1. Record Nr. UNINA9910437776803321 Autore Lee Kun Sang Titolo Underground Thermal Energy Storage [[electronic resource] /] / by Kun Sang Lee London:,: Springer London:,: Imprint: Springer,, 2013 Pubbl/distr/stampa **ISBN** 1-283-69695-9 1-4471-4273-X Edizione [1st ed. 2013.] Descrizione fisica 1 online resource (157 p.) Collana Green Energy and Technology, , 1865-3529 Disciplina 621.402/5 621.44 Soggetti Renewable energy sources Thermodynamics Heat engineering Heat transfer Mass transfer Geotechnical engineering Renewable and Green Energy Engineering Thermodynamics, Heat and Mass Transfer Geotechnical Engineering & Applied Earth Sciences Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references. Nota di contenuto Aguifer Thermal Energy Storage -- Borehole Thermal Energy Storage --Single Column Well -- Hydro-Geothermal Simulation. Sommario/riassunto Underground thermal energy storage (UTES) provide us with a flexible tool to combat global warming through conserving energy while utilizing natural renewable energy resources. Primarily, they act as a buffer to balance fluctuations in supply and demand of low

temperature thermal energy. Underground Thermal Energy Storage provides an comprehensive introduction to the extensively-used energy storage method. Underground Thermal Energy Storage gives a general overview of UTES from basic concepts and classifications to operation regimes. As well as discussing general procedures for design and construction, thermo-hydro geological modeling of UTES systems is

explained. Finally, current real life data and statistics are include to summarize major global developments in UTES over the past decades. The concise style and thorough coverage makes Underground Thermal Energy Storage a solid introduction for students, engineers and geologists alike.