Record Nr. UNINA9910253981803321 Autore Colmenar-Santos Antonio Titolo District Heating and Cooling Networks in the European Union [[electronic resource] /] / by Antonio Colmenar-Santos, David Borge-Díez, Enrique Rosales-Asensio Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2017 3-319-57952-5 ISBN Edizione [1st ed. 2017.] Descrizione fisica 1 online resource (XX, 149 p. 28 illus., 21 illus. in color.) Disciplina 621.042 Soggetti Energy systems Energy policy Energy and state Regional planning Urban planning Energy security **Energy Systems** Energy Policy, Economics and Management Landscape/Regional and Urban Planning **Energy Security** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references. Nota di contenuto 1.Introduction -- 2.District heating and cogeneration in the eu-28: current situation, potential and proposed energy strategy for its

current situation, potential and proposed energy strategy for its generalisation -- 3.Cogeneration and district heating networks: measures to remove institutional and financial barriers that restrict their joint use in the eu-28 -- 4.Reconciliation of social discount rates and private finance initiative: application to district heating networks in

in low-temperature district heating and cooling networks -- 6.

Conclusions -- 7.References.

Sommario/riassunto This book evaluates the potential of the combined use of district

heating networks and cogeneration in the European Union (EU). It also

the eu-28 -- 5. Evaluation of the cost of using power plant reject heat

proposes measures to remove barriers hindering their widespread implementation, formulates policies for their implementation, and evaluates their economic, energy, and environmental consequences. The book presents a preliminary assessment of the likely cost and the impact of widespread adoption of district heating networks and cogeneration carried out in three cities that represent the variety of climatic conditions in the EU. Based on this assessment, it is estimated that by undertaking the maximum economically feasible implementation across the EU, fuel savings of €95M/year would be achieved, representing energy savings of 6,400 petajoules (PJ), which is around 15% of the total final energy consumption in the EU in 2013 (46,214.5 PJ). Using simple and quick calculations and not specific software, the method used allows the evaluation of the potential benefits of retrofitting existing power plants into cogeneration plants and connecting them to nearby heating networks. In light of increasing energy costs and environmental concerns, the book is of interest to heating engineers, city planners, and policy-makers around the globe.