1. Record Nr. UNINA9910462544303321 Electric power systems [[electronic resource] /] / Brian B. Weedy, ... [et **Titolo** al.1 Pubbl/distr/stampa Chichester, West Sussex, UK, : John Wiley & Sons, Ltd., 2012 **ISBN** 1-118-36110-5 1-283-64506-8 1-118-36109-1 1-118-36108-3 Edizione [5th ed.] Descrizione fisica 1 online resource (514 p.) Altri autori (Persone) WeedyBrian B Disciplina 621.319/1 Soggetti Electric power systems Electric power transmission Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Electric Power Systems; Contents; Preface to First Edition; Preface to Fourth Edition; Preface to Fifth Edition; Symbols; 1 Introduction; 1.1 History; 1.2 Characteristics Influencing Generation and Transmission; 1.3 Operation of Generators; 1.4 Energy Conversion; 1.4.1 Energy Conversion Using Steam; 1.4.2 Energy Conversion Using Water; 1.4.3 Gas Turbines; 1.4.4 Nuclear Power; 1.5 Renewable Energy Sources; 1.5.1 Solar Energy-Thermal Conversion; 1.5.2 Solar Energy-Photovoltaic Conversion; 1.5.3 Wind Generators; 1.5.4 Biofuels; 1.5.5 Geothermal Energy; 1.5.6 Other Renewable Resources 1.6 Energy Storage 1.6.1 Pumped Storage; 1.6.2 Compressed-Air Storage: 1.6.3 Secondary Batteries: 1.6.4 Fuel Cells: 1.6.5 Hydrogen Energy Systems; 1.6.6 Superconducting Magnetic Energy Stores (SMES); 1.6.7 Flywheels; 1.6.8 Super-capacitors; 1.7 Environmental Aspects of Electrical Energy; 1.7.1 Global Emissions from Fossil Fueled Power Stations; 1.7.2 Regional and Local Emissions from Fossil Fueled Power Stations: 1.7.3 Thermal Pollution from Power Stations: 1.7.4 Electromagnetic Radiation from Overhead Lines, Cables and Equipment: 1.7.5 Visual and Audible Noise Impacts

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Sommario/riassunto

The definitive textbook for Power Systems students, providing a grounding in essential power system theory while also focusing on practical power engineering applications. Electric Power Systems has been an essential book in power systems engineering for over thirty years. Bringing the content firmly up-to-date whilst still retaining the flavour of Weedy's extremely popular original, this Fifth Edition has been revised by experts Nick Jenkins, Janaka Ekanayake and Goran Strbac. This wide-ranging text still covers all of the fundamental power systems subjects but is now e