

1. Record Nr.	UNINA9910149367903321
Autore	Olama Alaa A.
Titolo	District cooling : theory and practice / / Alaa A. Olama
Pubbl/distr/stampa	Boca Raton : , : CRC Press, , [2017] ©2017
ISBN	1-315-35440-3 1-315-37163-4 1-4987-0551-0
Edizione	[1st ed.]
Descrizione fisica	1 online resource (127 pages) : illustrations, tables
Collana	Heat transfer : a series of reference books and textbooks
Disciplina	697.9/3
Soggetti	Air conditioning from central stations
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	chapter 1. Introduction to district cooling -- chapter 2. Economic considerations -- chapter 3. Major factors influencing the design of a district cooling system -- chapter 4. Designing central plants -- chapter 5. Designing chilled water distribution systems -- chapter 6. Designing energy transfer stations -- chapter 7. Design of thermal energy storage -- chapter 8. Controls and instrumentation.
Sommario/riassunto	DISTRICT COOLING: THEORY and PRACTICE provides a unique study of an energy cogeneration system, set up to bring chilled water to buildings (offices, apartment houses, and factories) needing cooling for air conditioning and refrigeration. In winter, the source for the cooling can often be sea water, so it is a cheaper resource than using electricity to run compressors for cooling. The related technology of District Heating has been an established engineering practice for many years, but District Cooling is a relatively new technology now being implemented in various parts of the world, including the USA, Arab Emirates and Kuwait, and Saudi Arabia. Existing books in the area are scarce, and do not address many of the crucial issues facing nations with high overall air temperatures, many of which are developing District Cooling plans using sea water. DISTRICT COOLING: THEORY & PRACTICE integrates the theory behind district cooling planning with the practical engineering approaches, so it can serve the policy makers,

engineers, and planners whose efforts have to be coordinated and closely managed to make such systems effective and affordable. In times of rising worldwide temperatures, District Cooling is a way to provide needed cooling with energy conservation and sustainability. This book will be the most up-to-date and comprehensive study on the subject, with Case Studies describing real projects in detail.
