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Nota di contenuto	Cover; Preface; Contents; Figures; Tables; Summary; Acknowledgments; Abbreviations; CHAPTER ONE- Introduction; Background; Technical Approach; Organization of This Report; CHAPTER TWO- History and Context of Unconventional Fossil-Resource Development; Past U.S. Efforts to Promote Synfuels; Policy Drivers for Unconventional Fossil-Based Fuels: Greenhouse-Gas Emissions and Energy Security; CHAPTER THREE- Carbon Capture and Storage for Unconventional Fuels; Carbon-Dioxide Capture; Carbon-Dioxide Transport; Carbon-Dioxide Storage; CHAPTER FOUR- Oil Sands and Synthetic Crude Oil Overview of the ResourceNorth American Oil Sands; Methods of Extracting and Upgrading Oil Sands; Potential Constraints on Oil-Sand Production; Carbon-Dioxide Production, Capture, and Storage; Unit Costs for Oil-Sand Production; CHAPTER FIVE- Coal-to-Liquids Production; The Coal Resource Base Relative to Coal-to-Liquids Production Needs; Liquid-Fuel Production via Indirect Liquefaction of Coal; Methanol-to-Gasoline; Potential Constraints on Production of Coal-to-Liquid Fuels; Carbon-Dioxide Production and Capture for Coal-to-Liquids; Potential Future Unit Production Costs for Coal-to-

Liquids

CHAPTER SIX- Competitiveness of Unit Production Costs for Synthetic Crude Oil and Coal-to-Liquids Oil Sands; Coal to Liquids; Incorporating Energy-Security Costs; CHAPTER SEVEN- Conclusions; Synthesis of the Cost-Competitiveness Analysis; Broader Conclusions and Implications; References

Sommario/riassunto

RAND researchers assess potential future production levels and costs, greenhouse gases, and other environmental implications of fuels derived from oil sands and via coal liquefaction relative to conventional petroleum-based transportation fuels.