

## **Is Eskom Entitled?**

A recent article in Business Tech titled “Eskom takes aim at households with solar”

<https://businesstech.co.za/news/energy/798614/eskom-takes-aim-at-households-with-solar/> suggests that while the Minister of Electricity has done an outstanding job repairing Eskom and public perception, it could all be undone in short order.

Having been in the telecoms space for most of my working life, I have seen numerous attempts by incumbent monopolies to protect their revenue streams. Before Telkom, the South African Post Office (SAPO) provided all telecommunications lines as well as the postal service. In the early days it was illegal to send text messages over the data-lines rented from SAPO as this meant you were side-stepping the postal service. Problem was, how do you police that when there is data encoded onto an analogue line which is indiscernible from the data you are permitted to transmit.

Similarly, in later years once they became Telkom, when voice compression became en vogue, they attempted prohibit sending voice over data-lines as this depleted the legacy telephone network. How do you differentiate a voice packet from a data packet on a large scale, completely unsustainable.

These examples serve to show that technology generally triumphs over regulation when the technology is ubiquitous and difficult to regulate resulting in the monopoly providers eventually embracing the technology.

Having now been in the renewable energy sector for almost a decade, we are seeing the same behaviour from Eskom related to rooftop solar. According to the aforementioned article, Eskom have applied to NERSA to revise their tariffing, literally turning their existing model on it's head. They envisage dramatically increasing the monthly fixed cost often referred to as network or service charge. Conversely, a reduction in cost per kWh is envisaged, the quantum of which, is not yet known. The objective is to discourage subscribers from moving to solar generation and to punish those who already have deployed solar.

Typically, we design solar systems to remain connected to the grid for two reasons, firstly cloudy days can substantially reduce solar generation hence having the grid supply then becomes desirable. Secondly, the current tariffing is structured in blocks or steps with the first step, usually 0-500kWh or thereabouts, is quite affordable, thus we try to use that opportunity for our customers. Up until now, we have seen this as a symbiosis by our industry and Eskom, to reduce the burden on the national grid and yet remain grid connected in a win-win manner.

However, now that we are many months into zero loadshedding, solar is becoming a thorn in the side of Eskom. Many of our customers have grudgingly spent tens if not hundreds of thousands of Rands on mitigating loadshedding and reducing their monthly bills in the process. Despite the absence of loadshedding these customers still enjoy the financial advantages of a solar/battery system with some having sufficient solar generation and battery capacity to effectively be off-grid. During daylight hours, the household uses predominantly solar and the batteries are charged simultaneously. Once the sun sets, the inverter automatically uses the battery for as long as possible, leaving a percentage of battery to be used in the event of a grid outage.

In short Eskom's proposal is to charge low-volume users ie. less than 900kWh per month a higher tariff as they are likely to be solar users. Really? How about most of our population (not those defined as indigent) who have small dwellings and use minimal power. People like retirees, young people living in apartments, low-income housing dwellers etc.

This plan does not seem to be well thought out at all, as we know Eskom nor any of their distribution partners (municipalities) have the capabilities of discerning who has solar and who doesn't. The cost of manually auditing this is simply prohibitive and the PR nightmare that awaits them is really not worth it.

These are some of the issues/questions that I have:

- 1) Why has Eskom not yet allowed feed-in to the grid for SSEG customers, after all this is probably the cheapest way of generating power for them?
- 2) With the separation of Generation, Transmission and Distribution, will this new tariffing system align with all three entities strategies?
- 3) I suspect that the majority of my customers will upgrade their systems to go totally off-grid as this technology has become so much more affordable. Lower volume users will thus be left to shoulder the burden without the well-heeled contributing.
- 4) An off-grid solar customer can no longer feed-in even when Eskom eventually do offer this.
- 5) As it stands many of Eskom's coal-fired power stations do not comply with the Minimum Emissions Standard due to compliance costs. Surely they should be embracing any form of clean energy by making SA's rooftops one large generator, the prosumer model. This is not just about money, many people are suffering health problems due to these emissions. This could cost Eskom a lot more when a class-action suit is filed.

A large percentage of hybrid solar systems (solar and battery) do not use all the energy they produce. Once the battery is fully charged, and the electrical loads in the house are no longer using power, the excess power is simply wasted. I, for one do not like the thought of valuable energy going to waste. Eskom could so easily capitalize on this as many municipalities are already doing, the City of Cape Town being most significant.

Whilst I appreciate Eskom's current financial constraints, not all of their own making, I do think that the way out of the predicament is not a one dimensional "hit the consumer harder" solution. This seems a bit of an entitled attitude. The problem was created over two decades or more and cannot be solved in a couple of years.

In complete contrast, the solution may lie in embracing rooftop solar along with their IPP and battery initiatives to slowly migrate to cleaner, more affordable generation. Their transmission network is the golden asset with distribution close behind, but for those to survive the way they make electricity must evolve.

So too must their personnel be transitioned toward clean energy as we will need those skills if it is done on the scale I imagine. Perhaps a program with the IPP's and larger solar suppliers to do skills transfer could be a start to the "Energy Entrepreneur" creating thousands of jobs and really embracing a just energy transition.