



**HELLENIC ELECTRICITY DISTRIBUTION NETWORK OPERATOR S.A.**

NOTICE OF CALL FOR TENDERS No ND-207

**PROJECT: "Pilot Telemetry and Management System for the Electric Power Supply Demand by Residential and Small Commercial Consumers and Implementation of Smart Grids".**

**TECHNICAL DESCRIPTION**  
**COMMUNICATION UNIT (MODEM)**

## Indicative Technical Description of Communication Unit

The communication unit (modem) that will be used for the communication connection of the new electronic L.V. meters for electrical energy with the Telemetry System for the transfer of metering data using GSM/GPRS/3G, should **at least**:

1. Be of type GSM/GPRS/3G or **can additional by also** newer type (i.e. **GSM/GPRS/3G/4G**).
2. Be GPRS multislots ~~at least~~ Class 8 or higher.
3. **Support communications with TCP protocol.**
4. **Have "Transparent" operation capability.**
5. Support dynamic & static IP address for GPRS communication.
6. Operate at all mobile communication networks of the Country.
7. In case of GPRS/3G communication, when the signal is lost, to perform automatic change to GSM communication ~~and afterwards to have the~~ **with** capability for **automatic** restoration to GPRS/3G communication.
8. In case of voltage loss and return of voltage, to restart automatically (auto restart) in order to find communication signal GSM or GPRS/3G.
9. **Have automatic reboot capability at regular intervals, configurable from 1 to 24 hours.**
10. Communicate at **speeds** from 9600 ~~—19.200 bps or~~ **and** higher **with the meter**, with the capability of remotely & locally selection of the desired speed.
11. Be capable of remotely change the communication mode from GSM to GPRS/3G and vice versa.
12. Be capable of parameterization (speed, codes, communication status, signal strength etc.) ~~of the communication unit (modem)~~ via remote instruction.
13. Be accompanied by an antenna of suitable gain and dimensions in order to be installed in the metering device.
14. Provide operating indications (e.g. using led etc) and connector for placement of the removable SIM card.
15. Operate smoothly and without problems at the following environmental conditions:
  - Operating temperature range -20°C to +55°C
  - Annual mean humidity up to 75% (IEC 62052-11).
16. Have the symbol of CE and be in conformity with the following E.U. regulation:
  - R&TTE Directive
17. If the modem is external to the meter, it should have protection degree IP51 (IEC 60529) or higher.
18. Provide protection against overvoltages.
19. **Have protection system from damage for the SIM card, when this is removed from the modem, without prior cut of power supply.**
20. **Software of modem mass configuration software must be supplied.**