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**JIMIN KIM**

Yonsei University, South Korea

**TAEHOON HONG**

Yonsei University, South Korea

**KWANGBOK JEONG**

Yonsei university, South Korea

**CHOONGWAN KOO**

Yonsei university, South Korea

## **ANALYSIS OF THE POTENTIAL OF NEW RENEWABLE ENERGY AND ENERGY SAVING MEASURES ON THE BUILDINGS FOR GREEN CITY**

### **Abstract:**

Climate change has become one of the most significant environmental issues, and each country makes an effort to reduce energy consumption in the building level. New renewable energy system (NREs) and energy saving measures (ESMs) are the solution for reducing energy consumption. Therefore, in this study, to understand the energy demand of the unit city, the feasibility analysis of NREs and ESMs, was conducted as the following three steps: (i) collecting database of Seoul, by type of energy used, and the type of facilities; (ii) the analysis on the implementation requirements of NREs and ESMs; and (iii) feasibility study for application of NREs and ESMs using a geographic information system. The differentiation with previous studies, it can be fed back to the plan of the urban energy system including community energy service, distributed generation and unused energy in the city.

### **Keywords:**

new renewable energy system, energy saving measures, energy source map

**JEL Classification:** Q56, Q21, Q41