

Resume: Ryan Shelby, PhD

Address: 100 Totius Street, PO Box 43, Groenkloof 0027, Pretoria, South Africa
Phone #: +27 12 452 2091

E-mail: rsbelby@usaid.gov
Web: www.ryanshelby.com

Education:	PhD, Mechanical Engineering , University of California, Berkeley	2013
	Major Field: Design, Minors: Management of Technology & Energy Science Policy	Berkeley, CA, USA
	MS, Mechanical Engineering , University of California, Berkeley	2008
	Major Field: Design, Engineering and Business for Sustainability Certificate	Berkeley, CA, USA
	BS, Mechanical Engineering , Alabama Agricultural & Mechanical University	2006
	Major Field: Propulsion Systems	Normal, AL, USA

Skills & Expertise:

- Infrastructure Design & Rehabilitation
- Clean Energy Systems Design & Modeling
- Co-Design & Social Performance Metrics
- Knowledge Co-production Frameworks
- Information & Communication Technologies
- User Needs Analysis

Professional Experience:

United States Agency for International Development (USAID) **Pretoria, South Africa**
Supervisory Regional Engineering Officer **Oct. 2019 - Current**

- Serves as the main infrastructure expert for 15 countries and provides technical guidance for the construction, operations, and maintenance of infrastructure for economic growth, education, health, and sanitation endeavors.
- Serves as a warranted Contracting Officer in the Regional Executive Office to provide procurement oversight
- Serves as a member of the US Mission to South Africa Post Employment Committee and evaluates Eligible Family Member & US veterans applicants' alignment with Mission staffing needs and priorities
- Serves as a 2022-2023 Localization Community of Practice (CoP) Steering Committee member, guided new member recruitment, as well as coordinated dissemination of best practices and lesson learned within the CoP
- Served as the alternate (2020-2021) and primary (2022-2023) Mission Civil-Military Coordinator & liaised with Department of Defense representatives in the US Mission to South Africa on non-disaster related endeavors
- Served as Acting Supervisory Regional EXO & Acting Deputy Mission Director during staffing gaps
- Served as Motor Vehicle Control Officer & optimized logistics for Sec. of State Blinken's Aug 2022 visit to South Africa
- Created and implemented a regional Mission Order on risk management of infrastructure & construction activities
- Developed quality assurance and control guidance for a 47 km elephant fence to prevent human-wildlife interactions
- Conducted constructability and design suitability analysis of the Neonatal Intensive Care Unit designs in Zambia and created construction cost estimates to determine long term operations and maintenance viability
- Managed the demolition and construction of two homes worth \$1.4 million during the Oct 2020 - Oct 2021 timeframe to address the deficit of adequate, secure housing for USAID/Botswana staff
- Developed construction plan to install handwashing stations in 131 high-risk areas which allowed 2,310 teachers returned to work and 70,443 students to safely resume their educational and social learning during the pandemic
- Oversaw the implementation of the elastomeric roof coating to fix the water leakage in the Ubunye office building, avoided a halt to building operations and a \$1.5m full roof replacement
- Provided one-on-one coaching and mentorship to entry level & local staff in EXO team to help improve their capacities to autonomously balance their portfolios and develop more robust regional client relationships
- Leveraged role within Mission morale improvement committees to conceptualize a panel series & listening sessions in 2020-2021 for staff to discuss our emotions and viewpoints on diversity & equity in America and in the Mission

United States Agency for International Development (USAID) **Port-Au-Prince, Haiti**
Foreign Service Engineering Officer **Sept. 2017 – Sept. 2019**

- Managed a team that concentrated on (1) climate resilient infrastructure, (2) housing rehabilitation, (3) clean energy systems, and (4) the incorporation of Disaster Risk Reduction (DRR) policies for housing in Haiti.
- Oversaw reconstruction of 5,000 home roofs with hurricane straps and other structural upgrades
- Provided 2,025 people with training in roof rehabilitation techniques; 60% of which were women
- Rehabilitated public toilets, latrines and handwashing stations at 12 schools and four cholera clinics which enabled 3,772 students and 153 teachers to benefit from improved sanitary blocks
- Supervised the reconstruction of 1.3 km of roadway in Canaan to address traffic congestion and market access issues
- Provided technical justifications for the close-out and recovery of \$832,527.76 from a 2015 terminated contract

United States Agency for International Development (USAID)**Senior Energy Engineering Advisor**

Washington, DC

Sept. 2013 – Sept. 2017

- Served as a Contracting/Agreement Officer Representative (C/AOR) and program manager for contracts, cooperative agreements and fixed obligation grants associated with the \$47.1 million multi-donor funded Powering Agriculture: Energy Grand Challenge for Development initiative (PAEGC)
- Provided technical direction and support for the development of the PAEGC website, newsletter, and communication/outreach strategy to disseminate lessons learned and results from PAEGC innovators
- Conducted technical and financial due diligence on the private sector partners for Power Africa's Beyond the Grid sub-initiative to help increase private sector investment in emerging energy markets in target countries
- Provided temporary duty (TDY) support to USAID's Pakistan Mission for the development of Statement of Work (SOW) to support electricity sector commercialization and private sector engagement in clean energy generation
- Developed concept note to deliver technical guidance for Power Africa's transaction advisor to the Government of Tanzania's (GoT) Rural Energy Agency (REA) on a smart grid pilot project

Community Assessment of Renewable Energy and Sustainability (CARES)**Co-Founder & Program Manager**

Berkeley & Ukiah, CA

Nov. 2007 - Sept. 2013

- Served as the primary technical authority for a climate change adaptation and renewable energy development collaboration with the Pinoleville Pomo Nation (PPN), a Native American tribe near Ukiah, CA to co-design and implement culturally inspired, energy efficient straw bale sustainable homes and renewable energy power systems
- Led 15 person engineering team for the PPN culturally inspired, sustainable housing project that incorporated AIA, LEED, and Energy Star green building design principles, codes, and technologies
- Worked with tribal partners to secure ~\$1.4 million in funding for PPN homes & funding from the 2013 START Renewable Energy Project Development program for a PPN solar utility based on previous feasibility studies
- Monitored progress and ensured compliance to PPN's design specifications through inspections of project sites and consultations with the PPN Tribal Leadership.
- Worked with EPA Region 9 office to co-design and implement green building codes for the PPN's sustainable homes
- Conducted feasibility study and created designs for utility scale renewable energy power systems (1MW – 5MW solar PV)
- Oversaw the transition of CARES in 2010 to a seed funded research center in UC Berkeley's i4Energy Center in CITRIS

Millennium Challenge Corporation**MCC-ASU Science, Technology, & Innovation Fellow**

Washington, DC

Jan. 2013 - July 2013

- Identified electricity grid extension and minigrid designs options for the expansion of electricity services in six Sub Saharan African (SSA) countries: (1) Sierra Leone, (2) Liberia, (3) Ghana, (4) Benin, (5) Tanzania, and (6) Malawi
- Developed case studies on the lessons learned from the electrification efforts of Brazil, China, Nepal, and Vietnam
- Estimated levelized cost of energy for renewable energy systems in minigrid & electricity grid extension configurations
- Conducted feasibility study on organic feedstock and created designs for an anaerobic digestion system (300kW-1MW)
- Developed policy interventions related to cost reflective tariffs and independent power producers for mini-grids

Honors & Awards:

- [Mark Bingham Award for Excellence in Achievement by a Young Alumni](#), University of California, Berkeley, 2022
- [C. Herbert Rees Rising Star Award](#), USAID/W/AFR/USAID/Southern Africa, 2021
- [Power 50 US National Security and Foreign Affairs Leader](#), CSIS and Diversity in National Security Network, 2021
- [Franklin Award](#), COVID-19 Vaccination Clinics, US Mission to South Africa, 2021
- [Franklin Award](#), COVID-19 School Handwashing Stations Installation, US Mission to South Africa, 2021
- [Eagle Award](#), COVID Vaccine Distribution, US Mission to South Africa, 2021
- [Group Mission Award](#), Ubunye Roof Repair, US Mission to South Africa, 2021
- [Meritorious Honor Award](#), Diversity, Equity, and Inclusion Working Group, USAID/Southern Africa, 2020
- [Service to America Medal in National Security and International Affairs](#), Partnership for Public Service, 2019
- [Superior Honor Group Award](#), Construction Risk Working Group, USAID/W, 2017
- [Meritorious Honor Award](#), Power Africa, USAID/W, 2014

Languages:

English: Native (ILR Level 5)

French: Professional Working Proficiency (ILR Level 3)

Volunteer Endeavors:

- [Advisory Board Member](#), Blum Center Master of Development Engineering program, Univ. of California, Berkeley