

## “GRID VALUE” VIDEO VOICE TRANSCRIPTION

Nowadays the electrical system is evolving from a unidirectional model (electricity from large power plants to customers) towards a more decentralized and multidirectional system where customers can install generation at their homes (distributed generation).

The electricity network will continue to play a key role under this transition. The prestigious Electric Power Research Institute (EPRI) of the United States has published a study on the services provided by the network:

- Availability of supply: the network allows the customer to be supplied with electricity at all times and in the required amount.
- Inrush currents: the network provides the instantaneous peak power required to start up the electric motors used in most household and industrial appliances.
- Quality of voltage: appliances need a certain quality of electricity, which can be achieved through a large interconnected network.
- Energy efficiency and trading between agents: the connection of many generating units with many consumers allows:
  - (Energy efficiency) the use of those generating units that are most efficient and lowest cost;
  - (Energy Trading between Agents) the development of markets in which energy can be valued and traded (sales of excess production, demand management, flexibility, etc.).

To determine the economic value of these services provided by the network, EPRI calculated the cost of obtaining such a supply through an isolated installation composed of batteries and photovoltaic panels. It concluded that being isolated is up to ten times more expensive than obtaining electricity from the network.

The network integrates generation and consumption, minimizing the need for investment and increasing the efficiency of the system; and allows the optimal development of distributed and centralized resources.

Iberdrola recognizes the long term importance of the electricity network and believes that in this new environment regulatory changes are needed to:

- Provide the right signals to encourage the necessary technological and operational innovation for the electricity sector of the future.
- Reform network charging to reflect the fixed and variable costs of the system, so that each customer pays based on their actual network use.