Global Market Outlook Solar Business Hub

Green Banking is the first guide encompassing all the disciplines necessary to realize renewable energy projects. This book focuses on cost-competitive and mature technologies, and on the processes enabling to develop, finance and execute such utility-scale projects. The book starts with the aspects relevant for every form of renewable energy. It covers essential themes such as the role of renewables amid a changing energy world, the importance of the regulatory regime, its social acceptance and bankability criteria, to name only a few. Chapters describe project financings vehicles for a range of renewable energy technologies including solar photovoltaic power plants, onshore wind farms and offshore wind farms. The book give readers a unique perspective on how renewable energy projects are realized, and is a go-to reference manual for understanding how the different project stakeholders act. All of the articles are provided by authors with an ample experience in renewable energies and many years experience. This book is especially useful for people working in this industry or students willing to get better knowledge out of their field of experience.

The African Economic Outlook 2017 presents the continent’s current state of affairs and forecasts its situation for the coming two years.

This study presents options to fully unlock the world’s vast solar PV potential over the period until 2050. It builds on IRENA’s global roadmap to scale up renewables and meet climate goals.

Drawing on the Asian Development Bank's experience installing the rooftop solar photovoltaic system at its headquarters, the Handbook for Rooftop Solar Development in Asia hopes to demystify the process of developing solar photovoltaic projects in urban areas. The handbook provides detailed descriptions and guidance for all stages of development, including initial prefeasibility assessment, design, financing, procurement, and operations and maintenance. The Asian Development Bank hopes that entities looking to take advantage of the benefits of solar photovoltaic systems would find the development process made transparent and streamlined, and that this handbook would encourage the spread of solar photovoltaic systems in cities throughout developing Asia and the Pacific.

This volume explores emerging models, methods and tools in the management of research and development (R&D) in the knowledge era, with a particular focus on the challenges of the emerging technologies. The contributions are organized in five parts. Part I, Managing Emerging Technologies, provides methods and tools to understand the challenges created by the emergence of new technologies. Part II, Technology and Engineering Management Tools and Policies, explores different technology and engineering tools, including topics such as product concept development, design, selection and adoption, using technology roadmaps and bibliometrics. Part III, Technological Innovation and Entrepreneurship, explores R&D, knowledge transfer and entrepreneurial education. Part IV, Commercialization of Technological Innovations, explores the development and application of the technology transfer process which allows managers to succeed in commercializing the outcomes of R&D projects. Part V, Managing the Engineering Enterprise, explores the effect economic decision-making, leadership styles, change management and quality management have on an organization’s ability to plan and execute initiatives and projects. Research and Development has always played a critical role in the engineering and technology focused industries. In an era of big data and smart applications, knowledge has become a key enabler for R&D. Managing R&D in the knowledge era requires use of key tools and methods. However, emerging technologies pose many challenges and cause uncertainties or discontinuities, which make the task of managing R&D even more difficult. This book will examine these challenges and provide tools and methods to overcome them. Exploring

such industries as automotive, healthcare, business intelligence, energy and home appliances, this book is a valuable resource for academics, scholars, professionals and leaders in innovation, R&D, technology, and engineering management.

Solar energy holds high potential for utility-scale power generation. It is estimated that solar energy received by the earth in a year has the potential to provide 1,000 times of total annual world energy consumption.

Bachelor Thesis from the year 2011 in the subject Business economics - Marketing, Corporate Communication, CRM, Market Research, Social Media, grade: 1,7, Highschool of Amsterdam (HES Hogeschool voor Economische Studies), course: Marketing, language: English, abstract: Problem statement Solar products have been used more often in people's daily life with the development of technology. From year 2005, Chinese companies accelerated their development of solar panels. Even China government has started promoting companies to develop solar technology and use solar products. Many companies and factories are producing and selling the solar panels. But there are no more than 20 factories that produce solar panel frames, and less than 40 companies that sell solar frame only. In fact, the whole world is getting more interested in solar panel applications, thus the demand for solar panels is increasing as well. As all we know each solar panel needs one solar frame, a higher demand for solar panel means a higher demand for solar frames, as a result, the current demand for solar frames exceeds of its supplies. Thus, Joyance, a Bedding company, wants to conduct some marketing research about German solar frame's market to decide if it should enter into the German market. This dissertation aims to find out if Joyance should enter into solar frame market and how to enter by the external and internal analysis? Abstract This thesis describes analyses and evaluates Joyance's strategy to enter the German market for solar panel frames. Joyance originally is a manufacturer of bed-frames. On the basis of external and internal analysis this thesis focuses on the general decision to enter the German market by using five-force, SWOT, DOWS and marketing matrix analysis. The external analysis shows that the demand of German market for solar panel frames is significant. Our research shows that the market size of solar panel frame is around 47 million Euros in 2010 and is still growing. It is

This book provides a comprehensive overview of the technology behind the pico-solar revolution and offers guidance on how to test and choose quality products. The book also discusses how pioneering companies and initiatives are overcoming challenges to reach scale in the marketplace, from innovative distribution strategies to reach customers in rural India and Tanzania, to product development in Cambodia, product assembly in Mozambique and the introduction of ‘pay as you go’ technology in Kenya. Pico-solar is a new category of solar electric system which has the potential to transform the lives of over 1.6 billion people who live without access to electricity. Pico-solar systems are smaller and more affordable than traditional solar systems and have the power to provide useful amounts of electricity to charge the increasing number of low power consuming appliances from mobile phones, e-readers and parking metres, to LED lights which have the power to light up millions of homes in the same way the mobile phone has connected and empowered communities across the planet. The book explains the important role pico-solar has in reducing reliance on fossil fuels while at the same time tackling world poverty and includes useful recommendations for entrepreneurs, charities and governments who want to participate in developing this exciting and rapidly expanding market.

This book addresses the problem of building an optimal community energy network in a decentralized distributed energy context. The book introduces a few novel modeling frameworks to assist a single customer or a community of multiple end-user customers in building their optimal electricity system/network and operating their own local energy system. The content of the book is suitable for students, academics and industrial practitioners studying or working in the area of energy management and smart grid energy networks.

Every President since Richard Nixon has sought to increase U.S. energy supply diversity. Job creation and the development of a domestic renewable energy manufacturing base have joined national security and environmental concerns as reasons for promoting the manufacturing of solar power equipment in the United States. The federal government maintains a variety of tax credits and targeted research and development programs to encourage the solar manufacturing sector, and state-level mandates that utilities obtain specified percentages of their electricity from renewable sources have bolstered demand for large solar projects. The most widely used solar technology involves photovoltaic (PV) solar modules, which draw on semiconducting materials to convert sunlight into electricity. By year-end 2013, the total number of grid-connected PV systems nationwide reached more than 445,000. Domestic demand is met both by imports and by about 75 U.S. manufacturing facilities employing upwards of 30,000 U.S. workers in 2014. Production is clustered in a few states including California, Ohio, Oregon, Texas, and Washington. Domestic PV manufacturers operate in a dynamic, volatile, and highly competitive global market now dominated by Chinese and Taiwanese companies. China alone accounted for nearly 70% of total solar module production in 2013. Some PV manufacturers have expanded their operations beyond China to places like Malaysia, the Philippines, and Mexico. Overcapacity has led to a precipitous decline in module prices, which have fallen 65%-70% since 2009, causing significant hardship for many American manufacturers. Some PV manufacturers have closed their U.S. operations, some have entered bankruptcy, and others are reassessing their business models. Although hundreds of small companies are engaged in PV-related manufacturing around the world, profitability concerns appear to be driving consolidation, with fewer than a dozen firms now controlling half of global module production. In 2012, the United States imposed significant dumping and countervailing duties on imports of Chinese solar products after ruling that U.S. producers had been injured by dumped and subsidized solar equipment from China. In a second case, the U.S. Department of Commerce (DOC) and the U.S. International Trade Commission (ITC) ruled in 2014 and early 2015 that U.S. producers were being injured by imports of Chinese-made modules that avoided the duties imposed in 2012 by incorporating solar cells from Taiwan. While these duties may help U.S. production become more competitive with imports, the cost of installing solar systems might rise. Domestic demand for solar products may also be depressed by the end of various federal incentives. Unless

extended, the commercial Investment Tax Credit for PV systems will revert to 10% from its current 30% rate after 2016, while the 30% credit for residential investments will expire.

As businesses undergo digital transformation, technologies will lead to greater efficiencies and change how we interact in traditional relationships among suppliers, producers, and customers, as well as between human and machine. One such technology is the introduction of management information systems (MIS) that provide a company with the coordination, control, analysis, and visualization of information by collecting from various digital environments. In today's digital age, information needs to be managed, and MIS have the ability to transfer the information obtained by computer systems to the business operations within the business models, business processes, and management functions. Advanced MIS and Digital Transformation for Increased Creativity and Innovation in Business is an essential reference source that discusses the impact of digital technologies in enterprises and their competitive environment on management information systems and examines the application of new technologies to support strategic decisions and realize exciting visions. Featuring research on topics such as machine learning, resource planning, and e-commerce, this book is ideally designed for managers, executives, IT specialists, analysts, business professionals, training officers, software engineers, business administrators, scholars, researchers, and practitioners seeking coverage on future trends, issues, and challenges in relation to management information systems.

Seminar paper from the year 2015 in the subject Business economics - Business Management, Corporate Governance, University of applied sciences, Nürnberg, course: Strategic Management, language: English, abstract: There are big plans for renewables in future: Countries target to 100 % domestic energy demand to be produced by renewable energies. High investments in the branch are supposed to bring the desired targets. The world’s demand for energy is growing rapidly since intensified globalization results in global economic growth and welfare giving companies the incentive to conquer new markets. As more electricity is needed, its’ price is expected to rise worldwide that hampers economic growth. The world’s demand is calling for a global energy mix that adapts to our world’s changing economic and ecological conditions. Thus, providing and combining various independent new energy resources for sustainability with the outlook of reducing CO2 emissions in the long term and to assure and improve energy supply around the global. China is successful due to its’ competitive advantage of producing lowcost solar modules which has badly affected the EU photovoltaic market and its competing enterprises, but granted the country itself a strong position in the global photovoltaic market with their financial opportunity to expand easily. The implementation of tariff regulation and minimum prices to restrain imports for the protection of Europe’s domestic market forces China to rethink its’ strategies: China’s high government subsidies target for intensive investments in form of expansions to new territories. As subsidies may

lead to overcapacities in the home country some solar companies are preparing for market entries in emerging countries eager surviving plans of PV companies in times of high competition and falling prices to increase sales volumes to prevent another insolvency in the sector. Combining South Africa’s potential and new business opportunities in highly competitive photovoltaic markets Shunfeng International Clean Energy Ltd could help to boost Wuxi Suntechs’ figures to be in black again.

What happens when the bottlenecks that stand between supply and demand in our culture go away and everything becomes available to everyone? "The Long Tail" is a powerful new force in our economy: the rise of the niche. As the cost of reaching consumers drops dramatically, our markets are shifting from a one-size-fits-all model of mass appeal to one of unlimited variety for unique tastes. From supermarket shelves to advertising agencies, the ability to offer vast choice is changing everything, and causing us to rethink where our markets lie and how to get to them. Unlimited selection is revealing truths about what consumers want and how they want to get it, from DVDs at Netflix to songs on iTunes to advertising on Google. However, this is not just a virtue of online marketplaces; it is an example of an entirely new economic model for business, one that is just beginning to show its power. After a century of obsessing over the few products at the head of the demand curve, the new economics of distribution allow us to turn our focus to the many more products in the tail, which collectively can create a new market as big as the one we already know. The Long Tail is really about the economics of abundance. New efficiencies in distribution, manufacturing, and marketing are essentially resetting the definition of what's commercially viable across the board. If the 20th century was about hits, the 21st will be equally about niches.

The Dispute Settlement Reports are the WTO authorized and paginated reports in English. An essential addition to the library of all practicing and academic trade lawyers and needed by students worldwide taking courses in international economic or trade law. DSR 2016: Volume 4 reports on Russia - Tariff Treatment of Certain Agricultural and Manufacturing Products (WT/DS485) and India - Certain Measures Relating to Solar Cells and Solar Modules (WT/DS456).

Solar PV is one of the fastest growing renewable power generation technologies globally and continues to hold enormous potential to emerge as a leading renewable power generation technology in the future.

The burning of fossil fuels and emission of greenhouse gasses critically impacts the global environment. By utilizing better techniques and process, businesses can aid in the journey to an economic, sustainable, and environmentally-friendly future for generations to come. Business Models for Renewable Energy Initiatives: Emerging Research and Opportunities is an essential reference source for the latest scholarly perspectives on present and future business models in the renewable energy sector. Featuring coverage on a range of perspectives and topics such as techno-economics, decentralized power systems, and risk assessment, this book is designed for academicians, students,

and researchers seeking current scholarly research on green business opportunities for renewable energy.

Introducing a Reliable Green Technology That Can Help Improve System Performance Solely centered on photovoltaic (PV) system sizing and the tools used for PV system analysis and design, Photovoltaic System Design: Procedures, Tools and Applications emphasizes the importance of using solar PV technologies for a number of end-use applications, and examines growing interest in solar PV-based projects on a global scale. Written for the system designer/project developer/manufacturer dedicated to correctly sizing a PV system, the book outlines various aspects of PV technology, applications, and programs. It describes key attributes, system design requirements, influence on climatic and site-specific parameters, utilization of simulation procedures, and expected performance. The author includes actual case studies for system designing procedures adopted by various companies and provides a framework for working through both direct and indirect variables under the actual system designing phase. A vital resource essential to your collection, this book: Touches upon the role of renewable energy technologies in a holistic energy scenario Makes a clear categorization of off-grid and on-grid PV applications and discusses advantages and limitations Considers the potential of solar radiation availability Introduces PV system sizing procedures via the modern use of simulation softwares Presents an analysis of actual PV power plant sites when designed via the use of simulation software Determines the weak links in a PV system Brings out the importance of capacity building initiatives vis-à-vis the available range of PV simulation software, tools, and procedures Photovoltaic System Design: Procedures, Tools and Applications provides a clear understanding of the issues that can affect the operation and smooth running of PV facilities and aids in determining photovoltaic system sizing procedures from a variety of end-use considerations. The book encompasses civil, mechanical, electrical, geotechnical, and power systems engineering and is useful to industry professionals involved in solar power plant design.

China dominates the global solar photovoltaic (PV) value chain, while 15 years ago the demand and supply were located in few Western economies. In this process, the PV industry has seen a booming demand, drastic price decreases along the supply chain, and fierce competition among surviving companies. This paper seeks to understand how this spatial shift has occurred and its drivers, with a specific focus on the role of intangible assets and intellectual property.

This outlook highlights climate-safe investment options until 2050, policies for transition and specific regional challenges. It also explores options to eventually cut emissions to zero.

The World Intellectual Property Report 2017 examines the crucial role of intangibles such as technology, design and branding in international manufacturing. Macroeconomic analysis is complemented by case studies of the global value chains for three products – coffee, photovoltaic energy cells and smartphones – to give an insightful picture of the importance of intellectual property and other intangibles in modern production.

This book argues that renewable electrification in developing countries provides important opportunities for local economic development, but new pathways are required for turning these opportunities into successful reality. Building Innovation Capabilities for Sustainable Industrialisation offers a novel input into the debate on development of capabilities for sustainable industrialisation and delivers key insights for both researchers and policy makers when it comes to the question of how to increase the economic co-benefits of renewables expansion. The chapters in the book use a tailored analytical framework in their studies of renewable electrification efforts in Kenya and other countries in sub-Saharan Africa. They draw on a mix of project, sector and country level case studies to address questions such as: What capabilities are developed through on-going renewable electrification projects in developing economies? How can the expansion of renewable

electrification be supported in a way that also encourages sustainable economic development? What role do international linkages (South-South and North-South) play and what role should they play in the greening of energy systems in developing economies? The authors provide a new understanding of how green transformation and sustainable industrialisation can be combined, highlighting the opportunities and constraints for local capability building and the scope for local policy action. This book will be of great interest to students and scholars of development studies, energy studies, sustainability and sustainable development, as well as practitioners and policy makers working in development organisations and national governments.

An innovative analysis that shows how the shift to solar energy—in particular, the use of photovoltaic cells—is both economically advantageous and inevitable, and will rival the information and communication technologies revolution in its transformative effects. In Solar Revolution, fund manager and former corporate buyout specialist Travis Bradford argues—on the basis of standard business and economic forecasting models—that over the next two decades solar energy will increasingly become the best and cheapest choice for most electricity and energy applications. Solar Revolution outlines the path by which the transition to solar technology and sustainable energy practices will occur. Developments in the photovoltaic (PV) industry over the last ten years have made direct electricity generation from PV cells a cost-effective and feasible energy solution, despite the common view that PV technology appeals only to a premium niche market. Bradford shows that PV electricity today has become the choice of hundreds of thousands of mainstream homeowners and businesses in many markets worldwide, including Japan, Germany, and the American Southwest. Solar energy will eventually be the cheapest source of energy in nearly all markets and locations because PV can bypass the aging and fragile electricity grid and deliver its power directly to the end user, fundamentally changing the underlying economics of energy. As the scale of PV production increases and costs continue to decline at historic rates, demand for PV electricity will outpace supply of systems for years to come. Ultimately, the shift from fossil fuels to solar energy will take place not because solar energy is better for the environment or energy security, or because of future government subsidies or as yet undeveloped technology. The solar revolution is already occurring through decisions made by self-interested energy users. The shift to solar energy is inevitable and will be as transformative as the last century's revolutions in information and communication technologies.

This book highlights selected papers presented during the bi-annual World Renewable Energy Network’s 2019 Med Green Forum. This international forum highlights the importance of growing renewable energy applications in two main sectors: Electricity Generation and Sustainable Building. The papers highlight the most current research and technological breakthroughs illustrating the viability of using renewable energy to satisfy energy needs. Coverage includes a broad range of renewable energy technologies and applications in all sectors – electricity production, heating and cooling, agricultural applications, water desalination, industrial applications, and transport. Presents leading-edge

research in green building, sustainable architecture, and renewable energy; Covers a broad range of renewable energy technologies and applications in all sectors; Contains case studies and examples to enhance practical application of the technologies presented.

The book describes the industrial revolution associated with the implementation of electric power generation by photovoltaics (PV). The book's editor and contributing authors are among the leading pioneers in PV from its industrial birth in 1954 all the way up to the stormy developments during the first decade of the new century. The book describes the dramatic events in industry between 2009 and 2013 and puts all this into perspective. It concludes that solar power is yet to strengthen its role in technology and in mainstream of the world's economy.

This report analyses international case studies of innovative business models and regulatory arrangements and provides recommendations for a truly smart energy system. "Active consumers who have access to distributed energy resources, such as solar photovoltaics, storage, electric vehicles and heating appliances will play a crucial role in the challenging transition to a low carbon energy system", explains Monica Giulietti, one of the report's authors. For fairer prices: use tariffs based on capacity rather than on volume The current network tariff regime is not optimal for a smart energy system. Researchers recommend that tariffs be more directly linked to costs. A more advanced tariff structure is feasible in a smart electricity network: tariffs can be dependent on time and location and adapt to local network congestion. "A shift towards tariffs based on capacity will also reduce the subsidisation of the energy system by poorer consumers to the richer ones, thereby improving the fairness of the tariff structure", says Bert Willems, co-author of the report. The DSO-TSO interaction models are to be enhanced The report highlights different proposals for DSO-TSO interactions that allow the trade of flexible services provided by distributed energy resources under different regulatory and market contexts, in the United Kingdom, Australia, New York and Europe. "While we've observed that in all cases an expansion of the DSO's roles, capabilities and coordination with the TSO is required, our analysis also shows that most jurisdictions have not yet identified their preferred organisational set-up. The European Commission should systematically take into account the differences of Member States, such as the number, size and independence of DSOs, in future studies or impact assessments", says Karim Anaya, co-author of the study. Both price and non-price factors are required for consumers to engage Bringing together smart meter technology, blockchain and apps can help consumers to take part in energy transactions by informing them about the advantages provided by distributed energy resources at a given time. However, these technologies can only help if the costs for consumers are low. Otherwise, non-price factors such as climate activism or environmental preferences will be the sole drivers for consumers to participate in this system. Although financial benefits only cannot motivate consumers' engagement in a complex system, they are significant signals. And

we need strong signals if we want consumers to modify longstanding habits. Going off-grid: the risk of death spiral The authors warn that, in the long run, when the costs of storage and local generation are expected to drop, local energy communities might decide to disconnect from the distribution network and operate on a stand-alone basis. The cost of the distribution network will then have to be covered by the remaining network users who, as a result, will see their energy bills increase. This could lead to a “death spiral” where more customers leave the distribution network (though unlikely in northern Europe), making these obsolete. Networks would go bankrupt and only small island grids would remain. “Smart consumers are highly dependent on the ecosystem they are operating in. We can learn from international experiences that Europe needs to develop innovative regulatory models and be ready to test new institutional schemes that involve consumers to support the energy transition. The work ahead goes beyond monitoring what the Clean Energy Package can deliver, we have to anticipate new trends and take action to give more clarity to what DSOs and TSOs can do together and avoid new bottlenecks”, concludes Chloé Le Coq.

This volume assesses China's transition to innovation-nation status in terms of social conditions, industry characteristics and economic impacts over the past three decades, also providing insights into future developments. Defining innovation as the process that generates a higher quality, lower cost product than was previously available, the introductory chapter conceptualizes the theory of an innovation nation and the lessons from Japan and Untied States. It outlines the key governance, employment and investment institutions that China must build for such transition to occur, and examines China's challenges and strategies to innovate in the era of global production systems. Two succeeding chapters explain the evolving roles of Chinese state in innovation, and the new landscape of venture capital finance. The remaining chapters provide studies of major industries, which contain analyses of the evolving roles of investment by government agencies and business interests in the process. Included in these studies are traditional industries such as mechanical engineering, railroads, and automobiles; rapidly evolving and internationally highly integrated industries such as information-and-communication-technology (ICT); and newly emerging sectors such as wind and solar energy. Written by leading academics in the field, studies in this volume reveal Chinese innovation as diverse across industries and enterprises and fluid over time. In each sector, we observe continued co-evolution of state policy, market demand, and technology development. The strategies and structures of individual companies and industrial ecosystems are changing rapidly. The sum total of the studies is a great step forward in our understanding of the industrial foundations of China's attempt to become an innovation nation.

Seminar paper from the year 2013 in the subject Business economics - Marketing, Corporate Communication, CRM, Market Research, Social Media, University of applied sciences, Nürnberg, language: English, abstract: SolarWorld AG is

an international photovoltaic energy company that manages all stages of production starting by the raw material silicon for solar wafers to the entire solar module ? including its own research and development. Through an international distribution network, SolarWorld supplies customers all over the world with solar modules and complete systems. SolarWorld is through its subsidiary company Solarparc AG also involved in the construction of several large-scale solar power stations and operates with approximately 2,600 employees two production sites - one in Germany and one in the United States. The company is based in Germany. The by far biggest part of the entire sales is generated in Germany (49.5%) followed by the United States (23%) and the rest of Europa (19 %). The objective of this assignment is a complete and comprehensive analysis of SolarWorld AG and its surroundings. In order to get a complete picture of the current situation the company has to face, it is necessary to analyse in a first step, the Macro- as well as a Micro environment of the company. For this a macro- as well as a Microanalysis is performed. In a second step the by the analysis recovered data and information are collected and interpreted in a SWOT (Strength, Weaknesses, Opportunities, Threat) analysis. Finally, the SWOT is carried out to create the basis for a future strategy. For that work no primary data was collected, the entire work is based on secondary data. The necessary information for the analyses that were previously only scattered published or accessible will be combined and analysed by the author. The sources of secondary data are, for example, the annual report of the company.

Enormous leaps forward in the efficiency and the economy of solar cells are being made at a furious pace. New materials and manufacturing processes have opened up new realms of possibility for the application of solar cells. Crystalline silicon cells are increasingly making way for thin film cells, which are spawning experimentation with third-generation high-efficiency multijunction cells, carbon-nanotube based cells, UV light for voltage enhancement, and the use of the infrared spectrum for night-time operation, to name only a few recent advances. This thoroughly updated new edition of Markvart and Castaner's Solar Cells, extracted from their industry standard Practical Handbook of Photovoltaics, is the definitive reference covering the science and operation, materials and manufacture of solar cells. It is essential reading for engineers, installers, designers, and policy-makers who need to understand the science behind the solar cells of today, and tomorrow, in order to take solar energy to the next level. A thorough update to the definitive reference to solar cells, created by a cast of international experts from industry and academia to ensure the highest quality information from multiple perspectives Covers the whole spectrum of solar cell information, from basic scientific background, to the latest advances in materials, to manufacturing issues, to testing and calibration. Case studies, practical examples and reports on the latest advances take the new edition of this amazing resource beyond a simple amalgamation of a vast amount of knowledge, into the realm of real world applications

This book examines the factors which contribute to local green development in China and employs political ecology to analyze the relationship between power and the environment. Specifically, it looks at which actors control access to resources and are therefore able to promote environmental progress. Following the reform and opening-up of China in the 1970s, entrepreneurs and local officials profited economically and politically and formed close relationships, known as guanxi in China. As a result, they have also been criticized as those responsible for the associated ecological damage. This book does not contest this association, but instead argues that the current literature places too much emphasis on their negative influence and the positive influence of their environmental work has been neglected. Building on three case studies where local green development is being pursued, Shanghai Pudong New Area, Baoding, and Wuning, this book shows how local officials and entrepreneurs can also be the crusaders of a greener environment at the local level in China. This book will be of great interest to students and scholars of Chinese studies, with a particular interest in environmental policy and politics, business and society, as well as those interested in sustainable development more broadly.

The World Energy Outlook series is a leading source of strategic insight on the future of energy and energy-related emissions, providing detailed scenarios that map out the consequences of different energy policy and investment choices. This year's edition updates the outlooks for all fuels, technologies and regions, based on the latest market data, policy initiatives and cost trends. In addition, the 2019 report tackles some key questions in depth: (i) What do the shale revolution, the rise of liquefied natural gas, the falling costs of renewables and the spread of digital technologies mean for tomorrow's energy supply?; (ii) How can the world get on a pathway to meet global climate targets and other sustainable energy goals?; (iii) What are the energy choices that will shape Africa's future, and how might the rise of the African consumer affect global trends?; (iv) How large a role could offshore wind play in the transformation of the energy sector?; (v) Could the world's gas grids one day deliver low-carbon energy?

The present book maximizes reader insights into the current and future roles to be played by different types of renewable energy sources and nuclear energy for the purpose of electricity generation in the European region as a whole and in a select group of European countries specifically. This book includes detailed analysis of the different types of renewable energy sources available in different European countries; the pros and cons of the use of the different types of renewables and nuclear energy for electricity generation; which energy options are available in the different European countries to expand their energy sector in the coming years; the impact on the climate and the environment; levels of production and consumption and the level of electricity generated by these energy sources, amongst others. Designed to inform government officials, economists, scientists and the private and public power industry of the key issues surrounding the future role of different renewable energy sources and nuclear energy in the production of electricity within the European region, this book will also describe in detail the evolution of the electrical energy sector in the chosen European region and the problems that several countries are now experiencing in the face of increasing demand for electricity.

Seminar paper from the year 2010 in the subject Business economics - Operations Research, grade: 1,0, Anglia Ruskin University

(Business School), language: English, abstract: The purpose of this Business Analysis Project is to evaluate the current situation of the so-lar branch, especially the German company Conergy Group. The aim is to show the cur-rent changes within the branch and the influence on the business strategy of solar com-panies. Furthermore the analysis will consider the following issues: • A situational audit of the branch and the Conergy Group. This will contain an analysis of the macro- and micro-environments supported by a PESTLE and Porter 8 Forces Analysis • Strategic Alignment: Identification of the key success factors (KSF) of the branch, evaluate the performance of Conergy and compare this with 2 other big players in the solar branch. From this information, I will identify potential changes inside of Conergy and develop a strategy map. Another aim is the critical appraisal of the key figures and the current strategy of Conergy, supported by using approved analysing methods in a literature review in order to show potential improvements as well as recommend strategy adaptations. As a basis for the analysis of the key figures I will use the 2009 third quarter report and the 2008 annual re-port. The advantage of using this quarterly report and comparing it to the 2008 annual report is that the effects of the economical crisis in 2009 are visible.

This groundbreaking new book features holistic coverage of technological breakthroughs, financing trends, workforce development issues, and comparative regional case studies in solar energy. It provides a global bird's-eye view of the industry for scientists, engineers, business leaders, and policymakers — anyone seriously engaged in the rapidly evolving field of solar energy. The expert author's analysis includes primary data from the first comprehensive solar industry survey conducted in the United States, insights from key thought leaders in the energy sector, and case studies from international leaders in solar development. Solar Energy Markets examines six key drivers of the solar industry: 1) a new culture of environmentalism; 2) policy and markets; 3) financing and venture capital; 4) economics and cost-competitiveness; 5) innovation; and 6) labor. In a field too often marked by divisive over-specialization, this resource provides invaluable context, demonstrating how the solar field’s innovative triumphs and inherent challenges play out in the real global marketplace. Analyzes key drivers of the solar industry at international, national and local levels Synthesizes the first comprehensive surveys of the U.S. solar industry Uniquely ties together technological innovation with market implications for engineers, business leaders and policymakers alike Examines the evolving role of China in global solar markets