**Energy Sustainability through Generation Scheduling**

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**ABSTRACT:**

In a modest electrical energy sector, an economical unit cost of electricity generation is inevitable. For tropical countries like Malaysia, apart from attractive energy cost, the environmental issues due to electricity sector also play a significant role because of its tropical nature. The energy cost and its related environmental concerns are of the momentous issues of the Malaysian Government. So as to resolve the concerned issues, this research presents a direct generation scheduling strategy to match demand against power generation, to augment opportunity for energy sustainability, and to offer an attractive unit electric energy cost. Besides, the same strategy aims at minimizing emissions due to thermal power plants through generation scheduling and incorporation of renewable energy systems.

**Keywords:** Generation scheduling, energy cost, environmental concerns, thermal and renewable energy systems.

**JEL Classifications:** Q21, Q41, Q43, Q55