

On-line Training of SAARC Professionals on Power Purchase Agreements of Renewable Energy Projects 8-12 November, 2021

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Experts for Panel Discussion:

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Prof Arun Kumar is a civil engineer with specialization in water resources and hydropower engineering by education is working at Department of Hydro and Renewable Energy, Indian institute of Technology, Roorkee since 1981. He has been awarded MNRE Chair Professor (Renewable Energy) in July 2013 and again in April 2015 by IIT Roorkee. He served as independent director on Board of NHPC Ltd, Govt of India PSU during 2015-2019. His research areas are Hydropower Development, Environmental Management of Water Bodies, Energy Economics and Policy. Prof. Kumar has over 39 years of experience in the field of Hydropower and environmental management of river and lakes. He served CLA for Hydropower on SRREN for IPCC. He has been elected on the board of London based International Hydropower Association and is Vice President of Federation of Indian small hydropower. He is Bachelors in civil engineering and PhD in hydropower from IIT Roorkee, Masters in Civil Engineering from IISc Bengaluru and Hydropower Diploma studies from NTH, Norway. He is Fellow of ASCE, International association of Hydropower, Institution of engineers (India), IWRS. He was appointed as Coordinating Lead Author (chapter 5 on Hydropower) for preparing Special Report on Renewable Energy Sources (SRREN) for IPCC – working group III during 2009–11. He has been involved as international expert in various UN sponsored projects on assessment of small hydropower and Capacity Building in Zambia, Sierra Leone, Tanzania, Cambodia, Sudan and Indonesia.



Prof. Rhythm Singh is currently working as an Assistant Professor in the Department of Hydro and Renewable Energy at IIT Roorkee, India. He holds a PhD in Energy Science and Engineering from IIT Bombay (2018), a Master of Technology degree in Energy Studies from IIT Delhi (2009) and a Bachelor of Technology (Gold Medal) degree in Electrical Engineering from MNNIT Allahabad (2007). Dr Singh's research interests lie at the intersection of technological analysis and policy support for enabling a transition to renewable energy technologies. Some of the problems he has worked on are developing a methodology for estimating the rooftop PV potential of Indian cities; optimizing the generation scheduling to maximize the benefit of renewable energy integration in the grid; analyzing the possibility of incorporating renewable energy generation requirements for buildings in the green building codes; study and optimization of the design of a built-up area to maximize rooftop PV potential; analysis and quantification of the solar resource variability for PV applications at a city-level; creating and analyzing possible renewable energy scenarios in the Indian context; and, using system dynamics to develop policy prescriptions for supporting renewable energy growth. He was awarded the Best Poster Award at the 2017 IEEE 44th Photovoltaic Specialists Conference held in Washington D.C., USA, for his paper on solar resource variability assessment. He is an active reviewer for around 11 reputed journals published by Elsevier, Taylor and Francis, IET and AIP Publishing. He has also been awarded the "Certificate of Outstanding Contribution in Reviewing" by the journals Solar Energy (Elsevier), Applied Energy (Elsevier) and International Journal of Electrical Power and Energy Systems (Elsevier). He was also awarded the reputed IET International Scholarship by the Institution of Engineering and Technology (IET), United Kingdom in the year 2006.



Prof. Himanshu Jain is an Assistant Professor in the Department of Hydro and Renewable Energy at IIT Roorkee. He has over 10 years of combined research and industry experience in modelling and analysing the impacts of integrating high levels of renewable energy in power systems. Before joining IIT Roorkee, Dr. Jain worked as a Senior Research Engineer and Research Engineer at the National Renewable Energy Laboratory (NREL), Golden, Colorado, USA from February 2017 to February 2021. At NREL, he led projects and tasks worth \$1.9 million and worked on several other high impact research projects that focused on improving the reliability and resilience of power systems under high penetration levels of renewable energy resources. Dr. Jain also has two and half years of industry experience having worked at ICF as a Senior Associate and Associate from 2011 to 2013, where, among other things, he led the efforts to develop distribution systems analysis capabilities. Dr. Jain has published 18 peer-reviewed journal and conference articles. He holds PhD, MS, and B. Tech degrees in Electrical Engineering from Virginia Tech, the University of Texas at Arlington, and G.B. Pant University of Agriculture & Technology, respectively.



Prof. Anand Kumar is currently working as Professor of Practice in Electrical Engineering Department at Indian Institute of Technology, Gandhinagar, Gujarat. Prior to this, he worked as Chairperson of Gujarat Electricity Regulatory Commission & Meghalaya State Electricity Commission. He also served Uttarakhand Electricity Regulatory Commission as Acting Chairperson & Member. He holds Master of Business Administration (Finance) degree and Graduate degree in Electrical Engineering from IIT-Roorkee. He has done Advanced Software Programming training Course from Hitachi, Japan and training in Economics Regulation from National Regulatory Research Institute, at Ohio University USA. Out of some key assignments, was his association in Unbundling and Restructuring of the power sector in Uttar Pradesh and assignments at 4 State Electricity Regulatory Commissions of Uttar Pradesh, Uttarakhand Meghalaya and Gujarat.



Mr Rakesh Kumar Goyal has over 30 years of power sector experience in full value chain from generation to customer and regulatory. Rakesh possess experience of working with Electric utilities and institution managed by MNC, private sector, public undertaking, and Government. Presently, Rakesh is Vice President in Tetra Tech a US based consultancy firm. Prior to joining Tetra Tech Rakesh worked with SIEMENS, and Tata Power. His areas of interest are power sector governance and reform, clean energy, demand side management and regulatory matters related with power sector. Mr Rakesh holds a bachelor's and master's degree in Engineering from the Indian Institute of Technology Roorkee and a Masters' in Business Administration. He has recently been awarded a Doctor of Philosophy. Rakesh has co-authored four books and published several papers.



Dr. Ram Prasad Dhital is member of the electricity regulatory commission in Nepal. He is responsible for planning and monitoring, institutional development, regulatory and external affairs in the commission. He is also the spokesperson of the commission. Mr. Dhital has spent two decades working in the renewable energy sector on national and international levels, in executive, advisory and technical roles. He served as the Executive Director of Alternative Energy Promotion Center under the ministry of energy, water resources and irrigation overseeing operations, strategic and technical initiatives in Nepal. He also worked as the Energy Advisor in Afghanistan for two years and Vanuatu in the south pacific for a year. He has been able to utilize the learning in national level by reforming renewable energy subsidy policies, institutionalizing central renewable energy funds and mobilizing internal and external resources (annually USD 55 million) to realize Nepal government's target of clean cooking and lighting solution to all by 2022. Mr Dhital holds a Masters and PhD degree in Renewable Energy Engineering. He has more than 15 research publications and conference paper written and presented at national and international platform globally representing Nepal. He is also an APMG certified PPP professional, Nepal Engineering Council certified Professional Engineer and National Vigilance Centre certified Technical Auditor.



Mr Vivek Mishra is an Electrical Engineer with Master's in Finance and ICWA. Vivek has around thirty-three years of consulting, regulatory and operational experience in Generation, Transmission, Distribution and Material Management functions of Power Sector. Mr Vivek has held partner level positions in cKinetics and Meghraj Capital Advisors and was responsible for their practice development. He has also worked in senior positions with Mercados EMI and KPMG. He has also worked as Director with MPERC and UPERC. Vivek has also worked with Energy Utilities such as UPSEB and GAIL Ltd. Mr Vivek has worked across the energy value chain and with almost all the relevant institutions including International (ADB and WB) and National Financial Institutions, Central and State Governments, Private and Public Utilities, Electricity Boards, Investors and Regulatory Commissions. Vivek has also worked for various organizations of UN. He also has significant experience in Energy including Renewable. In energy consulting he has worked in areas of Energy Efficiency, Sustainable Energy Access, Policy, Demand Side Management, Business Process Improvement, Reforms & Institutional Capacity Development, Transaction and Strategy. Apart from India, he has also worked in Bangladesh, Bhutan, Maldives, Nepal, Philippines, Sri Lanka, Solomon Islands, Seychelles, Uganda and Swaziland. He has participated regularly in various capacity building programs organized by IITR, IITK, IIML, Drums Training Program of USAID and Institute of Cost Accountant.



Ms. Arai Monteforte is an economics, finance, and policy professional focusing in the energy sector. Ms. Monteforte brings international and domestic experience gained through more than 15 years of consulting work for private companies and institutions such as the United States Agency for International Development (USAID), the United States Trade and Development Association (USTDA), the Inter-American Development Bank (IDB), and the International Financial Corporation (IFC). She currently serves as Chief of Party (COP) for USAID's million Scaling Up Renewable Energy project (SURE) and its million follow-on, SURE II, overseeing

technical assistance in almost 30 partner countries, including India, to implement work on strategic energy planning, variable renewable energy grid integration, and competitive procurement. For the Millennium Challenge Corporation, she oversees due diligence support for the Burkina Faso Power Compact, and the regional Compact, focused on electricity generation, distribution and transmission improvements, and the implementation of electricity sector reform. Previously, she served as Senegal Resident Advisor under USAID’s Power Africa, where she co-led and contributed to the utility’s generation-transmission master plan and Senegal’s gas-to-power roadmap. Ms. Monteforte holds a M.A. in International Economics and Energy Policy from Johns Hopkins University, a M.S. in Quality and Reliability Engineering, a B.S. in Chemical Engineering, and a B.S. in Computer Science.

Experts for Panel Discussion:



Mr Rajesh Kumar Mediratta is serving with Indian Energy Exchange since 2007 and has played key role in developing IEX as successful exchange and important institution in power sector. He is also now involved in developing gas markets and exchange for the gas sector viz. Indian Gas Exchange, the first such initiative in the country. He has worked with IEX since inception and played key role developing power markets in the country. Many first to his credit as key resource: power exchange, gas exchange in the country and Implementing Energy Settlement Systems for the region and State in Western Region and Gujarat. He has worked earlier with Central Electricity Authority and Power Grid Corporation of India Ltd. His key interests are gas markets, power markets, energy transition and sustainability markets. Mr. Mediratta holds a bachelor’s degree of Mechanical Engineering (Gold Medallist) and MBA in Finance. He is currently holding the position of Chief Business Officer at IGX and Director (Strategy) in IEX.



Mr Muhammad Faisal Sharif is currently serving as Director (Projects Appraisal) at PPIB, Ministry of Energy (Power Division), Government of Pakistan. He has around 18 years of professional experience in energy sector (both in private and public sector’s organizations) with sound international exposure and extensive involvement in energy policy, regulatory affairs, renewable energy & environment, electricity market reforms & development, techno-economic valuation, competitive auctioning, contract administration, project finance and tariff structuring of electricity generation & related infrastructure projects. He has diverse academic qualifications including graduation in “Mechanical Engineering” from University of Engineering and Technology Lahore, “Master in Energy Management” from CIIT Islamabad, “Master in Business Administration” from SZABIST Islamabad and “M.Sc. in New and Renewable Energy” from Durham University, United Kingdom. Besides, he attended number of national and international trainings in the related areas.