

E.ON Észak-dunántúli Áramhálózati Zrt.
H - 9027 Győr, Kandó Kálmán u 11-13.

Subject: Reference letter

Protecta Elektronika Kft.
Mr. Ervin Dienes

E.ON Észak-dunántúli Áramhálózati Zrt.
H - 9027 Győr, Kandó Kálmán u. 11-13.

www.eon.hu

Budapest
Késmárk utca, 7/A
H - 1158

08. 04. 2024.
1 / 5

Reference letter

Utility Company / Customer Name: E.ON Észak-dunántúli Áramhálózati Zrt.
Contact Name: Mr. Norbert Kovacs (Substation engineer)
Address: Hungary H-9027 Győr, Kandó Kálmán u. 11-13
Contact Number: +36302985857
Country: Hungary

To Whom it may concern.

We hereby certify that we have had a good partnership with Protecta Electronics Company for more than 20 years. The following played the main role in establishing and maintaining the relationship:

- Delivery of good quality products;
- Deliveries on time;
- Flexibility in handling orders.

We have stated that Protecta Electronics Company delivered (completed) and commissioned (in some cases on going) the protection system of the following substations within the framework of the In-Grid project:

Substation name: **Öttevény S/S**

Voltage: 132/22 kV

Quantity:

132 kV:

- 1 pc IED-EP+/DAUT/DCVA line distance protection with special logic
- 1 pc IED-EP+/DAUT/DRL Petersen coil controller
- 1 pc IED-EP+/DTRV/E2-DTRV2_F transformer differential protection for HV side
- 1 pc IED-EP+/DTRV/E3-DTRV2_F transformer differential protection for MV side
- 1 pc IED-EP+/DTRV/E7-DTSZ_F automatic voltage regulator

22 kV:

- 7 pcs IED-EP+/DTIVA/E2-DTIVA_F medium voltage protection
- 7 pcs IED-EP+ S/S24/S3-DTI medium voltage back-up protection
- 1 pc IED-EP+/DTIVA/E8-DFR_F frequency and over- undervoltage protection

Székhely:
9027 Győr,
Kandó Kálmán u. 11-13.
Győri Törvényszék Cégbírósága
Cg. 08-10-001534

Dispatch Date: 03/2020 – 09/2020

Statement on whether the performance was carried out in accordance with the regulations and the contract (yes/no): yes

Substation name: **Székesfehérvár-Dél S/S**

Voltage: 132/22 kV

Quantity:

132 kV:

- 1 pc IED-EP+/DAUT/DRL Petersen coil controller
- 1 pc IED-EP+/DTRV/E2-DTRV2_F transformer differential protection for HV side
- 1 pc IED-EP+/DTRV/E3-DTRV2_F transformer differential protection for MV side
- 1 pc IED-EP+/DTRV/E7-DTSZ_F automatic voltage regulator
- 2 pcs AED/BP/AZT+ autonomous IDMT O/C back-up protection

22 kV:

- 9 pcs IED-EP+/DTIVA/E2-DTIVA_F medium voltage protection
- 8 pcs IED-EP+ S/S24/S3-DTI medium voltage back-up protection

Dispatch Date: 11/2020 – 08/2021

Statement on whether the performance was carried out in accordance with the regulations and the contract (yes/no): yes

Substation name: **Gyermely S/S**

Voltage: 132/22 kV

Quantity:

132 kV:

- 1 pc IED-EP+/DAUT/DCVA line distance protection with special logic
- 1 pc IED-EP+/DAUT/DRL Petersen coil controller
- 1 pc IED-EP+/DTRV/E2-DTRV2_F transformer differential protection for HV side
- 1 pc IED-EP+/DTRV/E3-DTRV2_F transformer differential protection for MV side
- 1 pc IED-EP+/DTRV/E7-DTSZ_F automatic voltage regulator

22 kV:

- 8 pcs IED-EP+/DTIVA/E2-DTIVA_F medium voltage protection
- 7 pcs IED-EP+ S/S24/S3-DTI medium voltage back-up protection
- 1 pc IED-EP+/DTIVA/E8-DFR_F frequency and over- undervoltage protection

Dispatch Date: 01/2021 – 06/2021

Statement on whether the performance was carried out in accordance with the regulations and the contract (yes/no): yes

Substation name: **Kisbér S/S**

Voltage: 132/22 kV

Quantity:

132 kV:

- 1 pc IED-EP+/DAUT/DCVA line distance protection with special logic

1 pc IED-EP+/DAUT/DRL Petersen coil controller
1 pc IED-EP+/DTRV/E2-DTRV2_F transformer differential protection for HV side
1 pc IED-EP+/DTRV/E3-DTRV2_F transformer differential protection for MV side
1 pc IED-EP+/DTRV/E7-DTSZ_F automatic voltage regulator
2 pcs AED/BP/AZT+ autonomous IDMT O/C back-up protection

22 kV:

7 pcs IED-EP+/DTIVA/E2-DTIVA_F medium voltage protection
5 pcs IED-EP+ S/S24/S3-DTI medium voltage back-up protection
1 pc IED-EP+/DTIVA/E8-DFR_F frequency and over- undervoltage protection

Dispatch Date: 10/2021 – 04/2022

Statement on whether the performance was carried out in accordance with the regulations and the contract (yes/no): yes

Substation name: **Zalaszentgrót S/S**

Voltage: 132/22 kV

Quantity:

132 kV:

4 pcs IED-EP+/DTVA/E1-DTVA_F line distance protection
1 pc IED-EP+/DAUT/DRL Petersen coil controller
1 pc IED-EP+/DTRV/E2-DTRV2_F transformer differential protection for HV side
1 pc IED-EP+/DTRV/E3-DTRV2_F transformer differential protection for MV side
1 pc IED-EP+/DTRV/E7-DTSZ_F automatic voltage regulator
4 pcs AED/BP/AZT+ autonomous IDMT O/C back-up protection

22 kV:

13 pcs IED-EP+/DTIVA/E2-DTIVA_F medium voltage protection
12 pcs IED-EP+ S/S24/S3-DTI medium voltage back-up protection
1 pc IED-EP+/DTIVA/E8-DFR_F frequency and over- undervoltage protection

Dispatch Date: 10/2021 – 09/2022

Statement on whether the performance was carried out in accordance with the regulations and the contract (yes/no): yes

Substation name: **Veszprémvarsány S/S**

Voltage: 132/22 kV

Quantity:

132 kV:

4 pcs IED-EP+/DTVA/E1-DTVA_F line distance protection
1 pc IED-EP+/OGYD/OGYD6 decentralized busbar protection central unit
4 pcs IED-EP+/DTIVA/E2-DTI_F decentralized busbar protection bay unit
2 pcs IED-EP+/DAUT/DRL Petersen coil controller
2 pcs IED-EP+/DTRV/E2-DTRV2_F transformer differential protection for HV side
2 pcs IED-EP+/DTRV/E3-DTRV2_F transformer differential protection for MV side
2 pcs IED-EP+/DTRV/E7-DTSZ_F automatic voltage regulator
6 pcs AED/BP/AZT+ autonomous IDMT O/C back-up protection

22 kV:

13 pcs IED-EP+/DTIVA/E2-DTIVA_F medium voltage protection

12 pcs IED-EP+ S/S24/S3-DTI medium voltage back-up protection
1 pc IED-EP+/DTIVA/E8-DFR_F frequency and over- undervoltage protection

Dispatch Date: 12/2022 – 03/2023

Statement on whether the performance was carried out in accordance with the regulations and the contract (yes/no): yes

Substation name: **Szombathely-Észak S/S**

Voltage: 132/22/11 kV

Quantity:

132 kV:

6 pcs IED-EP+/DTVA/E2-DTVA-OX_F line distance and differential protection
1 pc IED-EP+/OGYD/OGYD6 decentralized busbar protection central unit
4 pcs IED-EP+/DTIVA/E2-DTI_F decentralized busbar protection bay unit
2 pcs IED-EP+/DAUT/DRL Petersen coil controller
2 pcs IED-EP+/DTRV/E5-DTRV2_F 3w transformer differential protection for HV side
4 pcs IED-EP+/DTRV/E3-DTRV2_F 3w transformer differential protection for MV side
2 pcs IED-EP+/DTRV/E7-DTSZ_F automatic voltage regulator
2 pcs IED-EP+/DAUT/METRA3 high-speed bus transfer automation
6 pcs AED/BP/AZT+ autonomous IDMT O/C back-up protection

22 kV:

13 pcs IED-EP+/DTIVA/E2-DTIVA_F medium voltage protection
12 pcs IED-EP+ S/S24/S3-DTI medium voltage back-up protection
1 pc IED-EP+/DTIVA/E8-DFR_F frequency and over- undervoltage protection

11 kV:

19 pcs IED-EP+/DTIVA/E2-DTIVA_F medium voltage protection
18 pcs IED-EP+ S/S24/S3-DTI medium voltage back-up protection
1 pc IED-EP+/DTIVA/E8-DFR_F frequency and over- undervoltage protection

Dispatch Date: 12/2022 – 03/2023

Statement on whether the performance was carried out in accordance with the regulations and the contract (yes/no): yes

Substation name: **Répcelak S/S**

Voltage: 132/22 kV

Quantity:

132 kV:

4 pcs IED-EP+/DTVA/E2-DTVA-OX_F line distance and differential protection
1 pc IED-EP+/OGYD/OGYD6 decentralized busbar protection central unit
4 pcs IED-EP+/DTIVA/E2-DTI_F decentralized busbar protection bay unit
1 pc IED-EP+/DAUT/DRL Petersen coil controller
1 pc IED-EP+/DTRV/E2-DTRV2_F transformer differential protection for HV side
1 pc IED-EP+/DTRV/E3-DTRV2_F transformer differential protection for MV side
1 pc IED-EP+/DTRV/E7-DTSZ_F automatic voltage regulator
4 pcs AED/BP/AZT+ autonomous IDMT O/C back-up protection

22 kV:

13 pcs IED-EP+/DTIVA/E2-DTIVA_F medium voltage protection
12 pcs IED-EP+ S/S24/S3-DTI medium voltage back-up protection
1 pc IED-EP+/DTIVA/E8-DFR_F frequency and over- undervoltage protection

Dispatch Date: 02/2023 – 09/2023

Statement on whether the performance was carried out in accordance with the regulations and the contract (yes/no): yes

Substation name: **Lábatlan S/S**

Voltage: 132/22 kV

Quantity:

132 kV:

2 pcs IED-EP+/DTVA/E1-DTVA_F line distance protection
1 pc IED-EP+/DAUT/DRL Petersen coil controller
1 pc IED-EP+/DTRV/E2-DTRV2_F transformer differential protection for HV side
1 pc IED-EP+/DTRV/E3-DTRV2_F transformer differential protection for MV side
1 pc IED-EP+/DTRV/E7-DTSZ_F automatic voltage regulator
1 pc IED-EP+/DAUT/METRA3 high-speed bus transfer automation
3 pcs AED/BP/AZT+ autonomous IDMT O/C back-up protection

22 kV:

8 pcs IED-EP+/DTIVA/E2-DTIVA_F medium voltage protection
7 pcs IED-EP+ S/S24/S3-DTI medium voltage back-up protection
1 pc IED-EP+/DTIVA/E8-DFR_F frequency and over- undervoltage protection

Dispatch Date: 02/2023 – 10/2023

Statement on whether the performance was carried out in accordance with the regulations and the contract (yes/no): yes

Substation name: **Várpalota-Kelet S/S**

Voltage: 132/22 kV

Quantity:

132 kV:

12 pcs IED-EP+/DTVA/E1-DTVA_F line distance protection
1 pc IED-EP+/OGYD/OGYD21 decentralized busbar protection central unit
6 pcs IED-EP+/DTIVA/E2-DTI_F decentralized busbar protection bay unit
1 pc IED-EP+/DTVA/E1-DTVA_F line distance protection
6 pcs AED/BP/AZT+ autonomous IDMT O/C back-up protection

Dispatch Date: 03/2023 – 11/2023

Statement on whether the performance was carried out in accordance with the regulations and the contract (yes/no): yes

Substation name: **Várpalota-Kelet S/S**

Voltage: 132/22 kV

Quantity:

132 kV:

2 pcs IED-EP+/DTVA/E1-DTVA_F line distance protection

4 pcs IED-EP+/DTVA/E2-DTVA-OX_F line distance and differential protection
1 pc IED-EP+/OGYD/OGYD6 decentralized busbar protection central unit
4 pcs IED-EP+/DTIVA/E2-DTI_F decentralized busbar protection bay unit
1 pc IED-EP+/DAUT/METRA3 high-speed bus transfer automation
2 pcs IED-EP+/DTRV/E2-DTRV2_F transformer differential protection for HV side
2 pcs IED-EP+/DTRV/E3-DTRV2_F transformer differential protection for MV side
2 pcs IED-EP+/DTRV/E7-DTSZ_F automatic voltage regulator
6 pcs AED/BP/AZT+ autonomous IDMT O/C back-up protection

22 kV:

1 pc IED-EP+/DTIVA/E2-DTIVA_F medium voltage protection
12 pcs IED-EP+/DTIVA/E6-DKTVA-OX_F line distance and differential protection
12 pcs IED-EP+ S/S24/S3-DTI medium voltage back-up protection
2 pcs IED-EP+/OGYD/OGYD15 decentralized busbar protection central unit
16 pcs IED-EP+ S/S24/S3-DTI decentralized busbar protection bay unit
1 pc IED-EP+/DTIVA/E8-DFR_F frequency and over- undervoltage protection

Dispatch Date: 02/2023 – 09/2023

Statement on whether the performance was carried out in accordance with the regulations and the contract (yes/no): yes

Mr. Gábor Lakatos
Head of Substation Department
E.ON Észak-dunántúli Áramhálózati Zrt.

Mr. Tamás Fejes
Head of Protection & Automation
E.ON Észak-dunántúli Áramhálózati Zrt.