

Elektrovojvodina Ltd Novi Sad

“Elektro distribucija Subotica”

Subotica, Segedinski put 22-24, 24000 Subotica

“Regional landfill” Ltd Subotica

1 Lazara Nešića Square

24000 SUBOTICA

Subotica, 26th July 2013

Number: 3.30.4-2287/2013

Economic company for electric power distribution “Elektrovojvodina” Ltd. Novi Sad (hereinafter: Supplier), has considered the request submitted by the “REGIONAL LANDFILL” Ltd. Subotica, SUBOTICA, 1 LAZARA NESICA Square, (hereinafter: Party). On the basis of Articles 129-133, 135 and 136 of Energy Law (“The Official Gazette of the Republic of Serbia” no. 57/11, 80/11, 93/12, 124/12), Article 54 of the Law on Construction and Planning (“The Official Gazette of the Republic of Serbia” no. 72/09, 81/09, 6/10, 24/11, 121/12) and Rules on Distribution System Operation (“The Official Gazette of the Republic of Serbia” no. 8/10), we issue the

REQUIREMENTS

for preparation of technical documentation for the facility Regional Landfill SUBOTICA Bikovo, plot no. 2635 Cadastral Municipality Bikovo.

According to Article 131 of the Energy Law, the energy entity for electric power distribution shall determine the connection point, manner and technical requirements of connection, place and manner of measuring the electric power, connection period and connection costs.

Point of connection of the facility to the electric power distribution system is the place of division of liability over the facilities between the Distributor and the Party. Power facilities up to the connection point shall be the Distributor’s property and facilities located behind the connection point shall be the Party’s property. Electric power shall be supplied at the connection point. The connection point shall be the measuring spot.

Measuring spot is a point where supplied power measuring equipment is connected to.

Connection is a set of lines, equipment and devices used to connect physically the installations of the final buyer’s facility to the electric power distribution system, from the place of division of liability for the transferred energy to the closest system point on the system where connection is technically, energetically and legally possible, including the measuring device.

The investor of connection with a measuring spot cabinet is “Elektro distribucija Subotica”, in compliance with the applicable regulations.

Plans of the “Elektro distribucija Subotica” do not predict any construction of distribution electro-energetic facilities on the aforementioned location. After the construction of the following missing facilities, connection to the distribution electro-energetic system will be possible.

- To supply power to the buyer, construction of a prefabricated concrete or built power substation is predicted with voltage of 20/0.4 kV, power up to 1000 kVA at the center of consumption, equipping thereof with 20 kV equipment (two line cells, one measuring cell and one transformation cell and 0.4 kV equipment (complete low-voltage block with the necessary number of low-voltage feeds) and energy transformer (E.T.) with power of 630 kVA and voltage 20/0.42 kV.

1. Requirements the facility needs to meet to enable the construction of the connection

Facility purpose: storage

Voltage the facility is to be connected to: 20 kV

Power factor: above 0.95

Maximal power: 590 kW

Description of the space and position of the measuring spot: Measuring cell in the high-voltage block of the new substation.

Protection requirements from indirect contact voltage, overload and overvoltage: For contact voltage protection use TN-C-S system JUS-NB2-741 of 1989 ($U_d \leq 50V$).

Installation requirements in the facility behind the connection:

Protection devices at the distribution board of the facility installation to be adjusted to main installation fuses at the measuring spot according to the applicable technical requirements.

If the Party wants to provide continuous power supply to its devices in case of failures, it is necessary to provide the possibility of aggregate power supply of its equipment as an alternative power supply, provided that with the previous mandatory installation of appropriate blockage the aggregate voltage is not distributed to the “Elektrovojvodina” Ltd. distribution electro-energetic system network.

2. Technical description of the connection

Place of connection: measuring cell

Place of attaching the connection to the distribution system: The closest point of the existing 20 kV power line from the Orom direction, past STS-13 Orom.

Description of the connection up to the measuring spot: 20 kV cable line, two 20 kV line cells, one 20 kV measuring cell and one 20 kV transformation cell.

Description of the measuring spot: Measuring of the electric power consumption and recording of maximum power to be done indirectly on the 20 kV side – THREE-SYSTEM, with completely middle-voltage measuring group placed in new prefabricated concrete transformation station (PCTS) and three power measuring transformers (PMT), with transmission ratio 2x20/5 A/A, attached at 20/5 A/A.

Measuring device:

- Three-phase three-systemic gauge – multipurpose, nominal voltage $3 \times 100/\sqrt{3}V$ and nominal power 5 A.
- Three voltage measurement transformers (VMT), voltage $20/\sqrt{3}/0.1/\sqrt{3} kV$, accuracy class 0.5.
- Three power measurement transformers (PMT), transmission ratio 2x20/5 A/A attached to 20/5 A/A, accuracy class 0.5.

3. Basic technical information about the distribution system at the connection point

Subtransient (S_k'') power of the three-pole short circuit at busbars 20 kV in the substation 110/20 kV/kV amounts to 500 MVA, short circuit duration $t=0.2$ s.

Power value of the single-phase ground fault in grounded networks of 20 kV voltage is limited to the value of 300 A.

To eliminate temporarily earth fault, the following is applied:

- single-pole ground fault switch with action speed less than 0.2 s
- ground fault protection at the output switch with duration time up to 0.5 s
- automatic restart (AR) with two attempts is applied on 20 kV feeds in the substation 110/20 kV/kV. In the first attempt, fast AR is done with no-voltage pause (duration) of 0.3 s. If fault is still present, the second attempt is performed after the activation of the no-voltage pause (duration) of up to 3 minutes (slow AR). If fault is still present, the protection turns the 20 kV feed off permanently, after which the fault is localized and repaired.

Requirements for electric power supply and quality at the place of connection are in compliance with the Energy Law, Regulations on terms of electric energy supply, Rules on distribution system operation and other technical regulations.

4. These Requirements have the validity period of 12 months and may exclusively be used for the purpose of:

- obtaining location permit,
- making the design and main project for the facility construction.

in compliance with Article 54 of the Law on Planning and Construction, and cannot be used for other purposes.

5. These Requirements do not free the Party from obtaining the **Connection Permit, which will define other requirements, deadline and costs for the connection of the facility to the distribution electro-energetic system.**

6. Construction of the connection on the distribution electro-energetic system contrary to the Energy Law, Rules of Distribution System Operation and these Requirements is not allowed.

Faithfully yours,

General Manager
Ilija Maravic, graduate ecc.

Delivered to:

1. Title party
2. Energy Department
3. EKFIN
4. Archive

Seal:

Economic Company for Electric Power Distribution
"ELEKTROVOJVODINA" Ltd. NOVI SAD
"Elektro distribucija Subotica"