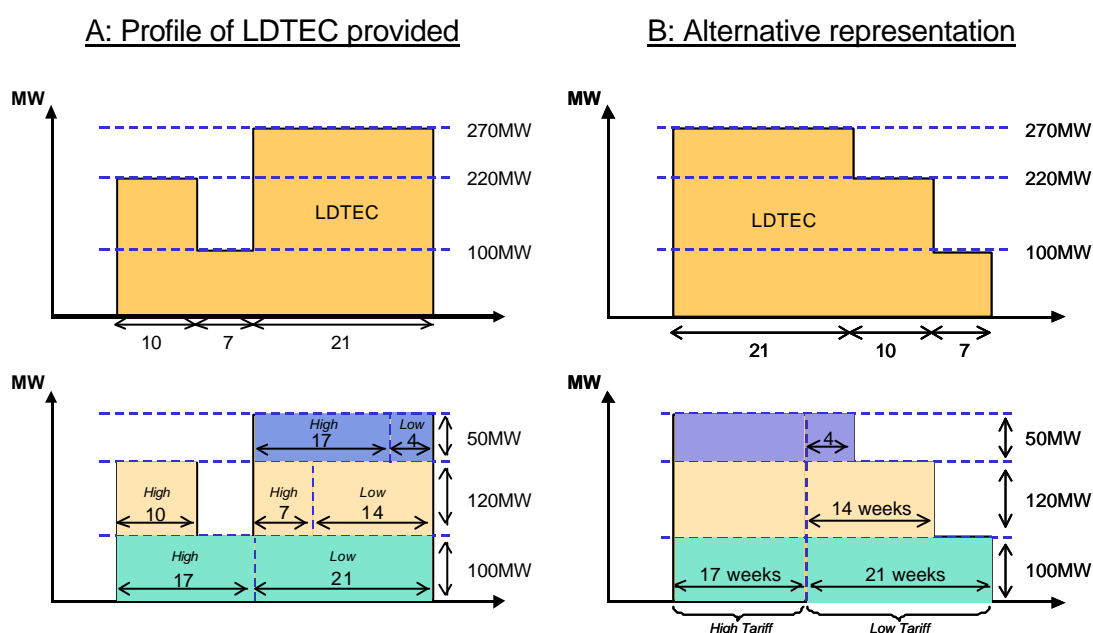
In this instance there are two incremental levels of LDTEC, 100MW and 30MW.

The LDTEC Charge for this period is:

$$\begin{aligned}
 &17 \text{ weeks} \times 0.64 \text{ £/kW/wk} \times 100 \text{ MW} + && \text{(high tariff)} \\
 &12 \text{ weeks} \times 0.64 \text{ £/kW/wk} \times 30 \text{ MW} + && \text{(high tariff)} \\
 &19 \text{ weeks} \times 0.03 \text{ £/kW/wk} \times 100 \text{ MW} = \text{£1.38m} && \text{(low tariff)} \\
 &\text{(c.f. £1.38m from Illustration 2a)}
 \end{aligned}$$

### Illustration 3 – More complex LDTEC profile from a single application

In this case a more complicated profile of access rights has been provided by LDTEC (say, PB LDTEC), as shown in figure A below. An alternative representation of the same capacity is provided in figure B below, to aid understanding of the charge calculation.



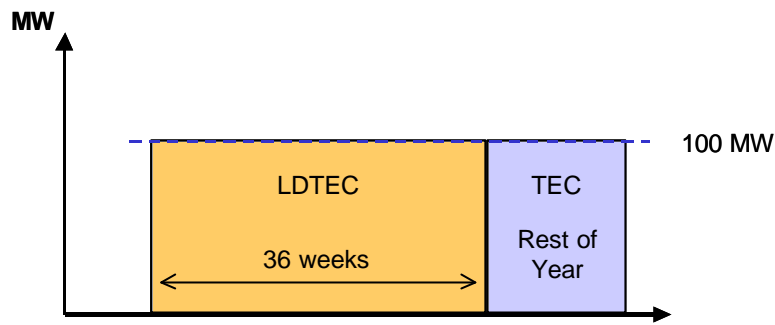
In the illustration there are three incremental levels of LDTEC: 100MW (used for 38 weeks), 120MW (used for 31 weeks) and 50MW (used for 21 weeks). The charge of the LDTEC Period is:

$$\begin{aligned}
 &17 \text{ weeks} \times 0.64 \text{ £/kW/wk} \times 100 \text{ MW} + && \text{(high rate)} \\
 &17 \text{ weeks} \times 0.64 \text{ £/kW/wk} \times 120 \text{ MW} + && \text{(high rate)} \\
 &17 \text{ weeks} \times 0.64 \text{ £/kW/wk} \times 50 \text{ MW} + && \text{(high rate)} \\
 &21 \text{ weeks} \times 0.03 \text{ £/kW/wk} \times 100 \text{ MW} + && \text{(low rate)} \\
 &14 \text{ weeks} \times 0.03 \text{ £/kW/wk} \times 120 \text{ MW} + && \text{(low rate)} \\
 &4 \text{ weeks} \times 0.03 \text{ £/kW/wk} \times 50 \text{ MW} = \text{£3.30m} && \text{(low rate)}
 \end{aligned}$$

The LDTEC Charge would be collected in 10 monthly payments of £330k.

### Illustration 4 – Single LDTEC combined with TEC (temporally separated)

A User purchases 36 weeks of LDTEC prior to TEC being available.



The total charge for LDTEC is:

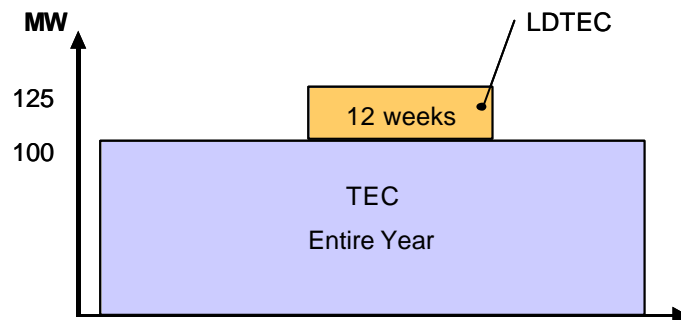
$$100\text{MW} \times 36 / 52 \times 12.16 \text{ £/kW} = \text{£}0.84\text{m}$$

Remaining TNUoS liability for year is £0.38m.

Total charge for access in the year is £1.22m (i.e. the annual TNUoS liability).

#### ***Illustration 5 – Single LDTEC Periods combined with TEC (incremental)***

A User purchases LDTEC to 'top-up' an existing TEC right.



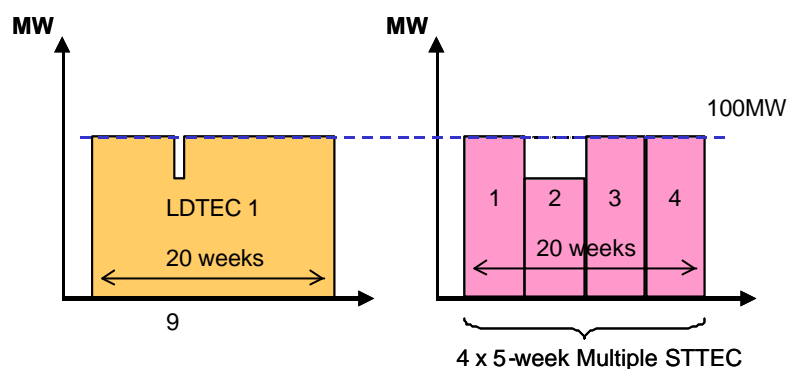
The annual TNUoS liability is £1.22m.

The liability for LDTEC charges is £0.19m.

Total charge for access in the year is £1.41m.

#### **Illustration 6 – Comparison between Multiple STTEC and LDTEC**

The figure below illustrates similar requests for access provided by IPB LDTEC and Multiple STTEC (as a separate product). In each case, 20 weeks of access has been requested up to 100MW. In week 9, a planned outage lowers the amount of capacity provided.



The charge for LDTEC is:

$$17 \text{ weeks} \times 0.64 \text{ £/kW/wk} \times 100 \text{ MW} + \quad \text{(high rate)}$$

$$3 \text{ weeks} \times 0.03 \text{ £/kW/wk} \times 100 \text{ MW} = \text{£1.10m} \quad \text{(low rate).}$$

The charge for Multiple STTEC is £1.10m given by the sum of:

$$0.64 \text{ £/kW/wk} \times 100 \text{ MW} \times 5 \text{ weeks} = \text{£320k} \quad \text{(P1, high rate)}$$

$$0.64 \text{ £/kW/wk} \times 100 \text{ MW} \times 5 \text{ weeks} = \text{£320k} \quad \text{(P2, high rate)}$$

$$0.64 \text{ £/kW/wk} \times 100 \text{ MW} \times 5 \text{ weeks} = \text{£320k} \quad \text{(P3, high rate)}$$

$$0.64 \text{ £/kW/wk} \times 100 \text{ MW} \times 2 \text{ weeks} + \quad \text{(P4, high rate)}$$

$$0.03 \text{ £/kW/wk} \times 100 \text{ MW} \times 3 \text{ weeks} = \text{£137k} \quad \text{(P4, low rate)}$$

## Appendix 2: Indicative charges for LDTEC and Multiple STTEC

### Part A – Indicative tariffs for LDTEC

Generation Zone	Zone Area	Generation Tariff (£/kW)	LDTEC tariff (£/kW per week)	
			Higher rate	Lower rate
1	Peterhead	18.162236	0.953517	0.051892
2	North Scotland	20.929759	1.098812	0.059799
3	Skye	23.095483	1.212513	0.065987
4	Western Highlands	18.920247	0.993313	0.054058
5	Central Highlands	15.360647	0.806434	0.043888
6	Cruachan	15.852828	0.832273	0.045294
7	Argyll	13.441972	0.705704	0.038406
8	Stirlingshire	12.610665	0.662060	0.036030
9	South Scotland	11.820471	0.620575	0.033773
10	North East England	8.090616	0.424757	0.023116
11	Humber, Lancashire & SW Scotland	4.906290	0.257580	0.014018
12	Anglesey	6.122706	0.321442	0.017493
13	Dinorwig	8.705520	0.457040	0.024873
14	South Yorks & North Wales	3.120190	0.163810	0.008915
15	Midlands & South East	1.322966	0.069456	0.003780
16	Central London	-5.712196	0.000000	0.000000
17	North London	-0.220327	0.000000	0.000000
18	Oxon & South Coast	-0.698936	0.000000	0.000000
19	South Wales & Gloucester	-2.552479	0.000000	0.000000
20	Wessex	-4.951295	0.000000	0.000000
21	Peninsula	-8.044943	0.000000	0.000000

## Part B - Indicative charges for Multiple STTEC

Generation Zone	Zone Area	Generation Tariff (£/kW)	Multiple STTEC (£/kW per week)	
			Higher rate	Lower rate
1	Peterhead	18.162236	0.953517	0.051892
2	North Scotland	20.929759	1.098812	0.059799
3	Skye	23.095483	1.212513	0.065987
4	Western Highlands	18.920247	0.993313	0.054058
5	Central Highlands	15.360647	0.806434	0.043888
6	Cruachan	15.852828	0.832273	0.045294
7	Argyll	13.441972	0.705704	0.038406
8	Stirlingshire	12.610665	0.662060	0.036030
9	South Scotland	11.820471	0.620575	0.033773
10	North East England	8.090616	0.424757	0.023116
11	Humber, Lancashire & SW Scotland	4.906290	0.257580	0.014018
12	Anglesey	6.122706	0.321442	0.017493
13	Dinorwig	8.705520	0.457040	0.024873
14	South Yorks & North Wales	3.120190	0.163810	0.008915
15	Midlands & South East	1.322966	0.069456	0.003780
16	Central London	-5.712196	0.000000	0.000000
17	North London	-0.220327	0.000000	0.000000
18	Oxon & South Coast	-0.698936	0.000000	0.000000
19	South Wales & Gloucester	-2.552479	0.000000	0.000000
20	Wessex	-4.951295	0.000000	0.000000
21	Peninsula	-8.044943	0.000000	0.000000

### Part C - LDTEC Request Fees

The following LDTEC Request Fees shall apply for applications for LDTEC in any zone. All prices exclude VAT.

Application fee	Duration of LDTEC (t)	£
<b>LDTEC basic application fee (t)</b>	t ≤ 3 months	10,000
	3 months < t ≤ 6 months	15,000
	6 months < t ≤ 9 months	20,000
	t > 9 months	30,000
<b>Additional fee for rolling assessment</b> (if applicable)	t ≤ 3 months	1,000
	3 months < t ≤ 6 months	1,500
	6 months < t ≤ 9 months	2,000
	t > 9 months	3,000
<b>Additional fee for combined applications</b> (if applicable)	t ≤ 3 months	5,000
	3 months < t ≤ 6 months	7,500
	6 months < t ≤ 9 months	10,000
	t > 9 months	15,000

Payable up-front in full prior to receipt of a valid application.

**Part D - Multiple STTEC Request fees**

The following Multiple STTEC Request Fee shall apply for applications for Multiple STTEC in any zone. All prices exclude VAT.

<b>Application fee</b>	<b>£</b>
First Multiple STTEC Offer in a Multiple STTEC Request	10,000
Subsequent Multiple STTEC Offers in the same Request	5,000

Payable up-front in full prior to receipt of a valid application.