

RENEWABLE ENERGY SOLUTIONS FOR HEALTHCARE FACILITIES

INTERNATIONAL CONFERENCE

2 November 2018 | Singapore

CONFERENCE PROGRAMME AND SPEAKER BIOGRAPHIES



08:00-09:15	Registration
09:15-09:30	Opening remarks Adnan Z. Amin, Director-General, International Renewable Energy Agency (IRENA) Maria Neira, Director, Department of Public Health, Environmental and Social Determinants of Health, World Health Organization (video message)
SESSION 1: 09:30-10:45	 Decentralised renewable energy in healthcare: The energy-health nexus This session will provide the opportunity to analyse the energy-health nexus and the challenges in health delivery due to absence of reliable access to energy. Experts will discuss the role of sustainable energy to improve the availability, quality and affordability of healthcare services and shed light on existing barriers to the widespread deployment of decentralised renewable energy solutions in this context. Moderator: Salvatore Vinci, Head, Partnerships and Technical Advisory Services, IRENA Panelists: Harish Hande, Co-Founder, SELCO Foundation Juliana Lunguzi, Honorable Member of Parliament, Malawi Kawaldip Sehmi, Chief Executive Officer, International Alliance of Patients' Organizations Hanumappa Sudarshan, Founder and Honorary Secretary, Karuna Trust Xavier Vallve, Director, Trama TecnoAmbiental
10:45-11:15	Coffee break
SESSION 2: 11:15-12:30	 Fostering co-operation between energy and health communities: New policy approaches This session will discuss different policy approaches to better deliver health services to underserved populations, using renewable energy solutions as a catalyst. Representatives from various sectors will examine how to increase cooperation between the energy and health communities to design effective policies and programmes. Moderator: Bikash Pandey, Director of Clean Energy, Winrock International Panelists: Angelo Coppacchioli, General Manager, Ergon Peru – Tozzi Green Hem Himanshu Dholakia, Senior Research Associate, Council on Energy, Environment and Water, India Ram Prasad Dhital, former Executive Director, Alternative Energy Promotion Center Nepal Robin Fola Mansaray, Head, Renewable Energy & Energy Efficiency, Ministry of Energy, Sierra Leone

SESSION 3: 14:00-15:15	 Facilitating financing and optimising delivery models for decentralised renewable energy for rural health centres This session will provide the opportunity to examine efficient and effective delivery models for the electrification of rural health centres through decentralised renewable energy solutions. In this context, key stakeholders will discuss lessons learned, good practices and innovations related to financing approaches, that can be extended, adapted or replicated in similar contexts. Experts will also discuss specific instruments and measures that have proven to, or have the potential to, maximise impact and facilitate financial sustainability in the long run. Moderator: Katarina Uherova Hasbani, Vice-President Alliance for Rural Electrification Panelists: Pamli Deka, Senior Manager, Electricity Governance Initiative, WRI India Avishek Malla, Chief Executive Officer, SunFarmer Nepal Jem Porcaro, Senior Director, Energy Access, United Nations Foundation Gopal Nadadur, Associate Director, Clinton Health Access Initiative (CHAI) Pariphan Uawithya, Associate Director, The Rockefeller Foundation
15:15-15:45	Coffee Break
SESSION 4: 15:45 - 17:00	 Tailoring rural healthcare: Innovation in medical devices and healthcare service in low-resource settings This session will explore the progress being made in the design, distribution and maintenance of health technologies and medical devices tailored to low-resource settings. It will bring together manufacturers, practitioners and other stakeholders to discuss how to innovate and adapt medical devices in an effort to ensure adequate health services for all. Moderator: Huda Jaffer, Lead Designer, SELCO Foundation Panelists: Joseph C. Abueg, Clinical Applications Manager for ASEAN, India and Africa, GE Healthcare Jaishankar Natarajan, Assistant Vice President, Head New Business Development, Godrej Sure Chill Laura Stachel, Executive Director and Co-founder, We Care Solar Jeff Stottlemyer, Senior Manager, Market Development, CLASP
17:00-17:10	Closing remarks





ADNAN Z. AMIN

DIRECTOR-GENERAL, INTERNATIONAL RENEWABLE ENERGY AGENCY

Adnan Z. Amin is the Director-General of the International Renewable Energy Agency (IRENA), currently serving his second term.

In 2011, he was elected as IRENA's first Director-General and during his tenure, IRENA has achieved near universal membership and grown to become the

global authority on renewable energy. The Agency today provides the world community with a strong, international co-operation framework to accelerate the energy transformation.

Prior to joining IRENA, Mr. Amin served as Head of the UN System Chief Executives Board for Coordination (CEB) Secretariat, and led the Secretariat for the UN Secretary-General's High-level Panel on UN System-wide Coherence. He also served as the Director of the United Nations Environment Programme's (UNEP) New York Office. Mr. Amin has more than 25 years of experience in renewable energy, sustainable development and environmental policy. He is a development economist from Kenya.



ANGELO COPPACCHIOLI

GENERAL MANAGER, ERGON PERU – TOZZI GREEN

Angelo Coppacchioli has 39 years of experience, most of which were spent abroad in different countries managing companies and many projects. His working experience includes commercial negotiation, structuring project financing, joint-venture constitution and managing projects with very advanced technology in the petrochemical, refinery, pipeline and

infrastructure areas. Over this period of time, Angelo has acquired a great experience dealing with people and managing so many different problems and situations that he can now consider himself capable of handling and managing companies in different industrial sectors dealing with engineering, construction and production.

The positions he has covered include those of Managing Director, General Manager, New Developments Director and Area Manager, Project Director, Project and Construction Manager, Contract and Procurement Manager.

Most recently, ERGON PERU has signed an investment contract with the Peruvian ministry of energy and mines for the provisions of electric energy services by using energetic natural resources to off-grid areas in Peru (2015 - Present).



RAM PRASAD DHITAL

FORMER EXECUTIVE DIRECTOR, ALTERNATIVE ENERGY PROMOTION CENTRE, NEPAL

Ram Prasad Dhital served as the Executive Director of Alternative Energy Promotion Center (AEPC) overseeing operations, strategic and technical initiatives in renewable energy sector of Nepal. Ram recently completed his four year full term tenure at AEPC as ED. Ram has nearly two decades of experience in energy policy and design of Solar, Biogas, clean cooking

and Hydro power in sustainable manner. He started his career as Technical Officer in Rural energy Development Project, UNDP Nepal in 1998. With successful completion of two International assignments as Renewable Energy Advisor, National Area Based Development Program, Afghanistan and Rural Energy Technical Advisor, Vanuatu Energy for Rural Development Program, Vanuatu respectively Mr. Ram has excel in the roles undertaken and shared the knowledge and learning cross border by leaving a remarkable change and progress in Renewable Energy sector of Nepal; deploying renewable energy to more than one million beneficiaries nationwide.



HEM HIMANSHU DHOLAKIA

SENIOR RESEARCH ASSOCIATE, COUNCIL ON ENERGY, ENVIRONMENT AND WATER

Hem Dholakia is a health professional turned policy researcher and leads the Risks and Adaptation team at The Council. His research addresses the linkages between energy, environment, human health, and public policy in India. Specifically, it understands health impacts of urban air pollution, maps climate risks on infrastructure, develops early warning systems for extremes

of heat, and analyses potential of renewable energy to improve rural health outcomes.zi

Hem's current research efforts are geared towards developing a heat-health warning system in the Bundelkhand region, scaling up of solar for primary health in India's north-eastern states, supporting farmers to reduce seasonal crop burning in Punjab and Haryana.

Hem holds a PhD from the Indian Institute of Management (Ahmedabad), a Masters in Exercise Science from University of Brighton (UK) and an undergraduate degree in Physiotherapy from Seth G.S. Medical College.





HARISH HANDE

CO-FOUNDER, SELCO FOUNDATION

Harish Hande is an engineer and renewable energy entrepreneur with over 22 years of grassroots experience in meeting requirements of underserved communities. He is the co-founder of SELCO India, and under his leadership SELCO reached 650,000+ households across 6 Indian states, while focusing on Innovation and Ecosystem building, for which he was awarded the

Magsaysay Award in 2011.

Harish is recognised as a pioneer of rural energy service across the globe. He and his company have received many national and international awards including the Ashden award (2005 and 2007), The tech museum award (2005), Khemka Social entrepreneur of the year 2007 and the Financial Times – Arcelor Mittal Boldness in Business award 2009.



HUDA JAFFER LEAD DESIGNER, SELCO FOUNDATION

Huda Jaffer started as a product designer for SELCO India Pvt Ltd after graduating as a product and user interface designer from Srishti School of Art, Design and Technology. She has been involved in the inception and building of SELCO Foundation and is the Lead Designer, Head of Urban Poverty Labs and Senior Management Team (strategy) of SELCO Foundation

being actively occupied in design projects across various under-served user segments with solutions spanning across social, technical and and financial innovations. She is deeply passionate about building innovative solutions that are socially, environmentally and financially sustainable. Through her work she hopes to inspire, support and lead social enterprises and future generations that will be agents and champions of sustainability in developing nations.



JULIANA LUNGUZI

HONORABLE MEMBER OF PARLIAMENT, MALAWI

Honorable Juliana Lunguzi is a Member of Malawi Parliament, representing Dedza East. She is the Shadow Minister-Health and Chair, Parliamentary Committee on Health. She is also a Public Health Specialist and a State Registered Nurse. Through her work in Malawi and internationally, she has contributed to the significant growth and professionalisation of the nursing

profession in Malawi, including development of nursing and midwifery standards and operational procedures, and co-ordinating the first emergency obstetric care assessment in Malawi, which provided data for the development of the road-map for the reduction of maternal and neonatal morbidity and mortality in Malawi. She successfully led a multi-sector team which included Ministry of Health and WHO, to develop and operationalise a community health service package implemented under the Malawi Social Action Fund, addressing issues of maternal and child health towards achieving the Millennium Development Goals.



AVISHEK MALLA

CEO, SUNFARMER

Avishek Malla is a social entrepreneur, with over 10 years' extensive handson experience in Renewable Energy in Nepal and International markets. His experience includes various roles in industry, government, and academia. He has been a pioneer in the development of solar Photovoltaic (PV) Nepal, he has introduced "Rent to Own" solar energy services in rural health,

education and agriculture. He has also authored several solar PV related papers and publications and has been key member to developing national technical standards and policies on solar PV. He holds a bachelor's degree in Mechanical Engineering and Diploma in Management from Kathmandu University and Master's degree in Renewable Energy from Murdoch University, Australia. He is gold medalist for academic excellence, awarded by former King Gyanendra Bir Bikram Shah Dev and currently Australian Endeavour Awards Ambassador for Nepal.



ROBIN FOLA MANSARAY

HEAD, RENEWABLE ENERGY & ENERGY EFFICIENCY, SIERRA LEONE MINISTRY OF ENERGY

Robin Mansaray was born on the 8th of September, 1966, in Freetown Sierra Leon. He studied at the Njala University in Sierra Leone, with a BSc Physics (1994) and MSc in Renewable Energy & the Environment in 2005. Robin attended several training courses in the Energy Resources Institute (TERI), in New Delhi, India; College of Foreign Studies, Nanchang City, China; Kwame

Nkruma University of Science and Technology, Ghana; IRENA-NEDO training, Dubai and Japan. He is currently serving as a focal person for both ECOWAS Centre for Renewable Energy & Energy Efficiency (ECREEE) and for Africa Energy Commission (AFREC) in Sierra Leone.



GOPAL NADADUR

ASSOCIATE DIRECTOR, CLINTON HEALTH ACCESS INITIATIVE (CHAI)

Gopal Nadadur is Associate Director at the Clinton Health Access Initiative (CHAI). He leads a portfolio of markets-driven health programs spanning vaccines cold chain, diagnostics and treatment for diarrhea and pneumonia, non-communicable diseases, and solar energy for healthcare. Prior to CHAI, he worked as a global product strategies consultant with large, multinational

companies (e.g., GE, Alstom). He has a doctorate in mechanical engineering (product design) from the Pennsylvania State University.



JAISHANKAR NATARAJAN

ASSISTANT VICE PRESIDENT, HEAD NEW BUSINESS DEVELOPMENT, GODREJ SURE CHILL

Jaishankar has an experience of over 21/2 decades in Godrej and the appliance industry, including a brief stint of 8 years in a Joint Venture collaboration of Godrej with GE Appliances.

He has worked across functions within Godrej Appliances, having had stints in Contract Management, Strategic sourcing, Setting up vendor base for Green field projects, Heading New Product development initially focusing on brown goods and thereafter focusing primarily on setting up external collaborative Innovation networks with Academia, Startup firms, Incubation firms & Application development firms to build a pool of "Innovative Ideas" for the organisation.

In his current role he is tasked to evaluate new business opportunities in the Adjacent spaces, prepare a robust entry business case, germinate and scale up spotted opportunities. Currently his energies are focused on expanding portfolio and scaling up Innovative Cold chain solutions to the Health care industry and bringing to market innovative energy saving beverage cooling solutions for the Commercial sector.Jaishankar is a BE Mechanical graduate and Masters in Administrative Management. He has also completed his APICS CPIM certification (Virginia US).



BIKASH PANDEY

DIRECTOR OF CLEAN ENERGY, WINROCK INTERNATIONAL

Bikash Pandey is Director of Clean Energy at Winrock International. His work experience encompasses twenty five years in policy review, design, and implementation of a range of clean/renewable energy projects in Asia, Africa, and Latin America. He is one of the pioneers of micro-hydro mini-grid systems in Nepal, where he started his career in energy access. The revisions

in Nepal's recently approved renewable energy subsidy policy, which were based on a review he carried out in 2015, include a role for private developers to receive incentives to develop mini-grids and inclusion of anchor load based mini-grids. He recently developed a toolkit for USAID outlining the policy, financing, technology and ownership issues around mini-grids. His expertise includes interventions to commercialize renewable energy technologies and design of financing mechanisms and incentives for market transformation. He has registered a number of energy access projects under the CDM, including the first aggregated domestic biogas projects in Nepal and community micro-hydropower projects in Pakistan. He holds an M.S. from the Energy and Resources Group from the University of California at Berkeley and a S.B. in Electrical Engineering from MIT.



JEM PORCARO

SENIOR DIRECTOR, ENERGY ACCESS, UNITED NATIONS FOUNDATION

Jem Porcaro is the UN Foundations' Senior Director for Energy Access. In this role, Jem leads the Foundation's efforts to expand access to modern energy services in developing countries, and builds synergies with UN agencies and other key multilateral partners, especially Sustainable Energy for All. Jem has 15 years of experience working on global development,

energy and climate issues.

Previously, he worked with Nexant, an energy consulting company, in its government clean energy practice in Asia, where it advised governments and multilateral development organisations on clean energy finance and policy. Jem also worked for four years in the United Nations Development Programme (UNDP), helping to oversee its global energy portfolio and elevate clean energy access on the global development agenda. Jem received his master's degree in international affairs, with a concentration in international energy policy and management, from Columbia University and a bachelor of science in civil engineering from Tufts University.



KAWALDIP SEHMI

CEO, INTERNATIONAL ALLIANCE OF PATIENTS' ORGANISATIONS

Kawaldip Sehmi is a patient who is championing for the rights of vulnerable patients globally. He has extensive experience in paediatric healthcare and children and adolescents mental health services. He previously held the position of Chief Executive Officer at Richmond Psychosocial Foundation International and worked as Managing Director of Coram Children's Legal Centre.

He has European and international public health experience as Director of the Global Health Inequalities Programme and as Chairman of the European Network of Quitlines during the successful negotiations and ratification of the WHO Framework Convention on Tobacco Control. Kawaldip's qualifications include an MSc in the Public Health International Programme from the London School of Hygiene and Tropical Medicine, a Master's in Business Administration and an LLB (Hons).





LAURA E. STACHEL EXECUTIVE DIRECTOR, CO-FOUNDER, WE CARE SOLAR

Dr. Laura Stachel, Co-founder and Executive Director of We Care Solar[®], is an obstetrician-gynecologist with fourteen years of clinical experience. She holds an M.D. from University of California, San Francisco and an M.P.H. in Maternal and Child Health from University of California, Berkeley. She was a staff researcher at the Blum Center for Developing Economies at UC Berkeley

until 2015. Her research on maternal mortality in Nigeria in 2008 alerted her to the deleterious effects of energy poverty on maternal health outcomes. Along with Hal Aronson, she co-founded We Care Solar to bring simple solar electric solutions to maternal and child health care in regions without reliable electricity. We Care Solar has equipped more than 2000 health facilities in over 20 countries with the We Care Solar Suitcase[®], a compact solar energy system providing essential lighting and power.Laura is passionate about promoting sustainable energy solutions for women's health and speaks around theworld on this topic. She has been active in the UN Foundation's Sustainable Energy for All Initiative and has co-chaired a Practitioners Working Group on Energy and Health. Laura was one of the Top 10 CNN Heroes of 2013.

For her work with We Care Solar, Laura received numerous awards, including the 2015 UN DESA "Powering the Future We Want" Award, the 2015 UCSF Alumni Award, the 2014 Katerva Gender Equality Award, the 2012 Clean Energy, Education and Empowerment Award, the 2012 United Nations Association Global Citizens Award, the 2011 Tech Award, the 2010 Jefferson Award for Public Service, and the 2010 UC Berkeley Chancellor's Award for Civic Engagement.



JEFF STOTTLEMYER

SENIOR MANAGER, MARKET DEVELOPMENT, CLASP

Jeff Stottlemyer is a senior manager on CLASP's Market Development and Innovation team, where he leads programs that catalyze off-grid solar technology innovation and expand markets for high-quality, energy efficient off-grid solar products, with a particular focus on household and productive use appliance technology. He manages the Global LEAP Awards, an

international competition that identifies the world's best off-grid appliances, and an affiliated resultsbased financing program to catalyze deployment of these life-changing products. Jeff received an MSc. from the London School of Economics and a BA from James Madison University.



HANUMAPPA SUDARSHAN

FOUNDER AND HONORARY SECRETARY, KARUNA TRUST

In 1986, Dr. Sudarshan founded Karuna Trust for "Reaching the Health Care to the Unreached". Karuna Trust provides Primary Health Care through Public-Private Partnership to 1.5 million people in 6 states (Karnataka, Arunachal Pradesh, Meghalaya, Manipur, Orissa and Rajasthan) of India in very remote, hilly tribal areas. Karuna trust has made several process and technological

innovations for providing cost effective health care services.

He has shared his wide experience by volunteering with the Government through his Chairmanship of the Karnataka Governments' Task Force on Health & Family welfare as well as leading a 'battle' against the 'epidemic of corruption' as the Vigilance Director of the Karnataka Lokayukta (Ombudsman). He is active member of ECHO-India and implements ECHO project for empowering Primary Care physicians and Health workers. He has been awarded Padmashree by President of India, recipient of Right Livelihood Award (Alternate Nobel Prise) and International Social Entrepreneur Award of the year 2015 by Schwab Foundation at World Economic Forum.



PARIPHAN UAWITHYA ASSOCIATE DIRECTOR, THE ROCKEFELLER FOUNDATION

Pariphan Uawithya joined The Rockefeller Foundation in 2012. He is part of The Rockefeller Foundation's Smart Power initiative aimed at scaling energy access in order to drive economic and social development. He managed the establishment of Smart Power India, a dedicated platform to support the acceleration of last-mile electrification in India including a portfolio of

150 mini-grids. Most recently, he led the expansion of the energy access initiative to Myanmar and is currently leading a market and financing study to provide a comprehensive assessment of the current market for mini-grids in Myanmar, and identify financing solutions.

Prior to joining the Foundation, Mr. Uawithya led a number of Asia-based governance initiatives with Oxfam and Save the Children.



KATARINA UHEROVA HASBANI



VICE-PRESIDENT, ALLIANCE FOR RURAL ELECTRIFICATION

Katarina Uherova Hasbani is Founder of Enrupt, open innovation platform for energy sector. She founded EnRupt to support the ongoing transformation of the energy sector to be closer to the customer, using cleaner, renewable sources, and leveraging digital technologies. She is driving this transformation by building partnerships between young, innovative startups

and corporations. Enrupt has rapidly become a dynamic builder of energy-focused startup innovation from Singapore and expanding to Dubai in Q4 2018. Katarina has 15 years of professional experience in energy from government & consulting in Europe, Middle East & South-East Asia. She was a visiting scholar at Stanford University in 2011 and continues to research on topics related to energy sector transformation, focusing on countries and companies transiting from fossil-fuels to renewable energy based systems. Katarina is Vice President on the Board of the Alliance for Rural Electrification (Industry association, HQ in Belgium) and driving Insead Alumni Women in Business activities. She is always looking out for opportunities to support energy sector transformation and champion gender equality, especially in energy.



XAVIER VALLVE

MANAGING PARTNER, TRAMA TECNOAMBIENTAL

Xavier Vallvé holds Engineering and Master's degrees from the University of Waterloo (Canada) and is co-founder (1986) and director of the consultancy firm Trama TecnoAmbiental (TTA) in Barcelona, Spain. He has been an active practitioner and researcher for more than 30 years in renewable energy rural electrification and distributed generation projects, autonomous as well as

grid tied, RE hybrid technology and micro grids for islands and isolated villages.

Many of his projects involved interdisciplinary activities in economic, social and management aspects as well as engineering in RE generation and storage. He has been involved in feasibility studies, engineering and project management of many PV rural micro grids in isolated villages in Africa, South America, Asia and the Pacific for private and government clients and also for UNDP, UNIDO, UNEP, AECID, IDB, WB, EC, IRENA and other agencies. He is also an active member in international codes and standards committees and teaching activities on this subject.



SALVATORE VINCI

HEAD, PARTNERSHIPS AND TECHNICAL ADVISORY SERVICES, IRENA

Salvatore Vinci is the Head of Partnerships and Technical Advisory Services at IRENA. Since joining IRENA in 2010, Salvatore Vinci has been managing projects related to policies to promote renewable energy, with focus on developed and developing markets. He has authored several publications, the last ones being 'Policies and regulations for private

sector renewable energy mini-grids' and 'Adapting market design to high shares of variable renewable energy.

Salvatore heads the Agency's work on technical advisory services and co-ordinates the Agency's global partnerships, including the Global Geothermal Alliance and the Small Island Developing States (SIDS) Lighthouses Initiative. Salvatore is the Co-ordinator of the International Off-grid Renewable Energy Conference and Exhibition (IOREC) and has been in charge of the programme development for all four editions of IOREC.

Before joining IRENA, Salvatore worked at the Department of Energy of the Italian Ministry of Economic Development. He holds a degree cum laude in Environmental Engineering and a Master's degree in Energy Resources Management.









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