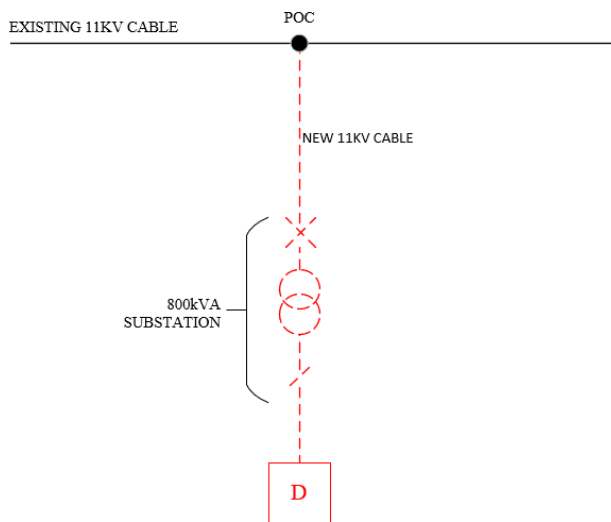


## SCHEDULE 22 – COMMON CONNECTION CHARGING METHODOLOGY

<b>Example 5:</b>	<b>A new connection where the Minimum Scheme is a new substation teed onto the existing HV network.</b>
<b>Purpose:</b>	<b>Simple example of a commercial connection, Extension Assets only, so charged in full to the Customer.</b>

A Customer requests a new LV three phase 600kVA connection to commercial Premises. Four scenarios for connection are considered in Examples 5 to 8. The Minimum Scheme will be dependent on the specific circumstances as set out in paragraphs 1.1 to 1.7.

In this example the Minimum Scheme is a new 800kVA substation teed onto the existing 11kV network. The figure below shows the proposed network.



The Connection Charge for this Scheme is calculated as follows:

Extension Assets:	Cost	Apportionment	Customer Contribution
Provision and installation of 150m of 11kV cable	£45,000	n/a	£45,000
800kVA substation	£85,000	n/a	£85,000
Provision and installation LV cabling	£6,000	n/a	£6,000
LV Metering Panel	£4,000	n/a	£4,000

11kV joint to network	£3,000	n/a	£3,000
<b>Total Extension Asset Cost</b>	<b>£143,000</b>		<b>£143,000</b>

**Total cost of the work** = £143,000

**Total Connection Charge to Customer** = £143,000

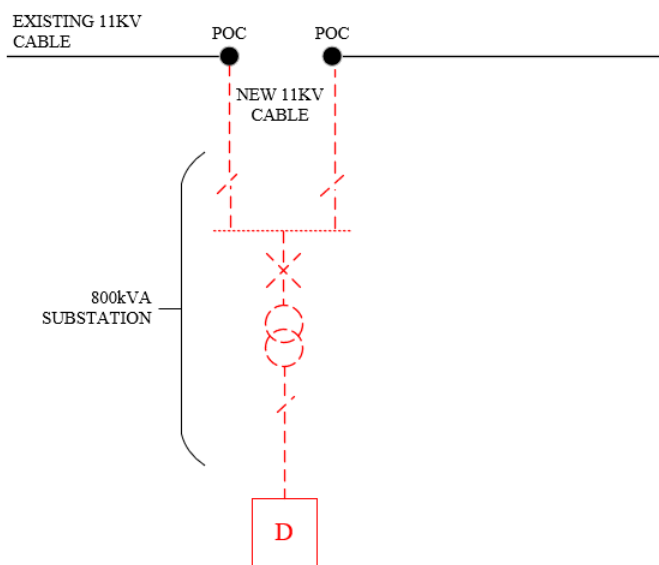
**Commented [TT1]:** The Connection Charge for the Minimum Scheme is calculated in Example 5 at £143,000. Example 7 cross-references to Example 5 for the Connection Charge of the Minimum Scheme, but the value used in Example 7 does not match Example 5.

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**Example 6:** A new connection where the Minimum Scheme is a new substation looped into existing HV network.

**Purpose:** Simple example of looped connection, Extension Assets only, so charged in full to the Customer.

In this variation to Example 5, the Customer is connected with a looped connection, as illustrated in the following diagram. The Minimum Scheme is a new 800kVA substation looped into existing 11kV network.



The Connection Charge for this Scheme is calculated as follows:

Extension Assets:	Cost	Apportionment	Customer Contribution
Provision and installation of 300m (2x150m) of 11kV cable looped into the network	£90,000	n/a	£90,000
800kVA transformer	£75,000	n/a	£75,000
Ring Main Unit	£25,000	n/a	£25,000
Provision and installation LV cabling	£6,000	n/a	£6,000
LV Metering Panel	£4,000	n/a	£4,000
11kV joints to network	£6,000	n/a	£6,000
<b>Total Extension Asset Cost</b>	<b>£206,000</b>		<b>£206,000</b>

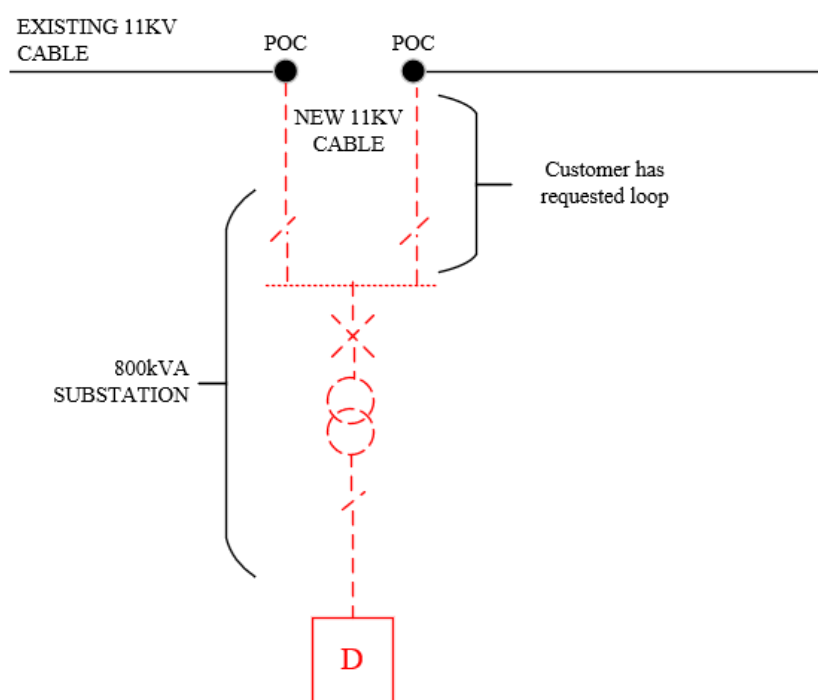
**Total cost of the work = £206,000**

**Total Connection Charge to Customer = £206,000**

**Example 7:** A new connection where the Minimum Scheme is as for Example 5 but the Customer requests an enhanced connection arrangement where the substation is looped into existing HV network.

**Purpose:** Shows that for a Customer requested Enhanced Scheme that the Customer pays costs above the Minimum Scheme plus O&M.

In this variation to Example 5, the Customer requests an enhanced connection arrangement where the substation is looped into existing 11kV network, as illustrated in the following diagram. The Minimum Scheme is as for Example 5.



The Connection Charge for this Scheme is calculated as follows:

Extension Assets:	Cost	Apportionment	Customer Contribution
Provision and installation of 300m (2x150m) of 11kV cable looped into the network	£90,000	n/a	£90,000
800kVA transformer	£75,000	n/a	£75,000
Ring Main Unit	£25,000	n/a	£25,000
Provision and installation LV cabling	£6,000	n/a	£6,000
LV Metering Panel	£4,000	n/a	£4,000
11kV joints to network	£6,000	n/a	£6,000
<b>Total Extension Asset Cost</b>	<b>£206,000</b>		<b>£206,000</b>
Difference between Minimum and the actual Scheme is <del>£763,000</del> (£206,000 - £143,000).		20%* of <del>£763,000</del>	<del>£142,600</del>
Operation & Maintenance @20%* of <del>£763,000</del>			
<b>Total Extension Asset Cost incl O&amp;M</b>			<b><del>£218,200</del> £206,000</b>

\*Note, the 20% Operation and Maintenance percentage has been used for illustrative purposes only

**Total cost of the work = £206,000**

**Total Connection Charge to Customer = £206,000 + £142,600 = ~~£218,200~~ £206,000**

**Commented [TT2]:** The difference between the Minimum Scheme (£143,000) and the actual Scheme (£206,000) recalculates at £63,000, previously £73,000.

**Commented [TT3]:** The Minimum Scheme value has been updated from £133,000 to £143,000 to align with Example 5.

**Commented [TT5]:** The difference between the Minimum Scheme (£143,000) and the actual Scheme (£206,000), recalculates at £63,000, previously £73,000.

**Commented [TT6]:** The O&M cost has been recalculated at £12,600 by applying 20% to the revised difference of £63,000 between the Minimum Scheme and actual Scheme, down from the previous £14,600.

**Commented [TT4]:** The difference between the Minimum Scheme (£143,000) and the actual Scheme (£206,000), recalculates at £63,000, previously £73,000.

**Commented [TT7]:** Updating the Customer Contribution towards O&M to £12,600, reduces the Total Extension Asset Cost incl O&M to £218,600 (£206,000 plus £12,600), previously £220,600.

**Commented [TT8]:** The O&M cost has been recalculated at £12,600 by applying 20% to the revised difference of £63,000 between the Minimum Scheme and actual Scheme, down from the previous £14,600.

**Commented [TT9]:** Updating the Customer Contribution towards O&M to £12,600, reduces the Total Extension Asset Cost incl O&M to £218,600 (£206,000 plus £12,600), previously £220,600.