

HOW MY RESEARCH WILL CHANGE THE WORLD?

SANEA: 26th July 2017
STELLENBOSCH UNIVERSITY

SCALED ENERGY SYSTEMS ANALYSIS
MBALENHLE MABASO

AGENDA

- **BACKGROUND**

- **WHAT, HOW and WHY?**

- **EMERGING ISSUES**

- **CHANGING the WORLD**

BACKGROUND

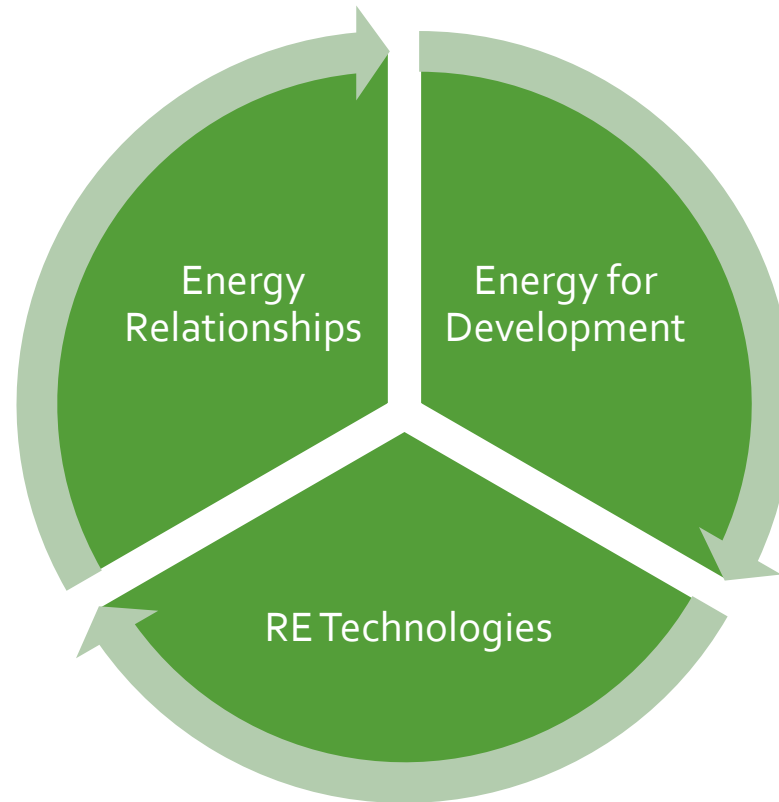
Energy (#7 of UN's 17 SDGs):

“ to ensure universal access to affordable, reliable and modern energy services for all” by 2030



Sources: jenniferbeinhacker.com; hidropolitikakademi.org; Kimberley City Info (kimberley.org.za)

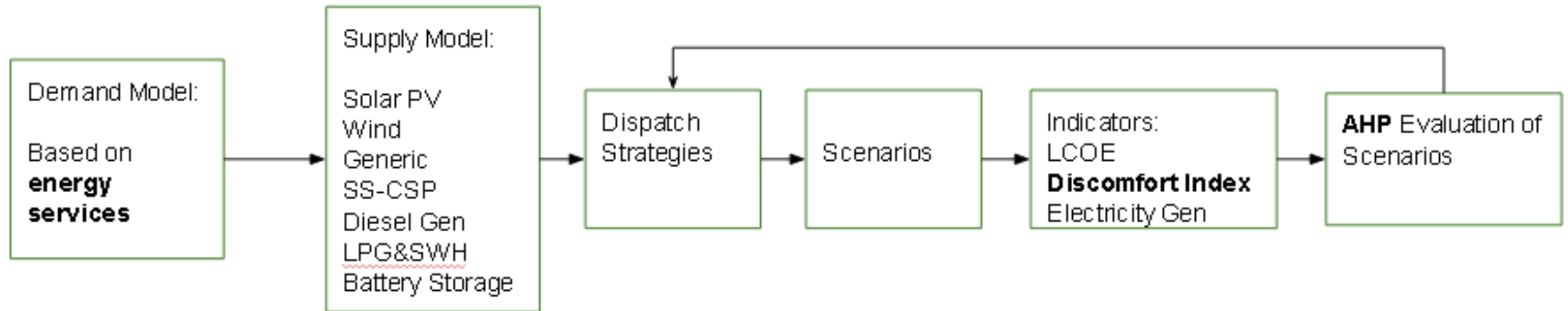
This is not simply a matter of procuring more electricity (at least not in Africa)



WHAT?

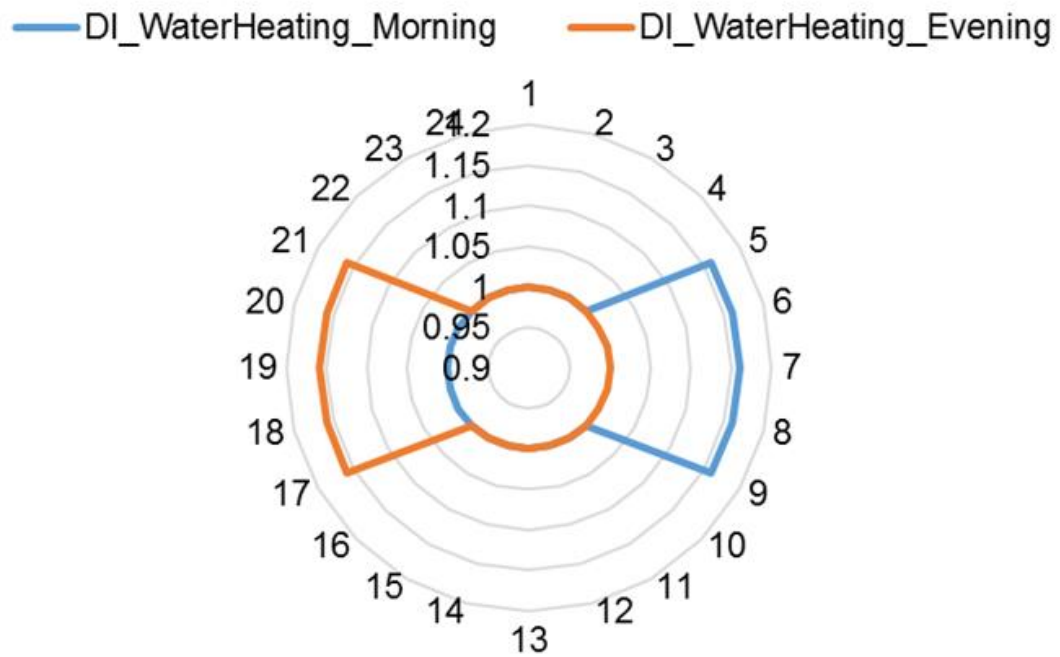
How do we model or plan for energy systems so that the approach uniquely captures the contextual challenges in developing countries?

HOW?

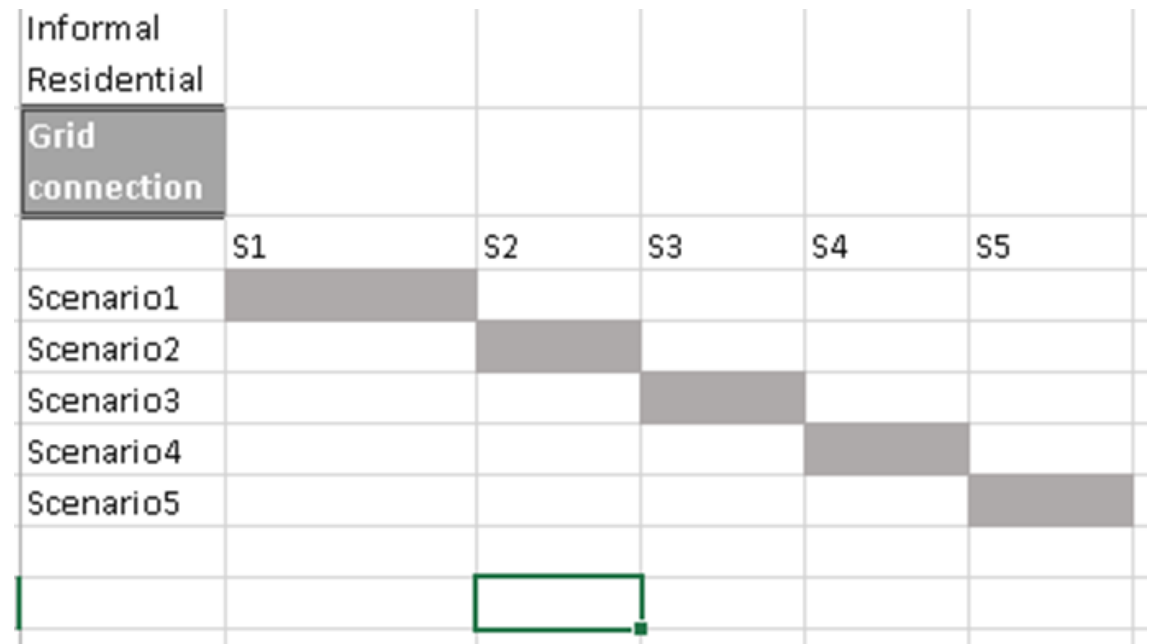


WHAT HAS EMERGED?

DISCOMFORT INDEX



AHP SCENARIO PRIORITIZATION



HOW WILL IT CHANGE THE WORLD?

**ACCOUNT FOR THE VALUE OF
ENERGY SERVICES/ACCESS**

**ACCOUNT FOR MULTIPLE
STAKEHOLDER PRIORITIES DURING
PLANNING PHASE**

**INTEGRATION OF HYBRID
DISTRIBUTED ENERGY SYSTEMS AT
VARIOUS SCALES**



Source: <http://geoawesomeness.com/real-size-world/>

THANK YOU



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CENTRE FOR RENEWABLE AND SUSTAINABLE ENERGY STUDIES