

## Energy Transition Strategies for the Sustainable Future

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**Abstract:** The climate crisis is exasperated by the energy crisis and vice versa. As the world economy attempts to recover from the extremely adverse effects of pandemics and climate crises, demand for energy is expected to rise substantially. Due to supply chain constraints, energy prices and inflation have been rising. Therefore, the International Energy Agencies, Associations, and Institutions have been advocating the substantial deployment of clean energy resources to address the supply side. The international Energy Management (EnMs) Standard ISO 50001 strongly advises measures such as energy conservation, energy efficiency, clean and green energy technologies in the entire Energy Supply Chain for the rapid transition to a low carbon economy. Research, development, and deployment of smart, clean, and green energy technologies need to be accelerated. Smart grids, microgrids, smart meters, data analytics, artificial intelligence, and digital twins are making inroads into the conservative power and energy sector. What strategies can, therefore, be incorporated for energy transition till clean and green energies become a viable dominant source in the future is the theme of the keynote/plenary address.

**Dr. Deepak L. Waikar**, Founder and Managing Partner of EduEnergy Singapore, has been involved



in education, training, research, and management fields for more than three decades. He started his professional career as an Assistant Director at the National Power Engineers Training Institute in India after his post-graduation from the Institute of Technology, Banaras Hindu University in India. He has been associated with the premier institutions, polytechnics, colleges, and academies in India and Singapore as well as with British and Australian Universities offering courses in Singapore. He has authored/co-authored books, book chapters, research articles, and policy papers on power, energy, management, sustainable development, leadership, and education-related topics. He has served on various committees in **professional** bodies such as **Chair** of the Institute of Electrical & Electronic Engineers (IEEE), Power & Energy Society (PES) Chapter, Singapore, and **Chair** of the IEEE Education Society Chapter Singapore. He is a recipient of the IEEE-PES **Outstanding Power Engineers' Award** 2003 and SP **Green Buddy Award** 2004. Dr. Waikar has been associated with **Singapore Certified Energy Manager's** programme for more than a decade. He has also been an advisory committee member of the Indo-Universal Centre for Engineering Education (IUCEE). He has served as Editors and Reviewers for the conferences and journals. He has also been invited as an external examiner for assessing Master and Doctoral Thesis. He has delivered hundreds of invited keynotes, plenary, panel session presentations on power, sustainable and clean energy, education, management, sustainable development, and leadership related topics at the international conferences, seminars and forums in North & South America, Europe, Australia, New Zealand, and Asia. He has also been invited to give captivating & impactful inaugural, valedictory, and guest speeches for conferences, seminars, graduation ceremonies, and similar events of colleges, institutes, and universities. He founded EduEnergy, Singapore in January 2014 for providing a range of advisory, training, coaching, mentoring, and consultancy services for colleges, institutes, organisations, and individuals. Dr. Waikar has conducted hundreds of students, faculty, and management development programmes on various topics such as Sustainable & Clean Energy, Designing & Managing Innovative Research and Development projects, Strategies for Infusing Blended Learning, Rethinking Teaching and

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Learning, Trainopreneurship, Problem/Project-based Learning, Design Thinking, and Transforming Higher Education. Since July 2020, he is continuing to offer such programmes through online mode. He is a Senior Member of IEEE USA and a Life Member of the Institution of Engineers, India with **Ph.D.** from the National University of **Singapore**, **M.S.** from the University of Saskatchewan, **Canada**, **M.Tech.** from the **Banaras Hindu** University, **India**, and **PD Certificate** in **University Teaching** from the University of **Newcastle, Australia**. He obtained **PG-DBM** and **B.E.** degrees from the **Nagpur** University, and the Government Engineering College Aurangabad in **India**, respectively. His research interests include **Sustainable Energy Development**, **Rethinking** Teaching, Learning and Academic **Leadership**, Re-inventing and **Transforming** Tertiary Education, **SMART Model** for Talent and Leadership Development, **Innovative Project Design** and Management, Smart and Micro Grid. His hobbies include cricket, chess, and poetry. (e-mail: [dlwaikar@gmail.com](mailto:dlwaikar@gmail.com)).  
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