1. Record Nr. UNINA9910476770903321 Autore Ustun Taha Selim Titolo Innovation in Energy Systems:: New Technologies for Changing Paradigms / / Taha Selim Ustun Pubbl/distr/stampa 2019 [s.l.]:,: IntechOpen,, 2019 **ISBN** 1-78985-591-8 Descrizione fisica 1 online resource (1 p.) Soggetti Technology & Engineering / Power Resources / Alternative & Renewable Technology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Sommario/riassunto It has been a little over a century since the inception of interconnected networks and little has changed in the way that they are operated. Demand-supply balance methods, protection schemes, business models for electric power companies, and future development considerations have remained the same until very recently. Distributed generators, storage devices, and electric vehicles have become widespread and disrupted century-old bulk generation - bulk transmission operation. Distribution networks are no longer passive networks and now contribute to power generation. Old billing and energy trading schemes cannot accommodate this change and need revision. Furthermore, bidirectional power flow is an unprecedented phenomenon in distribution networks and traditional protection schemes require a thorough fix for proper operation. This book aims to

the needs of this changing field.

cover new technologies, methods, and approaches developed to meet