1. Record Nr. UNINA9910814931203321 Future energy: improved, sustainable and clean options for our planet Titolo // edited by Trevor M. Letcher, Emeritus Professor, University of KwaZulu-Natal, Durban, South Africa London:,: Elsevier,, 2014 Pubbl/distr/stampa 0-08-099422-9 **ISBN** Edizione [Second edition.] Descrizione fisica 1 online resource (xxi, 716 pages): illustrations (some color), maps Collana Gale eBooks 333.79 Disciplina Soggetti Power resources Power resources - Environmental aspects Clean energy industries Renewable energy sources Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Front Cover; Future Energy; Copyright Page; Contents; Preface; List of Contributors: I: Introduction: 1 Introduction with a Focus on Atmospheric Carbon Dioxide and Climate Change; 1.1 Why Is It Important to Consider Our Future Energy Options?; 1.1.1 Society's Needs; 1.2 The Need for a Sustainable, Safe and Non-polluting Energy Source; 1.3 Climate Change; 1.4 Atmospheric Pollution and Climate Change: 1.5 What Are Our Options for Electricity Generation?: 1.6 What Are Our Options for Transport Fuel?; 1.7 The Situation in the World Today: 1.8 How Can We Reduce the Stranglehold of Fossil Fuels? References II: Fossil Fuels (Energy Sources): 2 Conventional Oil and Gas: 2.1 Introduction; 2.2 Hydrocarbon Reservoirs; 2.2.1 Hydrocarbon Location and Formation Evaluation; 2.2.2 Hydrocarbon Types; 2.3 Hydrocarbon Recovery, Reserves, Production and Consumption; 2.3.1 Energy Supply and Demand; 2.3.2 Conventional Oil and Gas; 2.3.2.1 LNG and Natural Gas Processing; 2.3.2.2 Enhanced Oil and Gas Recovery; 2.3.2.3 Hydraulic Fracturing and Matrix Acidizing; 2.3.2.4 Shale Hydrocarbon; 2.4 Global Warming and the Hydrocarbon Economy; 2.4.1 Energy and the Economy 2.4.2 Mitigating CO2 Emissions from Hydrocarbon Combustion2.5

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As the demand for global energy increases, fact-based evaluations of alternative energy sources are needed in order to address the growing interest in how energy is produced, provided, and transported in sustainable ways. Future Energy, Second Edition provides scientists and decision makers with the knowledge they need to understand the relative importance and magnitude of various energy production methods in order to make the energy decisions needed for sustaining development and dealing with climate change. The second edition of Future Energy looks at the present energy situati

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