



# Schedule of Operation & Maintenance Charges 2019

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Commercial and Renewable Regulation  
Asset Management  
ESB Networks DAC.

## **1.1 Background**

Generators connected to the Distribution system are required to pay an annual charge to ESB Networks for the operation and maintenance of the substations, overhead lines, and cables built to connect their facility to the Distribution system. The annual charges are based on a standard amount per km line or cable and per item of substation equipment and, for transparency, are itemised in the same manner as the generator standard charges. These standard amounts are referred to as Operation and Maintenance unit charges.

## **1.2 General Points on O&M unit costs**

The operation and maintenance unit costs are intended to reflect only the additional operation and maintenance costs which will be incurred by the DSO arising from the generator connection. For example, when it is proposed to replace transformers in an existing substation with larger units to allow for connection of a generator, then only the extra O&M cost arising from the larger transformers is included in the O&M unit cost. In addition, where an item of plant is shared by a number of generators, they will also share the relevant O&M charge on an annual basis. The share will be on a per MW basis and will be calculated in the same manner as the share of the capital cost.

The O&M unit costs covered in this submission cover operation and maintenance costs on distribution assets only. They are not intended to cover O&M costs on transmission assets.

In practice the O&M costs incurred on a given section of line or item of plant will vary from year to year. However, it is proposed to levy an annual charge based on the estimate of the average cost over the first 20 years of service but incremented annually for inflation. 20 years is the length of the connection agreements offered to generators.

### 1.3 Make-up of O&M charges

The O&M costs arising from generator connections consist of the following types of cost:

- *Planned Maintenance activities*

These are activities generally carried out on a cyclic or “as needed” basis. The planned maintenance component of the unit costs is based on ESB maintenance policies for the type of plant involved.

- *Fault repair activities.*

The fault repair component is based on an estimate of fault repair costs in the first 20 years of service.

- *Line Diversion.*

This cost arises in the case of overhead lines.

On construction of a line, ESB commits to landowners to divert a section of line free of charge if required in the event that planning permission is obtained for a new house or structure conflicting with line

- *Rates*

ESB pay rates to the local authorities based on the depreciated replacement costs of its networks assets. The O&M unit costs contain a component to reflect the additional rates payable by ESB Networks for assets used to connect the generator.

- *Telecommunication costs*

Telecommunication costs arise in relation to meters and SCADA equipment at the generator sites.

## 2. ESB OPERATION AND MAINTENANCE CHARGES FOR YEAR 2019

	Network Asset Type	Unit of Charge	Amount excl rates	Rates	Total Amount due (€)
<b>Line Work</b>					
1.	Standard 110kV line (300ACSR)	Per km	1113	1241	2354
2.	38kV 300ACSR	Per km	1102	656	1758
3.	38kV150AAAC (Mulberry) Line	Per km	445	528	973
4.	38kV 100ACSR	Per km	445	414	859
5.	MV 150ACSR/92 SCA	Per km	280	310	590
<b>Cable Costs (excludes all civil works and ducting)</b>					
6.	110kV cable	Per km	218	2804	3022
7.	38kV cable	Per km	186	1011	1197
8.	MV cable	Per km	135	415	550
9.	38kV cable end mast	Per mast	0	331	331
10.	110kV cable end mast	Per mast	0	1162	1162
<b>Station Work</b>					
<b>110kV stations</b>					
11.	110kV/MV station incl. equipment (2*20MVA)	Per station	23581	23898	47479
12.	110kV/38kV 63MVA green field transformer package	Per station	13957	12686	26825
13.	110kV/38kV 31.5MVA green field transformer package	Per station	13813	9692	23505
14.	110kV/MV 20MVA green field transformer package	Per station	13574	8400	21974

	<b>Network Asset Type</b>	<b>Unit of Charge</b>	<b>Amount excl rates</b>	<b>Rates</b>	<b>Total Amount due (€)</b>
15.	110kV/MV 31.5MVA green field transformer package	Per station	13813	10273	24086
16.	1*31.5MVA to 2*31.5MVA		3402	7051	10453
17.	2*31.5MVA to 2*63MVA		291	7674	7965
<b>38kV stations</b>					
18.	38kV/MV Station incl. equipment (2*5MVA)	Per station	11717	9651	21368
19.	38kV/MV 5MVA Green field transformer package	Per station	9198	4052	13250
20.	38kV/MV 10MVA Green field transformer package	Per station	9291	4411	13702
21.	38kV/MV 15MVA Green field transformer package	Per station	9323	4647	13970
22.	38kV/MV - install 5MVA transformer into existing station – B/B extension	Per station	1770	4159	5929
23.	38kV/MV - install 10MVA transformer into existing station – B/B extension	Per station	1863	4514	6377
24.	38kV/MV – install 5MVA transformer into existing station no B/B extension	Per station	1732	3290	5022
25.	38kV/MV – install 10MVA transformer into existing station no B/B extension	Per station	1825	3642	5467
26.	Uprate 2*5MVA to 2*10MVA		186	705	891

<b>Miscellaneous Station items</b>					
	<b>Network Asset Type</b>	<b>Unit of Charge</b>	<b>Amount excl rates</b>	<b>Rates</b>	<b>Total Amount due (€)</b>
27.	38kV cubicle in 38kV station	Per cubicle	270	1241	1511
28.	38kV cubicle in 110kV station	Per cubicle	331	1425	1756
29.	MV cubicle in 110kV station	Per cubicle	331	1425	1756
30.	MV cubicle in 38KV outdoor station	Per cubicle	270	1241	1511
31.	MV cubicle with interface transformer	Per cubicle	694	1649	2343
32.	MV terminal station without NULEC recloser (pre-Gate 2 connections)	Per station	177	230	407
<b>Metering and SCADA</b>					
33.	Metering and SCADA for 2MW-5MW site	Per site	689	0	689
34.	Metering and SCADA for 5MW-10MW site	Per site	804	0	804
35.	Metering and SCADA for >10MW site	Per site	1324	0	1324
36.	Metering for <2MW site	Per site	458	0	458
37.	Protection for MV<2MW		197	124	321
38.	Protection for MV>2MW, <5MW with SCADA via GPRS		321	136	457

<b>Metering and SCADA</b>					
	<b>Network Asset Type</b>	<b>Unit of Charge</b>	<b>Amount excl rates</b>	<b>Rates</b>	<b>Total Amount due (€)</b>
39	SCADA for 38kV connections >2MW, <5MW and MV where no GPRS available		5185	451	5636
<b>38kV customer compound [at windfarm site]</b>					
40	38kV compound at developers site – overhead line incomer	Per station	1670	2553	4223
41	38kV compound at developers site – cable incomer	Per station	1670	2584	4254

### Notes

1. Above Charges are exclusive of VAT
2. Where generators share elements of plant, the operation and maintenance charge will be divided pro-rata on the basis of their MEC. The charge will be based on the network as built except as outlined in 3. below.
3. Where the system operator decides to build other than the LCTA for system development reasons, the operation and maintenance charge will be based on the LCTA rather than the actual build
4. Operation and Maintenance Charges include a component for rates payable by ESB Networks to Local Authorities. These rates apply to transmission and distributions networks.