

1. Record Nr.	UNINA9910970352603321
Titolo	Wind power : technology, economics and policies / / Cedrick N. Osphey, editor
Pubbl/distr/stampa	New York, : Nova Science, c2009
ISBN	1-61324-138-0
Edizione	[1st ed.]
Descrizione fisica	1 online resource (418 p.)
Collana	Renewable energy: research, development and policies series
Altri autori (Persone)	OspheyCedrick N
Disciplina	333.9/2
Soggetti	Wind power - United States Wind power
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	<p>""WIND POWER: TECHNOLOGY,ECONOMICS AND POLICIES""; ""WIND POWER: TECHNOLOGY, ECONOMICS AND POLICIES ""; ""CONTENTS""; ""PREFACE""; ""WIND POWER IN THE UNITED STATES:TECHNOLOGY, ECONOMIC, AND POLICY ISSUES*""; ""INTRODUCTION""; ""BACKGROUND""; ""The Rise of Wind""; ""Benefits and Drawbacks of Wind Power""; ""WIND RESOURCES AND TECHNOLOGY""; ""Wind Power Fundamentals""; ""Wind Resources""; ""Wind Power Technology""; ""WIND INDUSTRY COMPOSITION AND TRENDS""; ""Wind Turbine Manufacturers and Wind Plant Developers""; ""International Comparisons""; ""WIND POWER ECONOMICS""</p> <p>""Cost and Operating Characteristics of Wind Power""""Levelized Cost Comparison""; ""WIND POLICY ISSUES""; ""Siting and Permitting Issues""; ""Transmission Constraints""; ""Renewable Production Tax Credit""; ""Renewable Portfolio Standards""; ""CONCLUSIONS""; ""APPENDIX. FINANCIAL ANALYSIS METHODOLOGY AND ASSUMPTIONS""; ""END NOTES""; ""ANNUAL REPORT ON U.S.WIND POWER INSTALLATION, COST, AND PERFORMANCE TRENDS: 2007*""; ""INTRODUCTION""; ""ACRONYMS""; ""U.S.WIND POWER CAPACITY SURGED BY 46% IN 2007, WITH 5,329M WADDED AND 9 BILLION INVESTED""</p> <p>""WIND POWER CONTRIBUTED 35%OF ALL NEW U.S. ELECTRIC GENERATING CAPACITY IN 2007""""THE UNITED STATES CONTINUED TO LEAD THE WORLD IN ANNUAL CAPACITY GROWTH""; ""TEXAS EASILY EXCEEDED OTHER STATES IN ANNUAL CAPACITY GROWTH""; ""DATA</p>

FROM INTERCONNECTION QUEUES DEMONSTRATE THAT AN ENORMOUS AMOUNT OF WIND CAPACITY IS UNDER DEVELOPMENT"; ""GEWIND REMAINED THE DOMINANT TURBINE MANUFACTURER, BUT A GROWING NUMBER OF OTHER MANUFACTURERS ARE CAPTURING MARKET SHARE"; ""SOARING DEMAND FOR WIND SPURS EXPANSION OF U.S. WIND TURBINE MANUFACTURING""
""AVERAGE TURBINE SIZE CONTINUED TO GROW,ALBEIT AT A SLOWER PACE""""THE AVERAGE SIZE OF WIND PROJECTS EXPANDED SIGNIFICANTLY""; ""DEVELOPER CONSOLIDATION CONTINUED AT A TORRID PACE""; ""COMFORT WITH AND USE OF INNOVATIVE FINANCING STRUCTURES INCREASED""; ""IPP PROJECT OWNERSHIP REMAINED DOMINANT, BUT UTILITY INTEREST IN OWNERSHIP CONTINUED,WHILE COMMUNITY WIND FALTERED""; ""THOUGH LONG-TERM CONTRACTED SALES TO UTILITIES REMAINED THE MOST COMMON OFF-TAKE ARRANGEMENT,MERCHANT PLANTS AND SALES TO POWER MARKETERS ARE BECOMING MORE PREVALENT""; ""UPWARD PRESSURE ON WIND POWER PRICES CONTINUED IN 2007""
""WIND REMAINED COMPETITIVE IN WHOLESALE POWER MARKETS"""" PROJECT PERFORMANCE AND CAPITAL COSTS DRIVE WIND POWER PRICES""; ""INSTALLED PROJECT COSTS CONTINUED TO RISE IN 2007, AFTER A LONG PERIOD OF DECLINE""; ""PROJECT COST INCREASES ARE A FUNCTION OF TURBINE PRICES,AND TURBINE PRICES HAVE INCREASED DRAMATICALLY""; ""WIND PROJECT PERFORMANCE HAS IMPROVED OVER TIME""; ""OPERATIONS AND MAINTENANCE COSTS ARE AFFECTED BY THE AGE AND SIZE OF THE PROJECT, AMONG OTHER FACTORS""; ""NEW STUDIES CONTINUED TO FIND THAT INTEGRATING WIND INTO POWER SYSTEMS IS MANAGEABLE, BUT NOT COSTLESS""
""SOLUTIONS TO TRANSMISSION BARRIERS BEGAN TO EMERGE, BUT CONSTRAINTS REMAIN""

Sommario/riassunto

Rising energy prices and concern over greenhouse gas emissions have focused congressional attention on energy alternatives, including wind power. This book describes utility-scale wind power issues in the United States as well as background on wind energy; wind resources and technology; industry composition and trends; and, wind power economics.
