

## LEADING THE DEVELOPMENT OF SMART GRIDS

IBERDROLAS' commitment to development of smart grids, or intelligent networks, underlines the company's contribution not only to technological advances but also to responsible energy use and increasing efficiency in its distribution network.

The Company has backed numerous initiatives that have placed it among the most innovative in this area, and merited an award from the Obama administration of \$96 million in grants to develop smart grids in the United States.

1. **Phoenix Project:** the Group recently successfully completed the Phoenix European research project, with the goal of designing and developing a large-scale virtual power plant which would permit the integration of generation plants in the electricity transmission grid.
2. **Open Meter Project:** IBERDROLA heads up this European initiative aimed at developing open technology for automated meter management. The project responds to European Commission requirements on mass installation of automated electricity and gas meters.
3. **ADM Project (Active Demand Management):** the goal is to optimize electricity consumption patterns and thereby its associated costs, while meeting customer needs. IBERDROLA, which leads this Spanish initiative, hopes to inform customers so as to help them take decisions on the basis of price, energy source, environmental impact or comfort.
4. **Address Project:** via new architectures for smart grids, this European initiative in which the company is taking part aims to encourage active involvement of household customers and small businesses in energy markets.
5. **Crysalid Project:** IBERDROLA is carrying out research in Spain into secondary distribution of electricity - transformation centres - with the aim of obtaining multidisciplinary information needed to build a new concept for medium tension networks by 2015.
6. **Opera II Project:** this project, also at a European level and headed by IBERDROLA, is focused on creating a standard for PLC technology that improves telecommunications applications and smart grid services.

