



Schedule of Operation & Maintenance Charges 2021

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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 2021

	Network Asset Type	Unit of Charge	Amount excl rates	Rates	Total Amount due (€)
Line Work					
1.	Standard 110kV line (300ACSR)	Per km	1130	1261	2391
2.	38kV 300ACSR	Per km	1120	666	1786
3.	38kV150AAAC (Mulberry) Line	Per km	453	536	989
4.	38kV 100ACSR	Per km	453	421	874
5.	MV 150ACSR/92 SCA	Per km	285	314	599
Cable Costs (excludes all civil works and ducting)					
6.	110kV cable	Per km	221	2848	3069
7.	38kV cable	Per km	189	1027	1216
8.	MV cable	Per km	137	422	559
9.	38kV cable end mast	Per mast	0	337	337
10.	110kV cable end mast	Per mast	0	1180	1180
Station Work					
110kV stations					
11.	110kV/MV station incl. equipment (2*20MVA)	Per station	23956	24278	48234
12.	110kV/38kV 63MVA green field transformer package	Per station	14179	13072	27251
13.	110kV/38kV 31.5MVA green field transformer package	Per station	14033	9846	23879
14.	110kV/MV 20MVA green field transformer package	Per station	13789	8534	22323

	Network Asset Type	Unit of Charge	Amount excl rates	Rates	Total Amount due (€)
15.	110kV/MV 31.5MVA green field transformer package	Per station	14033	10437	24470
16.	1*31.5MVA to 2*31.5MVA		3456	7163	10619
17.	2*31.5MVA to 2*63MVA		295	7796	8091
38kV stations					
18.	38kV/MV Station incl. equipment (2*5MVA)	Per station	11904	9804	21708
19.	38kV/MV 5MVA Green field transformer package	Per station	9344	4117	13461
20.	38kV/MV 10MVA Green field transformer package	Per station	9439	4481	13920
21.	38kV/MV 15MVA Green field transformer package	Per station	9471	4721	14192
22.	38kV/MV - install 5MVA transformer into existing station – B/B extension	Per station	1799	4225	6024
23.	38kV/MV - install 10MVA transformer into existing station – B/B extension	Per station	1893	4586	6479
24.	38kV/MV – install 5MVA transformer into existing station no B/B extension	Per station	1759	3342	5101
25.	38kV/MV – install 10MVA transformer into existing station no B/B extension	Per station	1854	3700	5554
26.	Uprate 2*5MVA to 2*10MVA		189	716	905

Miscellaneous Station items					
	Network Asset Type	Unit of Charge	Amount excl rates	Rates	Total Amount due (€)
27.	38kV cubicle in 38kV station	Per cubicle	274	1261	1535
28.	38kV cubicle in 110kV station	Per cubicle	337	1448	1785
29.	MV cubicle in 110kV station	Per cubicle	337	1448	1785
30.	MV cubicle in 38KV outdoor station	Per cubicle	274	1261	1535
31.	MV cubicle with interface transformer	Per cubicle	705	1675	2380
32.	MV terminal station without NULEC recloser (pre-Gate 2 connections)	Per station	180	234	414
Metering and SCADA					
33.	Metering and SCADA for 2MW-5MW site	Per site	700	0	700
34.	Metering and SCADA for 5MW-10MW site	Per site	817	0	817
35.	Metering and SCADA for >10MW site	Per site	1345	0	1345
36.	Metering for <2MW site	Per site	465	0	465
37.	Protection for MV<2MW		200	126	326
38.	Protection for MV>2MW, <5MW with SCADA via GPRS		326	138	464

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		5267	458	5725
38kV customer compound [at windfarm site]					
40	38kV compound at developers site – overhead line incomer	Per station	1697	2593	4290
41	38kV compound at developers site – cable incomer	Per station	1697	2625	4322

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.