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Sustainable Innovation of Developing Smart Grids

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It is known that developing smart grids can help reach the European Union “2020 energy targets” moving towards new horizons like 2030. In fact, smart grids will increase the use of eco-innovation and new technologies, renewable resources to generate electricity in urban areas and promote new applications in mobility strategies and a more efficient domestic use of energy. It is common to find answers related to the technical considerations like: how sales of smart domestic applications evolve? How technological innovation can be switched in the actual grid? What will be the impact of the electric vehicle? Will it be, for example, a smart energy storage system promoting the distributed electricity generation?

In this sense, some answers related to smart grids, the related eco-innovation development and their economic aspects have to be answered while encouraging large investments, particularly in the current international context of recession. For instance, the most suitable energy plans with effective energy policies have to be developed as well if smart grids are considered a key factor within energy sustainability.

An analysis of eco-innovation related to smart grids and the cities of the futures has been carried out jointly with a basic socio-economic analysis in the early stages of implementing the technology to define investments in smart grids. The analysis and the obtained results are described in this paper with the impact of eco-innovation on different industrial sectors that will be involved, their main environmental benefits and the social impacts of these smart grids on the whole of society.