

## SUPPLIMENTARY DESCRIPTIONS OF LS-PRIME

### **APPLICATIONS:**

*e-scooters  
cameras, info-totem, turnikets,  
fountains, pedestrian cross, defibrillators, etc.*

The idea stems from the need to find a solution to the increasing demand for recharging low-power electric vehicles and other smart city services.

The current city installations of the various electric utilities, in support of AC voltage recharges, inevitably require the installation of a dedicated energy meter positioned more or less in the immediate vicinity of the recharge station itself and sometimes involve costly infrastructural interventions starting from the excavation of road pavements.

All this represents one of the main obstacle to the development both of the electric car as a vehicle for city mobility, and for low-power vehicles such as scooters and electric scooters (all of it facing of a growing demand for these vehicles also in sharing).

With the above in mind, LS-PRIME comes a simple and economical system for recharging small and medium power electric vehicles and also suitable for supplying energy to the devices of all those outdoor activities that involve the use of electricity, using the available power that can be supplied by the city lighting panels.

Through this system we are able to manage the power line, which is inactive during the daily light hours, to supply energy to the charging devices, both in single-phase and three-phases. It is cleae that, by activating the underground cables, the energy to power the charging devices is already present in our cities and is already wired and usable:

**It is ..... the energy that lights up our city streets!!!**

### Additional remarks

The LS-PRIME modules, unlike the current charging module positioning systems, allow the installation of such modules using the entire length of the road, for the positioning of charging systems.

The recharging systems, with the integration of LS-PRIME modules, will be able to guarantee energy for recharging both day and night, satisfying the needs of users and above all exploiting existing public lighting systems.

The LS-PRIME system consists of small electronic modules, which can be installed respectively inside the lighting panel, and inside the slot of each lighting pole of the street chosen for installation. The respective modules communicate sequentially and in synchronism with each other.

The advantages of the LS-PRIME system are many:

- Low costs and speed of construction, through the use of the existing power line without excavation costs, without other infrastructural works and without the consequent inconvenience caused to the roads during the execution of the works, etc.
- Possibility of installing the chargers in the most suitable streets chosen by the municipal administration, since wherever there is a public lighting pole, it is possible to install a socket and / or also create a parking area for recharging even multiple scooters, scooters, etc.

With the disclosure of the LS-PRIME system, however, it will also be necessary to think of a common strategy between the Municipal Administration and energy managers for a more widespread positioning optimization of the charging systems in favor of the population.

It is evident that the installation of simple technological systems with low economic and environmental impact such as LS-PRIME, can bring enormous results in the long term, which certainly justify the investment given the positive balance between its modest costs compared to the resulting economic and life quality advantages. also to be read as time saved for the research for recharging points that are still not widespread today.

All this represents only a starting point for the creation of a new relationship between the request for mobility of citizens, the Municipal Administrations, and with the help of energy suppliers, which through the careful selection of innovative technologies and those already existing, allow a better application, which is able to make people's lives more eco friendly, more pleasant and functional, finally giving concrete meaning to the word SMART CITY as much used as still little realized.