1. Record Nr. UNINA9910583074103321 Autore Yahyaoui Imene **Titolo** Specifications of photovoltaic pumping systems in agriculture: sizing, fuzzy energy management and economic sensitivity analysis / / Imene Yahyaoui Pubbl/distr/stampa Amsterdam, Netherlands:,: Elsevier,, 2017 ©2017 Edizione [1st edition] Descrizione fisica 1 online resource (178 pages) : color illustrations Disciplina 628.144 Soggetti Solar pumps Water-supply, Agricultural - Economic aspects Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Includes bibliographical references at the end of each chapters and Nota di bibliografia index. Sommario/riassunto Specifications of Photovoltaic Pumping Systems in Agriculture: Sizing, Fuzzy Energy Management and Economic Sensitivity Analysis is the first book of its kind to discuss the physical installation and sizing of PV pumping systems, also providing a successful energy management operation and economic sensitivity analysis. In order to balance production with consumption, and to improve the lifetime of batteries, Imene Yahyaoui offers a complete study through sensitive analysis of system components and sizing algorithms, providing guidance for efficient energy conversion and management for off-grid systems. From this single source, readers will be equipped with all the necessary data they need to understand, plan, and implement cost reduced systems. Contains practical examples on how to optimize photovoltaic energy to pump water Presents case studies on both the physical installation and effective energy management of PV water pump systems Provides in-depth economic studies that justify optimization

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