



Schedule of Operation & Maintenance Charges 2018

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Commercial and Renewable Regulation
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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 2018

	Network Asset Type	Unit of Charge	Amount excl rates	Rates	Total Amount due (€)
Line Work					
1.	Standard 110kV line (300ACSR)	Per km	1103	1230	2333
2.	38kV 300ACSR	Per km	1092	650	1742
3.	38kV150AAAC (Mulberry) Line	Per km	442	523	965
4.	38kV 100ACSR	Per km	442	410	852
5.	MV 150ACSR/92 SCA	Per km	278	307	585
Cable Costs (excludes all civil works and ducting)					
6.	110kV cable	Per km	216	2779	2995
7.	38kV cable	Per km	184	1002	1186
8.	MV cable	Per km	134	411	545
9.	38kV cable end mast	Per mast	0	329	329
10.	110kV cable end mast	Per mast	0	1151	1151
Station Work					
110kV stations					
11.	110kV/MV station incl. equipment (2*20MVA)	Per station	23371	23685	47056
12.	110kV/38kV 63MVA green field transformer package	Per station	13833	12753	26586
13.	110kV/38kV 31.5MVA green field transformer package	Per station	13690	9605	23295
14.	110kV/MV 20MVA green field transformer package	Per station	13452	8325	21777

	Network Asset Type	Unit of Charge	Amount excl rates	Rates	Total Amount due (€)
15.	110kV/MV 31.5MVA green field transformer package	Per station	13690	10182	23872
16.	1*31.5MVA to 2*31.5MVA		3371	6988	10359
17.	2*31.5MVA to 2*63MVA		288	7605	7893
38kV stations					
18.	38kV/MV Station incl. equipment (2*5MVA)	Per station	11613	9565	21178
19.	38kV/MV 5MVA Green field transformer package	Per station	9116	4016	13132
20.	38kV/MV 10MVA Green field transformer package	Per station	9208	4372	13580
21.	38kV/MV 15MVA Green field transformer package	Per station	9240	4606	13846
22.	38kV/MV - install 5MVA transformer into existing station – B/B extension	Per station	1755	4122	5877
23.	38kV/MV - install 10MVA transformer into existing station – B/B extension	Per station	1847	4474	6321
24.	38kV/MV – install 5MVA transformer into existing station no B/B extension	Per station	1716	3261	4977
25.	38kV/MV – install 10MVA transformer into existing station no B/B extension	Per station	1809	3610	5419
26.	Uprate 2*5MVA to 2*10MVA		184	699	883

Miscellaneous Station items					
	Network Asset Type	Unit of Charge	Amount excl rates	Rates	Total Amount due (€)
27.	38kV cubicle in 38kV station	Per cubicle	267	1230	1497
28.	38kV cubicle in 110kV station	Per cubicle	329	1413	1742
29.	MV cubicle in 110kV station	Per cubicle	247	455	702
30.	MV cubicle in 38KV outdoor station	Per cubicle	247	257	504
31.	MV cubicle with interface transformer	Per cubicle	688	1634	2322
32.	MV terminal station without NULEC recloser (pre Gate 2 connections)	Per station	175	228	403
Metering and SCADA					
33.	Metering and SCADA for 2MW-5MW site	Per site	683	0	683
34.	Metering and SCADA for 5MW-10MW site	Per site	797	0	797
35.	Metering and SCADA for >10MW site	Per site	1312	0	1312
36.	Metering for <2MW site	Per site	454	0	454
37.	Protection for MV<2MW		195	123	318
38.	Protection for MV>2MW, <5MW with SCADA via GPRS		318	135	453

Metering and SCADA						
	Network Asset Type	Unit of Charge	Amount excl rates	Rates	Total Amount due (€)	
39	SCADA for 38kV connections >2MW, <5MW and MV where no GPRS available		5138	447	5585	
38kV customer compound [at windfarm site]						
40	38kV compound at developers site – overhead line incomer	Per station	1655	2530	4185	
41	38kV compound at developers site – cable incomer	Per station	1655	2561	4216	

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.