

INTEGRAL MANAGEMENT DEVICE FOR ELECTRICITY MICRO-GENERATION

TECHNOLOGY DESCRIPTION

The device management it is a hardware platform with certain programming which is integrated into a single device control all elements of the installation of micro power and control over operations of the interface device, which is commanded by a global network manager; slogans so that power generation can be set for two different systems and coordinated decision: an internal function of the interest owner installing microgeneration and other external power depending on the needs of the rest of the network.

Provide a single device an integral manager microproduction electricity small facilities, allowing coordinated

control of all internal elements making up the installation, the connecting to the mains, as well as part of the system downstream of the micro in order to work in coordination with other external elements generation and consumption.

Applicable in micro-production facilities of electric power components of an electrical microgrid with many small generators which for good performance should establish coordination between the different actors involved in the distribution system, such as production, consumption, and storage protection.

APPLICATION BUSINESS SECTORS

Manufacturers of equipment for microgeneration of electricity.

TECHNICAL ADVANTAGES AND BUSINESS BENEFITS

- Provide improved performance of the micro-production facility power and reduction in the time required to change operating modes.
- The interconnect device connected to a main power grid and a microgrid formed by a plurality of micro power installations similar to that described.
- Hardware platform with certain programming which is integrated into a single device control all elements of the installation of micro power and control over operations of the interface device, which is commanded by a global network manager.
- Control device operations by interconnecting device media management has orders blocking global network manager, depending on parameters such as installation of micro generation capacity, level consumption downstream of the micro, stored energy, power quality and electrical safety.
- The coordinated action of two decision systems may not be limited to a signal / off installing microgeneration network further including regulation of such performance parameters such as power output, power factor correction, power quality and operation in island based on the estimation of generation and consumption.
- The following technological problems that are holding back its expansion (distributed generation), among which are the following expire:
 - Profile -Modification mains voltages.
 - Danger Malfunction protection.
 - Loss of wave quality
 - Continuous network reconfiguration.

CURRENT STAGE OF THE TECHNOLOGY

Prototyping tested.

INTELLECTUAL PROPERTY RIGHTS

The technology comes from research conducted through a project and belongs to the Institute for Energy Technology. The technology is protected by patent:

- “Dispositivo de gestión integral de microproducción de energía eléctrica” ES2356760
- “Integral management device for electricity micro-generation” WO2010/109031

COLLABORATION SOUGHT

Companies interested in the following forms of cooperation:

- Agreement patent license for implementation and use of technology.
- Agreement for the development of the R & D (TC) to complete the development of technology, or application to other sectors.

RELATED IMÁGES



CONTACT DATA

Esther Mocholí Munera
ITE (Instituto de Tecnología Eléctrica)
Avda. Juan de la Cierva, 24
46980 Paterna (Valencia)
T. +34 96 136 66 70
F. +34 96 136 66 80
Email: observatorio@ite.es
Web: <http://www.ite.es>

