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Nota di contenuto	Review of the Interlinked Environmental, Economic and Social Realms of Sustainability -- Evaluation of 850-kW WTG and 40-kW Hydro -- Evaluation of Wind Farm Comprising 850-kW WTG and 900-kW WTG -- Evaluation of 3MW WTG -- Evaluation of 300-kW WTG (Technical) -- Evaluation of 300-kW WTG (Ethics) -- Evaluation of 10-kW WTG -- Evaluation of 4-kW PV and 169-kW PV Array -- Ireland’s Increased Wind Power and Related Energy Benchmarks -- Energy Storage Solutions for Renewable Energy Generators -- Overall Discussion -- Overall Conclusions.
Sommario/riassunto	This book critically analyses renewable energy sources of electrical power/energy utilised to save money on the amount of electrical energy imported from the national electricity grid and help nations meet binding environmental goals. The main renewable energy sources analysed are wind turbine generators, hydroelectric plant, and solar PV systems. The book presents a robust evaluation framework that can be used in the renewable energy analysis process. One of the main

findings is the identification of short-term variations associated mainly with wind turbine electrical generator power output signals. These short-term variations are negating the potential advantages of installing wind turbine electrical generators. One of the suggested methods to counteract the short-term variations is the use of energy storage. Without utility-sized energy storage, binding energy targets will be very difficult to achieve. The three main realms of sustainable development, namely environmental, economic, and human realms, are discussed throughout the book. The three realms are closely interlinked so a weakness identified in any one realm affects the overall sustainability of the (business, country, any organisation) development process. .