

Smart Sustainable Energy for the Rural Built Environment

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Abstract

In his February 2015 State of the Nation Address, President Zuma stated that there are still 3.4 million households in South Africa without electricity. Most of these households are in the rural areas and are largely dependent on traditional biomass and coal for survival. South Africa has a dire need for safe, affordable and clean forms of energy to enable productive economic activities to generate much needed income. Based on international collaboration, this paper will cover the development of a robust methodology to adapt innovative and renewable smart grid technologies to deliver real and sustainable decentralised energy solutions for remote and rural communities, thereby improving livelihoods and opportunities for inclusive growth for the rural built environment. This shall be achieved not just through technical innovation, but importantly by integrating it with both social and business innovation to also address the wide-ranging impact of climate change. This international collaboration is amongst the Eastern Cape Provincial Government, CSIR, the Global Research Alliance, the United Nations Environmental Programme (UNEP), and the Carbon Trust, amongst others. The overarching objective is to influence South African national policy and the UN's Sustainable Energy for All (SE4All) programme.