Dr. Henry Louie received his B.S.E.E. degree from Kettering University in 2002, his M.S. degree from the University of Illinois at Urbana-Champaign in 2004 and his PhD in Electrical Engineering from the University of Washington in 2008. He is an Associate Professor in the Department of Electrical and Computer Engineering at Seattle University. Dr Louie is a 2015/2016 recipient of the prestigious Fulbright Scholar award to Copperbelt University in Kitwe, Zambia. Dr. Louie’s research areas include electrification access in developing communities, renewable energy and appropriate technology. He is the President and Co-founder of KiloWatts for Humanity, a non-profit organization providing electricity access and business opportunities in sub-Saharan Africa. He has deployed several renewable off-grid systems in Zambia and Kenya. In 2017, Dr. Louie joined the editorial board of the Elsevier-indexed journal “Energy for Sustainable Development.” He is on the steering committee of IEEE Smart Village and was the youngest person to serve as a Vice President of the IEEE Power & Energy Society. He is a founding member of the IEEE PES Working Group on Sustainable Energy Systems for Developing Communities. Dr. Louie is recognized as an IEEE Distinguished Lecturer for his expertise on energy poverty. He is a Senior Member of the IEEE and a registered professional engineer in Zambia.

Abstract:

4/19/17 PPL: Approximately 1.1 billion people worldwide lack access to the electricity grid. This form of energy poverty disproportionately afflicts those living in less economically developed countries, primarily in Sub-Saharan Africa and southern Asia. Achieving universal electrification through grid extension is optimistically decades away, and might never be a viable option in rural areas. Instead, many communities will rely on off-grid electricity solutions in the form of renewable energy-powered microgrids. This presentation describes the challenges to development that energy poverty presents, and describes the role of microgrids and other off-grid solutions in providing electricity access. Examples and data from microgrids in Zambia and Kenya are presented.

4/20/17 Lehigh: Access to electricity, while often taken for granted in the United States, remains a stifling challenge for over one billion people worldwide. This presentation examines the status and future outlook of electrification in developing countries. The first half of the presentation focuses on bulk power system aspects of electricity access, in particular the electricity shortages in countries such as Zambia, Venezuela, Pakistan and elsewhere. The presentation then focuses on off-grid electricity access--how microgrids, solar home systems and other technologies and business models are changing the lives of millions of people.