Scottish & Southern Electricity Networks

TRANSMISSION

Scottish Hydro Electric Transmission plc

Basis of Transmission Owner Charges

Effective 1 April 2026

Contents

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1 Introduction and Principles

1.1. This statement is produced by Scottish Hydro Electric Transmission plc trading as Scottish and Southern Electricity Networks Transmission (SSEN Transmission), the Transmission Owner (TO), which sets out the basis of charges for the provision by SSEN Transmission to National Energy System Operator (NESO), the System Operator (SO) of transmission services as specified in the Transmission Licence and System Operator Transmission Owner Code (STC).

1.2. This statement is effective from 1 April 2026.

1.3. SSEN Transmission is obliged, under Special Condition 9.12 of its Electricity Transmission Licence, to prepare a statement approved by the Authority setting out the basis upon which charges will be made for the provision of transmission services. The statement is to be in such form and detail as shall be necessary to enable NESO to make a reasonable estimate of the charges to which it would become liable for the provision of SSEN Transmission's services. These services include the planning, development, construction, maintenance, and operation of new and modified connections to the licensee's transmission system.

1.4. Special Condition 9.12 requires that the statement shall in respect of connection to the licensee's (SSEN Transmission) transmission system include:

a. A schedule listing:

   i. items (including carrying out of works and the provision and installation of electrical lines or electrical plant or meters) of significant cost required for connection (at entry or exit points) to the licensee's Transmission System,

   ii. items for which Site Specific Charges may be made or levied, and

   iii. indicative charges or, where not practicable, an explanation of the methods by which and the principles with which the charges will be calculated;

b. The methods by which and the principles in accordance with which:

   i. Site Specific Charges will be made in circumstances where the electrical lines or electrical plant to be installed are (at the licensee's discretion) of greater size or capacity than that required;

   ii. any charges (including any capitalised charge) will be made for maintenance, replacement and repair required of electrical lines, electrical plant or meters provided and installed for making a connection to the licensee's Transmission System; and

   iii. any charges will be made for disconnection from the licensee's Transmission System and the removal of electrical plant, electric lines and ancillary meters following disconnection; and

c. Such other matters as shall be specified in directions issued by the Authority from time to time for the purpose of this condition.

1.5. This statement sets out SSEN Transmission's charges for the provision of transmission services to NESO. The charges shall consist of the General System Charge, Site Specific Charges and Other Charges. The methodology for calculating these three classes of charges is set out in parts one, two and three of this statement. The **General System Charge** recovers all costs for providing, replacing and/or refurbishing SSEN Transmission's infrastructure assets, and all costs associated with the replacement and/or refurbishment of Pre-Vesting transmission connection assets.

1.6. **Site Specific Charges** relate to Post Vesting connection assets and recover all costs for providing, replacing and/or refurbishing these connection assets. These charges enable SSEN Transmission to recover, with a reasonable rate of return, the costs involved in providing the assets, installed solely for and only capable of use by an individual User, that afford connection to the transmission system.

1.7. These costs may include civil costs, engineering costs, and land clearance and preparation costs associated with the connection assets. No land purchase costs are included.

1.8. In general, connection assets are defined as those assets solely required to connect an individual User to the SSEN Transmission system, which are not and would not normally be used by any other connected party (i.e. "Single User Assets"). For the purposes of this statement, all connection assets at a given location shall together form a connection site.

1.9. Connection assets are defined as all those Single User Assets which:

a. For Double Busbar type connections, are those Single User Assets connecting the User's assets and the first SSEN Transmission owned substation, up to and including the Double Busbar bay;

b. For teed or mesh connections, are those Single User Assets from the User's assets up to, but not including the HV disconnector or the equivalent point of isolation; and

c. For cable and overhead lines at a Transmission Voltage, are those Single User connection circuits connected at a Transmission Voltage equal to or less than 2km in length that are not potentially shareable.

1.10. Shared assets at a banked connection arrangement will not normally be classed as connection assets except where both legs of the banking are Single User Assets under the same TO Connection Agreement. Other definitions of connection assets might apply.

1.11. Indicative Gross Asset Values ("GAVs") of connection assets for illustrative purposes are given in Appendix A.

1.12. SSEN Transmission may, at the request of NESO, carry out other work, which is not covered by General System Charge or Site Specific Charges, including, for example, outage rescheduling, dealing with applications for connection or obtaining consents. The principles for calculating such Other Charges are also set out in this statement and, where absent, charging treatment will defer to the Connection and Use of System Code (CUSC).

2 Transmission Owner Revenue Restriction

2.1. The Transmission Price Control review sets a restriction on SSEN Transmission's charges for the General System Charge and Site Specific Charges, as described below.

2.2. Special Condition (SC) 2.1 Part C of SSEN Transmission's License established the charge restriction that determines the Allowed Revenue term (AR_t) that SSEN Transmission may earn from its TO services in year t:

$$AR_t = R_t * (PI_t / PI_{2023/24}) + K_t + BRFP_t + LAR_t$$

AR_t	Allowed Revenue term in year t
R_t	The value of calculated revenue which is derived in accordance with Part D of SC 2.1
PI_t	The price index term which is derived in accordance with Part E of SC 2.1
$PI_{2023/24}$	The price index term for the Regulatory Year commencing on 1 April 2023 which is derived in accordance with Part E of SC 2.1
K_t	The K correction term which is derived in accordance with Part F of SC 2.1
$BRFP_t$	The Base Revenue forecasting penalty which is derived in accordance with Part G of SC 2.1
LAR_t	The legacy adjustments term which is derived in accordance with SC 7.1 (Legacy adjustments to revenue)

2.3. The value of Rt is derived in accordance with the following formula:

$$R_t = FM_t + PT_t + DPN_t + RTN_t + RTNA_t + EIC_t + DRS_t + ODI_t + BPI_t + ORA_t + TAX_t + TAXA_t + RPA_t$$

FM_t	Fast money which has the value set out within the ET3 Price Control Financial Model
PT_t	Pass-through items as derived in accordance with SC 6.1 (Pass-through items)
DPN_t	RAV Depreciation which has the value set out within the ET3 Price Control Financial Model
RTN_t	Return which has the value set out within the ET3 Price Control Financial Model
$RTNA_t$	Return adjustment as derived in accordance with SC 2.3 (Return Adjustment)

EIC_t The allowance for equity issuance costs which has the value set out within the ET3 Price Control Financial Model

DRS_t Directly Remunerated Services which has the value set out within the ET3 Price Control Financial Model

ODI_t Output Delivery Incentive as derived in accordance with SC 4.1 (Total output delivery incentive performance)

BPI_t The business plan incentive term which has the value set out within the ET3 Price Control Financial Model

ORA_t Total other revenue allowances and is derived in accordance with SC 5.1 (Total other revenue allowances)

TAX_t Means the tax allowance and value is set out within the ET3 Price Control Financial Model

$TAXA_t$ Tax allowance adjustment term and has the value zero, unless the Authority directs otherwise under SC 2.2 (Tax allowance adjustment)

RPA_t Revenue reprofiling adjustment which has the value set out within the ET3 Price Control Financial Model and may be adjusted by the licensee with agreement from the Authority

Price Indexation (PI_t)

2.4. The indexation of connection asset GAVs to 31st March 2026 in preparation for charges made in 2026-27 will be in accordance with CPIH indexation requirements in accordance with the rules and formula set out in part E of SC 2.1.

Directly Remunerated Services Charges

2.5. Part C of SC 9.7 of SSEN Transmission's Licence establishes charging provisions for Directly Remunerated Services. These are other charges in addition to those specified in SC 2.1 (described above).

2.6. In addition to the charges arising from SSEN Transmission's charges for the provision of transmission services (Allowed TO Revenue) to NESO, SSEN Transmission will also invoice Directly Remunerated Services Charges monthly to NESO.

2.7. These Directly Remunerated Services Charges are for Pre and Post-vesting connection assets; including assets at Pre-Vesting sites which have replaced time-expired assets or have replaced non-time expired Pre-Vesting assets at the User's request (i.e. as the result of a modification application). These Directly Remunerated Services Charges consist of capital charges and maintenance charges that have not otherwise been recovered under Allowed TO Revenue.

2.8. The methods by which Other Charges are calculated are detailed in part three of this statement.

PART 1: General System Charge

The General System Charge reflects the cost of installing, operating, replacing, developing, and maintaining SSEN Transmission's infrastructure assets. These activities are undertaken to the standards prescribed by SSEN Transmission's licence, to provide the capability to allow the flow of bulk transfers of power between connection sites and to provide transmission system security.

The General System Charge will be set to recover the Allowed TO Revenue (AR_t) remunerated under Special Condition 2.1.

No service provided by SSEN Transmission shall be treated as a Directly Remunerated Service in so far as it relates to the provision of services remunerated under the General System Charge as set out in the STC and associated procedures. In accordance with the STC and associated procedures, SSEN Transmission will each month invoice NESO the General System Charge sum that has been advised by NESO.

PART 2: Site Specific Charges

The Site Specific Charges are set to recover costs associated with connection assets specified in the TO Construction Agreement (TOCA) and/or STC for the relevant connection site. In accordance with the STC and associated procedures, SSEN Transmission will recover the associated connection asset costs from NESO.

Site Specific Charges for the Post-Vesting connections consist of: (1) Capital Charges and (2) Transmission Operation and Maintenance Charges. These are explained further below.

3 Capital Charges

3.1. Capital charges reflect the purchase and installation cost of connection assets. The charge for each connection asset in year t can be derived from the general formula below:

$$\textbf{Annual Connection Charge}_t = D_t\,(GAV_t) + WACC_t\,(NAV_t) + SSF_t\,(GAV_t) + TC_t\,(GAV_t)$$

D_t	Depreciation Rate (noted as a percentage)
GAV_t	GAV for each financial year t, adjusted by price indexation (PI_t)
$WACC_t$	Real Rate of Return (4.32% as noted in section 3.4 below)
NAV_t	NAV (Net Asset Value) of the relevant assets for financial year t
SSF_t	Site specific cost / Total site GAV (noted as a percentage)
TC_t	Transmission Running Cost component for financial year t

Note: when year t relates to beyond the depreciation period.

NAV_t	Is equal to 0.
D_t	Is equal to 0.

3.2. The basis of Capital Charges is outlined in this section and within section five of this statement.

3.3. The depreciation charge sets to recover a fixed fraction of the GAV on an annual basis, for example $1/40^{th}$ of a 40-year book life asset charged each year for 40 years. In accordance with the CUSC, assets are depreciated over 40 years. The depreciation period for connection assets may, at the reasonable request of either party and by mutual agreement, be less than 40 years but never more than 40 years.

3.4. The Real Rate of Return is defined as SSEN Transmission's Weighted Average Cost of Capital (WACC) to coincide with section 14.3.21 of the CUSC. The WACC can be found in the latest published Ofgem Price Control Financial Model (PCFM) relating to year t, which for 2026-27 is 4.32%.

Capital Charges for Post Vesting Pre BETTA Connections

3.5. For Post Vesting Pre BETTA connections commissioned before 1 April 2005 (BETTA Go-Live Date), where the capital costs are recovered through annual connection charges, these charges are based on a rate of return on the NAV plus a depreciation charge based on the asset life. The rate of return that will be applied to the NAV is 4.32% as detailed in section 3.4 above. The asset life used as a basis for the depreciation charge is detailed in section 3.3 above. For connection assets where NESO has paid 100% (full) capital contribution towards the purchase and installation of the assets, there are no annual capital charges. For partial or post commissioning capital contributions, see paragraph 3.6 below.

Capital Charges for Post BETTA Connections

3.6. For assets installed after 1 April 2005, SSEN Transmission will recover the cost of connection from NESO by means of either:

Option (a) A full capital contribution charge;

Option (b) Annual capital charge, over the lifetime of the assets; or

Option (c) A partial capital contribution charge with reduced annual charge.

3.7. Where NESO has elected Option (a) or Option (c), SSEN Transmission will require the relevant capital contribution charge to be paid either in advance of commencement of connection works (which may be phased over the construction period according to a payment schedule as set out in the TOCA) or based on the allocated and depreciated NAV of a commissioned asset.

3.8. NESO could elect to make a capital contribution based on the allocated and depreciated NAV of a commissioned asset or while the asset is under construction (after the commencement of construction but prior to the commissioning date). For a capital contribution to take account at the start of the charging year t, NESO may, at most once per year, make a full or partial capital contribution of at least 10% of the NAV (or GAV for an asset under construction) prevailing as of 31 March in year t-1. NESO shall notify SSEN Transmission of the capital contribution amount no later than 1 October in year t-1, and pay the capital contribution 45 days prior to the start of the charging year t, which will be applied to the NAV prevailing at the start of charging year t.

3.9. For Option (a) where NESO has requested and paid full capital contribution, a reasonable rate of return will be included as part of the capital contribution payment. There will be no annual capital connection charges subsequent to this (i.e. no annual depreciation or annual rate of return charges).

3.10. For Option (a) the sum quoted in the construction agreement for the connection assets at the relevant site will become the GAV of the connection assets for the purposes of calculating the annual Transmission Operation and Maintenance Charges for the site.

3.11. For Option (c) where NESO has requested and paid partial capital contribution, either pre or post asset commissioning, the annual capital connection charge will recover the remaining capital cost. The annual capital connection charge will become payable the day after commissioning of the connection assets or from the day the connection assets become available for use, which will be determined by the needs of the User.

3.12. Where NESO has elected Option (b) or (c) the capital costs recovered through annual charges are based on a rate of return on the NAV plus a depreciation charge based on the asset life (as noted in sections 3.3 and 3.4 above).

Connection Agreements

3.13. SSEN Transmission's construction offer to NESO will be based on the following price base and payment terms will reflect Option (a), (b) or (c) above.

(i) Indicative Price Agreement with Outturn Price Reconciliation

3.13.1. Once the works required to provide a new or modified connection are completed and the costs finalised, the connection scheme is "outturned". SSEN Transmission reconciles the monies paid by NESO on the indicative charge basis against the charges that would have been payable based upon the actual costs incurred in delivering the project along with any relevant interest charges. This process requires a new charging GAV (the initial asset cost) to be agreed with NESO in line with the "Calculation of the Gross Asset Value" (as shown in section five).

3.13.2. For existing offers whereby, a price base other than (i) above has been formally agreed, SSEN Transmission will honour the existing terms in alignment with previous charging methodologies.

3.13.3. Where NESO modifies their connection application at any time, SSEN Transmission reserves the right to reasonably amend the charges as appropriate.

3.14. SSEN Transmission reserves the right to make an offer of terms on a different price basis if SSEN Transmission is aware that the choice exercised by NESO is not the same choice being exercised by the party requesting the connection ("the User") in its relationship with NESO.

3.15. Where SSEN Transmission installs assets of greater size and/or capacity than the minimum that would be required for that connection using standard equipment ratings, the costs in excess of that minimum normally shall be borne by SSEN Transmission, unless the change in capacity was at the User's request.

3.16. If SSEN Transmission considers that assets require to be replaced prior to the end of their normal economic lifetime (normally 40 years) and the use of the asset has been within reasonable parameters, the replacement costs will be borne by SSEN Transmission within the remaining economic life of the original assets. On expiry of the expected lifetime of the original assets, the connection capital charge will be recalculated, taking account of the NAV of the replacement connection assets, together with the normal provision for depreciation.

3.17. Pre Vesting sites will be charged in accordance with this charging statement and the CUSC.

3.18. Where a modification to the existing connection occurs at NESO's request or due to developments to the transmission system, the connection charges will reflect any additional connection assets that are necessary to meet NESO's requirements. Charges will continue to be levied for existing assets that remain in service. Termination charges, as described in section fifteen, will be charged for any existing connection assets made redundant as a result of the modification.

4 Transmission Operation and Maintenance Charges

4.1. Transmission Operation and Maintenance Site Specific Charges in respect of connections provided by SSEN Transmission are not limited to the routine maintenance of assets in accordance with specified maintenance frequencies, but also include the following:

- a proportion of the cost of operating the transmission business;
- total site care, covering site safety, security and environmental protection, local liaison, notably with statutory authorities, wayleave grantors and members of the public;
- payment of local authority charges, electricity, water, and telephone charges associated with the connection site; and
- standby and out-of-hours service throughout the year.

4.2. For Options (a), (b) or (c) in section three above and for Post Vesting Pre BETTA connections, the Transmission Operation and Maintenance annual charges will be calculated as set out below.

4.3. Transmission Operation and Maintenance annual charges are divided into two parts:

4.3.1. The Site Specific Maintenance annual charge recovers the on-going maintenance (including repairs) of the connection asset and one off work asset (where applicable) and is based on forecast total site specific maintenance for National Electricity Transmission System Security (NETS) divided by the total GAV of SSEN Transmission's connection assets to arrive at a percentage of total GAV. The annual Site Specific Maintenance charge is 0.43% of the connection asset GAV. For the avoidance of doubt, there will be no reconciliation of the Site Specific Maintenance charge.

4.3.2. The Transmission Running Cost (TRC) charge is calculated each year to reflect the appropriate amount of other transmission operation costs (rates, operation, indirect overheads) incurred by SSEN Transmission that should be attributed to connection assets. This charge is based on a percentage of the GAV of the connection asset. The TRC is 0.90% of GAV. For the avoidance of doubt, there will be no reconciliation of the TRC.

5 Calculation of Gross Asset Value (GAV) and Net Asset Value (NAV)

5.1. The GAV represents the initial total cost of a connection asset to SSEN Transmission. For a new connection asset, it will be the costs incurred by SSEN Transmission in the provision of that connection asset, as defined in the TOCA. Typically, the GAV is made up of the following components:

- Construction costs – costs of materials and bought-in services;
- SSEN Transmission engineering – allocated equipment and engineering costs including overheads;
- Interest during construction – financing cost; and
- Liquidated damages premiums – premiums required to cover Liquidated Damages, if applicable.

5.2. The GAV of an asset is re-valued each year, defined in Special Condition 2.1 Part E. The formula for this revaluation is therefore as follows:

$$GAV_t = GAV_{t-1} * PI_t$$

5.3. PI_t will be adjusted in accordance with the rules set out in SSEN Transmission's licence as defined in Special Condition 2.1 Part E.

5.4. The NAV of each asset for financial year t, used for the charge calculation, is the average (mid-year) depreciated GAV of the asset. The following formula calculates the NAV of an asset, where A_t is the age of the asset (number of completed charging years old) in year t:

$$NAV_t = GAV_t * \frac{\text{Depreciation Period} - (A_t + 0.5)}{\text{Depreciation Period}}$$

Note: when year t relates to beyond the depreciation period;

NAV_t Is equal to 0.

PART 3: Other Charges

Over and above the General System Charge and Site Specific Charges, SSEN Transmission may incur other costs, including, but not limited to:

- costs associated with processing applications for connection to the system.
- one-off costs associated with new connections; and
- cost of rearranging outages at NESO's request.

Any costs incurred by SSEN Transmission as a result of NESO's requirements that are not otherwise recoverable through the General System Charge or Site Specific Charges will be charged to NESO according to the following principles.

6 Application Fees

6.1. SSEN Transmission will charge NESO an application fee at the time of each application for a new or modified connection to SSEN Transmission's transmission system. This fee is intended to cover engineering costs and other expenses involved in preparing an offer of terms.

6.2. For Onshore applications, NESO can opt to pay a fixed application fee or variable fee. For Offshore applications, all application fees will be a variable application fee based on the actual costs incurred due to potential for substantial variations in the studies required.

6.3. If NESO chooses to pay a variable application fee, SSEN Transmission will charge NESO the appropriate fee once the actual engineering and out-of-pocket expenses have been established. Actual costs will be based on the SSEN Transmission charge-out rates detailed in Appendix C. NESO, will receive an invoice from SSEN Transmission once costs are known.

6.4. For fixed fees, should NESO notify SSEN Transmission of changes in the planning assumptions after receipt of an application fee, SSEN Transmission may levy an additional charge. Where the application is variable, any reasonable works involved in preparing an offer based on the previously advised planning assumptions will be included in the reconciled application fee.

6.5. In exceptional circumstances where NESO has requested an application which involves significant costs over and above that normally expected (e.g. substantial system studies, specialist surveys, investigations) to process an offer of terms then SSEN Transmission reserves the right to vary the applicable fixed fee quoted in Table A or B of Appendix B. Under these circumstances, SSEN Transmission will, following discussion with NESO, advise the appropriate indicative applicable fee. Such an application fee will be treated as a variable application fee and reconciled in the manner detailed above once the actual costs are known.

6.6. Upon receipt of invoice, SSEN Transmission will refund application fees either on commissioning or against the charges payable in the first three years of the new or modified agreement. The following conditions apply:

- The refund will be net of external costs.
- Where a new or modified agreement is signed and subsequently modified at NESO's request before any charges become payable, SSEN Transmission will refund the original application fee. SSEN Transmission will not refund fees in respect of the subsequent modification; and
- SSEN Transmission will not refund application fees for applications to modify a new agreement or modified existing agreement at NESO's request before any charges become payable.

7 Feasibility Studies

7.1. If NESO requests a feasibility study in conjunction with alterations to or an extension of the SSEN Transmission network, NESO will advise whether the fee will be based on a fixed or variable basis. Where it is a variable basis, a fee is payable based on an advance of SSEN Transmission engineering and out of pocket expenses. The fee payable by NESO will vary according to the size of the study and the amount of work involved. Where actual engineering and out-of-pocket expenses exceed the advance, SSEN Transmission will issue an invoice for the excess. Conversely, where SSEN Transmission does not use all of the advance, the balance will be refunded. Where the fee is on a fixed basis, SSEN Transmission will provide a fee based on the estimated charge forecasted using the charge-out rates as specified in Appendix C. There will be no reconciliation of this fee on conclusion of the study.

7.2. A schedule of charge-out rates for different grades of SSEN Transmission staff is attached at Appendix C.

8 One-Off Works

8.1. To provide or modify a connection, SSEN Transmission may need to carry out works on the transmission system that, although directly attributable to the connection, may not give rise to additional connection assets. These works are defined as "one-offs". Liability for one-off works charges is established with reference to the principles laid out below:

- Where a cost cannot be capitalised into either a connection or infrastructure asset, typically a revenue cost;
- Where a non-standard incremental cost is incurred as a result of NESO's request, irrespective of whether the cost can be capitalised; and
- Where there is a termination charge associated with the write-off of connection assets at the connection site.

8.2. The one-off works charge is a charge equal to the cost of the works involved, plus a reasonable return.

8.3. The calculation of the one-off works charge for write-off of assets is outlined below:

Write-off Charge = 100% of remaining NAV of redundant assets

8.4. One-off works charges are payable prior to the connection date or, where agreed, upon alteration or completion of the works and are paid on an agreed date.

8.5. One-off works shall include, but not be limited to, the following:

- The costs of diversion of transmission lines or cables, in conjunction with an application for a new or modified connection, including removal or relocation of towers will be recovered as one-off works charges.
- The costs of Category 1 and 3 inter-tripping schemes for generator connections (as defined in the Grid Code and the CUSC) will be recovered as one-off works charges.
- The costs of abortive transmission construction works will be recovered as one-off works charges as set out in this statement.
- The cost for accelerating a scheme i.e. the incremental costs involved for any works in providing a connection which would be in advance of the most economic and efficient commencement date of those works, will be classed as one-off works.

9 Miscellaneous Site Specific Charges

9.1. Other contract specific charges may be payable by NESO for a specific site. These will be set out in the TOCA and/or STC where appropriate.

10 Abortive Works

10.1. Following a User's modification application if, in SSEN Transmission's reasonable opinion, the User has required SSEN Transmission to make the amendment to the transmission construction works and SSEN Transmission has previously carried out transmission construction works, some or all of which are now no longer required ("Abortive Works"), NESO shall be required to make a payment to SSEN Transmission in respect of all fees, expenses and costs, of whatever nature, reasonably and properly incurred by SSEN Transmission in respect of the Abortive Works.

11 Contestable Connection Works

11.1. The above principles are relevant for transmission connections where SSEN Transmission procures and installs all necessary transmission connection assets on behalf of the User. However, subject to our agreement, it is also possible for the User themselves to procure and install certain transmission connection assets as contestable connection works. Such arrangements would be subject to the assets being designed and installed to SSEN Transmission's technical standards to ensure the ongoing security and operability of the transmission system. SSEN Transmission may also require other agreements and indemnities to mitigate any adverse consequences for other Users of the transmission system that may arise as a result of a User's decision to "self -build".

11.2. In the event a User should wish to consider the option of self–building certain transmission connection assets and works, they should advise NESO of this intention when making their formal application to NESO. Following such indication of intent SSEN Transmission will provide the User with the necessary specifications and agreements covering the self-build works.

11.3. Provided the User complies with 11.2, SSEN Transmission would adopt the User's self-build transmission connection assets, free of charge, subject to the User complying with the requirements and obligations of a Transmission Adoption Agreement ("TAA") in respect of the transmission connection assets and other requirements. The TAA shall be between SSEN Transmission and the User.

11.4. The TO construction agreement would contain an estimated GAV for the new or replacement connection assets for charging purposes. The GAV would be estimated by SSEN Transmission as though it was carrying out the full works, unless otherwise provided by the User and agreed with NESO and SSEN Transmission acting reasonably.

12 Energy Metering Systems

12.1 The charges to NESO for the provision of energy metering systems will be on a similar basis as other SSEN Transmission connection assets. The electronic components of the energy metering system have a 10-year replacement and depreciation period whilst the non-electronic components retain a 40-year replacement and depreciation period.

13 Outage Services

13.1. Where pre-arranged outages are re-arranged at NESO's request or where NESO require additional services for planned or unplanned outages over and above the normal service provided under General System Charge, NESO will be liable for outage service charges as governed by STCP 11-3 TO Outage Change Costing, and STCP 11-4 Enhanced Service Provision. These charges reflect the costs incurred by SSEN Transmission in accommodating NESO's request. They include, but are not limited to:

- Costs of standing down contractors until outage starts. Costs will be derived from contractors' invoices and, in the case of liquidated damages, from the relevant agreement(s);
- Costs of overtime working to reduce outage time such as to reduce NESO's costs in maintaining system security. Costs will be based on overtime hours worked on the particular outage;
- Costs of installing additional equipment, such as temporary bypass arrangements; and
- Consequential costs which are incurred by other agreed outages which are directly attributable to the change requested by NESO.

13.2. Where an outage is re-arranged at NESO's request, SSEN Transmission will use all reasonable endeavours to minimise the charge to NESO by redeploying staff onto other work.

13.3. Charge-out rates to assess indicative costs for overtime are given at Appendix C.

14 De-energisation and Disconnection

14.1. Where NESO wishes a supply to be permanently de-energised, a minimum of two business days' notice (or such other period as may be specified in the TOCA and/or STC) to that effect should be given to SSEN Transmission. SSEN Transmission will arrange to de-energise the supply and read the metering equipment, where appropriate, for billing purposes. An additional charge will be made for this service if undertaken outside normal working hours.

14.2. Temporary de-energisation (and subsequent re-energisation) resulting from the failure by NESO to comply with the terms of their relevant agreement or carried out at the request of NESO will be at the expense of NESO.

14.3. Where it becomes necessary to disconnect a User (at the request of NESO), that is to have SSEN Transmission's equipment removed from site, for any reason, any payments outstanding in first providing that connection will become due forthwith.

14.4. If NESO requests disconnection, this should be requested in writing. On receipt of such a request SSEN Transmission will take all reasonable steps to remove the equipment in accordance with NESO's reasonable requirements. SSEN Transmission should be consulted at an early stage and a programme for the removal of equipment will be subject to individual assessment.

14.5. On termination, SSEN Transmission retains the right to remove its equipment. Where it is cost effective to do so, SSEN Transmission will remove such equipment and no charge will be made to NESO.

14.6. For those assets where removal is not cost effective (e.g. buried cables), SSEN Transmission will ensure such assets are made safe and that conditions allow them to be left on site. If NESO, or general planning conditions, require SSEN Transmission to remove the assets, the cost of removal will be payable by NESO. All such equipment will remain the property of SSEN Transmission until otherwise agreed in writing with SSEN Transmission.

15 Asset Termination Charges

15.1. Where NESO decides prior to the expiry of the normal 40 year replacement period (or shorter if originally agreed) of the assets involved, that all or part of a connection is no longer required and either applies to modify the agreement, or serves notice of a termination, a termination amount is payable to SSEN Transmission. This applies except for where the full capital charge has been paid in advance, excluding reasonable costs of removing such assets.

15.2. Where the connection assets are made redundant as a result of the termination or modification to the TOCA and/or STC, NESO will be liable to pay an amount equal to the NAV of such assets as at the end of the financial year in which termination or modification occurs, reflecting the following:

- The reasonable costs of removing such assets. These costs being inclusive of the costs of making good the condition of the connection site;
- The connection charge for the full year, if a connection asset is terminated before the end of a financial year;

- Where termination occurs mid-way through the financial year, no Site Specific Maintenance Charges (4.3.1) or Transmission Running Cost Charges (4.3.2) will be charged from the date of termination.

- Previous capital contributions will be taken into account.

15.3. The calculation of termination charge for financial year t is as follows:

$$\textbf{Termination charge}_t = \textbf{UoS}_t + \textbf{C}_t + \textbf{NAV}_{at} + \textbf{R} - \textbf{CC}$$

$\textbf{UoS}_t$	Outstanding Use of System Charge for year (TNUoS and BSUoS)
$\textbf{C}_t$	Outstanding Connection Charge for year t
$\textbf{NAV}_{at}$	NAV of the relevant assets as at 31 March of financial year t
R	Reasonable costs of removal of redundant assets and making good
CC	An allowance for previously paid capital contributions

15.4. The reasonable costs incurred by SSEN Transmission in connection with the installation of assets are payable to SSEN Transmission, as no Site Specific Charges will have become payable by NESO by the date of termination, provided that the following criteria are met:

- Assets which SSEN Transmission has determined to replace upon expiry of the relevant replacement period;

- In accordance with the provisions set out in the STC; and

- For which a notice to disconnect or terminate has been serviced in respect of the connection site at which the assets were located.

16 Re-use of Connection Assets

16.1. If any assets in respect of which a termination charge was made to SSEN Transmission are re-used at the same site or elsewhere on the system, including as infrastructure assets, SSEN Transmission will make a payment to NESO to reflect the fact that the assets are being re-used.

16.2. The arrangements for such repayments for re-use of assets are that SSEN Transmission will pay NESO a sum equal to the lower of:

- The Termination Amount paid in respect of such assets; or

- The NAV attributed to such assets for charging purposes upon their re-use.

16.3. The above payments are less any reasonable costs incurred in respect of the storage of re-used assets.

16.4. The definition of re-use is set out in the CUSC.

16.5. Where SSEN Transmission decides to dispose of a terminated asset and it is capable of re-use, SSEN Transmission will pay NESO an appropriate proportion of the sale proceeds received.

17 Early Termination of Transmission Reinforcement Work

17.1. When a TOCA for a connection is terminated by NESO prior to completion of the works then, in addition to the costs incurred at the time of termination for connection assets, NESO must pay SSEN Transmission the costs incurred at the time of termination for any transmission reinforcement works which were required as a direct consequence of NESO's application for a connection.

18 Early Replacement

18.1. If SSEN Transmission considers that a connection asset requires to be replaced prior to the end of its standard economic life, the replacement costs will be borne by SSEN Transmission within the remaining economic life of the original connection asset. On expiry of the expected life of the original connection asset, the connection charge will be recalculated taking account of the NAV of the replacement connection asset, together with the normal provision for depreciation.

19 Miscellaneous

19.1. If NESO request any other work by SSEN Transmission which is not covered by the General System Charge, Site Specific Charges or other charges specified above, SSEN Transmission will provide terms for the requested work.

19.2. The National HVDC Centre is part of SSEN Transmission and is funded under an Ofgem approved allowance during RIIO-T3. Services provided by the National HVDC Centre are charged based on the rates described in Appendix C.

GLOSSARY

Affected TO	A TO who owns or operates a transmission system which is electrically impacted by a User's connection to a Host TO's transmission system
Allowed Revenue	As set out in the TO's Transmission Licence
Authority	The Gas and Electricity Markets Authority (GEMA) established under Section 1 of the Utilities Act 2000
BETTA	British Electricity Trading and Transmission Arrangements
BETTA Go-Live Date	1 April 2005
Bilateral Connection Agreement	An agreement between the SO and the User covering the connection to SSEN Transmission's transmission system
Consents	In relation to any transmission system and/or connection works: a) all such planning (including Public Inquiry) and other statutory consents; b) all wayleaves, easements, rights over or interests in land or any other consent; or for commencement and carrying on of any activity proposed to be undertaken at or from such works when completed; and c) permission of any kind as shall be necessary for the construction of the works
CPIH	The arithmetic average of the Consumer Prices Index including Owner Occupiers' Housing Costs. Published by the Office for National Statistics and amended monthly. Calculated in accordance with Special Condition 2.1 Part F
CUSC	Connection and Use of System Code
Directly Remunerated Services Charges	As defined in Special Condition 9.7 of the TO's Transmission Licence
Entry Point	A point of connection at which electricity may be exported from a User's installation onto the transmission system i.e. Generation
Exit Point	A point of connection at which electricity may flow from the transmission system to the User's installation i.e. Demand
Host TO	The TO which will electrically connect the User to a transmission system which is owned or operated by that TO
NESO	National Energy System Operator Limited
Post BETTA	On and after 1 April 2005
Post-Vesting	On and after 1 April 1990

Pre-Vesting	On or before 31 March 1990
RAV	Regulated Asset Value
SO	System Operator (NESO)
STC	System Operator Transmission Owner Code
TO	An onshore or offshore Transmission Owner. This being SSEN Transmission
Transmission Interface Point	The electrical point of connection between the offshore transmission system and onshore transmission system
Transmission Interface Site	The site at which the Transmission Interface Point is located
Transmission Licence	Transmission licence granted or treated as granted under section 6(1)(b) of the Electricity Act (1989)
Transmission Voltage	In Scotland, usually voltages at 132kV or above
User	A generation or demand customer connected to the transmission system and party to NESO's bilateral agreement(s)

Appendix A Indicative Connection Asset Charges

The schedule below gives typical costs, excluding Value Added Tax (VAT), for additions to SSEN Transmission's transmission system. The costs shown are current at the time of publication, are subject to change without notice and may vary upon system configuration, consents, site conditions etc. Additions to the system include (but are not limited to):

Description	£000s		
	275kV	132kV	33kV
Single Busbar Bay	2,612	1,925	710
Double Busbar Bay	3,697	2,408	-
Single Circuit Trident £/km	-	765	-
Double circuit Steel Tower £/km	4,236	3,496	-
Transformer Cables per 100m (including terminations)	1,565	1,067	216
275/132kV 240MVA Transformer	7,350	-	-
275/33kV 120MVA Transformer	6,096	-	-
132/33kV 90MVA Transformer	-	5,069	-
132/33kV 60 MVA Transformer	-	-	-

Calculation of Gross Asset Value (GAV)

The GAV figures in the above table were calculated using the following assumptions:

- Each asset is new;
- The GAV includes estimated costs of construction, engineering, and liquidated damages premiums.

Notes on Assets

Busbar Bays – Assumptions:

- Plant – the bay is constructed from SSEN Transmission standard bay drawings; tendered prices provided for protection, cabling, auxiliary systems, earthing are based on various assumptions;
- Everything is based on an assumed value per bay;
- Civil – nominal base sizes and dimensions of concrete footings, good ground condition, including landscaping. Access works and drainage costs elsewhere.

Busbar Bays – Exclusions:

- Plant – overall substation protection, main control and Supervisory Control and Data Acquisition (SCADA) systems;
- Auxiliary supplies including Low Voltage (LV) Alternate Current (AC) and Direct Current (DC) systems;
- Electrical design costs;
- Local authority/statutory planning consents.

Transformer Cables – Assumptions (All based on 1 circuit of 1 core per phase, 100m circuit length on a flat and unimpeded route):

- Cross-Linked Polyethylene (XLPE) lead/ali sheathed cable supply, install, commission;
- High voltage AC and sheath testing;
- Earth Continuity Cable (ECC) & link boxed supply, installation, and connection included;
- Fibre optic including terminal boxes – installed with cable only;
- Cable installed in ducts/trenching;
- Connection and modifications to earth mat;
- Excavation waste disposal, site establishment/prelims, security, and access costs included;
- Cable installation will be treated as a standalone installation project;
- Costs do not allow for any small quantity/Minimum Order Quantity (MOQ) surcharge that may be levied by the cable supplier;
- Others – VAT and inflation.

Transformers – Assumptions:

- Plant – costs include for procurement, delivery and commissioning of Grid and Super Grid (SG) transformers;
- Civil – nominal base sizes with good ground conditions, include for a bund. Access, oil containment;
- Transformer protection, control, cabling, Earthing transformer and Neutral Earthing Resistor, auxiliary systems vary based on site specifications and requirements;
- Earthing is based on an assumed value per bay.

Transformers – Exclusions:

- HV & LV switchgear;
- Bay protection, control, and SCADA system (considered under part of the busbar bay costs);

- Auxiliary supplies including LV AC & DC systems;
- Civil – piling;
- Site drainage;
- Electrical design costs;
- Fire protection systems;
- Local authority/statutory planning consents;
- Other – VAT and Inflation.

Overhead line:

- Costs are based on 1km pro rate assessment from delivered projects and include allowances for typical access and crossing requirements i.e. all in rate

Factors Which Can Influence Costs and Charges:

- Standards governing the system;
- Special security of supply requirements;
- Length of cable/line required from existing system;
- Size of Exit point / Entry point capacity requirements in relation to available capacity of existing network, including the age of the assets and the condition of the network;
- Whether any extension or reinforcement of the existing network is by underground cable or overhead lines;
- Type of ground requiring excavation; type and extent of reinstatement necessary, including New Roads and Street Works Act requirements; need for road crossings;
- Availability of wayleaves/easements for cables and lines including any planning consents;
- Availability of suitable substation sites including any necessary planning consents;
- Provision of substation ancillary infrastructure to comply with current substation specifications and standards;
- Necessity of overtime working.

Illustrative list of Abnormal Services which may be reflected in the Site Specific Charges:

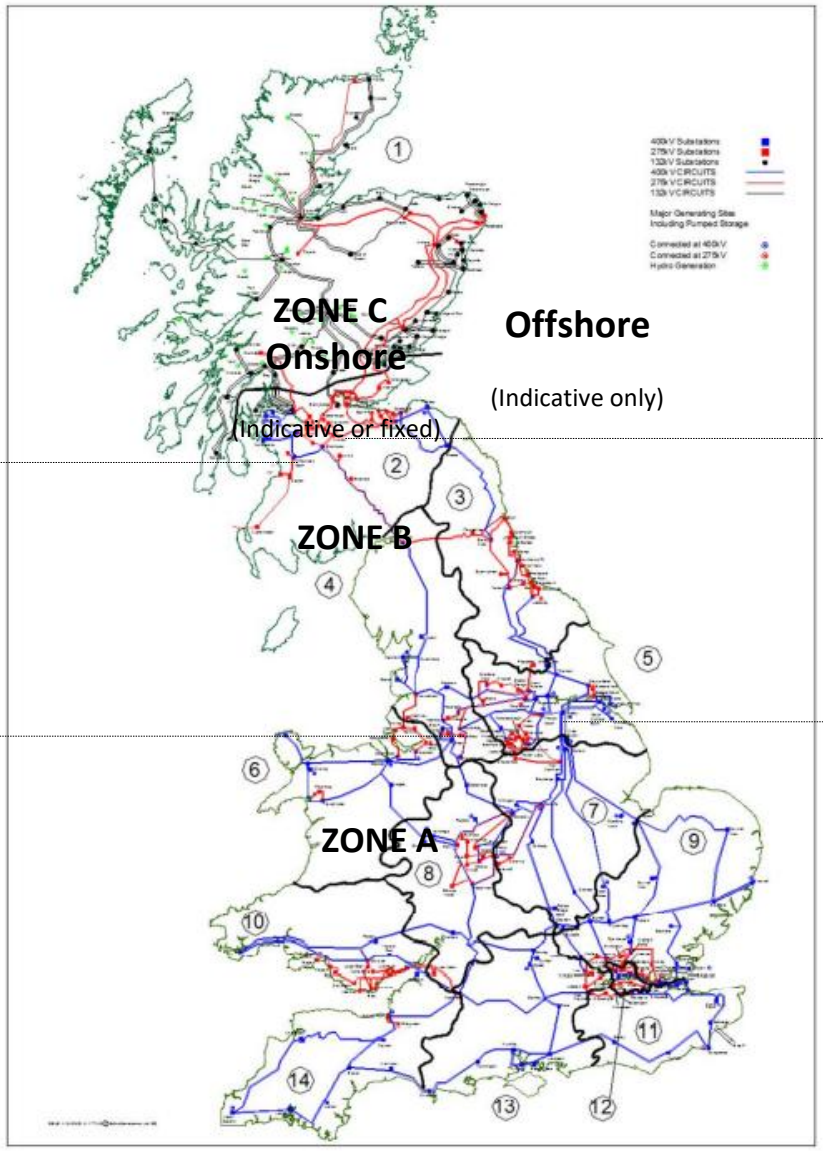
Illustrative list of abnormal services which may be reflected in the connection charge:

- progression of work required other than in an orderly fashion in accordance with normal engineering policies and practices thus imposing additional costs;
- transformer/substation sites not provided to the Company in suitable locations at normal prices or rents, taking account both of cable access and access by personnel;

- loads with abnormal characteristics, which affect the security and standard of service on the system, for example, arc welders and large motors.

Appendix B Application Fees

Transmission Licensees' Boundaries of Influence Map



Application fees will be applied depending on which zone the connection will be constructed within. See Table A on page 26. The boundaries of influence are set out in detail in the NESO's Electricity Ten Year Statement.

All Fees are subject to other additional costs covering any other special design requirements e.g., subsea survey, advance wayleaves etc being payable or underwritten by NESO.

All fees are subject to the addition of VAT.

No application fee is payable for SSEN Transmission initiated works.

The megawatt (MW) value is the final value applied for.

Table A – Fixed Application Fees in Zone C, where SSEN Transmission is Host TO/ Affected TO

Application Type	MW	Host TO (£)	Affected TO (£)
New Onshore Application (Entry)	<=1800MW >1800MW	34,500 66,200	11,500 22,067
TEC Increase	-	34,500	17,250
New Onshore Supply Point (Exit)	<=1800MW >1800MW	34,500 34,500	20,700 20,700
New Offshore Application (Indicative Only)	-	57,800	57,800
Statement of Works (Exit)	-	1,700	1,700
Project Progression (Exit)	-	15,300	7,650
New Onshore Application BEGA/BELLA	-	22,100	11,050
Mod App Admin Change (All)	-	5,250	5,250
Storage	-	34,500	13,800
Appendix G	-	13,500	13,500

Application Modification Rates	% Rate
Modification Application (Exit)	75
Modification Application BEGA / BELLA	75
Offshore Modification Application	75
Onshore Modification Application	75

Notes:

1. In response to any Statement of Works request, SSEN Transmission will provide a Statement of Works response which will inform whether there are any transmission system works required. No formal terms of offer will be provided.

2. In the event the Statement of Works response provided by SSEN Transmission to NESO shows that the transmission works are required by the embedded distribution connection, NESO will be required to submit a formal Modification Application.

Appendix C Charge-Out Rates

Grade	Rate (£/day)
1 - Senior Management	1,475
2 - Department Management	1,001
3 - Senior members of staff	770
4 - Standard (Engineering, Commercial)	614
5 - Support staff, Junior Staff	465

All fees are subject to the addition of VAT.