

Sub-Saharan African Electric Power Systems

System analysis:

- Two camps of experts—“intractable problem” and “silver bullet solution”
- Gaps—understanding of decision-making process and coordination of components
- My research—integrated analysis using ethnography and system dynamics

*System architecture is still being defined,
research focuses on pathways to
development*



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System definition:

Technical components—generators, transmission and distribution lines, appliances

Environmental components—water, fossil fuels, biofuel land use, geothermal extraction

Economic components—private sector, government funding, international lenders and aid organizations

Political components—centralized vs. decentralized structure, locating plants and grid lines

Social components—generator and end user decision-making, welfare benefit of electric power

Characterized by a diverse set of components, whose interactions are not well understood or coordinated

