SP Distribution

Use of System Charging Statement

Effective from 1st May 2010

Version 1.0

This statement is in a form to be approved by the Gas and Electricity Markets Authority.

SP ENERGY NETWORKS, NEW ALDERSTON HOUSE, DOVE WYND, STRATHCLYDE BUSINESS PARK, BELLSHILL. ML4 3FF

Contents

1. Introduction

1.1. This statement has been prepared in order to discharge SP Distribution's obligation under Standard Licence Condition 14 of our Distribution Licence. It contains information on our tariffs for Demand Use of System, Generation Use of System and Embedded Networks. It also contains information on our charging principles and our Loss Adjustment Factors.

1.2. If you have any questions about this statement please contact us at:

SP Energy Networks, Distribution Policy
Prenton Way
Birkenhead, Merseyside
CH43 3ET
Email : commercial@scottishpower.com
Telephone 0151 609 2359

1.3. All enquiries regarding Connection Agreements should be addressed to:

SP Energy Networks, Distribution Policy
Prenton Way
Birkenhead, Merseyside
CH43 3ET
Email : commercial@scottishpower.com
Telephone 0151 609 2335

1.4. Any changes to Maximum Capacities should be addressed to:

SP Energy Networks, Energy Income
New Alderston House
Dove Wynd
Strathclyde Business Park
Bellshill. ML4 3FF
Email : capacityq@scottishpower.com
Telephone 01698 413349

2. Tariff Application and Charging Definitions

Billing and Payment by Settlement Class (Supercustomer)

2.1. The Supercustomer approach to Non-Half Hourly (NHH) Use of System billing makes use of the way that Supplier's energy settlements are calculated. Supercustomer tariffs are generally billed through two main charging components, which are fixed charges and unit charges.

The charges are based on the following tariff components:

- A fixed charge pence/MPAN/day, there will only be one fixed charge applied to each metering point administration number (MPAN) in respect of which you are registered; and

- Unit charges - pence/kilowatt-hour (kWh), based on the active import registers as provided by the metering system on site. More than one kWh charge will be applied to those tariffs that are classed as multi-rate.

2.2. Invoices are calculated on a periodic basis and sent to each supplier, for whom SP Distribution is delivering supplies of electricity through its distribution system. The tariffs are applied on the basis of the Line Loss Factor Classes (LLFCs) registered to the MPAN, and the units consumed within the time periods specified in this statement. These time periods may not necessarily be the same as those indicated by the Time Pattern Regimes (TPRs) associated to the settlement class. All LLFCs are assigned at the sole discretion of SP Distribution. The charges in this document are shown exclusive of VAT. Invoices take account of previous reconciliation runs and include VAT.

2.3. Reconciliation is the process that ensures the cash positions of suppliers and SP Distribution are continually corrected to reflect later and more accurate consumption figures.

2.4. The tables within this document relating to NHH Supercustomer billed tariffs are:

- Table 1 for Profile Classes 1 and 2;
- Table 2 for Profile Classes 3 and 4;

- Table 3 for Profile Classes 5 to 8;
- Table 6 for Unmetered Supplies (NHH);
- Table 7 for Preserved LLFCs

Site-Specific Billing and Payment

2.5. These charges apply to exit points where Half-Hourly (HH) metering is installed. Invoices for half hourly metered sites may include the following elements:-

- A fixed charge pence/MPAN/day;
- A capacity charge, pence/kVA/day, for agreed maximum import capacity;
- An exceeded capacity charge[1], if a site exceeds its maximum import capacity (MIC);
- Unit charges pence/kWh for transport of electricity over the system; and
- An excess reactive power charge[2].

2.6. The tables within this document that relate to site specific tariffs are:

- Table 4 for HH metered High Voltage (HV) and Low Voltage (LV);
- Table 5 for HH metered Extra High Voltage (EHV);
- Table 6 for Unmetered supplies (Pseudo HH);
- Table 7 for Preserved LLFCs.

Extra High Voltage (EHV) supplies

2.7. Designated EHV Properties are allocated Site Specific DUoS tariffs. These properties are defined in paragraph 11 of Standard Condition 50A (development and implementation of an EHV Distribution Charging Methodology) of the Electricity Distribution Licence as any of the following:

2.7.1. Distribution Systems connected to assets on the licensee's Distribution System at a voltage level of 22 kilovolts or more;

2.7.2. Premises connected to assets on the licensee's Distribution System at a voltage level of 22 kilovolts or more; and

[1] See Appendix 1 – DNO Specific Derogations, Items 1 and 2
[2] See Appendix 1 – DNO Specific Derogations, Item 3

2.7.3. Premises which do not fall within sub-paragraph (2.7.2) but which at 1 April 2010 were excluded from the Common Distribution Charging Methodology by virtue of paragraph 10 of Standard Condition 50 (Development and implementation of Common Distribution Charging Methodology).

Unmetered Supplies

2.8. These charges are available to supplies which SP Distribution deems to be suitable as Unmetered Supplies. In line with The Electricity (Unmetered Supply) Regulations we may only consider providing an unmetered supply where:

2.8.1. there is a known, predictable load which is either continuous or controlled in a manner approved by SP Distribution, and

2.8.2. the load is less than 500W or it is financially or technically impractical to install meters or carry out meter reading.

2.9. Supplies where consumption is dependent on some factor, temperature for example, or where the load could be easily increased without the knowledge of SP Distribution will not normally be allowed to be connected without a meter.

2.10. The privilege of being connected without a meter is conditional on the customer providing and maintaining an accurate, detailed and auditable inventory.

Capacity Charges (demand only)

Chargeable Capacity

2.11. The chargeable capacity is, for each billing period, the highest of the MIC or the actual capacity, with the same charge rate applying throughout the relevant charging year.

Maximum Import Capacity

2.12. The MIC will be charged in pence/kVA/day on a site basis.

2.13. The level of MIC will be agreed at the time of connection and when an increase has been approved. Following such an agreement (be it at the time of connection or an increase) no reduction in MIC will be allowed for a period of one year.

2.14. Reductions to the MIC may only be permitted once in a 12 month period and no retrospective changes will be allowed. Where MIC is reduced the new lower level will be agreed with reference to the level of the customers' maximum demand. It should be noted that where a new lower level is agreed the original capacity may not be available in the future without the need for network reinforcement and associated cost.

2.15. For embedded connections, if capacity ramping has been agreed with SP Distribution, in accordance with our charging methodology, the phasing profile will apply instead of the above rules. Where a phasing of capacity is agreed this will be captured in the bilateral connection agreement with SP Distribution.

Standby Capacity for Additional Security on Site

2.16. Where standby capacity charges are applied, the charge will be set at the same rate as that applied to normal MIC.

Exceeded Capacity[3]

2.17. Where a customer takes additional capacity over and above the MIC without authorisation, the excess will be classed as exceeded capacity. The exceeded portion of the capacity will be charged at the same p/kVA/day rate, based on the difference between the MIC and the actual capacity. This will be charged for the duration of the month in which the breach occurs.

Minimum Capacity Levels

2.18. There is no minimum capacity threshold.

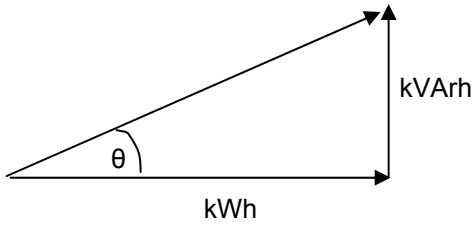
Import Reactive Power Charge[4]

2.19. The excess reactive power charge applies when a site's reactive power (measured in kVArh) exceeds 33% of total active power (measured in kWh) in any half-hourly period. This threshold is equivalent to an average power factor of 0.95 during the period. Any reactive units in excess of the 33% threshold are charged at the rate appropriate to the particular tariff.

[3] See Appendix 1 – DNO Specific Derogations, Items 1 and 2
[4] See Appendix 1 – DNO Specific Derogations, Item 3

2.20. Power Factor is calculated as follows:

Cos θ = Power Factor



2.21. The chargeable reactive power is calculated as follows:

$$\text{Chargeable kVArh} = \max\left(\max(\text{RI},\text{RE}) - \left(\sqrt{\left(\frac{1}{0.95^2}-1\right)} \times AI\right), 0\right)$$

Where:

AI = Active Import in kWh

RI = Reactive Import in kVArh

RE = Reactive Export in kVArh

2.22. This calculation is completed for every half hour and the values summated over the billing period.

2.23. Only kVArh Import and KVArh Export values occuring at times of kWh Import are used.

2.24. The square root calculation will be to two decimal places.

Generation Billing and Payment by Settlement Class

2.25. Use of System charges for NHH Low Voltage (LV and LVS) generation tariffs will be billed via Supercustomer.

2.26. The structure of NHH generation charges will be as follows:

- A fixed charge pence/MPAN/day; and
- Unit charges pence/kWh for transport of electricity over the system

2.27. Details of our charges for NHH Generation can be found in Section 4.

Generation Site Specific Billing and Payment

2.28. Use of System charges for HH Low Voltage (LV) and high voltage (HV) generation tariffs will be billed via the HH billing systems.

2.29. The structure of HH generation charges will be as follows:

- A fixed charge pence/MPAN/day;
- Unit charges pence/kWh for transport of electricity over the system; and
- An excess reactive power charge.

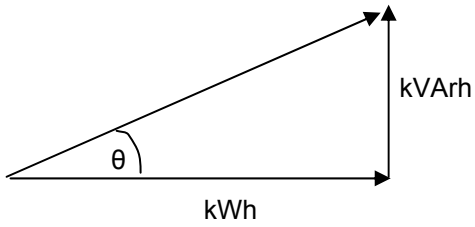
2.30. Details of our charges for HH Generation can be found in Section 4.

Generation Reactive Power Charge[5]

2.31. The excess reactive power charge applies when a site's reactive power (measured in kVArh) exceeds 33% of total active power (measured in kWh) in any half-hourly period. This threshold is equivalent to an average power factor of 0.95 during the period. Any reactive units in excess of the 33% threshold are charged for at the rate appropriate to the particular tariff.

2.32. Power Factor is calculated as follows:

Cos θ = Power Factor



2.33. The chargeable reactive power is calculated as follows:

$$\text{Chargeable kVArh} = \max\left(\max(\text{RI},\text{RE}) - \left(\sqrt{\left(\frac{1}{0.95^2} - 1\right)} \times AE\right), 0\right)$$

Where:

AE = Active Export in kWh

[5] See Appendix 1 – DNO Specific Derogations, Item 3

RI = Reactive Import in kVArh

RE = Reactive Export in kVArh

2.34. This calculation is completed for every half hour and the values summated over the billing period.

2.35. Only kVArh Import and KVArh Export values occurring at times of kWh Export are used.

2.36. The square root calculation will be to two decimal places.

Generation connected at EHV

2.37. Charges for EHV connected generation will be site specific.

Provision of Billing Data

2.38. Where half hourly metering data is required for Use of System charging and this is not provided through settlements processes, such metering data shall be provided by, the user of the system to SP Distribution in respect of each calendar month within 5 working days of the end of that calendar month. The metering data shall identify the amount consumed in each half hour of each day in the charging period and shall separately identify active and reactive import and export. Metering Data provided to the company shall be consistent with that received through the metering equipment installed. Metering data shall be provided in an electronic format specified by SP Distribution from time to time and in the absence of such specification, metering data shall be provided in a comma separated text file in the format of D0036/D0275 MRA data flow (as agreed with SP Distribution). The data shall be e-mailed to uos_administrators2@scottishpower.com.

2.39. SP Distribution requires reactive consumption or production to be provided for all measurement Class C and D (mandatory half hourly metered) sites. SP Distribution reserves the right to levy a charge on suppliers who fail to provide such reactive data after a reasonable period of notice. In order to estimate missing reactive data, a power factor of 0.9 lag will be applied to the active consumption in any half hour.

Licensed Distributor Network Operator (LDNO) tariffs

2.40. LDNO tariffs have been calculated for use by LDNOs **only** to reflect the displacement of the upstream DNO distribution costs and are not available for DNO to DNO inter-connectors, connections to other offshore transmission networks or other similar connections. Use of system charges for inter-connectors, offshore transmission connections or other similar connections will be based on the appropriate standard tariffs.

3. Schedule of Demand Tariffs

Tariffs for Profile Classes 1& 2

3.1. Suppliers who wish to supply electricity to customers with non-half hourly metered Measurement Class A MPANs on Profile Classes 1 or 2 may adopt one of the charge structures set out in the table below.

3.2. Valid combinations for these Line Loss Factor Classes (LLFCs) are detailed in Market Domain Data (MDD).

Table 1 – NHH Tariffs for Profile Classes 1 & 2

Description	LLFC	Profile class	Fixed charge (p/MPAN/day)	Day or Unrestricted unit charge (p/kWh)	Night unit charge (p/kWh)
Domestic Unrestricted	100, 101, 110, 111, 160, 161	1	3.76	2.274	
Domestic Two Rate	114, 115, 118, 119, 120, 121, 162, 163	2	3.76	2.959	0.180
Domestic Off-Peak (Related MPAN)	112, 113, 116, 117, 132, 133, 136, 137, 164, 165, 166	2		0.183	

Notes:

Unit time periods are as specified in the SSC.

The Domestic and Non-Domestic off-peak (related MPAN) tariffs are supplementary to a standard published tariff and therefore only available under these conditions.

The Domestic group of tariffs is available for supplies of electricity for use exclusively for domestic purposes in a private residence.

Other supplies that may be treated as Domestic are:

1. A separately metered supply of electricity for domestic purposes in a detached garage.
2. Residential accommodation (e.g. boarding houses, children or old people's homes, nurses' residences), which have ten or less assessable rooms.
3. Staircase lighting in residential accommodation either:
    a. Provided by the landlord who is part occupier of the premises and has a personal domestic supply, or
    b. Separately metered and provided by the landlord who is not an occupier of the premises.
4. Separately metered communal services in residential accommodation where the total installed load does not exceed 5kW.

Where the supply of electricity is used partly for domestic purposes and partly for the purposed of or in connection with any trade, business or profession (including farming), a business tariff will apply.

Tariffs for Profile Classes 3 & 4

3.3. Suppliers who wish to supply electricity to customers with non-half hourly metered Measurement Class A MPANs on Profile Classes 3 or 4 may, adopt one of the charge structures set out in the table below.

3.4. Valid combinations for these tariffs are detailed in MDD.

Table 2 – NHH Tariffs for Profile Classes 3 & 4

Description	LLFC	Profile class	Fixed charge (p/MPAN/day)	Day or Unrestricted unit charge (p/kWh)	Night unit charge (p/kWh)
Small Non-Domestic Unrestricted	201, 204	3	4.73	2.149	
Small Non-Domestic Two Rate	221, 224, 260	4	4.73	3.072	0.345
Small Non-Domestic Off peak (Related MPAN)	225, 240, 241, 301, 302	4		0.268	

Notes:	Unit time periods are as specified in the SSC. The Domestic and Non-Domestic off-peak (related MPAN) tariffs are supplementary to a standard published tariff and therefore only available under these conditions. These tariffs are only available to customers with a capacity of less then 45kVA.

Tariffs for Profile Classes 5-8

3.5. Suppliers who wish to supply electricity to customers with non-half hourly metered Measurement Class A MPANs on Profile Classes 5 to 8 may, adopt one of the charge structures set out in the table below.

3.6. Valid combinations for these tariffs are detailed in MDD.

Table 3 – NHH Tariffs for Profile Classes 5 to 8

Description	LLFC	Profile class	Fixed charge (p/MPAN/day)	Day or Unrestricted unit charge (p/kWh)	Night unit charge (p/kWh)
LV Medium Non-Domestic	400 402	5-8	22.24	1.527	0.123
LV Sub Medium Non-Domestic	404	5-8	-	1.440	0.114

Notes:	Unit time periods are as specified in the SSC. LV Sub applies to customers connected to the licensee's distribution system at a voltage of less than 1 kV at a substation with a primary voltage (the highest operating voltage present at the substation) of at least 1 kV and less than 22 kV, where the current transformer used for the customer's settlement metering is located at the substation. LV substation tariffs will be applied for new customers from 1 April 2010. Where a customer is already registered on either an LV substation tariff they will remain so. HV Medium Non-Domestic - This tariff will be closed to new customers and all new HV connections will be required to be half-hourly metered.

Tariffs for Half-Hourly Metered LV and HV

3.7. Suppliers who wish to supply electricity to customers whose supplies are half hourly metered Measurement Class C or E may, adopt one of the charge structures dependent upon the voltage at which the customer is connected to the system. The charge for the Use of System will be the sum of the charges set out in the table below.

Table 4 – Tariffs for HH metered LV & HV

Description	LLFC	Fixed charge (p/MPAN/ day)	Capacity charge[1] (p/kVA/ day)	Red unit charge (p/kWh)	Amber unit charge (p/kWh)	Green unit charge (p/kWh)	Excess reactive power charge[2] (p/kVArh)
LV HH Metered	500, 504	17.66	2.17	8.721	0.796	0.104	0.302
LV Sub HH Metered	506, 507	6.23	4.34	6.034	0.440	0.062	0.231
HV HH Metered	501, 505	94.39	4.66	5.623	0.365	0.054	0.167
HV Sub HH Metered	508, 509	203.37	5.40	3.350	0.217	0.032	0.110

Notes:

1. Due to derogation until 30th September 2010, the calculation of capacity (kVA) values will continue to be calculated under our existing methodology. The exceeded capacity charge will follow our current methodology. Please refer to Appendix 1 – DNO Specific Derogation, Items 1 and 2.

2. Due to derogation until 30th September 2010, the calculation of chargeable reactive units will be calculated under our existing methodology. Please refer to Appendix 1 – DNO Specific Derogation, Item 3.

Fixed charges are generally levied on a pence per MPAN basis. Where two or more half-hourly import MPANs are located at the same point of connection, with the same LLFC, and registered to the same supplier, only one daily fixed charge will be applied. Fixed charges are generally levied on a pence per MPAN basis.

LV Sub applies to customers connected to the licensee's distribution system at a voltage of less than 1 kV at a substation with a primary voltage (the highest operating voltage present at the substation) of at least 1 kV and less than 22 kV, where the current transformer used for the customer's settlement metering is located at the substation.

HV Sub applies to customers connected to the licensee's distribution system at a voltage of at least 1 kV and less than 22 kV at a substation with a primary voltage (the highest operating voltage present at the substation) of at least 22 kV and less than 66 kV, where the current transformer used for the customer's settlement metering or for metering used in the calculation of the customer's use of system charges or credits is located at the substation.

LV and HV substation tariffs will be applied for new customers from 1 April 2010. Where a customer is already registered on either an LV or HV substation tariff they will remain so.

The above tariffs are mandatory for customers with a maximum demand of 100kW and above. Customers with maximum demand of less than 100kW can elect to go on this tariff.

The time periods for each unit rate where applicable are as follows:

Red – between 16:30 to 19:30, Mon to Fri including Bank Holidays

	Amber – between 08:00 to 16:30 and 19:30 to 22:30, Mon to Fri including Bank Holidays and 16:00 to 20:00 Sat and Sun Green – between 00:00 to 08:00 and 22:30 to 00:00, Mon to Fri including Bank Holidays, and 00:00 to 16:00 and 20:00 to 00:00 Sat and Sun All times are UK clock-time.

Tariffs for Half-Hourly Metered EHV

3.8. The following charges are calculated using SP Distribution's EHV charging methodology and are applied on a site specific basis.

Table 5 – Site-Specific tariffs for HH metered EHV Demand

Description	LLFC	Fixed charge (p/MPAN/day)	Sole Asset Charge (p/day)	Capacity charge[1] (p/kVA/ day)	Excess reactive power charge[2] (p/kVArh)
33kV		1,570.65	Site Specific	3.27	0.12
Minsca	801	1,570.65	29,757.79	3.27	0.12
Hagshaw Hill Extension	809	1,570.65	20,104.69	3.27	0.12
Craigengelt	820	1,570.65	21,388.19	3.27	0.12
Greenknowes	821	1,570.65	38,992.11	3.27	0.12
Aikengall	825	1,570.65	38,931.32	3.27	0.12
Hagshaw Hill	826	1,570.65	1,200.25	3.27	0.12
Gallow Rig	827	1,570.65	-	3.27	0.12
Polwhat Rig	828	1,570.65	-	3.27	0.12
Greendykeside	829	1,570.65	3,919.74	3.27	0.12
Dun Law	830	1,570.65	2,962.69	3.27	0.12
EPR Chicken Litter	831	1,570.65	-	3.27	0.12
Bowbeat (Emly Bank)	832	1,570.65	-	3.27	0.12
Bowbeat (Roughsidehill)	833	1,570.65	-	3.27	0.12
Harehill	834	1,570.65	-	3.27	0.12

Table 5 – Site-Specific tariffs for HH metered EHV Demand					
Description	**LLFC**	**Fixed charge (p/MPAN/day)**	**Sole Asset Charge (p/day)**	**Capacity charge[1] (p/kVA/ day)**	**Excess reactive power charge[2] (p/kVArh)**
Shanks & McEwan 3&4	835	1,570.65	3,710.95	3.27	0.12
Shanks & McEwan 5	836	1,570.65	-	3.27	0.12
Shanks & McEwan 6	836	1,570.65	-	3.27	0.12
Crystal Rig	837	1,570.65	-	3.27	0.12
Haupland Muir (Ardrossan)	838	1,570.65	1,159.66	3.27	0.12
Wetherhill	839	1,570.65	6,821.29	3.27	0.12
Artfield	840	1,570.65	3,620.63	3.27	0.12
Wardlaw Wood	841	1,570.65	10,070.19	3.27	0.12
Earlsburn	842	1,570.65	32,864.70	3.27	0.12
Blackhill	843	1,570.65	23,796.48	3.27	0.12
Dalswinton	844	1,570.65	33,120.37	3.27	0.12
Steven's Croft Biomass	845	1,570.65	49,041.08	3.27	0.12
Longpark	850	1,570.65	21,409.59	3.27	0.12
BOC	851	1,570.65	17,106.48	3.27	0.12
Babcock Thorn	853	1,570.65	19,876.07	3.27	0.12
Dunbar Cement Works	854	1,570.65	12,957.68	3.27	0.12
Pateshill	855	1,570.65	1,330.02	3.27	0.12
Clydeport	856	1,570.65	22,846.45	3.27	0.12
Freescale	857	1,570.65	10,975.37	3.27	0.12
Tesco	858	1,570.65	592.50	3.27	0.12
GlaxoSmithKline	859	1,570.65	32,458.80	3.27	0.12
Weir Pumps	861	1,570.65	1,751.39	3.27	0.12

Table 5 – Site-Specific tariffs for HH metered EHV Demand					
Description	**LLFC**	**Fixed charge (p/MPAN/day)**	**Sole Asset Charge (p/day)**	**Capacity charge[1] (p/kVA/ day)**	**Excess reactive power charge[2] (p/kVArh)**
Dupont	862	1,570.65	78,781.14	3.27	0.12
North Rhins	863	1,570.65	9,451.60	3.27	0.12
Avecia	866	1,570.65	10,132.30	3.27	0.12
Norbord	867	1,570.65	29,547.83	3.27	0.12
Gartcosh	N/A	1,570.65	1,126.70	3.27	0.12
Glasgow Harbour	N/A	1,570.65	3,033.21	3.27	0.12

Notes:

1. Due to derogation until 30th September 2010, the calculation of capacity (kVA) values will continue to be calculated under our existing methodology. The exceeded capacity charge will follow our current methodology. Please refer to Appendix 1 – DNO Specific Derogation, Items 1 and 2.

2. Due to derogation until 30th September 2010, the calculation of chargeable reactive units will be calculated under our existing methodology. Please refer to Appendix 1 – DNO Specific Derogation, Item 3.

Unmetered Non-Half Hourly and Pseudo Half-Hourly Tariffs

3.9. Suppliers who wish to supply electricity to customers where a non-half hourly unmetered Measurement Class B or pseudo half-hourly supply is provided will, adopt one of the charge structures in the table below.

Table 6 – Tariffs for NHH and Pseudo HH Unmetered

Description	LLFC	Red or Unrestricted unit charge (p/kWh)	Amber unit charge (p/kWh)	Green unit charge (p/kWh)
NHH UMS	900, 901, 902, 903, 904, 905, 906, 907, 908, 909	1.873		
LV UMS (Pseudo HH Metered)	910	8.510	1.158	0.431

Notes:

The time periods for each unit rate where applicable are as follows:

Red – between 16:30 to 19:30, Mon to Fri including Bank Holidays

Amber – between 08:00 to 16:30 and 19:30 to 22:30, Mon to Fri including Bank Holidays and 16:00 to 20:00 Sat and Sun

Green – between 00:00 to 08:00 and 22:30 to 00:00, Mon to Fri including Bank Holidays, and 00:00 to 16:00 and 20:00 to 00:00 Sat and Sun

All times are UK clock-time.

The above tariffs are available to supplies which SP Manweb deems as being suitable as Unmetered Supplies. The criteria for deciding suitability is:

a) Where it is financially or technically impractical to install meters or carry out meter readings: or

b) Where the load is small and the consumption is reasonably predictable. Supplies where consumption is dependent on some factor, temperature for example, or where the load could easily be increased without the knowledge of SP Manweb will not normally be allowed to be connected without a meter.

The privilege of being connected without a meter is conditional on the customer providing and maintaining an accurate and auditable inventory.

Use of System Charges Out of Area

3.10. SP Distribution does not operate networks outside its Distribution Service Area.

Preserved LLFCs

3.11. The table below lists any preserved LLFCs that are valid at 1st April 2010. Preserved LLFCs are mapped to the charges for the relevant tariff and are closed to new customers. As at 1 April 2010 SP Distribution only has preserved NHH LLFCs that relate to MPANs registered to Profile Class 1 to 8.

Table 7 – NHH Preserved LLFCs

Description	LLFC	Profile class	Fixed charge (p/MPAN/day)	Day or Unrestricted unit charge (p/kWh)	Night unit charge (p/kWh)
Domestic Off-Peak (Related MPAN)	130, 134, 135	2		0.183	
Small Non-Domestic Unrestricted	200, 202, 203, 205	3	4.73	2.149	
Small Non-Domestic Two Rate	220, 222	4	4.73	3.072	0.345
Small Non-Domestic Off peak (Related MPAN)	223, 242, 243, 244, 245, 246	3&4		0.268	
HV Medium Non-Domestic	401	5-8	235.06	0.856	0.058

Notes:

Unit time periods are as specified in the SSC.

The Domestic and Non-Domestic off-peak (related MPAN) tariffs are supplementary to a standard published tariff and therefore only available under these conditions.

Preserved tariffs are only available to existing supplies, subject to certain conditions:

a) Suppliers may not normally transfer a meter point from one preserved tariff to another preserved tariff;

b) If a supply under a preserved tariff should cease, other than on change of tenancy, the preserved tariff may not normally be restored;

Any additional load required to be supplied on the preserved tariff must be within the existing supply capacity.

4. Generation Tariffs

4.1. Suppliers who wish to purchase electricity from distributed generators with NHH metered Measurement Class A MPANs or with HH metered Measurement Class C or E MPANs may, adopt this charge structure depending upon the metered voltage.

4.2. The tariffs in table 8a apply to sites metered at HV or LV. The site specific charges in table 8b apply to sites metered at EHV.

Table 8a – Generation Tariffs

Description	LLFC	Fixed charge (p/MPAN/ day)	Red or Unrestricted unit charge (p/kWh)	Amber unit charge (p/kWh)	Green unit charge (p/kWh)	Excess reactive power charge[1] (p/kVArh)
Non-Half Hourly Tariffs						
LV Generation NHH	781, 782, 783, 784, 785		-0.680			
LV Sub Generation NHH	602		-0.606			
Half Hourly Tariffs						
LV Generation Intermittent	603, 608		-0.680			0.172
LV Generation Non-Intermittent	604, 607		-4.700	-0.577	-0.068	0.172
LV Sub Generation Intermittent	609		-0.606			0.158
LV Sub Generation Non-Intermittent	610		-4.254	-0.500	-0.060	0.158
HV Generation Intermittent	611, 612	68.93	-0.344			0.126
HV Generation Non-Intermittent	605, 606	68.93	-2.722	-0.219	-0.030	0.126
HV Sub Generation Intermittent	613	68.93	-0.279			0.065
HV Sub Generation Non-Intermittent	614	68.93	-2.330	-0.151	-0.022	0.065

Notes:

1. Due to derogation until 30th September 2010, the calculation of chargeable reactive units will be calculated under our existing methodology. Please refer to Appendix 1 – DNO Specific Derogation, Item 3.

	The time periods for each unit rate where applicable are as follows: Red – between 16:30 to 19:30, Mon to Fri including Bank Holidays Amber – between 08:00 to 16:30 and 19:30 to 22:30, Mon to Fri including Bank Holidays and 16:00 to 20:00 Sat and Sun Green – between 00:00 to 08:00 and 22:30 to 00:00, Mon to Fri including Bank Holidays, and 00:00 to 16:00 and 20:00 to 00:00 Sat and Sun All times are UK clock-time

4.3. The following charges are calculated using SP Distribution's EHV charging methodology and are applied on a site specific basis.

Table 8b – Site-Specific tariffs for HH metered EHV Generation

Description	LLFC	Capacity charge[1] (p/kVA/ day)	Excess reactive power charge[2] (p/kVArh)
AREAS:			
Borders	N/A	0.44	0.12
South West	N/A	0.69	0.12
Central	N/A	0.52	0.12
SITES:			
Craigengelt	620	0.52	0.12
Greenknowes	621	0.52	0.12
Greendykeside	624	0.52	0.12
Aikengall	625	0.52	0.12
Hagshaw Hill Extension	629	0.52	0.12
Haupland Muir (Ardrossan) Extension	638	0.52	0.12
Blackhill	643	0.44	0.12
Longpark	650	0.44	0.12
Pateshill	655	0.52	0.12
North Rhins	663	0.69	0.12

Notes:

1. Due to derogation until 30th September 2010, the calculation of capacity (kVA) values will continue to be calculated under our existing methodology. The exceeded capacity charge will follow our current methodology. Please refer to Appendix 1 – DNO Specific Derogation, Items 1 and 2.
2. Due to derogation until 30th September 2010, the calculation of chargeable reactive units will be calculated under our existing methodology. Please refer to Appendix 1 – DNO Specific Derogation, Item 3.

5. Licensed Distributor Network Operator (LDNO) tariffs

5.1. LDNO tariffs have been calculated for use by LDNOs **only** to reflect the displacement of the upstream DNO distribution costs and are not available for DNO to DNO inter-connectors, connections to other offshore transmission networks or other similar connections. Use of system charges for inter-connectors, offshore transmission connections or other similar connections will be based on the appropriate standard tariffs.

5.2. The tariff structure for embedded network operators will mirror the structure of the all-the-way-tariff and is dependent upon the voltage of connection, either LV or HV. The same tariff elements will apply as those match the LDNOs end customers tariffs.

LDNO LV Connections to DNO Network; Low Voltage Tariffs for Profile Classes 1 to 8

5.3. The following tariffs apply to the LDNOs whose connection to the distribution network is at LV.

Table 9 – LDNO LV Connections to SP Distribution's Network:

Low Voltage Tariffs for Profile Classes 1 to 8

Description	LLFC	Profile class	Fixed charge (p/MPAN/day)	Day or Unrestricted unit charge (p/kWh)	Night unit charge (p/kWh)
Domestic Unrestricted		1	2.62	1.583	
Domestic Two-Rate		2	2.62	2.060	0.125
Domestic Off-Peak (Related MPAN)		2		0.127	
Small Non-Domestic Unrestricted		3	3.29	1.496	
Small Non-Domestic Two Rate		4	3.29	2.139	0.240
Small Non-Domestic Off Peak (Related MPAN)		4		0.187	
LV Medium Non-Domestic		5-8	15.48	1.063	0.086
Non-Half Hourly Unmetered		1&8		1.304	
LV Generation Non-Half Hourly		8		-0.680	

LDNO LV Connections to DNO Network: Low Voltage Tariffs for HH Metered Customers

5.4. The following tariffs apply to LDNOs whose connection to the distribution network is at LV.

Table 10 – LDNO LV Connections to SP Distribution's Network:

Low Voltage Tariffs for HH Metered Customers

Description	LLFC	Fixed charge (p/MPAN/day)	Capacity charge[1] (p/kVA/ day)	Red or Unrestricted unit charge (p/kWh)	Amber unit charge (p/kWh)	Green unit charge (p/kWh)	Excess reactive power charge[2] (p/kVArh)
LV HH Metered		12.30	1.51	6.072	0.554	0.072	0.210
LV HH Unmetered				5.925	0.806	0.300	
LV Generation Intermittent				-0.680			0.172
LV Generation Non-Intermittent				-4.700	-0.577	-0.068	0.172

Notes:

1. Due to derogation until 30th September 2010, the calculation of capacity (kVA) values will continue to be calculated under our existing methodology. The exceeded capacity charge will follow our current methodology. Please refer to Appendix 1 – DNO Specific Derogation, Items 1 and 2.

2. Due to derogation until 30th September 2010, the calculation of chargeable reactive units will be calculated under our existing methodology. Please refer to Appendix 1 – DNO Specific Derogation, Item 3.

The time periods for each unit rate where applicable are as follows:

Red – between 16:30 to 19:30, Mon to Fri including Bank Holidays

Amber – between 08:00 to 16:30 and 19:30 to 22:30, Mon to Fri including Bank Holidays and 16:00 to 20:00 Sat and Sun

Green – between 00:00 to 08:00 and 22:30 to 00:00, Mon to Fri including Bank Holidays, and 00:00 to 16:00 and 20:00 to 00:00 Sat and Sun

All times are UK clock-time.

LDNO HV Connections to DNO Network: Low Voltage Tariffs for Profile Classes 1 to 8

5.5. The following tariffs apply to LDNOs whose connection to the distribution network is at HV.

Table 11 – LDNO HV Connections to SP Distribution's Network: Low Voltage Tariffs for Profile Classes 1 to 8					
Description	**LLFC**	**Profile class**	**Fixed charge (p/MPAN/day)**	**Day or Unrestricted unit charge (p/kWh)**	**Night unit charge (p/kWh)**
Domestic Unrestricted		1	2.18	1.317	
Domestic Two-Rate		2	2.18	1.713	0.104
Domestic Off-Peak (Related MPAN)		2		0.106	
Small Non-Domestic Unrestricted		3	2.74	1.244	
Small Non-Domestic Two Rate		4	2.74	1.779	0.200
Small Non-Domestic Off-Peak (Related MPAN)		4		0.155	
LV Medium Non-Domestic		5-8	12.88	0.884	0.071
NHH UMS		1&8		1.085	
LV Generation NHH		8		-0.680	
LV Sub Generation NHH		8		-0.606	

LDNO HV connections to DNO network: HIGH voltage tariffs for HH Metered Customers

5.6. The following tariffs apply to LDNOs whose connection to the distribution network is at HV.

Table 12 – LDNO HV Connections to SP Distribution's Network:

High Voltage Tariffs for HH Metered Customers

Description	LLFC	Fixed charge (p/MPAN/ day)	Capacity charge[1] (p/kVA/ day)	Red or Unrestricted unit charge (p/kWh)	Amber unit charge (p/kWh)	Green unit charge (p/kWh)	Excess reactive power charge[2] (p/kVArh)
LV HH Metered		10.23	1.26	5.050	0.461	0.060	0.175
LV HH UMS (Pseudo HH Metered)				4.928	0.671	0.250	
LV Sub HH Metered		5.54	3.86	5.370	0.392	0.055	0.206
HV HH Metered		59.53	2.94	3.546	0.230	0.034	0.105
LV Generation Intermittent				-0.680			0.172
LV Generation Non-Intermittent				-4.700	-0.577	-0.068	0.172
LVS Generation Intermittent				-0.606			0.158
LVS Generation Non-Intermittent				-4.254	-0.500	-0.060	0.158
HV Generation Intermittent				-0.344			0.126
HV Generation Non-Intermittent				-2.722	-0.219	-0.030	0.126

Notes:

1. Due to derogation until 30th September 2010, the calculation of capacity (kVA) values will continue to be calculated under our existing methodology. The exceeded capacity charge will follow our current methodology. Please refer to Appendix 1 – DNO Specific Derogation, Items 1 and 2.

2. Due to derogation until 30th September 2010, the calculation of chargeable reactive units will be calculated under our existing methodology. Please refer to Appendix 1 – DNO Specific Derogation, Item 3.

The time periods for each unit rate where applicable are as follows:

Red – between 16:30 to 19:30, Mon to Fri including Bank Holidays

Amber – between 08:00 to 16:30 and 19:30 to 22:30, Mon to Fri including Bank Holidays and 16:00 to 20:00 Sat and Sun

	Green – between 00:00 to 08:00 and 22:30 to 00:00, Mon to Fri including Bank Holidays, and 00:00 to 16:00 and 20:00 to 00:00 Sat and Sun All times are UK clock-time.

6. System Loss Adjustment Factors

Role of Loss Adjustment Factors in the Supply of Electricity

6.1. Authorised Electricity Operators providing a supply of electricity from any entry point into SP Distribution's electricity distribution network, including a generator entry point embedded in the network or a supply point from the transmission network, will be required to demonstrate that at all times the amount of electricity entering the network is sufficient to meet the supply in accordance with the following adjustment factors.

6.2. Adequate supply can be demonstrated either by membership of the Balancing and Settlement Code or by provision of metering information on the relevant supply and load(s). The table which follows indicates the factor by which supplies taken from the Grid Supply Point must exceed the take at the exit point from the network, varying according to the time of day, the season and the voltage of connection.

6.3. The treatment of electrical losses on our distribution system is regulated in accordance with the price control set out in the Licence. Suppliers should refer to the table of Loss Adjustment Factors (LAFs) to calculate the amount of electricity that they must provide. The same LAFs are reflected in the settlement system.

6.4. LAFs are calculated in accordance with BSCP 128. BSCP 128 determines the principles which DNOs must comply with when setting LAFs. Our methodology can be downloaded from the Elexon website www.Elexon.co.uk.

Site Specific Loss Adjustment Factors

6.5. In accordance with BSCP 128, where a site is metered at EHV, account will be taken of the individual characteristics and location with regard to the real electrical flows on the network, including any losses on the connection into SP Distribution's electricity distribution network. New EHV connections will be allocated a generic EHV loss factor from table 14, dependent on the voltage of connection.

6.6. Tables 15a and 15b indicate the factors by which supplies entering at the Grid Supply Point must exceed the take at the exit point from the system, varying according to the

time of day, the season and the voltage of connection. The LAFs reflect the total losses on the company's system as attributable to the relevant voltages.

6.7. The Elexon website contains the LAFs in standard industry data format (D0265). Details can be found within the Market data – Static data at www.Elexon.co.uk

Table 13 – Time periods LLFC classes				
Time periods	Period 1	Period 2	Period 3	Period 4
Monday to Friday **Apr – Oct and Mar**	23:30 – 07:30	07:30 – 23:30		
Monday to Friday **Nov to Feb**	23:30 – 07:30	20:00 – 23:30	07:30 – 16:00 19:00 – 20:00	16:00 – 19:00
Saturday and Sunday **All Year**	23:30 – 07:30	07:30 – 23:30		
Notes	All the above times are in UK Clock time			

Table 14 – Metered voltage, respective periods and associated LLFCs **Demand / Generation**					
Metered Voltage	**Period 1**	**Period 2**	**Period 3**	**Period 4**	**Associated LLFC Classes**
Low Voltage NHH	1.063	1.071	1.077	1.085	100, 101, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 130, 132, 133, 134, 135, 136, 137, 160, 161, 162, 163, 165, 165, 166, 200, 201, 202, 203, 204, 205, 220, 221, 222, 223, 224, 225, 240, 241, 242, 243, 244, 245, 246, 260, 400, 402, 404, 602, 781, 782, 783, 784, 785 900, 901, 902, 903, 904, 905, 906, 907, 908, 909
Low Voltage HH	1.063	1.070	1.077	1.085	500, 504, 506, 507, 603, 608, 609, 610, 910
High Voltage Network	1.027	1.032	1.035	1.039	301, 302, 401, 403, 501, 505, 508, 509, 611, 612, 613, 614

33kV connected (demand)	1.004	1.005	1.006	1.006	
33kV connected (generation)	1.000	1.000	1.000	1.000	

Table 15a – EHV Site Specific Demand					
Site Name	**Period 1**	**Period 2**	**Period 3**	**Period 4**	**LLFC**
Minsca	0.991	0.990	0.990	0.990	801
Hagshaw Hill Extension	1.000	1.000	1.000	1.000	809
Craigengelt	1.000	1.000	1.000	1.000	820
Greenknowes	1.000	1.000	1.000	1.000	821
Aikengall	1.000	1.000	1.000	1.000	825
Hagshaw Hill	1.012	1.017	1.020	1.023	826
Gallow Rig	1.036	1.043	1.048	1.053	827
Polwhat Rig	1.036	1.043	1.048	1.053	828
Greendykeside	1.001	1.001	1.001	1.001	829
Dun Law	1.006	1.008	1.010	1.011	830
EPR Chicken Litter	1.000	1.000	1.000	1.000	831
Bowbeat (Emly Bank)	1.025	1.036	1.043	1.051	832
Bowbeat (Roughsidehill)	1.025	1.036	1.043	1.050	833
Harehill	1.036	1.043	1.048	1.053	834
Shanks & McEwan Phase 3&4	1.001	1.001	1.001	1.001	835
Shanks & McEwan Phase 5	1.001	1.001	1.001	1.001	836
Shanks & McEwan Phase 6	1.001	1.001	1.001	1.001	836
Crystal Rig	1.000	1.000	1.000	1.000	837
Haupland Muir (Ardrossan)	1.000	1.000	1.000	1.000	838
Wetherhill	1.028	1.040	1.048	1.055	839
Artfield	1.000	1.000	1.000	1.000	840

Wardlaw Wood	1.021	1.029	1.035	1.040	841
Earlsburn	1.000	1.000	1.000	1.001	842
Blackhill	1.037	1.054	1.066	1.077	843
Dalswinton	0.997	0.997	0.996	0.996	844
Steven's Croft Biomass	1.000	1.001	1.001	1.002	845
Longpark	1.000	1.000	1.000	1.000	850
BOC	1.002	1.002	1.002	1.002	851
Babcock Thorn	1.002	1.002	1.003	1.003	853
Blue Circle	1.036	1.004	1.004	1.004	854
Pateshill	1.000	1.000	1.000	1.000	855
Clydeport	1.000	1.000	1.000	1.000	856
Freescale	1.000	1.000	1.000	1.000	857
Tesco	1.000	1.000	1.000	1.000	858
GlaxoSmithKline	1.010	1.011	1.011	1.011	859
Weir Pumps	1.004	1.005	1.006	1.006	861
Dupont	1.027	1.032	1.035	1.039	862
North Rhins	1.000	1.000	1.000	1.000	863
Avecia	1.027	1.032	1.035	1.039	866
Norbord	1.027	1.032	1.035	1.039	867

Table 15b – EHV Site Specific Generation					
Site Name	**Period 1**	**Period 2**	**Period 3**	**Period 4**	**LLFC**
Craigengelt	1.000	1.000	1.000	1.000	620
Greenknowes	1.000	1.000	1.000	1.000	621
Greendykeside	0.999	0.999	0.998	0.999	624
Aikengall	1.000	1.000	1.000	1.000	625
Hagshaw Hill	1.001	1.005	1.006	1.008	626

Gallow Rig	1.020	1.026	1.027	1.029	627
Polwhat Rig	1.020	1.026	1.026	1.027	628
Hagshaw Hill Extension	1.000	1.000	1.000	1.000	629
Dun Law	0.984	0.984	0.985	0.987	630
EPR Chicken Litter	0.998	0.998	0.998	0.998	631
Bowbeat (Emly Bank)	1.007	1.016	1.019	1.024	632
Bowbeat (Roughsidehill)	1.004	1.013	1.016	1.021	633
Harehill	1.015	1.019	1.026	1.031	634
Shanks & McEwan 3&4	0.996	0.996	0.996	0.996	635
Shanks & McEwan 5	0.997	0.997	0.996	0.996	636
Shanks & McEwan 6	0.997	0.997	0.996	0.996	636
Crystal Rig	1.000	1.000	1.000	1.000	637
Haupland Muir (Ardrossan)	0.995	0.995	0.994	0.994	638
Wetherhill	1.000	1.010	1.010	1.013	639
Artfield	1.000	1.000	1.000	1.000	640
Wardlaw Wood	0.997	1.007	1.008	1.013	641
Earlsburn	0.989	0.990	0.987	0.986	642
Blackhill	1.010	1.024	1.027	1.037	643
Steven's Croft Biomass	0.984	0.984	0.987	0.987	645
Longpark	1.000	1.000	1.000	1.000	650
Blue Circle	1.036	1.004	1.004	1.004	654
Pateshill	1.000	1.000	1.000	1.000	655
North Rhins	1.000	1.000	1.000	1.000	663
Dalswinton	0.997	0.997	0.996	0.996	N/A
Minsca	0.991	0.990	0.990	0.990	N/A

7. Electricity Distribution Rebates

7.1. SP Distribution has neither given nor announced any distribution system rebates to authorised electricity operators in the 12 months preceding the date of publication of this revision of the statement.

8. Accounting and Administration Services

8.1. None.

9. Charges for electrical plant provided ancillary to the grant of Use of System

9.1. No charges are levied because no such services or provision of plant are provided.

10. Glossary of Terms

10.1. The following definitions are included to aid understanding:

Term	Definition
Customer	A person to whom a user proposes to supply, or for the time being supplies, electricity through an exit point, or from whom a user, or any relevant exempt supplier, is entitled to recover charges, compensation or an account of profits in respect of electricity supplied through an exit point
Distribution Licence	The Electricity Distribution Licence granted or treated as granted pursuant to section 6(1) of the Act.
Distribution Services Area	Has, in respect of each company, the meaning given to that term in paragraph 5(b) of Condition 2 of the Distribution Licence.
Distribution Connection and Use of System Agreement (DCUSA)	The Distribution Connection and Use of System Agreement (DCUSA) is a multi-party contract between the licensed electricity distributors, suppliers and generators of Great Britain.
Extra High Voltage	Voltages of 22kV and above
Entry Point	A boundary point at which electricity is exported onto a distribution system from a connected installation or from another distribution system, not forming part of the total system (boundary point and total system having the meaning given to those terms in the BSC).
Exit Point	A boundary point at which electricity is imported from a distribution system to a connected Installation or to another distribution system, not forming part of the total system (boundary point and total system having the meaning given to those terms in the BSC)
High Voltage (HV)	Nominal voltages of at least 1kV and less than 22kV
High Voltage sub-station (HV Sub)	HV Sub applies to customers connected to the licensee's distribution system at a voltage of at least 1 kV and less than 22 kV at a substation with a primary voltage (the highest operating voltage present at the substation) of at least 22 kV and less than 66 kV, where the current transformer used for the customer's settlement metering or for metering used in the calculation of the customer's use of system charges or credits is located at the substation.
Intermittent Generation	Intermittent generation is defined as a generation plant where the energy source of the prime mover cannot be made available on demand, in accordance to the definitions in ER P2/6. These include wind, tidal, wave, photovoltaic and small hydro. The operator has little control over operating times therefore, a single-rate tariff (based on a uniform probability of operations across the year) will be applied to intermittent generation.

Term	Definition
Low Voltage (LV)	Nominal voltages below 1kV
Low Voltage sub-station (LV Sub)	LV Sub applies to customers connected to the licensee's distribution system at a voltage of less than 1 kV at a substation with a primary voltage (the highest operating voltage present at the substation) of at least 1 kV and less than 22 kV, where the current transformer used for the customer's settlement metering is located at the substation.
Licensed Distributor Network Operator (LDNOs)	Licensed distribution network operator. This refers to an independent distribution network operator (IDNO) or to a distribution network operator (DNO) operating embedded distribution network outside its distribution service area.
Market Domain Data	Market Domain Data is the central repository of reference data used by Suppliers, Supplier Agents and Licensed Distribution System Operators (LDSOs) in the retail electricity market. It is essential to the operation of Supplier Volume Allocation (SVA) Trading Arrangements.
Measurement Class	The measurement class of a Metering System e.g. above 100kW, below 100kW, unmetered.
Metering System	Particular commissioned Metering Equipment installed for the purposes of measuring the quantities of Exports and Imports at the Boundary Point.
Non-Intermittent Generation	Non-intermittent generation is defined as a generation plant where the energy source of the prime mover can be made available on demand, in accordance to the definitions in ER P2/6. The generator can choose when to operate, and bring more benefits to the network if it runs at times of high load. These include combined cycle gas turbine (CCGT), gas generators, landfill, sewage, biomass, biogas, energy crop, waste incineration and combined heat and power (CHP). A three-rate tariff will be applied to generation credits for half-hourly settled non-intermittent generation.
Ofgem	Office of gas and electricity markets - Ofgem is governed by GEMA and is responsible for the regulation of the distribution companies.
Use of System Charges	Charges for demand and generation customers which are connected to and utilising the distribution network.
User	Is a supplier, generator or distribution network operator

Appendix 1 – DNO Specific Derogations

Item Number: 1
CDCM Paragraph: 150
Derogated Until: 30th September 2010
CDCM Obligation: Exceeded Capacity Charge

Paragraph 150 of the CDCM prescribes that capacity in excess of the maximum import capacity will be charged for the duration of the month in which the breach occurs. SP Distribution requested a derogation to continue to use its existing methodology whereby excess capacity is charged for the financial year, backdated to the previous April.

Item Number: 2
CDCM Paragraph: 152-159
Derogated Until: 30th September 2010
CDCM Obligation: Calculation of capacity (kVA) values.

Paragraphs 152 –159 of the CDCM prescribe a method for the calculation of capacity (kVA) values. SP Distribution requested a derogation to continue to use is methodology, see below:

For demand customers:

$$\mathrm{kVA} = 2 \times \sqrt{(AI)^2 + (RI)^2}$$

For generation customers:

$$kVA = 2 \times \sqrt{(AE)^2 + (NetReactive)^2}$$

Item Number: 3
CDCM Paragraph: 160-169
Derogated Until: 30th September 2010
CDCM Obligation: Calculating Chargeable Reactive Power Units

Paragraphs 160-169 of the CDCM prescribe a method for the calculation of chargeable reactive power units. SP Distribution requested a derogation to continue to use its existing methodology detailed below:

For each kVArh consumed in excess of 33% of the number of active imported units (kWh) consumed in each month, a Reactive Power charge shall be made. This calculation shall be undertaken for each importing half-hour and aggregated over the month. Should the value for the month be negative then the charge shall be set to zero.

Chargeable Reactive Units = Reactive Import – (0.33 x Active Import)

For sites with generation the Import Chargeable Reactive Units will be calculated as follows: In each half hour where Active Import is not equal to 0 and Active Export = 0, the following calculation is used:

Chargeable Reactive Units = Net Reactive Import – (0.33 x Active Export)

where;

Net Reactive Import: Reactive Import – Reactive Export

For all other scenarios, no calculation will be carried out for that half hour, which would result in a 0.

The results for each half hour in the month are summated. Where the answer is positive then the charge will be Import Chargeable Reactive Units × Charge Rate. If the result is negative no charge will apply.