

Abstract

Whereas the escalation of energy costs in South Africa over the past 5-years has been systematically reported, the extent to which low-income urban households are coping with the escalation has not been studied. Based on ethnographic data from Etwatwa in Ekurhuleni and secondary data from the Department of Energy and Statistics South Africa, the study evaluates the extent to which ongoing energy poverty mitigation programmes under FBE (Free Basic Electricity) and FBAE (Free Basic Alternative Energy) are facilitating how such households cope with the escalating costs. One of the key findings of the study is that FBE is not only inadequate for beneficiary household needs but also fails to accommodate large family sizes whose consumption goes beyond the set threshold of 450kWh/month. Since FBAE is only available for households not yet connected to the grid, the programme would not serve as a complementary intervention for households not benefiting from FBE due to consumption beyond the threshold.

Based on the key finding of inadequacy of existing mitigation interventions (declining affordability of electricity, unresponsiveness of FBE to large-family size and the barrier to accessing FBAE while connected to grid) the study finds that energy poverty among low-income households and communities is deepening. As coping strategies, households resort to switching to alternative combustible fuels like paraffin, wood, coal, and solid waste which leads to indoor and outdoor air-pollution with related respiratory illnesses and under severe situations they resort to suppressing demand through options such foregoing cooked meals, irregular bathing/cleaning and space-heating in winter.

The findings also allowed the study to critique the energy ladder model on its assumptions on linear energy carrier transitions in line with improved incomes of low-income households. In particular, the study finds that even as incomes of affected households improve, an ever increasing share of the income goes towards covering the escalating energy costs but still never managing to close the affordability gap for clean energy thus reinforcing a vicious cascade in energy poverty. In order to systematically mitigate these escalating patterns of energy poverty,

the study recommends the distribution of renewable technology through a more innovative FBAE policy which would allow municipalities, national government and other stakeholders to commit to more equitable long-term investments in energy efficiency and renewable energy interventions for such households.

Key words: escalating energy costs, coping mechanism, energy poverty, Free Basic Electricity, Free Basic Alternative Energy