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Sommario/riassunto

This book covers theoretical foundations of the Natural Gas (NG) installations and networks as a part of building logistic system, illustrated with digital examples. It describes the NG oxidation phenomena and appropriate energy converting devices used in the building's energy centres and basic sizing principals of the related pipe networks. Further, it covers usage of NG devices including system for thermal comfort control, building ventilation, indoor air quality, visual comfort, food preparation and conservation, and hygiene maintenance system. A special attention is given to applications of the NG technological equipment, using gas-driven heat pumps, micro heat and power systems. Aimed at professionals and graduate students in the areas of HVAC, Plumbing, Architecture, Electricians, this book: Presents complex, innovative and systematical approach to NG installations in buildings. Reviews efficient and environmentally sustainable dementalization approach to building energy supply, using NGmHps v/s central energy supply systems. Explains pre-designating calculations of the gas piping networks. Illustrates structures,

principals of operation and building project implementations of the modern GN energy converters and transformers as fuel cells (SOFC, MOFC, PEFC) and NG driven heat pumps. Discusses calculation methods derived from professional case studies.