

## **Levelized Cost of Consumed Electricity**

**Tunç Durmaz**

Yildiz Technical University, Turkey  
tuncdurmaz@gmail.com

### **Abstract:**

Current calculations to evaluate the profitability of the various energy generating units ignore intermittency as well as complementary technologies, such as battery storage and smart meters. Therefore, we propose a new assessment of the cost of solar energy that takes into account smart grids. In doing this, we use data from a low energy dwelling in South Wales UK as well as data from a high-rise apartment in Hong Kong, calibrate our model in this regard, and calculate a levelized cost of electricity consumption (LCOCE). Our proposed cost measure can be of use when determining the feasibility of smart systems, and accordingly, assist policymakers when deciding on the financial support for home renewable energy systems.

**Keywords:** LCOE, LCOCE, Distributed Generation, Solar Energy, Energy Storage

**JEL Codes:** D12, D24, D61, Q41, Q42