

2nd International Conference & Expo on **Green Energy, Recycling & Environmental Microbiology**

November 28-30, 2016 Atlanta, USA

The importance of smart meter for transition of smart grid in Turkey

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It is planned to operate more controlled and efficient usage of electrical energy in future grid structure by developing software and communication technologies. Smart Grid (SG) concept has emerged to accomplish this structure. Also, SG is important for the use of efficient energy source and making the most of renewable energy and energy conservation. Since SG allows bidirectional information and energy flow, the electrical energy can be monitored and controlled from its generation to consumption. These advantages led changeover of SG in all over the world. The necessary steps and legislative arrangement are made related to this issue in Turkey. In addition, the utilities are encouraged by the government in order to prepare a required substructure related to transition of SG. One of the most important studies related to this issue is Smart Meter (SM) investment by distribution companies. Since the consumer electrical energy usage can be controlled and monitored with the SM, the Demand Response (DR) application in the grid has become possible. In this study, the information about the importance of SM, which has been required for transition of SG in Turkey, is given. Also, it is dwelled on the cost analysis related to exemplary SM investment in Turkey.

Biography

Onur Elma received his BS and MS degrees in Electrical Engineering from Yildiz Technical University, Istanbul, Turkey in 2009 and 2011, respectively. He worked as a Project Engineer in the industry between 2009 and 2011. He has been employed as a Research Assistant in Electrical Engineering Department at Yildiz Technical University since 2011. Currently, he is working towards his PhD degree in Electrical Engineering at Yildiz Technical University. His research interests include smart grid, electric vehicles, home energy management systems and renewable energy systems.

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