Problem 4: THE UTILITY PRICING DEATH SPIRAL

Industry: Energy (Electricity)

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Problem Statement

Utility providers in large metros price electricity to cover the cost of infrastructure and generation. The electricity network - the wires and poles - have a fixed cost, and consumers pay a charge for consumption to cover the cost of this infrastructure. The exact price is calculated to cover the cost of infrastructure that can cope with loads at peak usage.
If the consumer client base shrinks, then the utility needs to increase prices, to cover the fixed costs of using the network infrastructure. This means that a smaller client base have to start paying more, for the same service.

In South Africa, most of the metros rely on high-income clients for most of their income. However, this high-income group of clients, are also the most likely, and have the means, to move to alternative source of electricity. This is especially likely if the higher prices are coupled with a perception of substandard service, as was experienced by recent bouts of load-shedding.

This puts the utility in a catch 22 position - not only do they need to increase prices, but at the same time, the customer base most likely to be able to afford these prices, are also capable of completely going off-grid. In turn, this puts additional pressure on the remaining users, pushing prices up yet again. Even if no-one goes off-grid, the increased awareness of the cost of electricity will also result in reduced demand.

Another complementary issue is the even larger effect of companies shutting down moving to solar photovoltaic energy generation.

Questions:

- At what point does price increases become non-viable as a strategy? Non-viable is defined as too low income for the utility to maintain the infrastructure.
- What other options exist for the utility provider to ensure a stable income?
- What are the implications for the deployment of renewable energy in metros?