



# Implementing a Quality Assurance Framework for Microgrid Performance Monitoring in Africa: Examples, Lessons, and Opportunities

13 February 2019

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### **Agenda**

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Welcome & Introductory Remarks

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# Overview of the Clean Energy Solutions Center

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#### **Presentations**

- Katrina Pielli, Power Africa Senior Energy Advisor, Lead for Beyond the Grid, USAID
- ➤ Sam Booth, Senior Project Leader, National Renewable Energy Laboratory
- ➤ **Sam Duby**, Africa Director, TFE Energy
- Emily McAteer, CEO and Cofounder, Odyssey Energy Solutions

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Question and Answer Session



## **Clean Energy Ministerial**

#### The Solutions Center:

 Launched under the Clean Energy Ministerial (CEM) in 2011

#### **Clean Energy Ministerial:**

 A high-level global forum to promote policies and programs that advance clean energy technology, to share lessons learned and best practices, and to encourage the transition to a global clean energy economy.



90%

of

Clean energy investment

**75%** 

01

Global CO<sub>2</sub> emissions



## Solutions Center: Background & Vision

- Multilateral initiative, of the Clean Energy Ministerial, is co-led by the Australian Department of the Environment and Energy, Sweden's Ministry of the Environment and Energy, and the U.S. Department of Energy.
- Additional funding support from Power Africa
- In-kind support from Chile
- The Solutions Center is a unique CEM initiative assisting countries in all regions of the world in strengthening clean energy policies and finance measures
- Supporting transition of clean energy markets and technologies



\*US participation & leadership are under review.



### **Solutions Center: Goals and Audience**

# Programs and Services

- Team of 50+ experts from around the globe responded to 350+ requests for policy support from more than 80 countries
  - Extensive support across Africa, Asia, and LAC
  - Launched support for finance measures in 2015
- Trained over 15,000 officials through more than 225 webinars and training events with others
- Strong & growing partnerships with development agencies and regional and global organizations in delivery of support
- Over 5500 resources in curated library for policy makers

# Target Audiences

- Primary
  - Government Policy Makers and Advisors
- Secondary
  - Private-Sector Companies
  - Energy Entrepreneurs and Investors
  - Non-Governmental Organizations
  - Civil Society
  - Others Engaged in Clean Energy

### **Solutions Center: Partnerships**

#### More than 35 international partners:

- Climate Technology Center and Network (CTCN)
- ECOWAS Center for Renewable Energy and Energy Efficiency (ECREEE)
- Inter-American Development Bank (IDB)
- International Energy Agency (IEA)
- International Partnership for Energy Efficiency Cooperation (IPEEC)
- International Renewable Energy Agency (IRENA)
- Low Emission Development Strategies Global Partnership (LEDS-GP)
- Renewable Energy Policy Network for the 21<sup>st</sup> Century (REN21)
- Sustainable Energy for All (SEforALL)
- United Nations Environment Programme (UN Environment)
- USAID Power Africa (USAID PA)









### Ask an Expert: Our Experts in Action



We connect you to a global network of energy experts for personalized attention and quick response technical assistance on **strategies**, **regulations**, **standards**, **financial incentives**, **and energy transition programs** for a broad range of clean energy sectors and technologies including:

- Carbon Capture Utilization & Storage
- Energy Access
- Energy Efficiency
- Renewable Energy
- Smart Grid
- Transportation
- Utilities



## Katrina Pielli, Power Africa Senior Energy Advisor, USAID



Katrina Pielli is a Power Africa Senior Energy Advisor and Lead for Beyond the Grid with the U.S. Agency for International Development (USAID). Ms. Pielli leads Power Africa's off-grid energy access team, Beyond the Grid, focused on adding 25-30 million new household and business electricity connections in sub-Saharan Africa through off-grid energy solutions - household solar and mini-/microgrid technologies. Ms. Pielli leads the Smart Communities Coalition, co-chaired with Mastercard, which seeks to improve the delivery of essential services to refugees and host community members through enhanced coordination between public and private entities and strategic implementation of technology. She is Power Africa's Civ-Mil liaison and in this role she identifies opportunities to collaborate with the U.S. military. Ms. Pielli is also the lead for energy efficiency. Ms. Pielli is secunded from the U.S. Department of Energy where she serves as a Senior Policy Advisor to the Deputy Assistant Secretary for Energy Efficiency. Prior to joining USAID, Ms. Pielli held several positions in the U.S. government -- at the U.S. Department of Energy, the White House Council on Environmental Quality, and the U.S. Environmental Protection Agency.

# Sam Booth, Senior Project Leader, NREL



Sam Booth is a Senior Project Leader at the National Renewable Energy Laboratory. He has over ten years of experience in the clean energy industry working on microgrids, renewable energy, and finance. He is currently leading work to support the Power Africa Beyond the Grid Program with micro-grid deployment and has worked on numerous other international projects such off-grid studies in Indonesia, renewable energy development in Haiti, and microgrid deployment for the Defense department.

## Sam Duby, Africa Director, TFE Energy



Sam Duby is TFE Energy's Africa Director, based in Cape Town, South Africa. With almost ten years of field experience and having founded an award-winning IOT energy access company in East Africa, Sam is well aware of what it takes to deliver successful projects in developing countries. He is an expert in appropriate design and implementation, leveraging PAYG, community and cross-sector engagement and financial studies focused particularly on the energy access and frontier technology space. Sam comes to TFE Energy from almost seven years in Kenya where he co-founded the Ashden Gold Award winning SteamaCo Ltd. designing and installing rural minigrids and developing PAYG hardware and IoT software tools to remotely manage and monetise them.

# Emily McAteer, CEO and Co-founder, Odvssey Energy Solutions



Emily is CEO and co-founder of Odyssey Energy Solutions, a software platform that is simplifying, streamlining, and reducing the costs of developing and financing rural electrification projects around the world. Prior to Odyssey, Emily was Chief Revenue Officer at Frontier Power, a SunEdison subsidiary that developed and operated solar mini-grids in emerging markets. Emily also worked in advanced energy management at EnerNOC and Yahoo, and received a Fulbright Fellowship to address off-grid solar lighting solutions in rural India. Emily holds a BA from Brown University, an MPA from the Harvard Kennedy School of Government, and an MBA from the Stanford Graduate School of Business.

### **Question and Answer Session**



Katrina Pielli, USAID



Sam Booth, NREL



Sam Duby, TFE Energy



Emily McAteer,
Odyssey Energy Solutions

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