



SOMALI RENEWABLE ENERGY

2016 FORUM

## FORUM PROGRAM

*February 20-23*

*Ambassador Hotel - Hargeisa, Somaliland*

*Developed and Presented By*





## DEAR SOMALI RENEWABLE ENERGY FORUM ATTENDEE:

On behalf of the SREF Steering Committee, Shuraako, and all of our partners, I extend a warm welcome to you. The Somali Renewable Energy Forum 2016 has been organized in response to requests by local energy providers, retailers, and technicians following the Somali Investment Forum in early 2015. Their vision was to bring together all stakeholders, local and international, to explore the future of renewable energy for all Somalis.

Investment in energy infrastructure is important since it serves as a basis for all productive and social activities. Energy is essential as it directly lifts the standard of living, increases productivity, enhances security, contributes to stability, and contributes to increased learning outcomes.

This is an exciting time for Somali energy, as investment is beginning to encourage consolidation and the possibilities to afford the adoption of state-of-the-art generation and distribution. To do so most effectively requires a convening of all stakeholders to share lessons learned, coordinate efforts, and commit to action. Together stakeholders can ensure a future of sustainable energy through introduction of advanced technology that will substitute for carbon and biomass fuels. Off-grid solutions can reach individual households and dramatically improve the welfare and security of rural and nomadic people.

The World Bank estimates that only 29% of Somalis have access to electricity, yet historically they have paid among the highest tariffs in the world, from \$0.80 to \$1.50 per kWh. *But this can change.* As much as 40% of generated electricity is estimated to be lost through inefficiencies from generation to distribution to consumption. *This too can change.*

During the recent World Economic Forum annual meeting in Davos, former UN Secretary-General Kofi Annan said that "Africa has the possibility of being the first continent to become a green continent". Due to the deficit in electricity, people are increasingly turning to the continent's abundance of renewables for results. Somalis enjoy among the highest potential for onshore wind power and daily solar radiation in Africa.

For the next four days we will collectively learn from each other, addressing topics related to governance, strategy, energy technology, finance and skilled workforce needs in the energy sector. We need to address cross cutting themes we all know exist such as: a severe shortage of qualified personnel to address demands, severe limits to generation and distribution keeping too many Somalis from reliable service, low penetration of modern energy technology, especially in rural areas, and a need to reverse the exploitation of fossil fuels in order to reduce the threat to the ecological resources.

Thank you for your support and contribution. We encourage you to learn from the presentations from industry experts, participate in the breakout sessions, and network with stakeholders.

Together we achieve more.



Sincerely,

Lee C. Sorensen

Director, Shuraako



## BACKGROUND:

Sustainable economic growth in Somaliland, Puntland and South Central depends on affordable and reliable access to electricity. Somalis pay some of the highest tariffs in the world for energy, crippling businesses and tightening household budgets; yet the country has among the highest potential of any African country for onshore wind power and one of the highest rates of daily solar radiation in the world.

The future of renewable energy in the Somali context requires action in governance, strategic planning, technology, finance, and workforce development. The tracks below intend to frame the conference:

FORUM TRACKS	TOPICS TO BE EXPLORED
GOVERNANCE	<ul style="list-style-type: none"><li>• <i>Enabling environment needs for the Somali energy sector</i></li><li>• <i>Private sector role in policy, regulation, safety, and pricing</i></li></ul>
STRATEGY	<ul style="list-style-type: none"><li>• <i>Running an effective business</i></li><li>• <i>Scaling energy production</i></li></ul>
ENERGY TECH	<ul style="list-style-type: none"><li>• <i>Advancements in technology solutions</i></li><li>• <i>Focus on specific types of renewable energy sources</i></li></ul>
FINANCE	<ul style="list-style-type: none"><li>• <i>Strategies and tools to strengthen investment opportunities</i></li><li>• <i>Investment products for energy infrastructure</i></li></ul>
WORKFORCE	<ul style="list-style-type: none"><li>• <i>Labor force demand (volume and skillset)</i></li><li>• <i>Solutions to provide quality education</i></li></ul>

Following the Forum, the website, [www.shuraako.org/forums/SREF](http://www.shuraako.org/forums/SREF), which includes our Renewable Energy Resource Database, will be updated with content and materials from this event, including two reports:

Powering Progress II: Realizing the Potential of Renewable Energy in Somalia, Puntland, and South Central Somalia  
Somali Renewable Energy Skilled Workforce Survey Report



## NETWORKING, NOTICES, & LOGISTICS:

We encourage you to take part in the diverse range of activities planned for the Somali Renewable Energy Forum (SREF) 2016 – from networking to the Trade Show to the specialist breakout sessions. This Forum is an excellent opportunity to make key business contacts and collaborate with sector stakeholders.

## NETWORKING OPPORTUNITIES

There are numerous opportunities to network during the SREF 2016 and we encourage you to take advantage of them. Lunches, refreshment breaks, and an evening reception offer the opportunity to meet new people, share ideas, and make new connections.

## TRADE SHOW

The Trade Show is a unique opportunity to learn more about businesses and organizations attending the Forum. Exhibitors will host booths to engage with other Forum participants, tell their story, and share what they offer. The Trade Show will take place on Saturday and Sunday in the Masala Hall.

## SOCIAL MEDIA

Use Twitter hashtags **#SREF2016** and **#REnergy4Somalis** to post your experiences, thoughts, and insights from the Forum.

## NOTICE AND CONSENT FOR AUDIOVISUAL RECORDING

During the course of the SREF 2016, all sessions will be audio and/or visually recorded. By attending the 2016 SREF 2016, you consent to being filmed, taped, photographed, and/or recorded for the purposes of record taking and generating subsequent reports and/or videos. The One Earth Future Foundation and Shuraako program reserve the right to use these materials at their discretion including the creation of forum related reports and/or videos.

## PRAYER

The Agenda for the Forum has accounted for prayer breaks. You may go to the Masjid if you wish to pray.

## BUSINESS CENTER

The Business Center is located in the lobby of the main building and is open daily between 7:00-23:00.

## SMOKING POLICY

Smoking is absolutely prohibited inside the hotel building. There are designated smoking areas outside.

## EMERGENCY CONTACTS FOR AMBASSADOR HOTEL

Primary Contact: Mr. Guled Harun: +252-634735293

Secondary Contact: Mr. Abdirisak Awad: +252-634790041

## EVALUATION FORMS

To continually improve our events **we request that you take a few minutes to complete your evaluation** and submit to a SREF staff member or volunteer (marked by yellow lanyards) at the end of the Closing Remarks plenary on Day 2, Sunday February 21. These evaluations will be handed out to you before the Closing Remarks plenary. Alternatively, surveys can be left in designated boxes located outside Mooge 1 & 2.



## AGENDA-AT-A-GLANCE:

### DAY 1: SATURDAY, FEBRUARY 20

6:30 - 8:30	Forum Registration and Breakfast (In front of Mooge 1, 2, 3)			
8:30 - 9:00	Welcome Remarks (Mooge 3)			
9:00 - 9:30	Keynote Address (Mooge 3)			
9:30 - 10:45	Plenary 1 - <i>The Future of Renewables in the Somali Context</i> (Mooge 3)			
10:45 - 11:00	Transition Break (In front of Mooge 1, 2, 3)			
11:00 - 12:15	Plenary 2 - <i>Somali Renewable Energy Projects</i> (Mooge 3)			
12:15 - 13:45	Networking Lunch sponsored by HECO/EEPCO (Alta Vista Hall, Cabin 1, Cabin 3)			
13:45 - 15:15	Breakout Sessions: #1 (4 Tracks)			
	<i>1a Strategic Track: Off-Grid Lighting &amp; Rural Electrification</i> (Mooge 1)	<i>1b EnergyTech Track: Wind Energy</i> (Mooge 2)	<i>1c Energy Tech Track: Energy Distribution</i> (Cabin 2)	<i>1d Finance Track: Financing Renewable Energy</i> (Mooge 3)
15:15 - 16:00	Transition Break sponsored by ALEL Power (In front of Mooge 1, 2, 3)			
16:00 - 17:00	Plenary 3 - <i>Renewable Energy Technology Advances &amp; Application Challenges</i> (Mooge 3)			
17:30 - 19:00	Evening Reception (Alta Vista Hall)			

### DAY 2: SUNDAY, FEBRUARY 21

7:30 - 8:30	Breakfast (Alta Vista Hall)			
8:30 - 8:45	Welcome Remarks by Somali Chambers (Mooge 3)			
8:45 - 10:00	Plenary 4 - International Support for Somali Renewable Energy (Mooge 3)			
10:00 - 10:15	Transition Break (In front of Mooge 1, 2, 3)			
10:15 - 10:45	Plenary 5 - Findings from the Somali Renewable Energy Skilled Workforce Survey (Mooge 3)			
10:45 - 11:00	Transition Break (In front of Mooge 1, 2, 3)			
11:00 - 12:15	Breakout Sessions: #2 (3 Tracks)			
	2a Skilled Workforce Track: Strengthening the Renewable Energy Skilled Workforce (Mooge 1)	2b Energy Tech Track: Solar Energy (Mooge 2)	2c Strategic Track: Effective Public/Private Partnerships (Cabin 2)	
12:15 - 13:45	Networking Lunch sponsored by HECO/EEPCO (Alta Vista Hall, Cabin 1, Cabin 3)			
13:45 - 15:15	Breakout Sessions: #3 (4 Tracks)			
	3a Skilled Workforce Track: Skills & Training (Enterprise-Level) (Mooge 1)	3b Strategic Track: Rural Energy Program Sustainability: Lessons Learned (Mooge 2)	3c Energy Tech Track: Grid Management & Innovations (Cabin 2)	3d Energy Tech Track: RE Applications in Agriculture & Fisheries (Mooge 3)
15:15 - 16:00	Transition Break sponsored by General Electric Co. (In front of Mooge 1, 2, 3)			
16:00 - 17:00	Plenary 6 - Closing Remarks: Next Steps (Mooge 3)			
17:00 - 18:30	Networking and Trade Show (Masala Hall)			

## AGENDA-AT-A-GLANCE, CONTINUED

### DAY 3: MONDAY, FEBRUARY 22

9:00 - 10:00	<b>Johnny Weiss Workshop: Deploying Microgrids &amp; EarthSpark Case Study</b> (Mooge 1)
10:00 - 10:15	<i>Transition Break</i> (In front of Mooge 1 & 2)
10:15-12:15	<b>HOMER Workshop: Using the HOMER® Pro Software</b> (Mooge 1)
12:15 - 13:15	<i>Networking Lunch</i> (Alta Vista Hall, Cabin 2)
13:15 - 14:45	<b>Universities Workshop: Responding to Laborforce Needs</b> (Mooge 2)
14:45 - 16:00	<i>Transition Break</i> (In front of Mooge 1 & 2)
16:00 - 17:00	<b>D-Lab Workshop: Assessing Energy Needs, Market Opportunities, and Distribution Models</b> (Mooge 2)

### DAY 4: TUESDAY, FEBRUARY 23

10:45 - 11:45	<b>Somalia GEEL Workshop: Renewable Energy for High Value Exports in Somalia</b> (Mooge 1)
12:00 - 13:00	<i>Networking Lunch</i> (Alta Vista Hall, Cabin 2)
13:00 - 15:00	<b>Somaliland Energy Association Working Session</b> (Mooge 1)
15:00 - 17:00	<b>World Bank Group Workshop: Public Private Dialogue</b> (Mooge 2)

## DETAILED AGENDA:

### DAY 1: SATURDAY, FEBRUARY 20

6:30 - 8:30	<b>Forum Registration and Breakfast</b> (In front of Mooge 1, 2, 3)
8:30 - 9:00	<b>Welcome Remarks</b> (Mooge 3) <b>Speakers:</b> Lee Sorensen, Director, Shuraako Hussein Abdi Dualeh, Somaliland Minister of Energy & Minerals Michael Opagi, Infrastructure Advisory Services, IFC
9:00 - 9:30	<b>Keynote Address</b> (Mooge 3) <b>Speaker:</b> Anders Pedersen, Energy Specialist, World Bank
9:30 - 10:45	<b>Plenary 1 - The Future of Renewables in the Somali Context</b> (Mooge 3) The future of renewable energy in the Somali context requires action in governance, strategic planning, technology, finance, and workforce development. This session will frame a number of priorities in each of these areas and set the stage for the rest of the forum. <b>Facilitators:</b> Abdikarim Gole, Field Manager, Shuraako Lee Sorensen, Director, Shuraako <b>Panelists:</b> Dr. Ahmed Hussein Esa, University President, Abaarso Tech University Mohamed A. Farah, Chairman, ALEL Power Mohamed Ali Mirreh, Founder, SomalPower Sidney Yankson, CEO, Ghana Capital Partners
10:45 - 11:00	<b>Transition Break</b> (In front of Mooge 1, 2, 3)
11:00 - 12:15	<b>Plenary 2 - Somali Renewable Energy Projects</b> (Mooge 3) Learn lessons from Somali renewable energy projects - their challenges, successes, and how they have overcome obstacles. This session will explore the role of the private sector in advancing the Somali energy sector. Attendees will glean recommendations for what they can do to support the sector. <b>Facilitator:</b> Hassan Ahmed Hussein (Bulbul), Executive Board Member, General Electric Company (GECO) <b>Panelists:</b> Abubakar Aidarus, Managing Director, Solargen Technologies Ltd Idiris Hamud Jibril, Vice Chairman, Aloog Energy Mohamoud Liban, Chairman and CEO, HECO/EEPCO Mohamed Sadiq Sheikh, Public Relations, BECO
12:15 - 13:45	<b>Networking Lunch sponsored by HECO/EEPCO</b> (Alta Vista Hall, Cabin 1, Cabin 3)
13:45 - 15:15	<b>Breakout Sessions: #1 (4 Tracks)</b> <b>1a. Strategic Track: Off-Grid Lighting &amp; Rural Electrification</b> (Mooge 1) Over 60% of Somalis live in rural areas. This session will explore how off-grid lighting, in particular solar energy, can close the gap between those with and without access to electricity. Installation of rural solar home systems and innovative financing mechanisms to ensure consumers can afford off-grid lighting will be explored. <b>Facilitator:</b> Samuel Muthamia, Project Manager, ADRA Somalia <b>Panelists:</b> Ali Ahmed Jama, Executive Director, Golis Solar Co. Dr. Peter Lilienthal, CEO, HOMER Energy Said Abib, General Manager, Horn Renewable Energy Company - Kaafi Solar <b>1b. Energy Tech Track: Wind Energy</b> (Mooge 2) Explore the benefits of wind energy for Somalis and how the industry can be advanced. Panelists will discuss past successes and future potential, and will explore a variety of wind-generated power topics such as installation, operations, maintenance, cost efficiencies, connectivity to grids, and quality standards. <b>Facilitator:</b> Anders Pedersen, Energy Specialist, World Bank <b>Panelists:</b> Idris Hamed Jibril, Vice Chairman, Aloog Energy Khadar Ibrahim Warsame, Business Development Manager, Beder Electricity Company Lawrence Mott, Principal Consultant, SgurrEnergy Inc. Max Arte, Renewable Energy Specialist, Max Power Company Mohamoud Ahmed Liban, Chairman and CEO, HECO/EEPCO

## DETAILED AGENDA, CONTINUED

### 1c. Energy Tech Track: Energy Distribution (Cabin 2)

This session will review current distribution networks and look at reducing electricity losses. This discussion will cover the differences between distributed generation and traditional grid development, as well as how energy can be more efficiently distributed in Somalia by learning from experiences in other contexts.

**Facilitator:** Hassan Ahmed Hussein (Bulbul), Executive Board Member, General Electric Company (GECO)

**Panelists:** Haid Yusuf, Engineer, Haidaman Engineering Consultants (HEC)  
Fardowsa M. Hajiabdi, Transmission Planning Supervisor, Georgia Power Company  
Mohamed Ali Mirreh, Founder, SomalPower  
Mohamed Sadiq Sheikh, Public Relations, BECO

### 1d. Finance Track: Financing Renewable Energy (Mooge 3)

Renewable energy requires capital-intensive investments. This session will examine hurdles investors face in financing Somali businesses, and what they are looking to invest in, while Somali energy companies will speak about their financing needs (start-up financing, working capital, consumer financing, etc). An interactive conversation will take place around best practices in financing energy projects and how Somali companies can best position their investment request.

**Facilitator:** Markus Scheuermaier, Senior Operations Officer, IFC

**Panelists:** Anders Hauch, Co-Founder and Investment Director, Frontier Investment Management  
Chad Larson, Co-Founder and Chief Credit Officer, M-KOPA  
Hodan Ali Hassan, Head of Business Development and International Relations, Dahabshil Bank  
Sayid Ali Abdi, General Manager, Golis Solar Co.  
Sidney Yankson, CEO, Ghana Capital Partners

15:15 - 16:00 *Transition Break sponsored by ALEL Power* (In front of Mooge 1, 2, 3)

### 16:00 - 17:00 Plenary 3 - Renewable Energy Technology Advances & Application Challenges (Mooge 3)

Over the last decade, renewable energy technologies have dramatically improved, resulting in increased energy generation capacity coupled with greater affordability. This session will explore the technological advances in areas such as storage, mixed grid management, and smart meters, how Somalis can leapfrog to better quality products, and requisite infrastructure for new technology adoption.

**Facilitator:** Lee Sorensen, Director, Shuraako

**Panelists:** Anders Pedersen, Energy Specialist, World Bank  
Lawrence Mott, Principal Consultant, SgurrEnergy Inc.  
Take Aanstoot, CEO, Modio AB  
Tony Woods, Renewable Energy Engineer, Engility

17:30 - 19:00 *Evening Reception* (Alta Vista Hall)

## DAY 2: SUNDAY, FEBRUARY 21

7:30 - 8:30 *Breakfast* (Alta Vista Hall)

### 8:30 - 8:45 Welcome Remarks by Somali Chambers (Mooge 3)

Abdirahman Abdillahi Galandi, Federal Chamber  
Fadumo Abdi Mohamed, Galmudug Chamber  
Hussein Mohamed Haji, South West Chamber  
Ibrahim Ismail Elmi, Somaliland Chamber  
Mohamed Mohamud Osman, Puntland Chamber  
Saleeban Abdishakur Adan, Jubaland Chamber

### 8:45 - 10:00 Plenary 4 - International Support for Somali Renewable Energy (Mooge 3)

We are witnessing a growth in initiatives to support the advancement of Somali renewable energy. Each international organization will describe how their program helps address sector challenges and opportunities.

**Facilitator:** Lee Sorensen, Director, Shuraako

**Panelists:** Alex Way, Policy & Programme Manager, DFID Somalia  
Anders Pedersen, Energy Specialist, World Bank  
Bob Mullen, Economic Infrastructure Adviser, Somalia GEEL  
Marc Sellies, Team Leader, ESRES  
Mohamed Abdinoor, Chief of Party, Somalia GEEL  
Samuel Muthamia, Project Manager, ADRA Somalia  
Stephen Gudz. Economic Growth Team Leader. USAID Somalia



## DETAILED AGENDA, CONTINUED

10:00 - 10:15	Transition Break (In front of Mooge 1, 2, 3)
10:15 - 10:45	<p><b>Plenary 5 - Findings from the Somali Renewable Energy Skilled Workforce Survey</b> (Mooge 3)</p> <p>Presentation on key findings from the Somali Renewable Energy Skilled Workforce Survey Report (copies available at Shuraako's Trade Show table). The report highlights skill gaps in the current workforce and makes recommendations.</p> <p><b>Panelists:</b> Erin Satterlee, Partner, Forcier Consulting Lee Sorensen, Director, Shuraako Saskia Westhof, Project Coordinator, Shuraako</p>
10:45 - 11:00	Transition Break (In front of Mooge 1, 2, 3)
11:00 - 12:15	<p><b>Breakout Sessions: #2 (3 Tracks)</b></p> <p><b>2a. Workforce Track: Strengthening the Renewable Energy Skilled Workforce (Sector-level)</b> (Mooge 1)</p> <p>This session will analyze the supply and demand of the Somali renewable energy workforce, including the number of workers, their skill set and training. Panelists will discuss the emerging job profiles, the roles of private sector and academia in training an upskilled workforce, and best practices from other markets.</p> <p><b>Facilitator:</b> Ivan Jackson, Dean of Engineering, Gollis University</p> <p><b>Panelists:</b> Mustafa Othman, Senior Manager, Shaqodoon Dr. Ahmed Hussein Esa, University President, Abaarso Tech University Haid Yusuf, Engineer, Haidaman Engineering Consultants (HEC) Johnny Weiss, Educator, Johnny Weiss Solar Consulting Dr. Peter Lilienthal, CEO, HOMER Energy Tony Woods, Renewable Energy Engineer, Engility</p> <p><b>2b. Energy Tech Track: Solar Energy</b> (Mooge 2)</p> <p>Explore the benefits of solar energy for Somalis. Panelists will discuss lessons learned from past projects, how solar can be deployed widely, policy mechanisms to encourage dissemination, quality standards of equipment, and new technologies.</p> <p><b>Facilitator:</b> Take Aanstoot, CEO, Modio AB</p> <p><b>Panelists:</b> Abdinasir Mohamed Barre, Chairman, Leading Energy Solutions Company (LESCO) Abubakar Aidarus, Managing Director, Solargen Technologies Ltd. Chad Larson, Co-Founder and Chief Credit Officer, M-KOPA Dusan Sirotko, Director, P.U.R.E., s.r.o. Samatar Omar Mohamoud, Deputy Director, SECCCO Sayid Ali Abdi, General Manager, Golis Solar Co.</p> <p><b>2c. Strategic Track: Effective Public-Private Partnerships</b> (Cabin 2)</p> <p>This session will discuss PPP fundamentals - from framework to regulation; and PPP financing - with a focus on private investment in the (renewable) energy sector.</p> <p><b>Facilitators:</b> Markus Scheuermaier, Senior Operations Officer, IFC Michael Opagi, Infrastructure Advisory Services, IFC/World Bank</p> <p><b>Panelists:</b> Marc Sellies, Team Leader, ESRES</p>
12:15 - 13:45	Networking Lunch <b>sponsored by HECO/EEPCO</b> (Alta Vista Hall, Cabin 1, Cabin 3)
13:45 - 15:15	<p><b>Breakout Sessions: #3 (4 Tracks)</b></p> <p><b>3a. Workforce Track: Skills and Training (Enterprise Level)</b> (Mooge 1)</p> <p>The Somali renewable energy sector requires a highly skilled workforce with a range of skills from electrical engineering to customer service. This session will address how companies can better train their employees to meet market demands, and will discuss different training models.</p> <p><b>Facilitator:</b> Dr. Ahmed Hussein Esa, University President, Abaarso Tech University</p> <p><b>Panelists:</b> Haid Yusuf, Engineer, Haidaman Engineering Consultants (HEC) Ivan Jackson, Dean of Engineering, Gollis University Johnny Weiss, Educator, Johnny Weiss Solar Consulting</p>

## DETAILED AGENDA, CONTINUED

### 3b. Strategic Track: Rural Energy Program Sustainability: Lessons Learned (Mooge 2)

Accelerating the introduction of modern energy is a key strategy for promoting sustainable development in rural areas - one of the most critical global challenges. The goal of this panel is to bring together experts providing energy solutions in rural areas and to analyze technological, economic and institutional barriers that have interfered with success. Lessons learned from selected renewable energy rural electrification programs will be presented.

**Facilitator:** Ewa Szajner, Director, Energy and Environmental Management at International Resources Group, Engility

**Panelists:** Anders Pedersen, Energy Specialist, World Bank  
Dan Waddle, Senior Vice President, Somalia GEEL  
Lawrence Mott, Principal Consultant, SgurrEnergy Inc.  
Marc Sellies, Team Leader, ESRES

### 3c. Energy Tech Track: Grid Management & Innovations (Cabin 2)

As the uptake of renewable energy grows, so does its impact on current electric power grids. This is especially important for the utilities that must deal sooner rather than later with the power quality problems created by renewables when managing hybrid systems. This session will look at asset management of microgrids (smart meters, data management, etc), grid control and automation, how to replace diesel generators with renewables, and how to maintain and manage hybrid grid systems.

**Facilitator:** Mohamed Ali Mirreh, Founder, SomalPower

**Panelists:** Dusan Sirotko, Director, P.U.R.E, s.r.o.  
Eng Mohamud Ali Farah, Chief of Technical Division, BECO  
Take Aanstoot, CEO, Modio AB  
Tony Woods, Renewable Energy Engineer, Engility

### 3d. Energy Tech Track: Renewable Energy Applications in Agriculture & Fisheries (Mooge 3)

The use of energy inputs in the agricultural and fisheries sectors helps to increase efficiency, yield and income. Increasingly, renewable energy solutions are being used to reduce manual labor or diesel inputs in irrigation and to increase the shelf life of fish products for export. The goal of this panel is to bring together stakeholders providing renewable energy solutions in agriculture and fisheries in order to explore effective solutions, business models and financing for this sector.

**Facilitator:** Marina Yakhnis, Senior Associate, Somalia GEEL

**Panelists:** Abubakar Aidarus, Managing Director, Solargen Technologies Ltd.  
Kinya Kimathi, Kenya Field Manager, FuturePump Ltd.  
Natalie Balck, Head of Projects & Partnerships, Sollatek Electronics Ltd  
Njeri Mbugua, Global Marketing Director, KickStart International  
Samatar Omar Mohamoud, Deputy Director, SECCCO  
Yusuf Adilahi Gulled, Country Director, Fair Fishing Somaliland

15:15 - 16:00 **Transition Break** sponsored by General Electric Co. (In front of Mooge 1, 2, 3)

16:00 - 17:00 **Plenary 6 - Closing Remarks: Next Steps** (Mooge 3)

**Speaker:** Lee Sorensen, Director, Shuraako

17:00 - 18:30 **Networking and Trade Show** (Masala Hall)

## DAY 3: MONDAY, FEBRUARY 22

9:00 - 10:00 **Johnny Weiss Workshop: Deploying Microgrids & EarthSpark Case Study** (Mooge 1)

Microgrids are changing the way rural electricity is produced, delivered and consumed. The first part of this session will explain system options and different scales of microgrids. The second part of the session will present a case study of the innovative EarthSpark microgrid in Haiti. Located in Les Anglais, this solar diesel hybrid microgrid provides power for 440 customers utilizing smart meters and a prepayment system. This session will focus on the lessons learned and best practices in developing and operating a successful community-based microgrid.

**Facilitator:** Johnny Weiss, Educator, Johnny Weiss Solar Consulting

10:00 - 10:15 **Transition Break** (In front of Mooge 1 & 2)

## DETAILED AGENDA, CONTINUED

10:15-12:15	<p><b>HOMER Workshop: Using the HOMER® Pro Software</b> (Mooge 1)</p> <p>This workshop will introduce the participants to the HOMER® Pro software, which has been used by over 140,000 energy planners and microgrid developers in 193 countries. The workshop will focus on system types that are most applicable to the Somali context, including small systems using solar, wind, and storage and larger systems designed to reduce diesel fuel consumption. Participants will come away with a better understanding of the potential for these types of systems, their costs, the data requirements for designing the systems and the issues that need to be addressed in order to develop and operate these power systems. Participants will also have learned the basics to start designing systems themselves with the HOMER Pro software.</p> <p><b>Facilitator:</b> Dr. Peter Lilienthal, CEO, HOMER Energy</p>
12:15 - 13:15	<i>Networking Lunch</i> (Alta Vista Hall, Cabin 1)
13:15 - 14:45	<p><b>Universities Workshop: Responding to Laborforce Needs</b> (Mooge 2)</p> <p><b>Facilitators:</b> Abdikarim Gole, Field Manager Somaliland, Shuraako Saskia Westhof, Project Coordinator, Shuraako</p>
14:45 - 16:00	<i>Transition Break</i> (In front of Mooge 1 & 2)
16:00 - 17:00	<p><b>D-Lab Workshop: Assessing Energy Needs, Market Opportunities, and Distribution Models</b> (Mooge 2)</p> <p>D-Lab's Off-Grid Energy Group works with community based organizations, NGOs, social enterprises, and corporations throughout Africa, Latin America, and South Asia to increase energy access in off-grid markets. This session will cover two related topics: 1) A discussion of the tools and strategies that D-Lab uses when working with local partners to identify energy needs and market opportunities in the communities they work. 2) A demonstration of D-Lab's interactive tool for helping organizations to select a suitable distribution strategy for their product(s) in a specific market.</p> <p><b>Facilitator:</b> Dr. Eric Verploegen, Off-Grid Energy Specialist, MIT D-Lab</p>

## DAY 4: TUESDAY, FEBRUARY 23

10:45 - 11:45	<p><b>Somalia GEEL Workshop: Renewable Energy for High Value Exports in Somalia</b> (Mooge 1)</p> <p>This workshop will explore best practices in identifying where in the value chain renewable energy may increase yields, shelf-life, and other metrics for agriculture, dairy and fisheries. Agricultural specialists will walk participants through examples of RE solutions for high value exports and will explain how the Somalia GEEL program will integrate these solutions.</p> <p><b>Facilitators:</b> Bob Mullen, Economic Infrastructure Adviser, Somalia GEEL Mohamed Abdinoor, Chief of Party, Somalia GEEL</p>
12:00 - 13:00	<i>Networking Lunch</i> (Alta Vista Hall, Cabin 1)
13:00 - 15:00	<p><b>Somaliland Energy Association Working Session</b> (Mooge 1)</p> <p><b>Facilitators:</b> Mohamed Hashi, Associate Field Manager South Central, Shuraako Sahra Hassan, Project Assistant Somaliland, Shuraako</p>
15:00 - 17:00	<p><b>World Bank Group Workshop: Public Private Dialogue</b> (Mooge 2)</p> <p><b>Facilitator:</b> Steve Utterwulghse, Senior Private Sector Development Specialist, Global Lead, PPD, World Bank</p>



## SPEAKER BIOS:



### **TAKE AANSTOOT, CEO, MODIO, AB**

Modio AB works at the intersection of software, hardware and energy, with staff in Kenya and Sweden. The firm develops software and hardware to monitor energy production and consumption. In Sweden, Modio AB monitors district heating and power consumption of residential buildings, and in Kenya it monitors power consumption from the grids and generators. For the last two years Mr. Aanstoot has been training electricians and maintenance staff in how to treat batteries, regulators and solar panels. Modio will release a new solar product for the off grid market in the coming months.

### **MOHAMED A. ABDI, FOUNDER/CEO, MARTELOS CONSULTING LTD**

Mohamed A. Abdi is the Founder and CEO of Martellos Consulting LTD., established in Mogadishu on October 21 2013. Mr. Abdi is a graduate of Political Science and Information Technology. For the past 15 years, Mr. Abdi has worked in the real estate industry and business consulting, and has advised companies like BECO Power.



### **SAYID ALI ABDI, GENERAL MANAGER, GOLIS ENERGY COMPANY**

Sayid Ali Abdi is a Renewable Energy Specialist who has worked in the renewable energy sector for the past 13 years. Mr. Abdi has installed hundreds of solar and wind turbines sites in the Somali region, and was one of the first renewable energy activists in Somaliland during 2002 who is still active in the sector. As a General Manager of Golis Energy, Mr. Abdi manages renewable energy projects in the Somaliland region.

Mr. Abdi is currently studying Renewable Energy Programs at Atlantic International University and has completed electric, solar, and wind energy trainings hosted by USAID, ADRA, Hovoyoco and Alpha University, in 2000, 2002, 2003 and 2004, respectively. He also studied ACCA Public Financial Management at Forte Hare University in Pretoria South Africa.



### **MOHAMED ABDINOOR, CHIEF OF PARTY, SOMALIA GEEL**

Mohamed Abdinoor is Team Leader of the Pastoralists and Livestock Programs at USAID and a Chief of Party for the Somalia GEEL project. As a Team Leader of USAID Ethiopia's Pastoralists and Livestock Programs, Mr. Abdinoor's key responsibilities include the design and implementation of projects, technical and managerial oversight of project, and co-ordination with Government of Ethiopia. Prior to joining USAID, Mr. Abdinoor worked as a Program Manager for Save the Children and a Field Officer for the World Food Program. Mr. Abdinoor holds a MA in Development Studies from the University of East Anglia and a Bachelor of Environmental Studies from Kenyatta University.



### **ABUBAKAR AIDARUS, MANAGING DIRECTOR, SOLARGEN TECHNOLOGIES LIMITED**

Abubakar Aidarus is an engineer and entrepreneur with more than 10 years of work experience in Engineering, ICT, Banking and NGOs in Eastern Africa.

As the Managing Director and Founder of Solargen Technologies Ltd. Mr. Abubakar has overseen the growth of the company from a start up to a vibrant business. In only five years Solargen has expanded into two markets; Somalia & Kenya. Mr. Abubakar is also a founding member and director of NT Security Systems Ltd, a security company that delivers integrated security systems throughout Somalia. Previously, Mr. Abubakar worked for the Global Enrichment Foundation of Canada, an international Non-Governmental Organization. He also worked for Equity Bank Limited of Kenya.

Mr. Abubakar holds a BSc degree in Electrical and Electronic Engineering from the University of Nairobi. He holds a number of certificates in Management including one from Key Executive Program of Harvard Business School. He is a registered member of the Engineering Registration Board (ERB) of Kenya and holds a T3 license from Energy Regulatory Commission (ERC) in Kenya which allows him to carry out installation, testing, inspection and commissioning of advanced Solar PV Systems Work including Grid Connected and Hybrid Solar PV Systems.

**MAX ARTE, ENERGY CONSULTANT, MAX POWER COMPANY**

Max Arte is a Senior Electrical Engineer with over 25 years in electrical engineering design and installation. He has vast experience working in regions around the globe.

Mr. Arte specializes in renewables, smart grid systems, applications design in power generation, transmission, distribution and efficiency management. He has extensive experience in large and small scale community technical/ engineering projects involving construction of isolated and grid-tied power plants. Mr. Arte has conducted engineering feasibility studies and has trained other engineers on sustainable project management.



**NATALIE BALCK, HEAD OF PROJECTS AND PARTNERSHIPS, SOLLATEK ELECTRONICS KENYA LTD**

Natalie Balck was educated in the States and England holding a BA in Psychology and MA in International Development. She has worked in Washington DC, England and Kenya in marketing, campaigns and with NGOs. For the last five years, she has been working with Sollatek Electronics Kenya Ltd, developing their region wide marketing strategy, fundraising and solar project implementation. She successfully managed the USADF Power Africa Solar Run Freezers for Fisherman project as well as assisted with the ESME off-grid lighting Solar Market Creation project. Ms. Balck is also successfully turning the Sollatek brand into a household name for both solar energy and power control.



**AHMED H. ESA, UNIVERSITY PRESIDENT, ABAARSO TECH UNIVERSITY**

Dr. Esa is the founder and Director of the Institute for Practical Research and Training (IPRT) and currently leads several nonprofit organizations. IPRT is a non-governmental organization that promotes local initiatives in health, education and good governance in the Horn of Africa. Dr. Esa is the President of Abaarso Tech University in Hargeisa, a Fellow of the Rift Valley Institute, and a Professor of Immunology and Molecular Biology at Abaarso Tech University. Between 1992 and 1995, Dr. Esa was Head of Flow Cytometry at the Immunology Department of the Pasteur Institute in Paris. From 1987-1992, Dr. Esa was an Assistant Professor at the John Hopkins School of Medicine, Department of Oncology with adjunct appointments at the Departments of Immunology and Infectious Diseases and Environmental Health Sciences of the Johns Hopkins School of Hygiene and Public Health. From 1992 to 2001, Dr. Esa was a member of the International Advisory Board for the Arms Division of Human Rights Watch in New York.

Dr. Esa received his PhD from the Johns Hopkins University School. He is the author of 4 Science textbooks for use in universities and teaching institutions in the Somali region. Dr. Esa speaks Somali, English, French and Arabic.



**MOHAMED ABDIRAHMAN FARAH, CHAIRMAN, ALEL POWER CO.**

Mohamed Abdirahman Farah is the Chairman of Alel Power Company. Mr. Farah acted as Director for a number of companies in the UK and the Middle East before moving to Somaliland, where he worked as a CEO and later Chairman for electricity companies such as Afgal Power, which later became part of Alel Power. Mr. Farah played a role in the creation of Alel, unifying nine electricity companies. Prior to Alel, Mr. Farah worked for the London Borough Council of Lambeth as a finance professional. He received a B.Sc from SIDAM in 1989 and a MBA from University of East London in 1995. He has extensive knowledge of the electricity sector in Somaliland.



**ABDIKARIM GOLE, FIELD MANAGER, SHURAAKO**

Abdikarim Gole received a Master of Science degree in agricultural, environmental, and development economics from Ohio State University, where he wrote his thesis on agricultural development and management in Somalia. Abdikarim also has a Master of Science degree from Alexandria University in Alexandria, Egypt, where his thesis examined international agricultural trade in Somalia. He holds a Bachelor of Science (agricultural economics) degree from Alexandria University. Prior to joining OEF, Abdikarim taught Somali language and culture courses at Ohio State University. He also spent five years working for the Economic and Community Development Institute (ECDI), a non-profit organization and Small Business Administration intermediary micro lender in Columbus, Ohio. At ECDI, Abdikarim served as a small business developer and provided technical assistance, performed in-depth credit analyses on borrower's, and analyzed overall loan portfolio quality. He was awarded President Barack Obama's Volunteer Service Award in June 2011 in recognition of his commitment to community service. He is fluent in Somali, Arabic and English.





**STEPHEN GUDZ, ECONOMIC GROWTH TEAM LEADER, USAID, SOMALIA**

Stephen Gudz joined USAID/Somalia in July, 2015, to start the new Economic Growth Team. Previously, he worked for USAID in East Africa to support agricultural trade and regional economic integration and in Afghanistan to support agricultural development. He joined USAID in 2011 with a diverse background in agricultural, financial service, and private sector development. He lived for 12 years in Mozambique, including serving as National Director for CLUSA/Mozambique from 2007 to 2011 managing 9 projects with outreach to approximately 90,000 farmers. Before that assignment, he was the managing partner of a business services firm that engaged in assignments for donor organizations, international NGOs, local organizations, and private enterprises. He grew up in New Jersey and worked on local farms while completing a BA in Agricultural Economics at Rutgers University and MS in Agricultural Economics from Cornell University.

**FARDOWSA HAJIABDI, TRANSMISSION PLANNING SUPERVISOR, GEORGIA POWER COMPANY**

Fardowsa Hajiabdi is a Supervisor for the Transmission Planning organization since June of 2014. She is responsible for providing technical leadership for a group of engineers who conduct transmission planning studies on the Georgia Integrated Transmission System (ITS) and create expansion plans to reliably and economically serve 2.4 million customers and integrate new generation resources. Ms. Hajiabdi began her career at Georgia Power Company in 2007 in the Protection & Control Application organization where she gained experience in working with transmission protective relaying, transmission protective relaying practices and transmission system operations. She has also worked in the Transmission Planning and Protection and Control Field services groups. Before coming to Georgia Power, she worked for Consumers Energy as a System Protection engineer. Ms. Hajiabdi is a native of Somalia. She graduated from Michigan State University in 2005 with a BS in Electrical Engineering.



**HAID YUSSUF HASSAN, ENGINEER, HAIDAMAN ENGINEERING CONSULTANTS (HEC)**

Haid Yussuf Hassan is an electrical engineer with 30 years' of professional experience. He graduated from the Middle East Technical University in Ankara, Turkey. Mr. Hassan joined Kenya Power when they had 300,000 customers and left when the company had 4 million customers. He was heavily involved in the rural electrification when the vast majority was connected to the national grid. While in the company's management Mr. Hassan was in charge of diverse regions over a period of time. Kenya Power's regions are run as business units and with over 1000 staff, to deliver quality electricity at affordable prices was an everyday challenge.

Mr. Hassan trained on high potential leadership skills in Harvard Business School. He also trained with Manitoba Hydro Utility Company Winnipeg, the largest utility in Canada. He is a registered and licensed member of the Engineer's Registration Board of Kenya and has vast experience in rural electricity and ensuring a well-run and well managed utility that is also socially responsible. Mr. Hassan recently resigned from Kenya Power to pursue his love for renewable in energy in Somaliland. Currently, he is based in Hargeisa as a freelance consultant and also consults for the largest utility in Hargeisa. Mr. Hassan is very passionate about ensuring the abundance of renewable energy in Somaliland is harnessed in order to fully ensure power for the masses.



**SAHRA HASSAN, FIELD ASSISTANT, SHURAAKO**

Sahra Hassan has over 10 years of experience working in the private and public sectors, especially in the areas of grant management, business development, and business start-up in the UK and Somaliland. Ms. Hassan is an entrepreneur with main areas of professional interest in business development. Prior to joining Shuraako, she worked on private development projects in Somaliland such as the Somaliland Business Fund and Household/Enterprise Surveys by World Bank. She studied in the UK gaining a Bachelor degree in Business Administration and Postgraduate Diploma in Management & Leadership from SOAS.



**MOHAMED ABDI HASHI, ASSOCIATE FIELD MANAGER, SHURAAKO**

Mohamed Abdi Hashi is an Associate Field Manager with Shuraako. He has extensive experience working in administration, finance, and investment. Prior to joining Shuraako, Mr. Hashi worked with organizations around Mogadishu including Mogadishu University and UNDP. He is a graduate of Mogadishu University.



**ANDERS HAUCH, CO-FOUNDER, PARTNER, INVESTMENT DIRECTOR, FRONTIER INVESTMENT MANAGEMENT**

Anders Hauch is Co-Founder, Partner and Investment Director of Frontier Investment Management, a private equity management firm founded in 2011, where it raised 60m EUR from public and private investors a.o. the CDC Group of the UK Government, to invest in greenfield renewable energy in Sub-Saharan Africa. With offices in Nairobi and Copenhagen the firm has developed, financed and are now constructing hydro power projects in Uganda and geothermal power in Kenya. The firm is developing additional hydro and geothermal, as well as wind and solar, projects in East Africa. Mr. Hauch has been involved in Business in Africa for 14 years and has a Masters in International Business from Copenhagen Business School.



**IVAN JACKSON, ENGINEERING CONSULTANT, GOLLIS UNIVERSITY HARGEISA**

Ivan Jackson is an Electrical and Electronic Engineer, who has been working at Gollis University, Hargeisa for the past six years. During this time, he has worked with the university to develop their engineering and technical teaching facilities. He teaches both business and technical courses on the Master of Engineering Management degree, and is a member of the Gollis University Renewable Energy Institute management committee.

Before coming to Somaliland, Mr. Jackson worked in energy and telecommunications in the United Kingdom and Europe for over thirty years. This included working in both public and private sector organizations. Past experience has included engineering consultancy, working in a national grid control center, business start-up, and a number of renewable energy projects.

**IDIRIS HAMUD JIBRIL, CEO, ALOOG ENERGY**

Idiris Hamud Jibril is an entrepreneur who is one the main founders of Aloog Electricity Company and has a strong business administration and leadership of more than 11 years with management experience in different fields of Business and commerce. As the CEO he is responsible for the development and overall management of the company and leading the company to be successful in this challenging environment. As the current CEO of the largest energy company in Awdal region, Mr. Hamud has experience in designing and implementing renewable energy projects both wind and solar. He is also a respected business man and the founder of many business ventures such as Aloog Electricity and Elo University. Furthermore, Mr. Hamud has successfully managed companies such as Africa on line Telecom and Company and Tawakel Express.



**KINYA KIMATHI, MARKETING MANAGER, FUTUREPUMP LTD.**

Kinya Kimathi is a mechanical engineer by training and works in Kenya's geothermal energy industry. She has experience piloting projects for renewable energy startups. Ms. Kithami has a special interest in technology, poverty alleviation and the environment.



**CHAD LARSON, CO-FOUNDER AND CHIEF CREDIT OFFICER, M-KOPA**

Chad Larson is a co-founder of M-KOPA, and serves as the company's Finance Director and Chief Credit Officer. He has worked for M-KOPA since its piloting in 2010, and has lived in Nairobi with his wife and three boys since the company launch in 2011. Mr. Larson previously served as the CFO of the Africap Microfinance Investment Fund, based in Johannesburg. Prior to that, he spent 10 years in the investment banking division of Bank of America in Sydney and New York, working on fixed income, structured finance, and derivative transactions. He is a CFA charterholder and holds an MBA with distinction from Oxford University.



### **MOHAMOUD AHMED LIBAN, CHAIRMAN AND CEO, EEPKO AND HECO**

Mohamoud Ahmed Liban was trained as Mechanical Engineer in Mogadishu in 1983, continuing his career in the UK at Thames Polytechnic in London from 1990-1992. Following the footsteps of his family, Mr. Liban transitioned into a career in business and worked in financial institutions as a Director in the UK money transfer sector for many years before joining the Somaliland Electricity sector in 2009.

In 2010, Mr. Liban was elected as the chairman of Kaah Utility Co. in Burao, Somaliland. In 2011 he and another partner established another IPP in Erigavo (EEPKO). During 2010 – 2014, he worked hard to unite the hardly competing IPP companies in Burao and established HECO in Burao. In 2015, Mr. Liban became the Project Manager of 1 MW solar project at Heco, Burao after the board decided to invest in renewable energy sector. The project has since been successfully installed. In November 2015, Mr. Liban and partners established the Somaliland Electricity Association (SEA) and he was elected to be a chairman. Mr. Liban enjoys working in the energy sector as an engineer and as a business man.



### **PETER LILIENTHAL, CEO, HOMER ENERGY**

Dr. Peter Lilienthal is the CEO of HOMER Energy. Since 1993, he has been the developer of the National Renewable Energy Laboratory's HOMER® hybrid power optimization software, which has been used by over 140,000 energy practitioners in 193 countries. NREL has licensed HOMER Energy to be the sole world-wide commercialization licensee to distribute and enhance the HOMER model.

Dr. Lilienthal was the Senior Economist with International Programs at NREL from 1990 – 2007. He was the lead analyst and one of the creators of NREL's Village Power Programs. He has a Ph.D. in Management Science and Engineering from Stanford University. He has been active in the field of renewable energy and energy efficiency since 1978. This has included designing and teaching courses at the university level, project development of independent power projects, and consulting to industry and regulators. His expertise is in the economic and financial analysis of renewable and micro-grid projects.



### **NJERI MBUGUA, GLOBAL MARKETING MANAGER, KICKSTART INTERNATIONAL**

A Chartered Marketer by profession, Njeri Mbugua is passionate about creating change through innovation, especially for poor rural farming communities. She joined KickStart International, a social enterprise that delivers irrigation solutions to help small scale farmers lift themselves out of poverty. Seeing change happen inspires her to make an impact.

### **MOHAMED ALI MIRREH, CONSULTANT, SOMALPOWER**

Mohamed A. Mirreh has more than 30 years of professional experience in electrical engineering and has worked in diversified transmission/distribution of 11kV-400kV AC and 400 - 800kV HVDC (DC technology) projects. Mr. Mirreh is employed by one of the most prestigious power companies in Sweden.

Mr. Mirreh's key qualifications include conducting feasibility studies and planning HV projects, field supervision for erection works of HV substations, OHL and cables, PV plants and wind farms. He has extensive experience dimensioning electrical equipment, cables, batteries, solar plants, UPS, and various methods for calculations related in electrical systems. During his many years working in this field, Mr. Mirreh has executed various challenging projects from the tendering stage through the commissioning stage. These projects were implemented in different countries in the Middle East, Africa, Europe and Asia. As the founder of SomalPower, Mr. Mirreh was a consultant in Somalia/Somaliland's first solar plant in Las anod which was commissioned in June 2015. Currently, Mr. Mirreh is a consultant for HECO's (Burao) 1MW solar plant which is planned to be commissioned early this year.



### **SAMATAR OMAR MOHAMOUD, DEPUTY DIRECTOR, SOLAR ENERGY CONSULTING COMPANY**

Eng. Samatar Omar Mohamoud is one of the founders for Solar Energy Consulting Company (Seccco), a company that delivers solar and other renewable energy services in Somalia. Currently, he is Deputy Director of Seccco and is the Quality Control Director in the Ministry of Public Works, Housing and Transport in Puntland. Eng. Mohamoud has worked as a technical supervisor for international organizations including UNICEF, CARE International and Mercy Corps. He has completed solar training courses and has been involved in the implementation of many solar projects throughout Somalia. He has a civil engineering degree from the University of Engineering and Technology in Lahore Pakistan and two certificates in water supply systems and solid waste management from Hydroid Water Management Institute in Turin, Italy.





**LAWRENCE H. MOTT, PRINCIPAL CONSULTANT/DIRECTOR, SGURRENERGY INC.**

Lawrence H. Mott has been in the renewable energy industry over thirty years; currently as Principal Consultant/Director at SgurrEnergy Inc. Americas office based in Portland, Maine USA, focusing on program management, diligence and engineering solutions worldwide. Previous roles include; Principal/Partner of New Generation Partners L3C a renewable energy project developer focused on solar PV, Senior Projects Manager for US based wind developer First Wind where he managed the implementation of over 200MW's of utility scale wind, and Technical Director at Northern Power Systems; a wind turbine and power systems manufacturer and integrator. Mr. Mott is a past board member of the American Wind Energy Association, and Chairman of Renewable Energy Vermont and renewable trade association for seven years, he has been active in technology development, project development and leading energy policy including feed in tariffs, net metering, and tax credits.

He has decades of experience in renewable hybrid systems and is the recipient of the Wind Power America Initiative - "Wind-Diesel Pioneer Award". He holds degrees in Engineering and Business from University of Vermont.

**ROBERT MULLEN, ECONOMIC INFRASTRUCTURE ADVISER, SOMALIA GEEL PROJECT**

Bob Mullen is the Economic Infrastructure Adviser for the Somalia GEEL project. Prior to joining GEEL, Mr. Mullen was the Chief of Party at Cultivating New Frontiers in Agriculture (CNFA), an international development organization specializing in designing sustainable, market-led agricultural initiatives. Mr. Mullen has also worked as an Agricultural Advisor for the United States Department of Agriculture and served as a Major in the US Army. Mr. Mullen holds a Bachelor of Science (B.S.) from Texas A&M University.



**SAMUEL MUTHAMIA, PROJECT MANAGER, ADVENTIST DEVELOPMENT AND RELIEF AGENCY**

Samuel Muthamia holds a Master's Degree in Development Communication from the University of Nairobi, Kenya and a Master's Degree in International Cooperation and Humanitarian Aid from the Humanitarian Aid Studies Centre, Spain. Mr. Muthamia also holds qualifications in financial and economic analysis of renewable energy projects (Willis College, Canada). He is a Project Manager and Renewable Energy Specialist with ADRA Somalia, where he has been involved in implementing several renewable energy programs. He has also assisted in the writing of several research papers and publications and co-authored and co-edited a number of renewable reports and articles on rural and renewable energy in Africa.

**MICHAEL OPAGI, EAST AFRICA LEAD, INFRASTRUCTURE ADVISORY SERVICES, IFC**

Michael Opagi leads the IFC PPP Advisory Services team in Eastern Africa, and has been involved in energy, ports, telecommunications, airport and tourism mandates since joining IFC in 2007. Before joining IFC, Mr. Opagi led the privatization and utility sector reform program under the Government of Uganda's Ministry of Finance, in which he coordinated preparation and implementation of the Government's Reform and Divestiture program that concluded over fifty transactions across manufacturing, tourism & hospitality, agriculture & livestock, trade & oil distribution, energy, transport, banking and insurance sectors. He also previously worked in the ICT industry in Uganda and also with the Makerere University's Institute of Computer Science. He holds an MBA from Wolverhampton University, a post graduate diploma in Computer Science & Bachelor of Statistics degree from Makerere University, Kampala. Michael also attended the PPP Senior training program, and the Infrastructure in the Market Economy programs at KSG Harvard University.



**ANDERS PEDERSEN, ENERGY SPECIALIST, WORLD BANK**

Anders Pedersen has extensive experience working in Africa as an Energy Specialist with the World Bank. Mr. Pedersen is an economist with a background in management consulting, banking, and public sector administration. He has worked with the World Bank, United Nations and bilateral development aid organizations; his specialties include renewable energy, utility reform, project management, private sector development, telecom, capacity building and public sector restructuring. Mr. Pedersen's work is primarily focused in Europe and Africa, with projects in the UK, Norway, Sweden, Denmark, Estonia, Germany, Eritrea, Uganda, Tanzania, Mozambique, Kenya, Indonesia, Rwanda, Malawi, Ethiopia and Somalia. He received a Master's in Economics and Business Administration from Copenhagen Business School.



### **ERIN SATTERLEE, PARTNER, FORCIER CONSULTING**

Mr. Erin Satterlee is Partner at Forcier Consulting, a multinational research and consulting firm with offices in Egypt, South Sudan, Sudan, Somalia, Kenya, the Democratic Republic of the Congo, and the United States. Mr. Satterlee founded Forcier Consulting, Somalia in 2013 and has led the firm's local team, comprised of 50+ full-time staff of which more than 40 are Somali nationals, on over 85 in-country projects and research activities. Clients include USAID, DfID, the Norwegian Embassy, Gallup, UNDP, Unicef, UNHCR, UNESCO, ILO, M&C Saatchi, the United States Broadcasting Board of Governors, TNS, BBC, DAI and Social Impact, amongst others. Prior to joining Forcier, Mr. Satterlee worked with the Belgian Development Agency on the Kasese District Poverty Reduction Programme (Uganda), and led the creation of more than 300 micro-credit associations throughout western Uganda on behalf of the Bill & Melinda Gates Foundation. Mr. Satterlee is the ESOMAR Worldwide Market Research Representative for Somalia, and a member of the American Evaluation Association. He holds an MBA from Youngstown State University and is conversational in Arabic.



### **MARKUS SCHEUERMAIER, SENIOR OPERATIONS OFFICER, IFC**

Markus Scheuermaier is a Senior Operations Officer with IFC's Advisory Services in Johannesburg, focusing on public-private partnerships in conflict-affected African countries. He has been working on several renewable energy projects for IFC, and on investment issues in Africa since the 1990s, for the Economist Intelligence Unit, as well as for Brait, a South African private equity fund. He holds degrees in economics, finance and management from Harvard University, the University of Oxford, and the Institut d'études politiques de Paris.



### **MARC SELLIES, SECRETARIAT TEAM LEADER, ESRES**

Marc Sellies' 35-year career in the power and engineering sectors has generated real reforms in conflict, post-conflict, and post-disaster areas such as Haiti, Afghanistan, and Iraq through the intersection of technology, management, strategy, and policy. He is an experienced international development professional who specializes in advising government ministries and utilities on power sector improvements, utility management, rehabilitation and expansion of electricity infrastructure, and off-grid electrification, including utility performance improvements, loss reduction, and change management. As a consultant, he has extensive experience communicating with Presidential Offices, Energy Ministers, utility CEOs and Directors, identifying win-win solutions to problems in difficult political environments. An engineer by training, he has managed the rehabilitation and construction of power generation and transmission projects, including large, small, and off-grid renewable power and hydropower projects.

Mr. Sellies is a seasoned project leader with a proven ability to manage multi-disciplinary teams of employees and subcontractors from diverse countries and cultural backgrounds. He has built relationships with high-level stakeholders including the President of Haiti, the Deputy Energy and Water Minister of Afghanistan, and utility CEOs and board members. Throughout most of his international development career, Mr. Sellies has worked in complex political climates rife with ethnic tensions and cultural intricacies.

### **MOHAMED SADIQ SHEIKH, HEAD OF PUBLIC RELATIONS, BECO**

Mohamed Sadiq Sheikh has a degree of Bachelor of Science in Business Administration and Economics from Stockholm University in Sweden. Mr. Sadiq Sheikh has worked in Somalia as a SIDA funded volunteer worker where his primary task was organizational development.

Mr. Sadiq Sheikh has also worked with UNDP on the Quest project. He is the Head of the Public Relations office for Beco and the General Manager of IJAABO WATER in Mogadishu.



**ENG. DUŠAN SIROTKA, DIRECTOR, P.U.R.E., S.R.O.**

Currently, Eng. Sirotko is the owner of P.U.R.E., s.r.o. (go-pure.eu), company whose aim is to provide innovative customized solutions to customers all around the world. Eng. Dušan Sirotko was born in Bratislava, Slovak Republic. He graduated from Electro Technical Faculty in Bratislava in 1992 with degree in microelectronics. He has earned practical certificates with KACO new Energy, SMA, and Fronius. Eng Sirotko has been focusing on renewable energy since 2009 when EU legislation supporting renewable energy first came into effect. He works primarily with heat pumps, solar systems for domestic hot water and photovoltaic power plants.

In cooperation with VONSCH, the Slovak manufacturer of photovoltaic technologies, P.U.R.E is developing better systems, in order to more effectively produce electricity and to offer investors innovative applications. Thanks to this fruitful cooperation, the company has developed more than 20 patents, all in fields of photovoltaics technologies. In 2012, Eng Sirotko became the Renewable Energy Advisor to the Slovak government. As an example of his achievements; in cooperation with Slovak republic, P.U.R.E has developed a 300 mil. EUR package from the EU to Slovakia, aiming to provide subsidies to renewable energy sources. In years 2016 – 2020 P.U.R.E will be focusing on diesel hybrid systems, which are strongly beneficial for the environment and for the investor.



**LEE SORENSEN, DIRECTOR, SHURAAKO**

Lee C. Sorensen is the director of Shuraako, a project of the One Earth Future foundation. Mr. Sorensen is an entrepreneur with 25-plus years' executive business experience creating and owning healthcare, mental health, and education companies. He combined his business background with peace building by completing a Master's Degree in Peace and Justice Studies from the University of San Diego (USD) Joan B. Kroc School of Peace Studies, with a focus on development, human security, poverty elevation, and structural inequality leading to conflict, particularly unequal distribution of resources. His development projects include access to credit, financial services sector governance, child and maternal health, and education through many parts of Africa, including Somalia, Tanzania, Ghana, Democratic Republic of Congo, Sierra Leone, Nigeria, Kenya, and Zimbabwe. Mr. Sorensen serves on multiple advisory boards including, RAND's African First Ladies Initiative; the Joan B. Kroc School of Peace Studies; the USD Center for Peace and Commerce; and the USD Institute for Peace and Justice Women Peacemakers Program. Prior to OEF, Mr. Sorensen was US Director of Outreach at the Institute for Economics and Peace. He is a passionate explorer of the relationship between peace, business, governance, and human wellbeing.



**EWA SZAJNER, DIRECTOR, PROGRAMS AND SUSTAINABILITY, IRG, AN ENGILITY COMPANY**

Engility-IRG's Director of Programs and Sustainability Ewa Szajner brings more than 30 years of experience managing and implementing complex programs in power distribution reform, energy efficiency (EE), renewable energy (RE), district heating, market analysis, and energy utilities. She manages USAID Somalia Growth, Enterprise, Employment & Livelihoods (GEEL) Project and provides technical expertise to RE component. Her background includes senior positions: Division Director for Engility-IRG's Energy and Environmental Management (EEM) division and Vice-President of Management Consulting of a global engineering and consulting firm – Pöyry (Finland). As EEM Director, Ms. Szajner oversaw all energy and environmental management projects. Prior to serving as Director, Ms. Szajner served as Engility-IRG's Senior Project Manager, managing and advising three USAID-funded projects including the Pakistan Power Distribution Program, the Pakistan Energy Efficiency and Capacity Project, and the Ukraine Municipal Energy Reform Project.

Ms. Szajner has also worked as a Program Manager, Energy Efficiency and Renewable Energy Expert for USAID, World Bank, EBRD and EU- funded projects and various private companies throughout Europe and Asia. She combines private sector experience with technical leadership in the field. She led a number of projects EE assessments, RE projects and complex market studies in China and in European countries.



**STEVE UTTERWULGHE, SENIOR PRIVATE SECTOR DEVELOPMENT SPECIALIST, WORLD BANK GROUP**

Steve Utterwulghé is a Senior Private Sector Development Specialist with the Trade and Competitiveness Global Practice of the World Bank Group. He serves as the WBG Global Lead for Public-Private Dialogue (PPD). He advises governments and the private sector in Asia, Africa, Central Asia, the Middle East and Latin America, on designing and implementing structured and participatory engagement mechanisms that ensure more inclusive and sustainable policy reforms, at the national, sub-national (growth poles, development corridors, clusters) and sectoral level (agribusiness, tourism, extractives).

Over the last 20 years, Mr. Utterwulghé has also developed a global expertise in the field of fragility and conflict (FCS). He has lived and worked in war-torn countries such as Angola and Sudan, designed and led programs in most FCS across the globe, including Yemen, Myanmar, Somalia, Pakistan, Colombia, Afghanistan, Nepal, DRC, Haiti, etc. He worked at the United Nations in Geneva (ITC/UNCTAD) and in Sudan for the UN Deputy Special Representative of the Secretary-General; at the European Commission in Brussels (DEVCO); and as Vice-President of International Development at Search for Common Ground. He was also an Advisor to the Australian Government's Agency for International Development. Mr. Utterwulghé's work has been published extensively. He holds an MSc from the London School of Economics, a joint MA from Tilburg University (the Netherlands) and the Université Catholique de Louvain (Belgium), and is a Graduate Certificate from Cambridge University. He has lived in 8 countries and speaks French, English and Portuguese fluently.



**ERIC VERPLOEGEN, PHD, OFF-GRID ENERGY SPECIALIST, D-LAB**

Eric Verploegen joined D-Lab in 2014 to expand the Scale-Ups program's research efforts in the area of off-grid energy. He has a background in materials science and received his PhD in Polymer Science and Technology from MIT in 2008. Prior to D-Lab, Dr. Verploegen worked on developing materials for solar cells and waste remediation systems for the oil and gas industry. He is passionate about identifying technologies, products, and distribution strategies to increase energy access in the developing world. He also enjoys playing pick-up basketball and frisbee.



**DAN WADDLE, SENIOR VICE PRESIDENT, NRECA INTERNATIONAL**

Dr. Dan Waddle is the Senior Vice President of NRECA International, an institution that promotes and develops access to rural electric service in developing countries. He has worked on rural energy and rural electrification issues in developing economies dating back to 1979. Early in his career, Dr. Waddle led a series of rural energy and electrification projects in Southeast and Central Asia, Latin America and Sub-Saharan Africa that employed a combination of convention and renewable energy generation technologies. Since joining NRECA International in the early 1990s, he has managed a portfolio of rural electrification projects that focus on expanding access to electric energy by establishing rural electric utilities and by strengthening utility financial and operating capacity. His technical expertise includes specialization in electric power system design and analysis; biomass power conversion; small hydroelectric system design and analysis; solar photovoltaic system and program design; and, agricultural processing systems.



**KHADAR IBRAHIM WARSAME, BUSINESS DEVELOPMENT MANAGER, BEDER ELECTRICITY COMPANY**

Khadar Ibrahim Warsame is the Business Development Manager at Beder Electricity Company which is headquarter in Burao and has multiple branches in Somaliland including Erigavo, Skeikh District in Sahel Region, Ainabo District and Oog Village under Sool Region. Beder's main branch in Burao has recently been unified under the Electricity group in Burao newly named HECO. Mr. Khadar has a Master of Business Administration from Open University in Malaysia and has completed a BSc degree in Business Administration. Mr. Warsame is qualified in Journalism specifically press and television. Mr. Khadar is currently the Project Manager for wind power plant projects such as the Ainabo and Oog wind alternative energy projects. Mr. Khadar has also managed several projects as a managerial level.



**ALEX WAY, POLICY & PROGRAMME MANAGER, DEPARTMENT FOR INTERNATIONAL DEVELOPMENT (DFID)**

Alex Way leads the Energy Africa campaign for the UK Department for International Development office for Somalia. He is Senior Responsible Owner of the DFID-funded Energy Security and Resource Efficiency in Somaliland (ESRES) programme. Mr. Way is an experienced policy and programme professional with experience in civil society, public and private sectors.





### **JOHNNY WEISS, EDUCATOR, JOHNNY WEISS SOLAR CONSULTING, LLC**

Johnny Weiss has been on the leading edge of solar energy education and training: developing, teaching, and managing renewable energy training programs focused on the practical uses of solar thermal and photovoltaics. He is currently an independent consultant working internationally from Colorado on special solar projects. As an educator, a certified industrial trainer and a building professional, Mr. Weiss has more than 40 years of experience in the real-world applications of renewable energy technologies.

Mr. Weiss co-founded Solar Energy International (SEI) in 1991. He was the executive director and led SEI for over 20 years, helping establish SEI as a leader in solar education that has trained over 35,000 students. As an associate professor in the 1980's, he developed and taught a college-level vocational solar training program. Mr. Weiss also has hands-on experience as a builder and a licensed general contractor, and is knowledgeable in earth/straw construction. His experience includes project management with solar energy companies and with NGOs working in sustainable development. His recent work concentrates on helping establish renewable energy education centers, training trainers, working with Native American programs and managing solar projects in the developing world.



### **SASKIA WESTHOF, PROJECT COORDINATOR, SHURAAKO**

Saskia Westhof is Shuraako's Project Coordinator providing programmatic, new project development, and research support. She has worked in international development on four continents for various organizations, including Volunteer Services Overseas, UNICEF Bhutan, Restless Development (a youth-led development agency), Global Education Fund, as a research consultant for the Mwananchi Project (a non-profit focusing on citizen participation in governance and public service delivery in African countries), and as a demography consultant on child policy issues in various developing countries. Saskia received her MA from the London School of Economics where she focused on social accountability and quality education. In her free time she enjoys exploring the great outdoors through climbing, running and camping with her husband, dog, and friends.



### **TONY WOODS, RENEWABLE ENERGY ENGINEER, ENGLITY**

Tony Woods has been working on renewable energy projects throughout Asia and the Pacific over the last 20 years. He started Sustainable Energy Services International (SESI) in 1996, and worked mainly on renewable energy development projects. His primary focus has been on community scale work to assist communities and their energy needs. He has worked with both Government, INGO and military clients in Afghanistan and Iraq, and is now tackling megawatt-scale projects in Central Asia and Africa, both for hybrid battery/diesel/solar systems and also grid connected arrays. He is very focused on sustainability aspects of projects that are installed, from a technical, financial and managerial perspective, and sees renewable energy development in the context of national energy development. Sustainable development of renewable energy resources is a core part of SESI's approach, and this means that financial viability, technical and managerial capacity and commercial support pathways are integral parts of SESI's overall project planning and implementation. Mr. Woods is now based in New Zealand and runs Sustainable Energy Services International from there.

### **MARINA YAKHNIS, SENIOR ASSOCIATE, ENGLITY CORP.**

Marina Yakhnis is a development professional with seven years of experience in places such as Eastern Europe, Central and South Asia. Prior to earning a graduate degree in Environmental Management from Duke University and working in the clean energy sector, she spent four years as a monitoring and evaluation consultant on projects such as ICT in rural schools, peacebuilding and natural resource management. Her interests include off-grid energy finance, dynamic entry into difficult, untapped electricity markets and the social impacts of rural energy access. Ms. Yakhnis is 2010-2011 Fulbright Scholar and is fluent in four languages. In her free time, she enjoys trekking, running and adding to her language count.



**SIDNEY YANKSON, CEO, GHANA CAPITAL PARTNERS**

Sidney Yankson founded Ghana Capital Partners (“GCP”) in 2012 as a boutique project developer and private equity investor focusing on investments in Africa. Mr. Yankson has developed projects from Greenfield in the renewable energy space, and also looks at typical minority equity investments into established businesses. He was instrumental in developing GCP’s 28MW solar PV project, which was awarded the runners-up prize at the West Africa Forum for Clean Energy Finance. Mr. Yankson has spent a considerable time on the continent and is a regular speaker at conferences on Africa in London and Hong Kong.

Prior to founding GCP, Mr. Yankson worked in finance for over 16 years and is a qualified barrister in Hong Kong. He has degrees in physics (Durham), law (London), masters in law (Boston) and postgraduate certificate in law (Hong Kong University). Mr. Yankson splits his time between Ghana, Hong Kong and London. In his spare time he likes to play ice hockey, snowboard off piste, and play royal tennis.



## ABOUT SHURAAKO

Shuraako, the host of the Somali Renewable Energy Forum, is a nonprofit implementation project of the One Earth Future Foundation (OEF), operating throughout the Somali Peninsula. Shuraako believes that healthy markets and good governance mutually support one another. Shuraako, Somali for partnership, facilitates investment in promising Somali-based businesses, which encourages economic development and greater stability throughout the country.

Shuraako itself is not an investor; rather it acts as a neutral broker, evaluating and managing potential investments, creating relationships throughout the supply chain, and structuring Islamic-finance compliant investments. In the process, Shuraako hopes to catalyze economic development by expanding markets for goods and services and encouraging trade and investment, which together stimulate job creation. Shuraako believes that these efforts will culminate in a stronger private sector, which will contribute to greater peace and stability by means of better governance.

Since mid-2013, Shuraako has been operating on-the-ground in the Somali Peninsula. Today, there are three permanent offices in Hargeisa, Garowe, and Mogadishu which provide coverage of the entire country. Business proposals are accepted primarily on the basis of merit. Our work includes a facilitated investment portfolio spread over 60 deals, consultation and management services to impact funds interested in Somalia, and convening stakeholders to promote dialogue that strengthens policy frameworks and encourages private sector growth.

In the 30 months Shuraako has been on-the-ground, we have facilitated over \$5 million in growth financing creating a projected 1,262 jobs. Shuraako manages the Somali AgriFood Fund (total fund size of \$2.2 million) and supports the Somaliland Youth Enterprise Fund which supports financing to micro and small youth-owned businesses.



[info@shuraako.org](mailto:info@shuraako.org)

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# SPONSORS





BECO was established in Mogadishu on the 5<sup>th</sup> of May 2014 by the three largest privately owned electricity companies in Mogadishu that understood the importance of joining forces and unified under one single, bigger and more resourceful entity which is capable of:

- ▶ Improving and modernizing the generation, transmission and distribution of electricity by INVESTING in the dilapidated or, in many cases, nonexistent infrastructure and facilities including power generators, transmission systems and cables.
- ▶ Providing reliable, sustainable and affordable electricity to its growing number of customers in Mogadishu and its surrounding areas.
- ▶ Introducing modern, cost effective and environmentally friendly ways of generating electricity such as the use of renewable energy mainly Solar, Wind and Hydro.

As part of its commitment, BECO has reduced prices from \$1.20/Kw to \$0.40/Kw thanks to an early investment in infrastructure and the adoption of an ambitious plan in reducing cost of doing business including the introduction of renewable sources instead of fossil fuel.

The company is about to complete the first 2.5Mw Solar Plant as part of its 20Mw Solar System plan over the next 3 years. This will further reduce prices and contribute to the global efforts in CO<sup>2</sup> emission reduction.

BECO stands for nation's economic growth in terms of quality and affordable power supply for productivity, job creation & tax revenues.

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International Bank of Somalia (IBS) is Somalia's premier global investment and commercial bank with an entirely Shari'ah compliant portfolio of products & services. IBS provides banking services such as retail, private, corporate and investment banking services. IBS have advisory center which provides consultancy and advice to businesses and investors on how best they can manage risk and realize return in their investments. IBS provides Microfinance

products for small businesses and household based entrepreneurs to increase their capital asset and expand their businesses. IBS microfinance products are two types; Micro credit and Micro investment, these financial products were designed in a very simple, accessible and affordable way that innumerable entrepreneurs will benefit. IBS governance starts at the top, the board of directors gives priority to strategic planning, ensures that standards exist to promote ethical behavior throughout the organization, and seek continuous improvement in governance practices. These strengths are fostered throughout the organization by a proactive governance culture that has consistently adopted industry-leading standards. The Bank has a sound risk management policies and procedure, supported by enterprise wide risk management and internal control guide. Managing risk is a fundamental element of IBS' objectives of consistent and sustainable performance over the long term.



ALEL POWER is an electric power company in Somaliland which supplies electricity in a large area of Hargeisa and the west of the country. This company was formed from the union of nine companies

supplying north, east, west and the centre of Hargeisa and Gabilay. We own interconnection power grid made up of generation, transmission and distribution system. Transmission system comprises of a number of grid substations to be interconnected by transmission lines.

Currently we are heavily dependent on Diesel powered generators, but as part of our priority plan, we are planning of introducing renewable forms of energy.

We are a major employer and contribute to our economy as a result. At the heart of everything we do is a desire to make a difference to our customers. As a result of falling fuel prices and the demand of our consumers and the government for us to act accordingly, we have reduced the price of electricity in line with our association's guidelines. Today's price reduction is the latest example of ALEL's continued commitment to put customers first and deliver high quality essential services to homes across the country.



## GENERAL ELECTRIC COMPANY (GECO)

### Our Vision

To enrich the lives of the population on socio-economically by providing sustainable and reliable energy solutions and by exhibiting a sense of social responsibility by having regard to the interests of the community in which it operates.

### Our Mission

- To be a successful and reliable electricity provider in Hargeisa and surrounding area.
- To provide safe, reliable easy access to electricity in Somaliland available for all households.
- To protect consumer interests

### Customer Satisfaction

The Company will provide the best possible customer satisfaction by ensuring efficient and sustainable electricity supply in the most effective and creative way and we believe unless we have 100% our customer satisfaction, we must improve.





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## Aloop Electricity Company

Aloop is a power production company established in Borama, Awdal region in 2004. The business offers affordable, high quality

electricity to Borama city. Since its start, the company has become the biggest supplier of electricity in Borama, with a market share of about 70% and a subscriber base of 20, 000 customers. Initially, the company currently uses non-renewable energy sources such as diesel for power production. As this increasing operation costs and fuel prices have further soared over the years, the company sought other cost efficient sources of production. With the support from investors, the company is soon introduce a new line of service powered by wind and Solar energy, a project which is currently being implemented and on target to finish by April 2016. This is expected to substantially relieve the burden on operational costs, offering affordable energy where businesses especially light manufacturing industry can prosper, therefore, increasing the customer base and encourage fair competition.

**Telesom Electric Company (TEC)** is a daughter Company of Telesom Company which is the biggest telecommunication company in Somaliland; we were providing the Electricity as a Department of Telesom since 1999. We were the first Company in Somaliland who provide its customers 24hours electricity whiles other companies are providing only in the night time. In 2014 the Telesom board of Directors has decided to separate the Electricity from the Company then we have formed the new Power Company Named Telesom Electric Company abbreviated as TEC. Now we provide electricity 16 locations spread all over Somaliland regions.

We provide electricity to over 18,000 customers.

### Our Values:

We always seek relevance to our values which include integrity, accountability and the need for Continuous improvement. The pursuit of these values creates opportunities for success and the potential to provide our customers with more satisfactory services. These values also lead us to manage Telesom-electric's environmental impact in ways that strike the right balance between society's economic and environmental needs.

### We BELIEVE

We speak as a professional, committed to helping customer. As an organization, we have a long way to go to provide the service we all deserve, so we cannot boast. We can do what we say we will do. Be accountable and continue to do better.

### We are TRUSTWORTHY:

We speak simply, but never patronize. Long and complicated explanations are confusing and can appear as if we have something to hide.

### Openness:

We speak clearly and concisely. If the customer needs our assistance or if we need to give them Information, we don't waste their time. We tell the truth and are completely open and transparent.

Somaliland has one the highest costs of electricity in the world and access to affordable, reliable electricity is a significant barrier to growth. The Memorandum of Understanding (MoU) governing the implementation of the Energy Security and Resource Efficiency in Somaliland (ESRES) Programme was signed in July 2015 between the Government of Somaliland (GoSL) and the UK's Department for International Development (DFID). The MoU

stipulates the purpose, objectives, indicative levels of support, monitoring and review mechanisms and arrangements for consultancy services provided under the Programme.

ESRES aims to strengthen energy security and energy access in Somaliland through diversifying Somaliland's energy mix with the introduction of a renewable component. Specifically, ESRES supports the development of regulation, through the provision of technical and capacity building for the Ministry of Energy and Minerals (MoEM) and pilot hybrid mini-grids, which will bring down the costs of electricity and therefore the cost of doing business.

ESRES supports the Government of Somaliland to improve access to affordable electricity for vulnerable communities through the promotion of renewable energies. This choice for renewable energies is based on the premise that green infrastructure investments in fragile states have potentially positive poverty reduction benefits while at the same time reducing the country's vulnerability to the negative effects of climate change. Currently the legal and regulatory framework is incomplete and there is a very low adoption rate of renewable energy technologies by the private sector in Somaliland.

ESRES will be implemented in two phases: Phase I (30 months): pilot-phase; Phase II (24 months): expansion-phase.

Phase I of the Programme exists of three components: Component 1: Technical Assistance (TA) to the MoEM for the development of an appropriate policy and regulatory framework for the sector; Component 2: Pilot the development and implementation of hybrid mini-grids; Component 3: Create a Renewable Energy Fund towards the end of Phase I.

ESRES activities are overseen by a Joint Steering Committee (JSC). The day-to-day implementation of ESRES is entrusted to an external Programme Manager. The Programme Manager also acts as the Secretariat of the JSC.





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- ✓ Borehole digging and construction of storage tanks
- ✓ Solar street light for towns and cities



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*Promoting Renewable Energy systems for sustainable development in Somaliland and the horn of Africa Region*



## HORN ELECTRICITY CO. SHIRKADDA LAYDHKA HECO

Tel: 717163 Tel: 710255 E-mail: heco@amail.com

**Shirkadda Heco ee Burco waxay macaamiisheeda ugu bushaaraynaysaa inay siinayso adeeg hufan oo 24 hours ah. Adeegyada ay kuu qabanayso waxa ka mid ah:**

- **Dab gelin (Installation for all premises )**
- **Cillad saar (Trouble shooting solving)**
- **Xaaladaha degdegga ah (Emergency Calls).**

**Fadlan haddaba lasoo xidhiidh shirkadda Heco Burco.**

**Telesom : 717163, 710255**

**Somtel : 2141, 9711114/5**

**Heco Electricity Company of Burao is providing a full service of 24 hours to its customers.**

**The services we provide are as follows:**

- **Installation for all premises**
- **Trouble shooting solving**
- **Emergency call outs.**





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**CONSTRUCTION COMPANY (SECCCO)**

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Seccco is a full service consultant for renewable energy systems with experienced engineers and professional installation practices. Our mission is to provide the highest possible level of professional of energy consulting services for our clients in an atmosphere of mutual support, teamwork, deliver best quality and uncompromising ethical standards.

Our activities are included but not limited to;

- Energy Consulting Services
- Solar installation activities
- Basic Solar and electricity trainings
- Solar System Maintenance and Repair Services
- Manufacturing of Charcoal Improved Stoves



Abaarso Tech University (ATU) is a non-profit university in Somaliland with the mission of providing advanced undergraduate and graduate education to

students from across the Horn of Africa. ATU is a competitive university and accepts motivated and bright students willing to work hard and excel in an innovative environment. ATU is a specialist university with a focus on Biomedical Sciences, Public Health and Information Technologies. ATU targets programs of vital significance to the national development and especially on energy-related research projects.

ATU is committed to finding appropriate solutions to the severe energy deficit that plaques the Somali peninsula. Over the past two years, ATU has completed two research projects and has also successfully designed a household biogas system from locally available material.

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