



CLEAN ENERGY FOR HEALTH CARE

**HARNESSING RENEWABLE ENERGY AND ENERGY EFFICIENCY
TO CREATE STRONGER, MORE RESILIENT HEALTH SYSTEMS**

April 24-25, 2019 | Nairobi, Kenya

CONFERENCE PROGRAM & SPEAKER BIOGRAPHIES



APRIL 24

08:00 – 09:00	Registration
09:00 – 09:15	Welcoming Remarks
09:15 – 09:25	Keynote Addresses <ul style="list-style-type: none">• Dr. Tedros Adhanom Ghebreyesus (video address), Director-General, World Health Organization• Rachel Kyte (video address), CEO and Special Representative for the Secretary-General, Sustainable Energy for All
09:25 – 09:45	Keynote Presentation <p>The opening Keynote Presentation will set the scene- drawing on the latest data and developments to examine the current status, need and future of clean energy in health care.</p> <ul style="list-style-type: none">• Jem Porcaro, Senior Director for Energy Access, UN Foundation
09:45 – 10:30	Energizing the Global Health Agenda <p>In this opening session, panelists will discuss synergies between the sustainable energy and health agendas, including the need for closer cooperation between the energy and health sectors to maximize health benefits.</p> <ul style="list-style-type: none">• Hon. Kandeh Yumkella (moderator), Member of Parliament, Sierra Leone• Dr. Maria Neira, Director, Department of Public Health, Environmental and Social Determinants, World Health Organization
10:30 – 11:00	Break
11:00 – 11:45	The Importance of Energy to Delivering Quality Health Services: A Healthcare Professional’s Perspective <p>The session will provide a health care professional’s perspective on the importance of having adequate and reliable electricity to providing critical patient care.</p> <ul style="list-style-type: none">• Dr. Marleen Temmerman (moderator), Director, Centre of Excellence in Women and Child Health, Aga Khan University• Dr. Evrard Nahimana, Deputy Chief Medical Officer, Partners in Health• Dr. Niall Conroy, Public Health Physician, Centre for Emergency Medical Science, University College Dublin & Project Bo• Evaline Lang’at, Department of Health, Kilifi County Government
11:45 – 12:45	The Energy Needs of Health Facilities: A Closer Look <p>The session will take a closer look at the current and growing demands for electricity in different types of health facilities in Sub-Saharan Africa.</p>

	<ul style="list-style-type: none"> • Rahul Srinivasan (moderator), Energy Specialist, The World Bank • Jeff Lahl, Project Director, Solar Electric Light Fund • Eng. Sitra Mulepo, Senior Engineer, Ministry of Health, Uganda • Arne Jacobson, Director, Schatz Energy Research Center, Humboldt State University
12:45 – 14:00	Lunch
14:00 – 15:30	<p>Powering Healthcare with Decentralized Clean Energy: Trends and Opportunities The session will examine the role and increasing use of decentralized clean energy technologies in delivering health care services to under-served communities.</p> <ul style="list-style-type: none"> • Christine Eibs Singer (moderator), Senior Advisor, Sustainable Energy for All • Dr. Laura Stachel, Executive Director and Co-Founder, We Care Solar • Thomas Rieger, Director, Marketing and Sales, Solarkiosk • Saleban Omar, Senior Regional Programme Advisor, UNDP
15:30 -16:30	<p>Research into Links Between Energy Access and Health Service Provision The session will provide empirical evidence of the links between energy access and health service provision.</p> <ul style="list-style-type: none"> • Dr. Rebekah Shirley (moderator), Director of Research, Power for All • Dena Javadi, Technical Officer, World Health Organization • Sasmitha Patnaik, Programme Lead, Council on Energy, Environment and Water (CEEW) • Ivy Syovata, Business Development Manager, Philips
16:30 – 17:00	Closing Summary
17:00 – 19:00	Reception

08:00 – 09:00	Registration
09:00 – 09:30	Opening Speaker
09:30 – 11:00	<p>Delivery Models and Financing Mechanisms</p> <p>The session will examine different business models for electrifying health facilities with decentralized clean energy solutions. Stakeholders will discuss challenges and lessons learned in delivering and financing solutions and discuss new and emerging approaches that could help to ensure the financial sustainability and scalability of interventions.</p> <ul style="list-style-type: none"> • Jem Porcaro (moderator), Senior Director for Energy Access, United Nations Foundation • Christine Eibs Singer, Senior Associate, Catalyst Off-Grid Advisors • Selestino Babungi, Managing Director, UMEME Limited • Raihan Elahi, Lead Energy Specialist, The World Bank
11:00 – 11:30	Break
11:30 – 12:45	<p>Energy Efficiency and Innovation in Healthcare Devices (parallel session), Mara North Ballroom</p> <p>The session will explore the progress being made in the design 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.</p> <ul style="list-style-type: none"> • Patricia Wamala-Mucheri (moderator), Deputy Country Director, Uganda, Clinton Health Access Initiative • Nyamolo Abagi, Manager, East Africa, CLASP • Ivy Syovata, Business Development Manager, Philips • Cicilia Magare, Climate Mitigation Unit, UN Environment
11:30 – 12:45	<p>Monitoring and Evaluation of Energy-Health Interventions (parallel session), Loita Room</p> <p>The session will examine different monitoring and evaluation strategies for health facility electrification programs, with a view towards building consensus on how to measure their impact.</p> <ul style="list-style-type: none"> • Dr. Evrard Nahimana (moderator), Deputy Chief Medical Officer, Partners in Health • Dena Javadi, Technical Officer, World Health Organization

	<ul style="list-style-type: none"> • Dr. Laura Stachel, Co-founder and Executive Director, We Care Solar • Carsten Hellpap, GIZ
12:45 – 14:00	Lunch
14:00 – 15:15	<p>Quality Assurance for Off-Grid Power (parallel session), Mara North Ballroom</p> <p>The session will explore common pitfalls and best practices in quality assurance for the design, installation and maintenance of off-grid energy solutions at health facilities.</p> <ul style="list-style-type: none"> • Aisha Abdulaziz (moderator), Energy Consultant, The World Bank • Meg Harper, Research Engineer, Schatz Energy Research Center, Humboldt State University • Sitra Mulepo, Senior Engineer, Ministry of Health, Uganda • Sam Dargan, Founder and CEO, Great Lakes Energy • Eng. Ajeiigbe A. Jacob, Assistant Director, Off-grid and Energy Efficiency, Federal Ministry of Power, Works & Housing, Nigeria
14:00 – 15:15	<p>Powering Healthcare in Crisis and Humanitarian Settings (parallel session), Loita Room</p> <p>The panel will discuss the unique challenges and opportunities for using decentralized clean energy solutions to help deliver health care in crisis and humanitarian settings.</p> <ul style="list-style-type: none"> • Luc Severi (moderator), Manager, Energy Access, UN Foundation • Maria Ten Palomares, Energy Project Developer, Medecins Sans Frontieres • Mikael Clason Hook, Co-founder, Kube Energy • Talal Kanaan, Energy Specialist
15:15 – 16:45	<p>Cross-sectoral Planning and Policy</p> <p>The session will bring together representatives from the health, energy and rural development sectors to discuss policy practices and gaps for enabling better delivery of health services to under-served populations, using decentralized clean energy solutions as a catalyst. Representatives will examine how to facilitate inter-sectoral cooperation at different levels of decision making to design effective policies and programmes.</p> <ul style="list-style-type: none"> • Salvatore Vinci (moderator), Deputy Director, Country Support and Partnerships, IRENA • Dr. Maria Neira, Director, Public Health, Environmental and Social Determinants of Health, World Health Organization • Eng. Isaac Kiva, Director of Renewable Energy, Ministry of Energy, Kenya • Nawa Raj Dhakal, Director, Alternative Energy Promotion Centre, Nepal (AEPC)

	<ul style="list-style-type: none">• Bentoe Tehoungue, Director of Family Health, Ministry of Health, Liberia
16:45 – 17:00	Wrap-Up

SPEAKER BIOGRAPHIES



Aisha Abdulaziz, Energy Consultant, World Bank

Aisha Abdulaziz is an Energy Consultant with the World Bank based in Nairobi. She is a renewable energy professional with over 7 years experience providing technical assistance in design and implementation of energy access projects. For the World Bank, she is supporting the Kenya Off-Grid Solar Access Project (KOSAP) in Kenya and the Somali Electricity Access Project in Somalia including Somaliland, and is a member of the Lighting Global Team working on Quality Assurance. She has also worked on many off-grid energy access projects in Rwanda, Sudan, Tanzania and Uganda.



Arne Jacobson, Schatz Center Director, Humboldt State University

Arne Jacobson is the Schatz Center Director and a professor of Environmental Resources Engineering at Humboldt State University. His areas of research interest include renewable energy technology, energy and climate change mitigation policy, and energy access for low-income people in off-grid areas of Sub-Saharan Africa and South Asia. The approach he takes is interdisciplinary, combining renewable energy engineering, energy policy, and a social geography based approach to international development studies. He has extensive international experience, including work over the past decade helping lead development and implementation of the Lighting Global Quality Assurance program for off-grid solar products.

His current activities include leading the development of a quality assurance framework for solar installations at health clinics, schools and other public facilities in collaboration with the World Bank's Lighting Africa program, the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE), and relevant government ministries. He currently serves as co-chair of the off-grid solar working group (Joint Working Group 1) of Technical Committee 82 (photovoltaics) of the International Electrotechnical Commission (IEC). Arne is a recipient of the California State University's 2015 Wang Family Excellence Award and in 2010/11, served as a senior advisor in the Office of Policy and International Affairs at the U.S. Department of Energy.

Arne has a PhD from the Energy and Resources Group at the University of California, Berkeley, a master's degree focused on Environmental Resources Engineering from Humboldt State, and a bachelor's degree in physics from Earlham College.



Dr. Carsten Hellpap, Principal Advisor for Energy Access, GIZ

During the last 25 years Carsten Hellpap has worked at GTZ now Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). Mr. Hellpap was head of the German Appropriate Technology and Ecoefficiency programme (GATE), supporting the introduction and dissemination of different types of technologies in developing countries, considering economic, environmental and social factors. In 2005 he became director of the Energising Development programme (EnDev), a global programme on energy access, which is active in 25 countries and is supported by six European donors.

He carried out several training programmes for international organizations and has been lecturer at the University of Darmstadt for seven years.

He is currently senior energy advisor for EnDev and for the new BMZ initiative People and Community-Centered Green Energy for Africa.



Christine Eibs Singer, Senior Advisor, Sustainable Energy for All

Christine Eibs Singer is a champion of accelerated energy access, serving as Senior Advisor to Sustainable Energy for All. Christine is also a Technical Advisor to the Kenyan Ministry of Energy for the innovative Kenyan Off-Grid Solar Access Program (KOSAP) and a Senior Associate with Catalyst Off-Grid Advisors. She was on the founding team of Power for All, a global campaign to accelerate decentralized renewable energy and a co-founder of E+Co, a pioneer in energy enterprise development and blended capital investment. Christine is a Director of SELCO India, on the Board of REEEP and a member of the Deutsche Bank Essential Capital Consortium Investment Committee. Ms. Singer spent 10 years at the Port Authority of New York and New Jersey, concentrating on the development of public-private partnerships.

Ms. Singer's recognitions include the 2007 Woman of Inspiration Award from Fairleigh Dickinson University, the 2011 Keystone Leadership Award for the Environment and an Honorary Doctorate of Humane Letters from New Jersey City University. Ms. Singer is an Ambassador Emeritus of the C3E Women in Energy Initiative and an Ashden Award International Judge.



Cicilia Magare, Climate Mitigation Unit, UN Environment

Cicilia is a Programme Management Assistant with the Climate Mitigation Unit, Energy Branch at the UN Environment. Cicilia is responsible for managing a diverse group of projects in renewable energy, energy efficiency and transport in several countries globally. Cicilia has over 10 years working experience in programme management, youth development and entrepreneurship. She holds an Msc. In Development Finance from Stellenbosch University, Cape Town with interests in Environmental,

Infrastructure and Project Finance.



Dena Javadi, Technical Officer, World Health Organization

Dena Javadi is a health systems scientist with experience in design and evaluation of complex health system interventions. She has worked across a range of countries in topics such as access to medicines, primary care strengthening, evidence-informed decision-making, systems thinking in healthcare design, access to energy, and health workforce management.



Evaline Lang'at, Department of Health, Kilifi County Government

Evaline Lang'at holds a Master of Public Health from Flinders University, Australia. She is a member of the health management team in Kilifi County, Kenya and coordinates health research within the Department of Health, The research unit works to institutionalize the use of evidence as an integral component for decision making within the department of health. Evaline has a passion for maternal and child health and has conducted

researchers that have influenced maternal health service delivery at the facility level. Evaline worked as a midwife in a level 4 facility for a period of 5 years.



Dr. Evrard Nahimana, Deputy Chief Medical Officer, Partners in Health

Dr. Evrard Nahimana is a medical doctor from Rwanda with over 9 years of healthcare delivery and operational research experience. He is currently working with Partners In Health/Inshuti as Deputy Chief Medical Officer in charge of primary care. He also served as District Clinical Director for PIH/IMB for Kirehe district, then Director of Women Health program before moving to Harvard medical School for his master's degree in Medical

Sciences and Global Health delivery. Dr. Evrard Nahimana has been involved in various research projects as principal investigator with the aim of improving health system in developing countries or marginalized communities. These include Race To The Top(RTT), a performance base quality improvement project in Rwanda and All Babies Count (ABC) a comprehensive district wide quality improvement initiative to reduce neonatal mortality.

Currently Dr. Nahimana is working as the principal investigator with two partner organizations, the Lawrence Berkeley National Laboratory's Institute for Transformative Technologies (LIGTT) and Boston Children's Hospital(BCH), to develop a product to address the challenge of adequate thermoregulation for infants who require warming in settings with unstable electricity, particularly those infants who are too unstable for, or unable to receive Kangaroo Mother Care. This collaboration led to the development of an easy-to-use, low-cost, re-useable, and non-electric infant warmer, with promising implications for neonatal care in low-resource settings around the world which is currently being tested in two district hospitals in Rwanda.



Eng. Isaac Kiva, Secretary of Renewable Energy, Ministry of Energy, Kenya

Eng. Isaac Kiva is currently the Secretary for Renewable Energy at the Ministry of Energy. Eng. Kiva has wide experience in public sector management, having held senior government positions for over 20 years. He is a registered Professional Engineer with the Engineers Board of Kenya and a member of the Institution of Engineers of Kenya. He is also a gold member of the Association of Energy Professionals (East Africa). Eng. Kiva joined the Board on 16th December 2009 as an Alternate Director to the

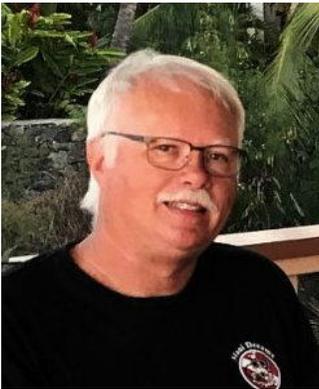
Principal Secretary, Ministry of Energy.



Ivy Syovata, Business Development Manager, Philips

Ivy Syovata is a Business Development Manager with 15 years' experience in Healthcare management. She has passion for innovative health care solutions to improve lives and has knowledge in healthcare management, leadership, business modeling and advisory.

She is currently working with Philips to develop and implement community driven holistic approach to improving primary and community care in emerging markets. Currently leading projects in extending new or existing health facilities into social and economic hubs using exciting innovative and sustainable programs, technologies and services.



Jeff Lahl, Project Director, Solar Electric Light Fund

Jeff Lahl serves as the Project Director for the Solar Electric Light Fund (SELF). He has overall implementation responsibility for SELF's projects which provide solar electricity for health care, education, agriculture, communications, micro-enterprise and clean water. His work has taken him to 12 African Countries, as well as several in the Caribbean and Asia. Prior to becoming a Director, Jeff worked as a project manager for SELF, a Technical College Instructor for Photovoltaics and Passive Solar Design, an off-grid system designer in the PV industry, the owner of a design and

construction company for solar homes and the Renewable Energy Officer in the Energy Planning Unit of the Kingdom of Tonga as a US Peace Corps Volunteer. Jeff currently leads SELF's development of national capacity building efforts which focus on creating multi-level PV training programs. His home and car are 100% solar powered.

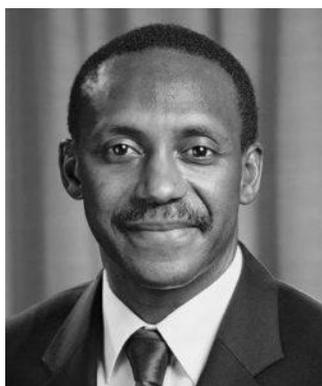


Jem Porcaro, Senior Director for Energy Access, UN Foundation

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 organizations 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.



**Hon. Kandeh K. Yumkella, Member of Parliament,
Sierra Leone**

Dr. Kandeh K. Yumkella is a distinguished development economist and an expert in agricultural economics with over 25 years of international experience. Previously he served as former United Nations Under-Secretary-General and Special Representative of the UN Secretary-General for Sustainable Energy for All and Chief Executive Officer for the Sustainable Energy for All (SE4All) Initiative (2013 - 2015) where he brought a renewed and vital focus to global energy issues and led the coordination of the United Nations response to energy issues.

As Special Representative, Mr. Yumkella mobilized action toward a sustainable energy future and accelerated the implementation of the Secretary-General's initiative. In this role, he successfully engaged with the leadership of relevant stakeholders in government, businesses, academia and civil society at the highest level to advocate for and promote sustainable energy for all.

Prior to his appointment as Special Representative and Chief Executive, Dr. Yumkella was appointed Co-Chair of the High-level Group on Sustainable Energy for All by United Nations Secretary General in recognition of his leadership and passion for energy and environment-related causes following a decision by the United Nations General Assembly to designate 2012 as the International Year for Sustainable Energy for All. In this position, he was instrumental in guiding the initiative and in underscoring the need for universal access to energy, increased energy efficiency and enhanced deployment of renewable sources of energy.



Laura Stachel, Co-founder and Executive Director, We Care Solar

Dr. Laura Stachel, Co-founder and Executive Director of We Care Solar, is a retired obstetrician-gynecologist with an M.D. from University of California, San Francisco and an M.P.H. in Maternal and Child Health from University of California, Berkeley. Her doctorate research with UC Berkeley on maternal mortality in Nigeria in 2008 alerted her to the deleterious effects of energy poverty on maternal health outcomes.

She co-founded the non-profit organization We Care Solar to bring solar electric solutions to maternal and child health care in regions without reliable electricity. We Care Solar has equipped more than 3,900 health facilities in over 20 countries with the We Care Solar Suitcase, a compact solar energy system providing essential medical lighting and power to last mile health centers. Laura 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.

For their work at the intersection of renewable energy, public health, gender equity and education, Laura and We Care Solar have received numerous awards including the 2019 Zayed Sustainability Award, the 2018 UC Berkeley School of Public Health Influential Alumni Award, the 2017 UNFCCC Momentum for Change Award, the 2015 UNDESA "Powering the Future We Want Award," the 2013 CNN Heroes Award, the Katerva Gender Equality Award, the C3E Clean Energy, Education, and Empowerment Award.



Luc Severi, Manager, Energy Access, UN Foundation

Luc Severi is a Manager on UN Foundation's Energy Access activities, focusing primarily on the energy access gap in the health sector and the humanitarian sector. Luc holds a Master's in Commercial Engineering from KULeuven and an MSc Development Management from the London School of Economics. Prior to starting his current work with UNF, Luc worked in Mozambique, Senegal, and Liberia, for several international NGOs and social enterprises, including SolarNow and Save the Children International. Throughout his career, Luc has been an active participant in the green & circular economy, working primarily with renewable energy solutions for off-grid and rural households, schools, and health centers.



Dr. Maria Neira, Director, Public Health, Environmental and Social Determinants of Health, World Health Organization

Dr María P. Neira is a Spanish national who holds a degree in Medicine and Surgery (University of Oviedo, Spain), and a Masters degree in Public Health from the Université Pierre et Marie Curie, in Paris, France. She specialized in Endocrinology and Metabolic Diseases at the Université René Descartes, then in Nutrition at the Conservatoire National d'Arts et Métiers, both in Paris, and she obtained an International Diploma in Emergency Preparedness and Crisis Management from the University of

Geneva, Geneva, Switzerland.

Dr Neira is the Director of the Department of Public Health and Environment at the World Health Organization (WHO). Previously, between September 2002 and August 2005, she was President of the Spanish Food Safety Agency and Vice Minister of Health and Consumer Affairs in Spain. Dr Neira was appointed in 1999 as Director of the Department of Control, Prevention and Eradication at WHO. Prior to that, Dr Neira had been working for WHO in Geneva since 1993, as Coordinator of the Global Task Force on Cholera Control.

Before joining WHO, Dr Neira worked as Public Health Adviser in the Ministry of Health in Mozambique from 1991 to 1993. Earlier, in Kigali, Rwanda, she was a UN Public Health Advisor/Physician on assignment from the United Nations Development Programme (UNDP). From 1987 to 1989, Dr Neira was in Salvador and Honduras as Medical Coordinator for Médecins sans Frontières. Dr Neira started her professional career with three years in endocrinology and nutrition in the Necker Hospital and Hôpital Saint Louis in Paris from 1984 to 1987.

Among other distinctions, Dr Neira has been awarded the Médaille de l'Ordre national du Mérite by the Government of France.



Maria Ten Palomares, Energy Project Developer, Médecins Sans Frontières

Maria Ten Palomares gained her PhD in Local Development and International Cooperation from Polytechnic University of Valencia and Latin American Faculty of Social Sciences, Spain, together with a Master's degree in Development and International Cooperation from Institute for International Cooperation and Development Studies, University of the Basque Country. She is an industrial engineer with an energy specialty and has nine years' experience in the energy, development and

humanitarian aid sector, including work as a consultant Energy Specialist in Peru, Mexico, Spain, Ecuador, and Surinam, along with experience with several international organizations and local non-governmental organizations. Following completion of her PhD, Maria joined Doctors without Borders as an Energy Team Leader, based in Brussels.



Prof. Dr. Marleen Temmerman, Director, Centre of Excellence in Women and Child Health, Aga Khan University

Prof. Dr. Marleen Temmerman currently serves as Chair, Department of Obstetrics & Gynaecology, Aga Khan University Hospital and Director, Centre of Excellence in Women and Child Health, Aga Khan University East Africa (Nairobi, Kenya). Prior she was the Director of the Department of Reproductive Health and Research (RHR) at the World Health Organization (Geneva, Switzerland). RHR is the main instrument within the

United Nations for research in Women's health, bringing together policy-makers and programmers, scientists, health care providers, consumers and civil society, advocates and women's groups, to identify and address priorities for research and action to improve women's health from a rights-based perspective.

As an obstetrician she supervised over 18,000 births in many parts of the world, during her over 30 years of clinical work. Her interest is women's health and rights. She is also the Founding Director of the International Centre of Reproductive Health (ICRH) at Ghent University with sister research organizations in Kenya and Mozambique, and a large global collaborative academic network of 27 Universities globally. She is Emeritus Professor at the Ghent University in Belgium.

She has a strong academic and scientific background with over 500 publications and books in the area of women's health, with a Hirsch index of 75. She has supervised many PhD students in Europe, Africa, Latin-America and China and received several awards and honours for her research, policy and advocacy work. Honorary appointments: University of the Western Cape, South-Africa; Free University Brussels, Belgium; National Institute Family Planning Research, China; Concurrent Professor Fudan University, China.



Meg Harper, Senior Research Engineer, Schatz Center, Humboldt University

Meg Harper is a senior research engineer at the Schatz Center where she manages projects focused on off-grid energy access. Over the past 6 years, she has supported the World Bank/IFC's Lighting Global, Lighting Asia-India and Lighting Africa initiatives focused on market development and quality assurance for off-grid solar products. Her work has included conducting surveys and focus groups in rural sub-Saharan Africa, supporting market research in India, leading the extension of the quality assurance framework to cover solar home system kits up to 350 W, revising standards and IEC test methods, and closely engaging with public and private stakeholders in the off-grid sector. She is currently coordinating field surveys and leading the development of a quality assurance framework for solar installations at health clinics, schools and other public facilities in collaboration with the World Bank's Lighting Africa program, the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE), and relevant government ministries. She has also conducted research into demand-side management strategies for renewable energy mini-grids, investigated metrics to assess energy efficiency policy, conducted field research in Africa, South Asia and Latin America, helped maintain the HSU campus hydrogen station, and co-taught several courses in renewable energy engineering, climate change and development technology.

Meg is a graduate of the Energy, Technology and Policy program and the Environmental Resources Engineering programs at HSU and holds a BS in Environmental Studies from Warren Wilson College.



Mikael Höök, Co-founder, Kube Energy

Mikael Clason Höök is a social entrepreneur and development professional with over 16 years of experience. He has worked with social ventures, consulting firms, non-profit and bilateral organizations and government agencies on strategy, agriculture and rural finance, private sector development and renewable energy. Mikael is a Co-founder of Kube Energy, a Norwegian renewable energy firm that develops off-grid solar solutions for international organizations operating in humanitarian settings. He holds an MPA/International Development from the Harvard Kennedy School and a BA in International Business from the University of Massachusetts.



Nawa Raj Dhakal, Director, Alternative Energy Promotion Centre, Nepal (AEPC)

Mr. Nawa Raj Dhakal is Director at Alternative Energy Promotion Centre (AEPC), Nepal. He has over sixteen years of experience in renewable energy sector across the dimensions of policy and strategy formulation, resource mobilization, program planning, implementation, monitoring and capacity building under different capacities at AEPC. He manages the programs and projects under AEPC funded by Government of Nepal and various Development Partners. He has successfully led AEPC's accreditation as the Direct Access Entity to Green Climate Fund. Mr Dhakal holds Master of Science in Renewable Energy Degree from Naresuan University, Phitsanulok, Thailand, and Master of Science in Microbiology Degree from Tribhuvan University, Kathmandu, Nepal.



Dr. Niall Conroy, Public Health Physician, Project Bo

Dr. Niall Conroy, MBChB, BSc(Hons), MPH, DTM&H, FAFPHM, is a Public Health Physician. He has extensive experience in development work, having previously practiced medicine in Sierra Leone, Somaliland and Nepal. His special interest is newborn care in low-income settings. In conjunction with colleagues in UNICEF and the Sierra Leone MOHS, Niall established the first dedicated neonatal service in Bo district, which is the second largest district in Sierra Leone. His research interests lie in newborn quality improvement in Sierra Leone, and he is currently conducting research on this topic at Bo Government Hospital.

Most recently, Niall worked closely with colleagues in the Liebreich foundation to establish “Project Bo”, which has provided a solar power solution to the neonatal unit at Bo Government Hospital, which now provides 24-hour electricity to the department, meaning that there is a constant supply of oxygen and heat in the department.



Nyamolo Abagi, Manager, East Africa, CLASP

With nearly a decade of experience in clean energy, Nyamolo Abagi leads and supports several initiatives within CLASP's Market Development & Innovation program, including the Global LEAP initiatives for the development of the global off-grid appliance market. She has a diverse professional background, including broadly in social enterprises, nonprofit sector, and development agencies, and academic training in electrical engineering and mathematics.



Patricia Wamala-Mucheri, Deputy Country Director, Uganda, Clinton Health Access Initiative (CHAI)

Patricia Wamala - Mucheri is a Program Management Specialist with over 15 years of international development experience leading, planning and implementing health programs, specifically focused on reproductive, maternal, child and adolescent health and Immunisation. She is a technical expert in social policy planning, with a focus on health, education and gender.

A graduate of Social Sector Planning and Management, Patricia has designed and implemented community-based programs, leading to policy change and improved health outcomes for remote and resource-constrained settings.

Patricia is currently the Deputy Country Director of the Clinton Health Access Initiative (CHAI) Uganda office where, as a key member of the senior leadership team, she oversees the integration of program strategy and business operations to deliver on CHAI's core mission to strengthen health systems. CHAI is a global organization that works rapidly to improve market dynamics for medicines and diagnostics; lower prices for treatment; accelerate access to lifesaving technologies; and supports governments to build the capacity required for high-quality care and treatment programs.



Rachel Kyte, CEO and Special Representative of the UN Secretary-General, Sustainable Energy for All and Co-Chair, UN Energy

Rachel Kyte is Chief Executive Officer of Sustainable Energy for All (SEforALL), Special Representative of the UN Secretary-General for Sustainable Energy for All and Co-Chair of UN-Energy. She is a leading advocate for sustainable development and drives SEforALL's work to mobilize action towards its 2030 goals on universal energy access, energy efficiency and renewable energy. As SRSG, she is the UN point person for the global goal on sustainable energy.

Until December 2015 Rachel Kyte served as World Bank Group Vice President and Special Envoy for Climate Change, leading integration of climate across the Bank Group's work as well as support for an ambitious agreement at the 21st Convention of the Parties of the UNFCCC (COP 21). She was previously World Bank Vice President for Sustainable Development and was the International Finance Corporation Vice President for Business Advisory Services.

A recipient of numerous awards for leadership for climate action and sustainable development, she is a Professor of practice in sustainable development at Tufts' Fletcher School of Law and Diplomacy.



Rahul Srinivasan, Energy Specialist, The World Bank

Rahul Srinivasan is an energy professional with deep international experience in renewables and energy access. At the World Bank, Rahul manages Lighting Africa's work on off-grid solar electrification of public institutions such as schools, health centers, and water wells. He is also actively involved in various renewable energy projects (solar, geothermal) in Africa and Latin America. Rahul is passionate about collaborating with government and private sector stakeholders towards driving reliable and affordable energy access and sustainable energy infrastructure in Sub-Saharan Africa and beyond.

Prior to joining the World Bank, Rahul worked in private sector energy consulting for 5 years as a Senior Engineer and Client Manager. Subsequently, he graduated with a Master's in Public Administration from the Harvard Kennedy School in 2017. He served as a Teaching Fellow on Energy Policy and Markets and was bestowed the prestigious Don.K. Price award for academic excellence and significant impact on the Harvard community. Rahul has spoken on energy issues at

various forums in Iceland, Malaysia, and Vienna and served as a panelist at the Harvard Business School Africa Conference and the Georgetown Africa Business Conference.



Raihan Elahi, Lead Energy Specialist, The World Bank

Mr. Raihan Elahi, Lead Energy Specialist, the World Bank is a thought leader in promoting electricity access using innovative technologies and disruptive business models. He is currently managing the Bank's Lighting Africa Program to promote private sector investment and facilitate policy changes to develop markets for standalone solar products. Under his leadership the Lighting Africa Program has evolved and is supporting electrification of productive uses, such as water pumping, irrigation, etc. to electrifying public institutions, such as healthcare facilities, education facilities, etc. and contributing to broader Bank objectives of human capital development.

Mr. Elahi played a significant role in the design and development of the Bangladesh solar market which electrified about 18 million people. A book written by Nancy Wimmer "The Marketmakers" features the experience. He was instrumental in developing the stand-alone solar market in Ethiopia by attracting private sector participation.

In addition to off grid energy access, Mr. Elahi also works in other conventional energy practice areas, including hydropower, geothermal energy, grid connected solar PV, transmission and distribution network development, power sector reforms, etc.

Mr. Elahi holds an MBA in Finance and an MSc. in Statistics.



Dr. Rebekah Shirley, Director of Research, Power for All

Named Africa Utility Week's "Outstanding Young Leader in Energy" Dr. Rebekah Shirley is the Chief Research Officer at Power for All, where she works toward better access to high-quality energy data and insights for the sector. She leads the PEAK team on research and technology development, and is currently hosted as a Visiting Research Fellow at Strathmore University, in Nairobi, Kenya, where she lives. Rebekah earned her PhD from the Energy and Resources Group at the University of California, Berkeley where she also previously obtained her MSc. Energy and Resources and a MSc. Civil Engineering. Her research explores models for integrated energy planning and opportunities for catalyzing decentralized energy markets in sub Saharan Africa. Rebekah is a University of California Chancellor's Fellow and has won grants from institutions such

as the Department of Energy, the Mott Foundation, and the Rainforest Foundation that support her work.



Saleban Omar, Senior Regional Advisor HIV, Health and Development, UNDP

Saleban Omar has over 20 years' experience in health program management in Africa, Eastern Europe and Central Asia. He is part of the UNDP Africa Health and Development Team. As a senior regional advisor, he provides technical support UNDP and Governments in East and Southern Africa and Arab regions. As the programme manager of the UNDP Solar for health (S4H), Saleban oversees the S4H programme development and implementation. Before joining the UN system in 2004, he worked as a medical coordinator and head of mission with Médecines Sans Frontières (MSF) and Médecines Du Monde in Uganda, Kenya, Kyrgyzstan.

Saleban holds MSc. Infectious diseases and tropical medicine from the London school of hygiene and tropical medicine (University of London). In 1996, Saleban received his first medical degree from Tver medical academy in Russian Federation.



Sam Dargan, Founder and CEO, Great Lakes Energy

For over a decade, Sam Dargan has been committed to improving healthcare in Rwanda by providing reliable energy to those in need. His passion grew as a result of witnessing the poor conditions of the hospital in which he worked in rural, northern Rwanda. The hospital was off-grid and the operating budget did not allow for more than a few hours of generator usage per day, severely restricting the level of healthcare that could be delivered. Over the next three years, Dargan focused his efforts on analyzing the hospital's energy demands and the ability of solar power to meet those demands.

Using this knowledge and experience, in 2005 Dargan founded and became CEO of Great Lakes Energy. As CEO, Dargan has overseen the successful completion of over 80 solar power projects. Today Great Lakes Energy is a recognized leader in off-grid solar in Africa, specifically as it relates to healthcare.

Great Lakes Energy has adopted as its mission the challenge of revolutionizing healthcare solar energy systems through the use of new battery technology, remote monitoring and software that will

ensure continual access to clean, reliable energy. Reliable energy is the bedrock of the lifesaving services healthcare providers must provide. Reliable electricity allows lives to be saved.



Salvatore Vinci, Deputy Director, Country Support and Partnerships, IRENA

Salvatore Vinci is the Deputy Director of the Country Support and Partnerships division of IRENA, heading the Agency's work on technical advisory services and on global partnerships.

Since joining IRENA in 2010, Salvatore 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 has been the coordinator of the four editions of the International Off-grid Renewable Energy Conference and Exhibition (IOREC) as well as of the International Conference of Renewable Energy Solutions for Healthcare Facilities.

He holds a degree cum laude in Environmental Engineering and a master's degree in Energy Resources Management.



Sasmita Patnaik, Programme Lead, Council on Energy, Environment and Water (CEEW)

Sasmita Patnaik is a Programme Lead at the Council on Energy, Environment and Water (CEEW). Sasmita's work largely focuses on the intersection of developmental issues including the environment, health and livelihoods. At The Council, she is currently handling projects on access to energy for income generation, healthcare and cooking. In her research, she is keen to understand the nuances of socio-economic contexts that define access to, and use of, energy. Sasmita has six years of research experience in rural development, sustainability and social entrepreneurship. Sasmita holds an M.Sc. in Development Studies from School of Oriental and African Studies (SOAS) and a Post-Graduate Diploma in Rural Management from Xavier Institute of Management, Bhubaneswar (XIMB).



Selestino Babungi, Managing Director, UMEME Limited

Selestino Babungi is the Managing Director of Umeme Limited, a concessionaire for Uganda's electricity distribution system, with over 1.3 million customers. Umeme is a public company listed on the Uganda Securities Exchange and Nairobi Stock Exchange.

For the last 13 years, Selestino has served in different management roles and as Chief Financial Officer of Umeme Limited. He is a professional Accountant (FCCA/CPA (U)), previous having worked at Ernst & Young

Uganda.



Sitra Mulepo, Senior Engineer, Ministry of Health, Uganda

Sitra Mulepo is a Senior Engineer at the Ministry of Health (MoH) Uganda, Health Infrastructure Department. He has 23 years of work experience in Mechanical Engineering practice, Policy formulation, Solar Photovoltaic systems design, Medical Equipment specification, procurement and Maintenance Management.

At the MoH Uganda, he coordinated the Project for design, procurement, installation and commissioning of 36 solar photovoltaic (PV) mini-grid power systems in 36 rural health centres funded by United Nations Foundation/DFID (May 2016 to February 2019) and oversaw the design and installation of solar PV systems in 820 rural health centres under phase I & II of the Uganda Energy for Rural Transformation Project - Health Component (2000 to 2014) funded by the World Bank and Nordic Development Fund.



Talal Kanaan, Independent Consultant

Talal is an energy specialist focusing on the intersection of public service resilience and renewable energy, particularly for health systems. He advises a number of organizations on transitioning health systems to clean energy. Organizations include the WHO in the occupied Palestinian territories (Gaza Strip Operations), UNICEF Middle East Regional Office (Syria Cross-Border Operations), German Agency for International Cooperation, and the Union of Medical Care and Relief Organizations (UOSSM). Talal also previously held engineering and project management roles in the solar photovoltaic EPC sector for Commercial & Industrial applications in North America. Talal has a Master in Engineering from the University of Toronto focusing on energy systems, and a Bachelor of Engineering from the University of Nottingham.



Dr. Tedros Adhanom Ghebreyesus, Director-General, World Health Organization

Dr Tedros Adhanom Ghebreyesus was elected as WHO Director-General for a five-year term by WHO Member States at the Seventieth World Health Assembly in May 2017.

He is the first WHO Director-General to have been elected from multiple candidates by the World Health Assembly, and is the first person from the WHO African Region to serve as WHO's chief technical and administrative

officer.

Immediately after taking office on 1 July 2017 Dr Tedros outlined five key priorities for the Organization: universal health coverage; health emergencies; women's, children's and adolescents' health; health impacts of climate and environmental change; and a transformed WHO.

Prior to his election as WHO Director-General, Dr Tedros served as Ethiopia's Minister of Foreign Affairs from 2012-2016. In this role he led efforts to negotiate the Addis Ababa Action Agenda, in which 193 countries committed to the financing necessary to achieve the Sustainable Development Goals.

Dr Tedros served as Ethiopia's Minister of Health from 2005-2012, where he led a comprehensive reform of the country's health system. All roads lead to universal health coverage for Dr Tedros, and he has demonstrated what it takes to expand access to health care with limited resources.

Born in the city of Asmara, Eritrea, Dr Tedros holds a Doctorate of Philosophy (PhD) in Community Health from the University of Nottingham and a Master of Science (MSc) in Immunology of Infectious Diseases from the University of London. Dr Tedros is globally recognised as a health scholar, researcher, and diplomat with first-hand experience in research, operations, and leadership in emergency responses to epidemics.



Thomas Rieger, Director, Marketing and Sales, SOLARKIOSK

Thomas Rieger is leading SOLARKIOSK's solution and innovation departments, focused on commercializing SOLARKIOSK's innovative solar power integrated infrastructure solutions, researching and developing new ways to use our technology in order to address the manifold needs with adequate solutions in frontier market situations. Since 2018, Thomas has

been serving as an acting director of the board to GOGLA, the global association for the off-grid solar energy industry.

SOLARKIOSK was founded in 2012, focusing on enabling and empowering the sustainable economic development of Base-of-the-Pyramid (BoP) communities worldwide through the provision of clean energy services, quality solar powered products and sustainable solutions. Intertwining an award-winning technology solution with an inclusive business model, SOLARKIOSK fosters local entrepreneurship at the BoP. Since its inception, SOLARKIOSK has become one of East Africa's biggest solar empowered retail chain with over 200 solar powered outlets in last mile communities. Based on its solar powered turnkey infrastructure solutions, the company has implemented a total of 7 solar powered healthcare facilities in refugee camps in Jordan and Bangladesh among other projects.