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NEVA MAKGETLA: Solar's expansion can deepen inequality

It eventually pays for itself but the upfront costs are prohibitive for most

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Despite economic benefits solar is still limited almost exclusively to large businesses and the leafy suburbs, the writer says. Picture: SUPPLIED

According to government estimates, in the past year businesses and households doubled rooftop solar capacity to about 10% of the national total. That upsurge is not surprising, since in effect solar now pays for itself. Yet it remains out of reach for

most working-class families and small enterprises, so its expansion risks deepening SA's already extraordinary inequalities.

For well-off families and businesses that can afford solar, load-shedding has almost become background noise, even as it condemns the majority to episodes of cold, dark and uncertainty about SA's future.

Rooftop solar pays for itself in the long run because comparatively low operating costs ultimately cover the large upfront investment. Low costs reflect Eskom's reckless tariff hikes since 2008 as well as improving solar technology. Eskom's tariffs averaged 10% a year above inflation from 2008 to 2023. As a share of national GDP, its revenues doubled from 1.7% in 2008 to 3.7%. In consequence, over a 10-year period a household will pay about the same for a solar system as it would for municipal electricity, while saying goodbye to both load-shedding and emissions.

Solar is also a lot cheaper than generators, despite a far higher initial investment. Diesel generation costs a lot more than municipal electricity, and the sums escalate when load-shedding intensifies. The actual amounts depend on the diesel price, but always exceed solar.

Despite these economic benefits solar is still limited almost exclusively to large businesses and the leafy suburbs. Industrial sites and social institutions such as hospitals and schools mostly rely on older generator systems, and working-class communities and small businesses are almost entirely excluded.

Several factors explain the discrepancy. The most obvious is the high upfront cost of solar systems. That is especially true if they include batteries, which prevent blackouts when load-shedding happens at night. Estimates for a household in the leafy suburbs start at R65,000. That equals about three months' income for the median suburban household, but for township families it is closer to two years' income, rising to 2.5 years for informal settlements.

The figures are daunting, even though working class families can get away with small systems. Even in formal settlements, in 2021 only a quarter of households had geysers, two fifths used space heaters, and three quarters had electric stoves.

A focus on the upfront cost is misleading, though, because solar is an investment that pays for itself over time. That means the real problem is financing. Working-

class households and small entrepreneurs still cannot easily get affordable formal credit. Most own their homes outright, so they cannot extend their mortgages. Generally, formal credit remains almost unavailable for lower-income groups, and microloans are typically both extortionate and short-term.

Besides financing, solar still involves myriad transaction costs, reflecting its disruptive growth. They include finding the right system (and batting away profiteers and cheats), installation, maintenance and security. Moreover, with escalating demand it has become more difficult and expensive to get inputs.

Government programmes have done almost nothing to tackle these problems. Because most people and businesses do not earn enough to pay income tax, they do not qualify for the new tax break. Besides, it does not help with financing. A similar problem applies to the government's promise to pay for solar feeds into the grid. Those proposals have been slow-walked by municipalities and Eskom, who see them as eating their market share. And they do not help working-class communities and small businesses with the initial investment.

To ensure more equitable access to solar we should explore municipal or co-operative minigrids. They require both financing and effective agencies to install, maintain and secure equipment. The government could also develop model systems with financing options for low-income users, and scale up training for installation and maintenance. Finally, it would help to explore measures to improve the supply of inputs without excessive price hikes and delays.

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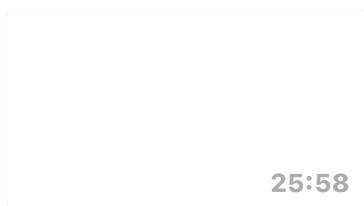


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