ENERGY RACISM Report



Con





April 2022 Centre for Sociological Research and Practice (CSRP)

The Collective Contributors

The research was funded by the Foundation for Human Rights and the University Research Committee and Faculty of Humanities at the University of Johannesburg (UJ). Dr Trevor Ngwane, Director of the Centre for Sociological Research and Practice (CSRP) which is proudly located in the Sociology department at UJ and Prof. Luke Sinwell, Project Coordinator of the CSRP secured the necessary funding for the research. The community members from Soweto, Gauteng, were involved in conceptualising the research. Thirty-four people contributed their accounts of their experiences and views during interviews. Interviews were conducted by Siphiwe Mbatha, Alice Mporo, Lydia Moyo, Trevor Ngwane and Cleopatra Shezi. All the researchers contributed to the initial written analysis and seminar presentations, including PowerPoint presentations which are incorporated into this report, as well as photographs. Interviews were translated and transcribed by Lydia Moyo. The analysis was shaped by presenters and participants at four CSRP seminars referenced in the text. Cleopatra Shezi and Terri Maggott collected and analysed the Twitter data. Terri Maggott captured the data. Terri Maggott and Claire Ceruti analysed the data in greater detail and compiled this report. Nicolas Dieltiens graciously developed the lay-out for the report.

How to cite this report: Maggott, T., Mbatha, S., Ceruti, C., Moyo, L., Mporo, A., Ngwane, T., Shezi, C., & Sinwell, L. (2022). Energy Racism Report: The electricity crisis and the working class in South Africa. Centre for Sociological Research and Practice (CSRP), University of Johannesburg: Johannesburg

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Acknowledgements

This report is dedicated to the Black working class, especially women, in South Africa who continue to bear the brunt of the energy crisis. Like any contribution to knowledge, it was a collective effort. It could not have been produced without the willing involvement of residents in Sun Valley, Soweto who lived for more than a year in the dark. We have documented the everyday lived experiences of ordinary people as well as the strategies and tactics that they employ to make ends meet. Our research team has done this with a view towards consolidating over the coming years a democratic approach that empowers grassroots movements in Soweto and elsewhere. While presently fragmented, these movements nevertheless carry our research team's hopes and aspirations for an eco-feminist anti-capitalist future.

A special thanks goes to the Department of Sociology at the University of Johannesburg (UJ) especially Prof Pragna Rugunanan for providing intellectual space for the Centre for Sociological Research and Practice (CSRP) without which we believe this "Energy Racism" report would not have been completed. Both the UJ's University Research Committee (URC) as well as the Foundation for Human Rights (FHR)'s generous funding enabled us to undertake interviews, transcribe and write up the pages for this project.

We would also like to thank students in the Urban Sociology (Honours) module at UJ (2021) including Julian Kaliofasi, Nicole Linsenbold, Zinhle Mabaso, Dudu Mthethwa, Roman Nkomo, Vimbainashe Nyakudya, Whitney Achieng Okumu, Arr-Waa Phiri, Demarco Pillay, Ramaswiela Rofhatutshedzwa, and Nthabiseng Tsotetsi, for their regularly engagement and feedback in the project and for their invaluable research in other working class areas in Gauteng that this report could not cover due to space restraints.

Foreword

Patrick Bond

The world's eyes are on Eskom. It's not just because of the utility's notorious unreliability and pollution that annually kills thousands of mainly black South Africans prematurely, as they suffer its noxious power plant fumes and coal-mine residues.

Nor is it only because of the notorious 2008 bribery of the African National Congress' fundraising arm by the Japanese supplier Hitachi, with conniving finance provided by the World Bank – Eskom's largest ever funder (dating back to 1951 when whites got electricity and black people didn't) – in 2010 what with the Bank's largest-ever (\$3.75 billion) loan, resulting in successful 2015 U.S. prosecution of Hitachi under the Foreign Corrupt Practices Act.

There is, instead, something to celebrate at long last. CEO Andre de Ruyter traveled to Glasgow, Scotland in November 2021, for a climate-finance deal watched everywhere: in exchange for an increasing rate of closure of the coal-fired power plants that typically supply 85% of Eskom's electricity output thus allowing South Africa's coal to be left unexploited, the parastatal would receive \$8.5 billion (then R131 billion) in unspecified climate finance, to help address the firm's R400 billion debt.

The race, gender, class and ecological biases that De Ruyter had inherited from the core of the apartheidera Minerals-Energy Complex could, with these generous funds from the U.S., UK and European powers, begin to be rectified. The low-income people who die so often because Eskom has refused to install antipollution devices at its power plants and mines, could be protected at long last, and reparations paid. The ecologically-abusive coal plants, which need intensive water-guzzling cooling systems – making Eskom the country's largest single consumer – could be rapidly phased out to ease pressure on not only the air but also the bulk water supply system stretching up to Lesotho.

The overdue shift from coal to renewables – solar and wind – plus clever storage systems (pumped hydro or molten salt) could occur without wrecking the environment, as would an Eskom shift to methane gas or lithium storage. Thousands of Just Energy Transition jobs could be created in the process, both to ensure the national grid came as quickly as possible up to a steady 40 000 MW of all-renewable power with storage to handle intermittent weather, and for micro-grid and household renewable power installations.

And the pricing structure of Eskom's power could be changed so that those with historic emissions would start to reckon with their ecological debt: both in terms of local coal-related damage to environments, and to the global climate. A more rounded approach to cost-benefit analysis incorporating a Social Cost of Carbon and acknowledging the racial bias of historic emissions, would thereby justify much larger subsidies of Free Basic Electricity, paid for by a sharp-inclining block tariff structure.

The racist route

All of these were potentially in De Ruyter's grasp. But for reasons that confirm the exceptionally-detailed report, De Ruyter reverted to form: the formative apartheid era. Starting during the cold, Covid-restricted winter of 2020, he imposed policies even more biased in race-class terms, especially 'load reduction', and became less willing to cross-subsidise power to meet poor people's needs.

The man whose 2013 departure from Sasol under circumstances of allegedly racist emailing – which Sunday World reported on 4 October 2021, based on a Werksman law firm report (and which hasn't been convincingly refuted) – soon became a major political liability to government.

In part because of Eskom's persistent failures – especially where it directly supplies black townships – voters in the November 2021 municipal elections lost confidence in the ANC, whose support fell to 45%. One reflection of anger over electricity during that vote was a series of protests, especially in Soweto in late October, even on voting day when President Cyril Ramaphosa was booed while casting his own ballot. This was his home township, one where during the 1980s he also led electricity protests and, in the Committee of Ten, negotiated an affordable R10/month flat rate payment.

But Eskom resisted at every step, leading not only to persistent service delivery protests after disconnections, but ultimately to 85% of Sowetans having to informally reconnect power. Eskom's smeary campaigns against the so-called 'izinyokanyoka' community activists whose mutual aid to neighbours includes 'commoning' electricity with insulated reconnections, didn't work.

Under the De Ruyter administration, an apartheid-style collective punishment strategy began: 'load reduction.' After six months on the job, De Ruyter began mass disconnections in Soweto and many other areas – including bankrupt dorpies – penalising all residents and business, even those who had paid their bills.

This was in the midst of winter, during the worst period of pandemic lock-down, even though the air-borne coronavirus spreads fastest when, inside small township houses, smoke and particulates are emitted when residents lose power and turn to dirty energy sources like wood, paraffin and coal.

De Ruyter had delivered the Hendrik van der Bijl Memorial Lecture at University of Pretoria in mid-2021, and his review of the firm's history neglected to mention that populous black communities were, before the 1990s, never supplied power.

In the same spirit, while De Ruyter cuts power to townships and poor municipalities, he uses scarce resources to repay foreign banks which made corrupt loans to Eskom.

De Ruyter also continued 'Special Pricing Agreements' that give two of the world's biggest mining houses, South32 and Anglo, electricity costing a tenth of the tariff charged residential customers.

Eskom's celebrated Glasgow financing deal is not yet in place. Because De Ruyter, Energy Minister Gwede Mantashe, the ineffectual Environment Minister Barbara Creecy and President Ramaphosa himself are implicated in energy racism and environmental catastrophe, a 'climate-sanctions' boycott call has been made against this deal, by the Climate Justice Charter Movement. Other progressive critics include 350.org and the SA Federation of Trade Unions.

If De Ruyter's coal-to-methane conversion goes ahead at the Komati generator, it will ultimately make Eskom more dependent on gas extracted from war-torn Mozambique's Cabo Delgado. There, at a cost so far of R2 billion, South African soldiers are defending Western oil firms' and a corrupt government's interests.

And since methane is 80 times more potent as a greenhouse gas than CO2 over a hundred-year period, De Ruyter will be contributing to far higher costs attributed to South African exports: Europe's Carbon Border Adjustment Tariff will soon penalise high-energy-embedded goods.

Worse, Eskom's adverse impact on climate is also going to be ever more race-biased, the more extreme weather, drought, fires and flooding hurt the poorest, who are also predominantly black people.

And in any case, new Eskom climate finance will not be grants, but lower-interest loans still denominated in hard currency (dollars, pounds or euros). This is irrational because future Just Transition work in Mpumalanga and Limpopo will mainly require local-currency expenditures, such as salaries for workers. And as the Rand falls in value, repayments on De Ruyter's borrowings will be much more expensive.

Energy racism takes many forms; the critique in the pages that follow confirms how much the ordinary people of Soweto must put up with. All of South Africa – and with the Glasgow climate finance deal, all of the other countries now contributing to Eskom as if it were a useful pilot – will understand, now, why so many Sowetans are so gatvol with this agency.

PROFESSOR PATRICK BOND PROFESSOR OF SOCIOLOGY UNIVERSITY OF JOHANNESBURG MARCH 2022

SECTION 1. Energy Racism

The first section of this report presents a theory of energy racism for analysing the electricity and energy crisis in Soweto. This was a research project only into the energy crisis, which focused on the experiences, responses, and solutions of Soweto residents to the electricity crisis. But it spotlighted many broader questions. Is it time to re-theorise the South African revolution? Race and racism are taking new forms for which we must generate new understandings.

1.1 What makes it energy *racism*?

Everyone is having problems with electricity; everyone has experienced load shedding. But people who live in Soweto, and other working-class townships, have bigger problems with electricity.

Systematic disadvantage to those already disadvantaged

Load reduction predominantly affects townships, as our analysis of Eskom's Twitter announcements shows. The power can go off for two hours in one day. Sometimes, electricity goes off in the morning and again at night. This can happen three or more times in one week. Sometimes, it can go off for the whole day; sometimes, for more than one day. Sometimes, even for a whole week, or two weeks, or a month. In some areas, it can be dark for more than six months. In Sun Valley, electricity went off in August 2020 and was only restored in October 2021 – just before the local elections on 1 November. Sun Valley had been in the dark for more than 12 months at the time we started writing this report.

We found that it causes substantial hardships for the whole household when there is no electricity, from pensioners shivering in the dark to students barred from remote learning. The disruption to people's domestic systems, health, time and livelihoods systemically disadvantages people at the same time as it reflects their systemic disadvantage, rooted in the history of racial capitalism.

Townships: Rooted in racial capitalism

South Africa's energy system is based on the exploitation of cheap, black labour. Historically, black workers provided the cheap labour which powered capitalist industrial development in South Africa. The provision of a reliable source of energy for this development, in the form of electricity, produced from burning coal, also relied heavily on black labour. Black workers dug out the coal and were key in laying out the electricity pylons for the then-state company which was then called called ESCom/EVKom¹.

But in urban townships and rural villages where black people lived, electricity was hardly provided for individual household consumption. Fewer than 40% of South Africans had access to electricity as late as 1987, seven years before the transition to African National Congress (ANC) rule.

Apartheid was a form of racial capitalism. Electricity powered the development of capitalism in South Africa, a political and economic system which scholars variously explained as a form of "racial capitalism."² Some of these earlier authors identified the importance of gender in their theories.³

The black working class bears the brunt of the electricity crisis after apartheid

The demise of apartheid did not eradicate some key forms of oppression, exploitation, and domination in the "new" democratic South Africa. Race, class, and gender remain potent predictors of economic and social well-being. Racial capitalism continues, but in conditions of an intensifying global and perennial capitalist crisis. Both in general terms and in very specific ways, the black working class bears the brunt of the electricity crisis in South Africa. The Reconstruction and Development Programme (RDP) promised electrification for all, but the privatisation of the Growth, Employment,

¹ Electricity Supply Commission/Elektrisiteit Voorsienings Kommissie.

² Legassick, M., 1993. The State, Racism and the Rise of Capitalism in the Nineteenth-Century Cape Colony. *South Africa History Journal*, 28(1), pp.329-368; Wolpe, H., 1972. Capitalism and Cheap Labour-Power in South Africa: From Segregation to Apartheid. Economy and Society, 1(4), pp.425-456; Alexander, N. 2006. Affirmative Action and The Perpetuation of Racial Identities In Post-Apartheid South Africa. Presentation, East London Campus, University of Fort Hare; Magubane, B., 1979. *The Political Economy of Class and Race in South Africa*. New York and London: Monthly Review Press; Mafeje, A., 1981. On the Articulation of Modes of Production: Review article. *Journal of Southern African Studies*, 8(1), pp.123-138.

³ Wolpe (1972), Capitalism and Cheap Labour.

and Redistribution (GEAR) policy arrested this project. This happened when Eskom still enjoyed the "problem" of overcapacity. Privatisation fostered a slowdown in the electrification process, less amperage for working class areas, and cut-offs for non-payment.

The neoliberal principles of "user must pay", "cost-reflective tariffs", opposition to a presumed "culture of entitlement" and so on, are behind the myriad ways that the black working class has been forced to pay for the country to cope with the downward pressure on spending on supply at the same time as access was expanding. Today, we find ourselves in the era of load shedding and Eskom's debt crisis. The same working class is required to use less energy and to suffer "load reduction". The latter is a system of semi-planned power failures that target black working-class areas. Black workers are paying in all the following ways:

Workers pay with their labour as producers of electricity.

They part with their cash as paying customers.

They suffer the hardships of an inconsistent power supply since they are the preferred targets for **load reduction** (see page 3, 'Load reduction' is a discriminatory form of national energy saving). On these occasions, they must part with more cash for alternatives to electricity and suffer the dangers and negative health consequences of those more expensive options. In addition, this increases the time it takes to fulfil domestic responsibilities with an adverse effect on the quality of life for women in particular.

They suffer the effects of atrocious servicing. Routine maintenance and urgent call-outs are most often completely ignored as it takes Eskom days, weeks, and sometimes months to repair faults.

They are scapegoated and blamed for the failures of Eskom ("the Soweto debt," *izinyokanyoka*, "too many backyard shacks" and so on).

We suggest that the electricity crisis, alongside the July 2021 attacks on the malls, is part of a broader crisis of everyday life. The working class is in pain.

The concept of energy racism is proposed as a conceptual lens to explore this social injustice in relation to the continued significance of structural racism; the concept of racial capitalism and the related entanglements of race and class,⁴ as well its relationship to the "triple burden" of women.⁵

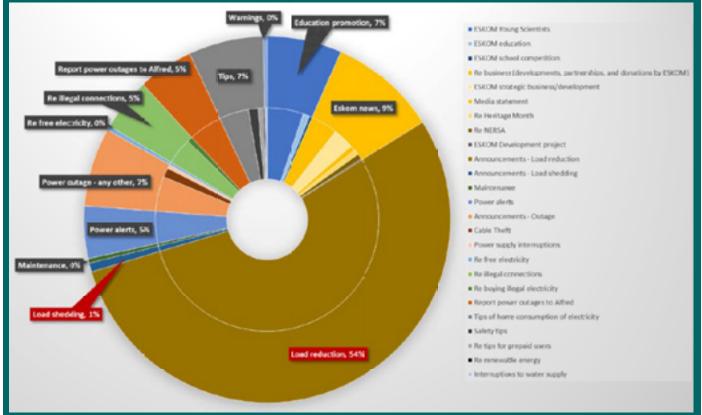
⁴ Phadi, M.. 2017. What It Means to Be Black in Post-Apartheid South Africa. Ph.D., University of Johannesburg (for an explication of Du Bois in a local context); Robinson, C., 2000. *Black Marxism: The Making of the Black Radical tradition*. London: University of North Carolina Press; Kelley, R., 2017. *What Did Cedric Robinson Mean by Racial Capitalism*? [online] Boston Review. Available at: https://bostonreview.net/race/robin-d-g-kelley-what-did-cedric-robinson-mean-racial-capitalism [Accessed 3 November 2021].

⁵ See: Crenshaw, K., 1989. Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics. *University of Chicago Legal Forum*, 1(8), pp.129-167.

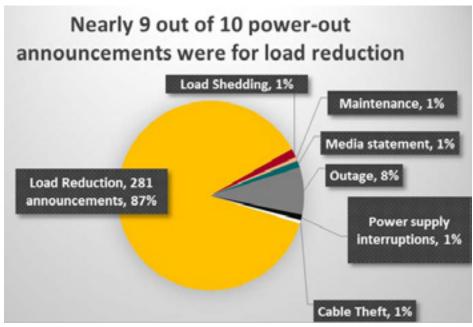
'Load reduction' is a discriminatory form of national energy saving

Eskom uses its Twitter page⁶ to communicate with its 6.2 million direct users⁷. To get a sense of the kinds of announcements Eskom sends out to the public, we analysed 524 tweets by Eskom over a 30-day period and found the following:

Load shedding made up 0,8 percent of the content for this period (4 tweets); load reduction 54,4 percent (281); and outages 5 percent (26). Graph 1 shows a general picture of the kinds of topics that were most tweeted about by Eskom in September and October 2021.



Graph 1: Load reduction notices were more than half of all tweets from Eskom. The outer ring shows broad categories of tweets. The inner ring and the legend provide more specific information.



For the purpose of this research, which is interested in how the working class are disproportionately affected by the electricity crisis, we then focused on the types of announcements that Eskom tweets in terms of load reduction, load shedding, and power outages. Load reduction announcements are disproportionately tweeted about to the public by Eskom, making up 87 percent of Eskom's twitter communications. Consider the definitions in the box "Load shedding versus load reduction" below.

Graph 2: Load reduction announcements overwhelmed all other announcements about the power going down.

⁶ <u>https://twitter.com/Eskom_SA?ref_src=twsrc%5Egoogle%7Ctwcamp%5Eserp%7Ctwgr%5Eauthor</u>

⁷ <u>https://www.eskom.co.za/ourcompany/companyinformation/pages/company_information.aspx</u>

Of the announcements about load reduction, we noticed the following:

The nine provinces experience load reduction in different ways, as Table 1 below shows:

Province	Number of load reduction occasions over a 30-day period
Free State	46
KZN	45
Limpopo	45
North West	44
Gauteng	39
Northern Cape	26
Mpumalanga	22
Eastern Cape	10
Western Cape	4

Table 1: Load reduction across South Africa's nine provinces.

The time frames when load reduction happens (from 5:00 to 9:00, and from 17:00 to 22:00) are important for families getting themselves ready for work and their children ready for school or wanting to cook and wash after work.

In Gauteng province, the areas most affected by load reduction were Soweto, the West Rand, and the Vaal. During the 30-day period, Soweto experienced load reduction 29 times from either 5:00 to 9:00 or from 17:00 to 22:00; the West Rand experienced 16 load reductions; and the Vaal, 8.

In Soweto, there seem to be six sets of areas that are reduced from the main grid at the same time. These are:

Braam Fischerville, Chiawelo, Dobsonville, Doornkop, Lufhereng, Mapetla, Naledi, Protea Glen, Protea North, Protea South and Thulani;

Bram Fischerville, Diepkloof Zones 1, 2, 3, 4, 5, and 6, Nomzamo, Orlando East, Vlakfontein;

Bram Fischerville, Dobsonville, Doornkop, Dube, Glen Ridge, Lea Glen Ext 2, Protea Glen Extensions 1, 2, 3, 4, 7, 8, and 15, Protea City Outlying, Protea Industrial Park, Protea South, Meadowlands Ext11, Meadowlands Zones 2, 4, 6, 9, and 10, Meadowlands East Zones 1, 2, 4, and 6, Meadowlands West Zones 7, 8, and 9, Mmesi Park Mofolo North, Orlando and Zuurbult;

Central Western Jabavu, Chiawelo, Dlamini, Itsoseng, Jabavu, Klipspruit, Mofolo South and Moroka;

Central Western Jabavu, Meadowlands Zones 6 and 7, Meadowlands East Zones 3 and 4, Meadowlands West Zones 9 and 10, Mofolo Central, Mofolo North, and Mofolo South and

Dobsonville, Emdeni, Jabulani, Naledi, Tladi, Zola and Zondi.

From the above, we can see that some areas in Soweto, such as Bram Fischerville, Dobsonville, and Meadowlands appear in more than one set of load reductions, and therefore experience load reduction and interruptions to their electricity supply more often than other areas and sometimes this happens twice a day.

Other significant topics of Eskom's tweets related to reporting faults to Alfred, the Eskom chatbot feature (25 tweets in 30 days), national power alerts (24 tweets in 30 days), energy-saving tips for domestic consumers (22 tweets in 30 days), cable theft, illegal connections, and illegal electricity vendors (20 tweets in 30 days). No tips were given to big businesses. Finally, Eskom's Young Scientists' Initiative hosted a series of events during the period under investigation.

This is an example of a load reduction notice on Eskom's Twitter account. Note that the areas experiencing load reduction working class areas: are townships and peri-urban areas.

Eskom's Twitter announcements about load reduction are loaded 12 to 18 hours before the planned outage, leaving little time for consumers to prepare to use alternatives.

MEDIA	
LOAD RE	DUCTION - GAUTENG
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Main area	t of some parts of affected areas
Nory Park	and areas
Owerlo	Novy Park E15 6. 6. 8. 10 & 12 Kasfortein E47, Undokufie Extension 2. Texetopre Ev. 6, Rable Ridge & Tembra Evt 6 Bram Fischersele, Dobtonville, Coornoop, Dube, Gain Ridge, Lea Gian E412, Protea Gen Ext 1, 23.47, 8.8.16, Protea Cay Cuttying, Protea Sandar Park, Protea South, Meadowland's E4811, Meadowland's Zone 2.4.5, 04.10, Meadowland's E481 Zone 1, 28.4, Meadowland's Vies Zone 6,7.8.8, R. Mmeil Dark, 21.2.4, 4. Meadowland's Preventer 1, 27.8, 8. Mmeil Dark
est Rand	Schopping Park, Protea South, Meadowlands Exit J, Notes City Outping, Protea Core 2:44, 94 10. Meadowlands Exit Zone 1:28:4, Meadowlands West Zone 6:78:8.9, Minaeli Park, Motolo North, Orlando 4:204/but Finuthot, Kapiso, Rand Lesses Gold Mine, Retrailer, Robotin, de 13:45:10.8, Stemä Exit p.
nces when a	reduction implementation, customers are urged to switch off all their may lead to transformer tips or failures, and damages to household and apply istums.
do net rep	off this outage.
	couraged to report meter bypesses, illegal connections and vandatism structure on the Eskore Crime-Line number: 0000 11 or on

WHAT IS LOAD REDUCTION? Two definitions

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"Load shedding takes place when Eskom does not have the adequate ability to generate electricity for the whole country to use. It is implemented by cutting off different sections of the country on a rotational basis, with a view to 'sharing the load' (excusing the pun) of the blackouts amongst all sectors of our society and across our country equally, so that no one sector or geographical location has to take the 'lion's share' of the disadvantages that result from the blackout. This is quite different from load reduction. Load reduction is used to reduce the increasing demand for electricity that is supplied to the public. This is achieved by cutting off the electricity of [residents] who cannot afford to pay their monthly electricity bills" (our emphasis).

https://www.schindlers.co.za/news/is-it-lawful-for-eskom-to-implement-load-reduction/

"Load reduction is when power is switched off in neighbourhoods where illegal connections cause overload and damage infrastructure."

https://www.businessinsider.co.za/load-reduction-explainer-2020-6

SECTION 2. How the research was conducted

The study was guided by the following main research question: What are the experiences of the black working class with electricity cut-offs and power failures?

The research sub-questions were:

- How have black working-class communities responded to the South African electricity crisis through individual agency and popular mobilisation?
- What alternatives do these communities and their organisations offer?

The study aimed to:

- detail the lived experiences of the black working class, particularly in select areas of Soweto, Gauteng, as it pertains to the ongoing energy crisis;
- explore coping mechanisms employed by the working class in this context;
- and uncover the ways in which the working class has responded to the energy crisis through individual agency and popular mobilisation.

2.1 What motivated the research?

There is an energy crisis in South Africa. Load shedding brought this into sharp public focus in 2007 and then again over the past several months. However, the many black working-class communities who have long been experiencing a crisis in electricity provision have gone largely unnoticed and their voices have been under-reported. While there exists a body of research which details the political economy of Eskom and the electricity crisis in South Africa, it is mainly top-down, prescriptive and policy-oriented. There are, of course, important exceptions but these are outdated.

Researchers have documented how, during the early 2000s, when townships first began to experience the effects of the ANC's neoliberal cost-recovery policies, the black working class was affected by this crisis. Most notably, in Soweto, a mass movement called the Soweto Electricity Crisis Committee (SECC) emerged in 2001 and, through the Operation Khanyisa Movement (OKM), reconnected thousands of households, mainly pensioners, who had been disconnected allegedly for not paying their historical debt. Eskom and government leaders continue in the present period to arguably scapegoat black townships and shack settlements, blaming them for the crisis because of a "culture of non-payment", "illegal" connections and cable theft. Recently, this approach has seen local municipalities having their assets seized and bank accounts frozen by Eskom because of the "municipal debt", often mentioned in the same breath with the "Soweto debt". Our own preliminary research of the most recent spate of energy cut-offs by Eskom in 2020 and 2021 suggests that black working-class communities both pay more for their supply of electricity and are more likely to be cut-off for extended periods (of 11 months or more) due to Eskom's "load reduction" programme and slow response to technical problems.

2.2 The research style: Participatory Action Research (PAR)

In seeking to foreground a decolonial approach to research at the CSRP, a key aspect of the methodology was to eschew "extractive" research whereby information is harvested from research participants and shared in exclusive publication spaces that are out of the normal reach of participants and where tangible benefits accrue to the researcher rather than the researched. The study used in-depth interviews and ethnographic methods combined with a participatory action research component whereby the data collected and knowledge gained were fed back to the community through seminars via Zoom and other meetings which were possible during the COVID-19 pandemic. While there is an inherent power dynamic between people who do research and people who are being researched in all forms of research, including oral histories, this study tried to regularly engage with the participants with a view of forming a partnership and fostering participation in the study after the findings were presented. The PAR approach is also reflected in the form of this report, which is primarily an academic report but which aims to be a resource for those interviewed.

2.3 Fieldwork

In total, 43 interviews were conducted on 40 occasions with 41 individuals, including three second interviews and one interview involving two people. The research project's primary area of focus was Soweto. The research was undertaken in two parts. The first part collected data with width in mind, and the second with increased depth as the main objective.

Name of area in Soweto	Total number of interviews (including second interviews)	Household ethnography
Diepkloof	2	2
Dube	4	3
Jabulani	1	1
Mapetla Extension	1	
Meadowlands	5	2
Orlando	1	1
Orlando East	1	
Orlando West	5	5
Pimville	1	
Pimville Zone 3	1	
Pimville Zone 6	1	
Pimville Zone 7	3	3
Sun Valley	13	10
Tsakane	2	
Place info missing	2	
Grand Total	43	27

Table 2: Summary of the number of interviews conducted in various areas

In the first phase, interviews with a survey component aimed to obtain a comprehensive picture of the electricity crisis in Soweto, was conducted. Interviews were conducted in Diepkloof (2 interviews), Dube (4), Jabulani (1), Mapetla Extension (1), Meadowlands (5), Orlando (1), Orlando East (1), Orlando West (5), Pimville, unspecified (1), Pimville Zone 3 (1), Pimville Zone 6 (1), Pimville Zone 7 (3), Sun Valley (13) and Tsakane (2), as shown in Table 2 above. The interviews were conducted with key sources, activists, community leaders and ordinary members of communities. They were conducted on the telephone or in-person where possible. In total, 43 interviews were conducted.

In the second phase, an in-depth household ethnographic study was conducted, which aimed at gaining a deeper insight into the socio-economic conditions and energy needs of selected families. See the right-hand column of Table 2 above for a full summary of where household interviews were conducted. The ethnography consisted of a detailed questionnaire which collected data such as the number of household members, their relationships and ages, sources of income, living expenses, basic needs such as food, healthcare, education and energy. Special attention was given to the households' energy needs and use of electricity and alternatives to satisfy these needs. In some cases, a physical visit was necessary to allow the researchers to observe the household situations thus adding more detail and veracity to the data collected. In total, 27 households were interviewed. See Section 10 for the interview schedules used.

The fieldwork was conducted by three lead researchers and one part-time research fieldworker. The interviews were conducted in languages that the participant and the researchers felt comfortable with, and were recorded, transcribed and translated into English by a CSRP team member.

Selection of the sample

Purposive sampling was used. The fieldwork started in the areas mentioned above because of the strong contacts the researchers had. The researchers had good contacts in most of these areas including with members of key Soweto social movements such as the SECC, Soweto Action Committee (SAC) and the Soweto Electricity Movement (SEM). Each

area has experienced its own electricity problems, sometimes similar to other areas. Each area has often responded differently to these problems. The analysis offered in this report thus relates only to our sample and may not be generalisable to the rest of Soweto, Gauteng, or other townships in the country. However, given the top-down, policy-oriented research that has dominated the Soweto electricity crisis, this report offers rich, detailed, qualitative analyses that may shed light on the day-to-day reality that the crisis causes.

2.4 Data analysis

The qualitative data was analysed in multiple ways which included innovative and more conventional methods of social science analysis. The interviews were transcribed and analysed according to the themes that emerged and these were broadly categorised under experiences, grievances, responses and solutions. We have mapped the responses geographically (to reflect developments in Soweto's constituent townships). This geographical analysis assists in exploring historical and organisational/associational factors that may influence and explain community-specific responses. For example, the Dube community never forgets how it historically paid for the installation of electricity cables in the area and this always comes up in community meetings. Similarly, some areas such as White City in Jabavu have a distinguished history of organising and fighting against apartheid and this has had a significant influence on how that community has responded to the electricity crisis. Another innovation has been the household ethnographic approach in which existing and improvised methods were employed to analyse the role and impact of the electricity crisis on individual households and their wellbeing. An in-depth and complex analysis assisted in exploring the true meaning and consequences of the crisis for the everyday lives of working class and poor residents. The findings from the interviews and the household ethnography were then combined and synthesised as part of the data analysis.

Seminars

To supplement discussions on issues raised by preliminary analyses, the CSRP hosted an academic seminar series titled "Energy Racism". The CSRP research team, activists and academic researchers presented on various aspects related to the broad topic of Energy Racism in the context of South Africa's electricity crisis. The seminars presented preliminary findings from the study and invited critical engagement with the academic community. Four seminars were held in the series and titles included: "The South African Crisis: Looting Eskom, blaming the poor", "The South African Crisis: Sun Valley, Soweto blackout research findings", "Key Findings and Theoretical Insights in Electricity Research: In conversation – Trevor Ngwane and Mosa Phadi" and "Community Voices: Decolonising electricity research through participation". Scholars and students interested in energy, climate change, racial capitalism and social justice issues were invited. Soweto community members and activists were also invited to the online platform to engage with academics and researchers in this seminar series.

The seminars can be accessed via the following links:

- Seminar 1: <u>"The South African Crisis: Looting Eskom, blaming the poor"</u>
- Seminar 2: <u>"South African Crisis: Sun Valley, Soweto blackout research findings"</u>
- Seminar 3: <u>"Key Findings and Theoretical Insights in Electricity Research: In conversation Trevor Ngwane and Mosa</u> <u>Phadi</u>"
- Seminar 4: <u>"Community Voices: Decolonising electricity research through participation"</u>

SECTION 3. Who was interviewed? Describing the sample

"Life was great before we were adults, we did not have much of the responsibilities and we would wait upon our parents to provide for us. Now we are the responsible ones ... we are facing the additional problem of electricity crisis on top of our lives [as well as] drugs, alcohol abuse and communities are messed up, that is the reality of the situation."

This section draws on the questionnaire-type questions and the household ethnographies to describe the people interviewed and, in some cases, their households. One thing that emerges in the final section is a sense of chronic domestic strain which the electricity crisis only makes worse, revealed in household composition, incomes and spending, individual work and income status of the people interviewed.

Although much of this description is presented in ways that visualise numbers, the aim is to visualise and summarise the sample (the people we interviewed), not to generalise to the people of Soweto, Sun Valley or any other place. Note that we have resisted using percentages in the graphs describing our sample in order to emphasise this, although we sometimes use proportions such as one third. These numbers and visuals help us to understand who the researchers talked to, their situations and some connections among various aspects of their situations.

This section sets the scene and maps where and how many people were interviewed as well as their basic demographics such as age and gender, along with types of electricity meter and individual work status. The section concludes by analysing households and household budgets. High levels of adult dependency in our sample's households reveal households under strain even before the electricity crisis.

3.1 Coming to the township

It is key to the research, not a background detail, that it was situated in a township. All the people interviewed consequently chose 'Black African' when asked which of five categories described their race (including 'Prefer to self-describe'). All lived in one of two townships, originally apartheid dormitory areas for a black workforce⁸. One person came from Tsakane, a newer, 1970s township on the East Rand developed during a mini-industrial expansion in that area amidst a major rearrangement of the Population Register⁹, and the rest came from Soweto, a much older, larger and more internally diverse township which had also been the destination for many affected by forced removals. Townships have gained retail facilities and greater access to electricity since the end of apartheid but, despite Soweto's tourist cachet, townships remain on the outskirts, still at a distance from most formal work other than retail and education.

Out of 15 people who talked about how they came to their current home, 7 were born in Soweto and 4 arrived as children from other townships, possibly as their parents searched for work or better living conditions: "Well, people used to migrate from one town to another. So we moved due to that." All but one of the remaining 15 respondents had lived there a very long time: one for 17 years and another since her children were born, of whom "two are dead and two of them are already on pension." Only one person we interviewed had lived there briefly, for about a year.

The person from Tsakane arrived in that township as a toddler after his family was forcefully removed from Brakpan: "I was still young ... [but] I think when we moved to Tsakane we had to start from scratch, remember at that stage my parents had to find a house and all of those things, so it was a bit of a challenge". This reminds us of unseen burdens of black and township life such as the likelihood that some generation of one's family suffered the disruption, trauma and discriminatory social setback of apartheid's forced removals. Several areas of Soweto were also established by forced removals of earlier generations.

When asked about personal highlights, many of the participants mentioned graduating, achievement in sports, the birth of a child and growing up in a community that loved soccer. There is a post-apartheid narrative that emphasises their achievements when looking back on township life, partly for the good reason of wanting to humanise residents

⁸ See, for example, Nieftagodien, N., 2012. The Township Uprising, September-November 1984, in: *Book 5: People, Places and Apartheid. Department of Education*. Pretoria; Crankshaw, O., 2005. Class, Race and Residence in Black Johannesburg, 1923–1970. *Journal of Historical Sociology*, 18, 353–393.

⁹ During which hundreds of thousands of black South Africans were stripped of citizenship and assigned to one or other bantustan, while those allowed to remain were extended a little more permanence in the townships but were now expected to pay to sustain township infrastructure.

who were often represented as flattened symbols of suffering. But human aptitudes for finding a heart in a heartless world should not make us forget that townships were nasty, brutalising environments, when not by design, then as a result of design. For someone else in the sample, growing up in a township meant that:

"Obviously memories are bad when it comes to life in general, can you imagine growing up in Alexandra? Do you know Alexandra?" *Interviewer: Yes, I know.* "In one yard, you will find that it is being shared by ten families. There are only two toilets for ten families. I grew up in a gangster area ... you will see a man being shot and you are only ten years old, he was shot at while he was trying to escape and he ended up hung in the fence. Those are the memories... I was telling a friend of mine it could have been other townships as well and I was saying people who lived during the apartheid system... I need counselling. Because the situation was horrible. The things that were happening were horrible."

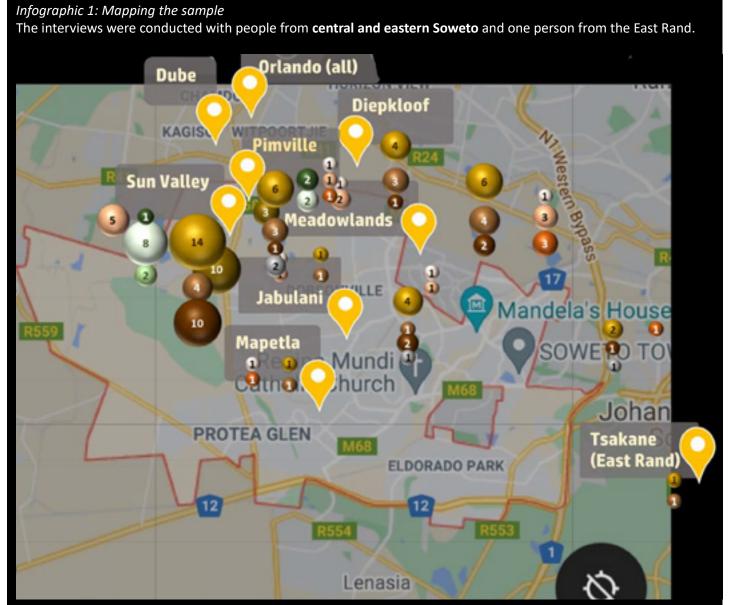
Another described a treadmill life punctuated by repression: "Nothing much, it is like as black people it was to grow up, work, get married, have children. The key moments that I have seen was being harassed by the police as I am staying next door to a man who was from Robben Island, he passed away. Seeing police security coming at night searching his yard and they would even jump the fence to our yard, that was harassment." Another described being "hunted" by the blackjacks until he got his pass.

For this person, the highlight was survival: *Interviewer: What are some of the key events that – key moments or success in your life that you can remember?* "Successes, I do not know. In the 36 years, I can't say here in Diepkloof, we have celebrated this and that... I cannot remember anything like that." *Interviewer: In your personal life?* "It was the time when I got a job because at that point my mom was going through a divorce... we did not know where my dad was, it was hectic, my mom had to sell her house... so that time when I got a job, that was a good thing that ever happened to me and my family."

Township life has changed since then, but there seems to be a rebound of stressors in township life. The electricity crisis is accelerating the rebound.

3.2 Situating the sample

The map below and the graphs that follow describe the age, gender and employment status of the people we interviewed and the areas they live in, compared to Soweto, Alexandra, Johannesburg and South Africa respectively.



The sample = the people interviewed. We also refer to people from the sample as 'participants' or use the phrases 'people reported', 'a person said' or 'someone said' when quoting them. We have not used their names to protect their anonymity and we only sometimes identify their geographical area.



Yellow pins on the map mark the areas from which we interviewed people.

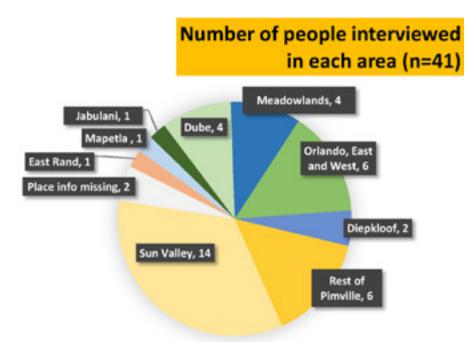
The **single biggest component** of the sample was from **Sun Valley**, followed by the rest of **Pimville**.



Golden yellow bubbles. The size of the bubble represents the total number of people interviewed in that area. The darker golden-yellow bubble represents how many of these were ethnographic interviews

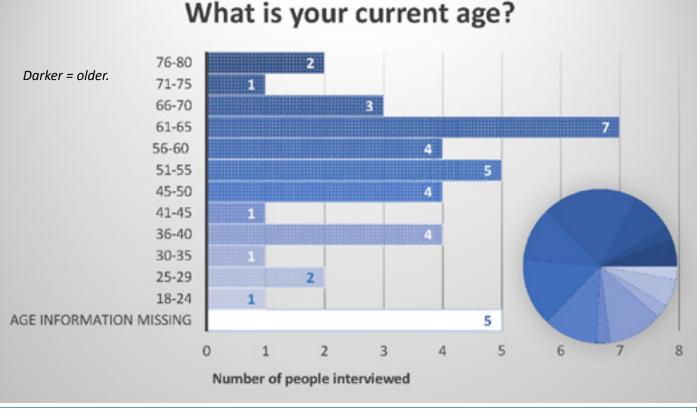
Imagine that we asked everyone we interviewed to stand together in a group next to the sign for their area. Each bubble represents one group of people.

The sample leaned towards older people. It would still be skewed, though less so, if all the people whose age information is missing were in the younger categories.



Multicoloured pie graph. Each slice represents the number of people interviewed from that area and the area's share of the total.

Imagine that we divided a paper plate into 40 slices, one for each participant. Participants coloured their slices according to where they live, and then return the slice to the plate.



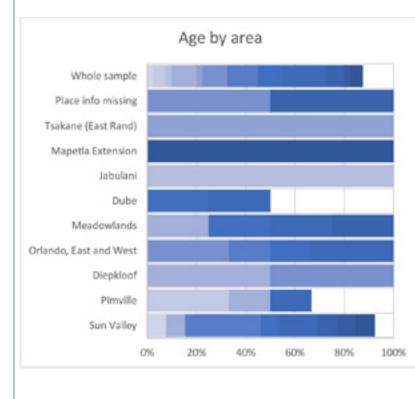
Imagine if we put up signs for every age category, and then everyone we interviewed stands in the row containing their age.

More than half of the people interviewed were between the ages of 60 and 80, and three quarters were above the age of 45. By comparison, the age halfway through the age range of people we interviewed was 50 years and one quarter of the range would be 35 years.

Blue pie graph. Darker = older. 'Age missing' was left out of the pie graph.

Imagine we divided a paper plate into 35 slices, one for each participant who gave their age. Participants coloured their slices according to their age category. Then we put another paper plate at the door of the bar graph room and each participant sticks their slice back into the plate as they leave the room in order from oldest to youngest, until the plate is full again.

The largest component of the sample, in **Sun Valley**, was generally **more middle aged** than the sample as a whole, **but covered almost the full range of ages** interviewed. Everyone interviewed in **Orlando**, Orlando East and Orlando West was **older than 45 years**. Those of known age in **Dube** were all **older than 55**. Those of known age in **Pimville** had a **spread** of ages from **25 to 65 years**

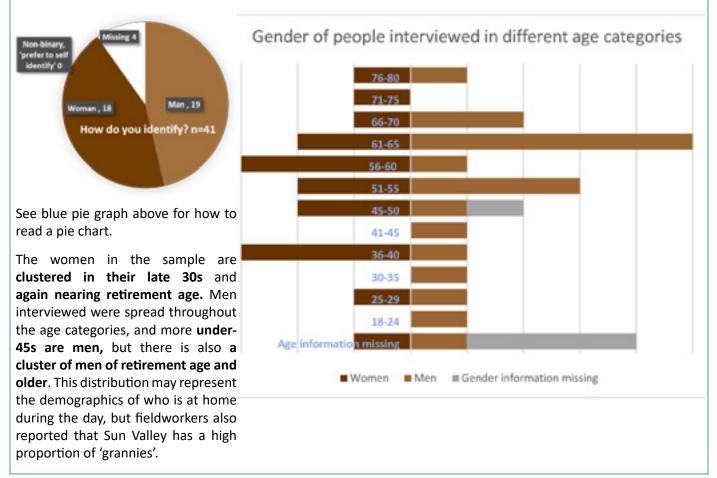


Each bar represents 100% of the people interviewed in that area.

Imagine you unroll the previous pie graph above, keeping the circumference together but allowing the slices to separate at the centre. Colour in the gaps and you have the bar for the whole sample. Now imagine that everyone we interviewed went into a room set aside for people from their area and lined up in order of age. Each room gets their own sliced-up paper plate to reassemble as they leave. We let the people who didn't give their ages take part this time, with a blank slice. This makes a pie graph for each area in which we interviewed people. Unroll each pie graph to get a bar for each area. This allows us to see the spread of ages in different areas, and to compare the range of ages in each area. A single colour filling an entire bar means there was only one person interviewed in that area. Remember that each bar represents all the people in an area, whether it was one person or 14 people. The Sun Valley bar, on the other hand, has 14 coloured blocks.

The overall sample is well balanced between men and women.

Brown and tan pie graph. Brown = women. Tan = men. Grey = gender information missing.



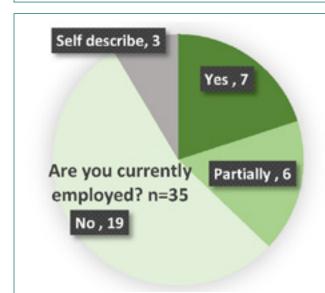
Brown and tan pyramid. Brown = women. Tan = men. Grey = gender information missing.

Imagine that we get people to line up in their age category as we did for the large blue bar, but this time, we ask women to line up on one side of a table and men on the other side. This allows us to compare the two groups and see that while there are almost equal numbers of men and women in the sample, they are not spread equally across ages.

In **Sun Valley**, substantially **more women were interviewed than men**. In Diepkloof and Dube the number of women was more than or equal to the number of men (we cannot be sure because of missing information). In all **other areas**, **more men** than women were interviewed.

Brown and tan bubbles. The size of the bubble represents the number of people. Dark brown = women. Tan = men. Grey = no gender information was provided.

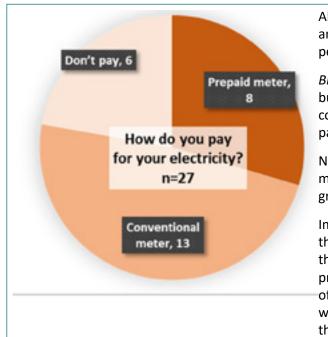
Imagine that we asked all the people we interviewed to stand next to the sign for their area. Each person puts on a dark brown cap if they identify as a woman, a tan cap if they identify as a man, and a grey cap if the fieldworker did not collect this information. Then we ask them to stand in a circle with people of the same gender. Each bubble represents one circle.



More than **half** of the people we interviewed were **not working**. **One fifth work** and another **fifth** are **partially employed**.

Green pie graph and green bubbles. The size of the bubble represents the number of people. Dark green = working. Light green = partial work. Pale green = not working.

Imagine we ask all the people we interviewed to stand next to the sign for their area. Each person puts on a dark green cap if they are working, a pale green cap if not, and a light green cap if they work sometimes. Then we ask them to huddle with people who share their work status. Each bubble represents one huddle of people.



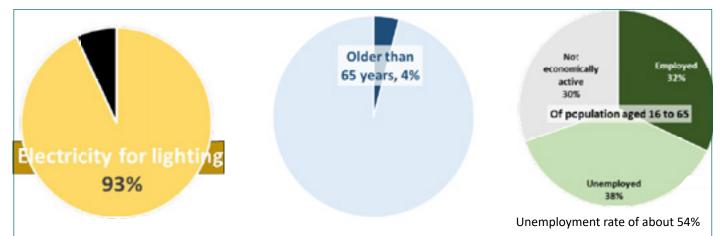
About **one third** of the people interviewed had **prepaid meters** and the **remainder** were using **conventional meters**. Several people from both groups, however, were not paying for electricity.

Brick-coloured pie graph and bubbles. The size of the bubble represents the number of people. Brick red = conventional meter. Pinkish = prepaid meter. Pale = not paying.



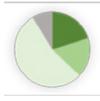
Note that fieldworkers could check "not paying" as well as a meter type so the sum of not paying with meter type may be greater than 100%.

Imagine we ask all the people we interviewed to stand next to the sign for their area. Each person puts on a brick-red cap if they have a conventional meter and a pinkish one if they have a prepaid meter. They form a circle with others with the same type of meter. Each bubble represents one circle. Next, we ask those who are not paying to put on a pale pink cap and stand next to the sign for their area.



The basic statistics for Soweto, Johannesburg and South Africa situate the sample in its broader context, along with statistics for four of the "sub-areas" within which interviews were conducted. The usefulness and veracity of these figures is historical rather than current; hopefully the next national census will provide more reliable and useful statistics.

3.3 Work and livelihoods of the sample



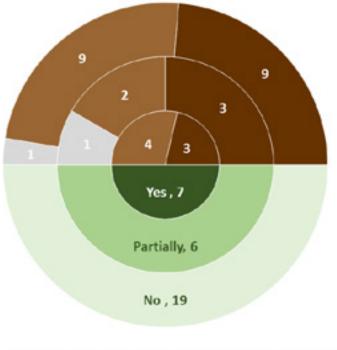
This section describes the employment status and sources of livelihoods of people in the sample. *Infographic 1* (page 11) shows how people in the sample answered the question "Are you employed?", for the whole sample (green pie graph) and for specific areas (green bubbles).

Women's and men's work status

The half-moon graph (right) shows similar numbers of women and men in each of the work status categories in the sample. This is unlike broader society, where women are more likely to be unemployed or partially employed, but it means that this qualitative sample reached the less typical as well as the more typical sub-categories.

Unemployment in the sample

Most of the people interviewed who said they were not employed had been without employment for longer than five years, and all for longer than a year. (Lighter green = longer unemployed.) Not shown in the graph is that all of those who had been unemployed for more than five years were older than 45 years, but only three were older than 65, meaning the long-term unemployment was not due to reaching retirement age. A high proportion of the people interviewed in Sun Valley had been unemployed for more than five years.



■ Information missing ■ Men ■ Women ■ Grand Total

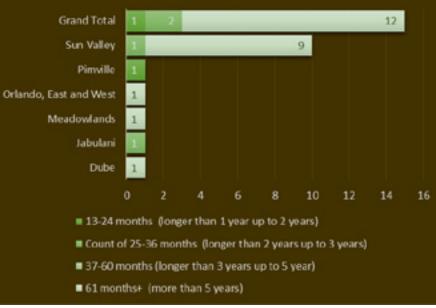
Graph 3: Numbers of women and men with, without and with partial employment in the sample. Each circle represents a possible answer to the question 'Are you employed?' The bottom half of the circle identifies the work status category, and the top half shows the share of women and men in that category. Brown = women, tan = men.

Main sources of income

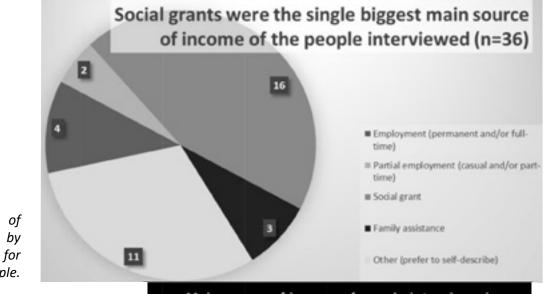
This section considers the main source of income reported by individuals interviewed, in Graphic 1. (Household sources of income will be analysed in the next sub-section.)

The participants had various sources of income but more than four out of ten people interviewed relied mainly on social grants. The next biggest category was people wih 'other' main sources of income, detailed in the table attached to the pie graph. These were particularly pronounced in Sun Vally, as we can see from the bar graph. Both women and men were interviewed in each category, as we can see from the half-moon graph in Graphic 1.

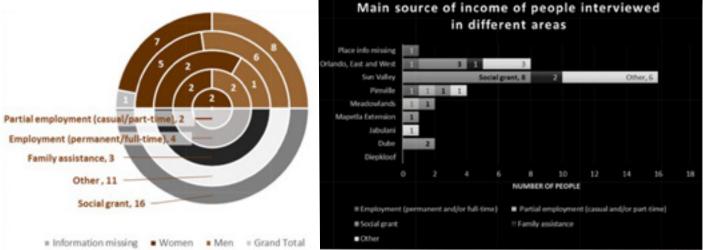
How long had people been unemployed in each area? (n=16)



Graph 4: The bar graph shows participants who said they were unemployed according to how long they had been unemployed, arranged by area. Lighter green = unemployed for longer. Each bar represents an area, and the length of the segment as well as the number on the segment is the number of people in that category.



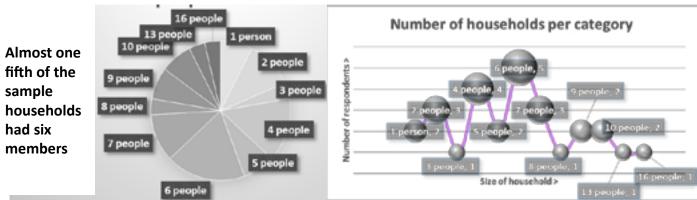
Graphic 1: Main sources of income, sources of income by area, and sources of income for men and women in the sample.



3.4 Households in the sample: Already taking strain?

This description is based on the 27 interviews which collected household ethnographies. The size, composition and sources of income of households of people in this sub-sample suggest that their households were often already under strain before the electricity crisis.

Household size



Graphic 2: Sizes of households in the sample. Darker = bigger households in the pie graph on the left. The size and height of the bubbles in the bubble graph on the right represent the number of people interviewed whose households were in that category. Households get bigger as we move from left to right. The numbers on the bubbles are the household-size category and the number of households in that category.

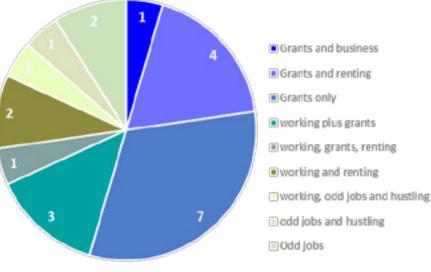
The single biggest category of household size was six-person households, which was also the average household size and the median household size of the people interviewed (that is, half of the people in the sample were in households of six people or more, and half in households of six people or less). The next largest category is four-person households. Four and six-person households together account for about one third of the sample. Almost two out of five people in the sample came from households with seven or more people and one in five from households with one or two people.

These are larger, then, than the average for households in South Africa. By comparison, 60% of households in South Africa in 2019 were smaller than four members, and the average household size was around 3. Nearly a quarter of South African households were 1 person households, and only 14% of households had six or more people¹⁰.

Graphs 5 to 7 below, analyse sources of income and their relation to household size. Following that, a grid details household composition and incomes and the demands on those incomes.

Most of these households combined several sources of income

Most households of people in the sample combined several sources of income (Graph 5). Grants were as important for household incomes as for individual incomes (see page 16) for people in our sample. Grants were a source of income for the households of 16 out of the 22 people who gave information about household sources of income. Workers were involved in the households of 7 of the 22 who provided this information. None of the households represented here had working as the only source of income. Maybe smaller households with more workers were not available for interviews. Renting out back rooms was a source of income for 6 of these 22, while odd jobs featured in 4 of the 22 households. Two people specified 'hustling' doing whatever you can to make ends meet.



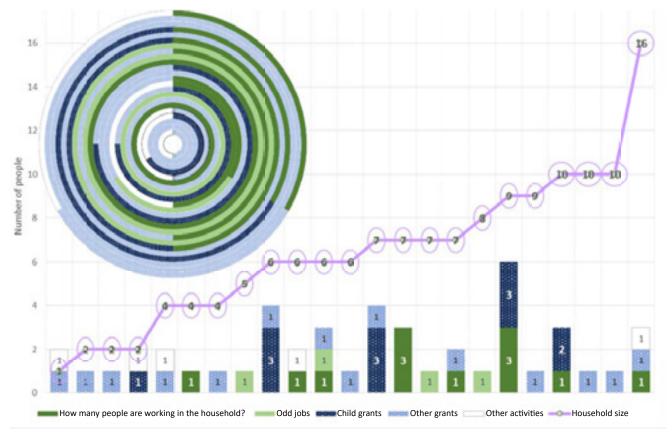
Graph 5: Income profiles of the sample. The graph shows the share of households in our sample with various income profiles. The colours denote categories of income profile.

¹⁰ StatsSA. 2020. *General Household Survey 2019*. Statistics South Africa, Pretoria

In South Africa as a whole in 2019, 45.5% of households received one or more grants (but only 10% of households in Gauteng province and in the City of Johannesburg metropolitan area), and grants were the second most important source of income for households in South Africa. Salaries, received by 62.2% of households in South Africa (64% of households in Gauteng and 66% of households in the Johannesburg metro area), were the most important source¹¹. This information was not available at a smaller scale, so we cannot say whether our sample is unusual for a township, but the next section shows that it differed from the South African and provincial aggregate.

Grants were a more common source of income than work for our sample

Seven of the 22 households in Graph 5 reported only grants as a source of income. The doughnut in Graph 6 gives an impression of the overall importance of five sources of income for the households of 23 people in the sample who provided this information, while retaining some detail at the household level. The income sources represented here are work (dark green), odd jobs (light green), child grants (dark spotted blue), other grants (light spotted blue), and 'other' (white). Renting out rooms is not included here.



Graph 6: Shares of various sources of income in households with household size. The blue, green and white blocks indicate different sources of income. The purple line and circles indicate the size of the household.

Each circle represents one household (arranged from the smallest household in the middle, to the largest on the outside.) Each blue or green or white segment of a circle represents the share of people in the household with that source of income, represented by a colour. Blue (grants) dominates. If you are patient, you can also see the relative importance of these income sources within a particular household. For example, child support grants predominate in households which collect them, if we treat each source of income equally. This data does not reflect the sizes of different sources of income. Remember that the doughnut does not reflect the number of people in each category: each segment of colour could represent one person or three people bringing the same source of income into that household.

The bigger bar-and-line graph shows the actual number of people in each category, as well as household size. Each bar represents one household's sources of income. The numbers and the height of the lavender circles directly above each bar represent the total size of each household. Here, it is clearer what is going on with incomes at a household level, although the blue's dominance is less obvious. The numbers, however, confirm the dominance of grants for the samples' households: 27 individuals in the households of people in the sample receive grants (half of those child grants), while only 16 in total earn income from work, including odd jobs. We will return to household size (the purple line) later in this report.

¹¹ StatsSA. 2020. *General Household Survey 2019*. Statistics South Africa, Pretoria

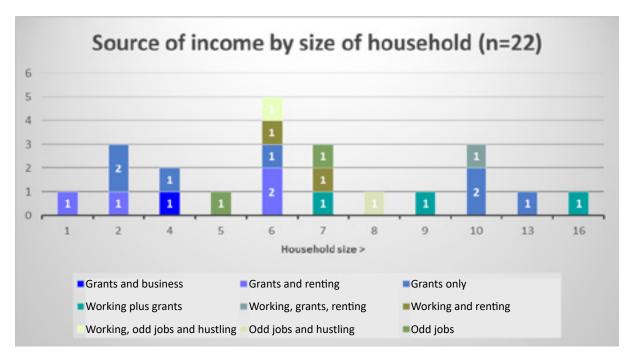
Backyard rooms and shacks

Table 3: How households use backyard shacks

Renting out backyard rooms or shacks	7
Used to rent when there was power	5
Using backyard rooms for family	
No backyard rooms	7

Backyard rooms were important to many households of the people we interviewed, either as a source of income or for extending the household to enable mutual support. Students, single workers, migrant workers and many small families without deeds to a dwelling or money to rent a whole house rely on backyard shacks, rooms and converted garages for a toehold near the city.

Renting brings income but also additional electricity responsibilities: "Electricity is very expensive, it is way more expensive than food, because it's supplying all the other rooms even though they have their prepaid meters. If the main house does not have electricity, it means it switches off to everybody... I have to make sure that I always have money with me to safeguard that" (Orlando resident). Several of the participants who said they used to rent out rooms lost important sources of income when electricity went off and the tenants left.



Household sizes and sources of income

Graph 7: Sources of income for households of various sizes. The colours denote categories of income sources; each column includes all households of that size; and the height of the block as well as the number in the block is the number of households in that category.

Households of all sizes received and pooled grants, but households that had workers were amongst the larger households of the 22 people who answered these questions. This may reflect that smaller households with workers were harder to find and less accessible to the research team, owing to time, or it could indicate that wages attract more people than grants, when there is a need to pool resources.

Household composition: Most households were extended

People banded together in many different family configurations, but most households were extended, by generation and horizontally to include siblings and cousins.

Table 4 below details the variety of household configurations for households of 18 of the people interviewed and how they were or were not extended generationally and horizontally. Grandparents were common to eight of the households, but this included two households where the middle generation was missing (a grandparent cared for

grandchildren). Horizontal extension mostly went along with generational extension and was mostly to the middle generation of siblings and their children. Households of this sub-sample were not generally formed around married or partnered couples. Six households contained couples, but they were not necessarily the core of the household. None of the two-generation households contained a couple. (The further details in the table are organised generationally and do not reflect which person or people are breadwinners, homeowners, or who lead these households.)

Table 4: How extended were th	ne households in our sub-sample?

Extended?	Household composition	Further details	No. of Households	Household sizes
One generation	Stays alone		2	1
	Married couple		1	2
extended horizontally	Siblings		1	6
Two generations	Lone parent and dependent child or children		2	2, 3
with gap	Grandparent and dependent grandchild		1	2
Three generations	couples in two generations, dependent children	Grandparent couple, their grown child and grandchildren, and sometimes their child's spouse	1	6
	one middle generation couple, dependent children	Grandparent, married couple, grandchildren	1	7
	no couples, dependent children	Grandparent, grown child and grandchildren	2	4, 6
extended horizontally	one couple, dependent children	Grandparent, grown children, partner of one of these siblings, grandchildren	2	6, 6
	no couples, dependent children	Grandparent, grown children and grandchildren	2	5, 6
Four generations with partial gaps, extended horizontally in two generations	no couples, dependent children	Grandparent, sibling, grandchildren and their children, grandparent's other grown child (their parent's sibling)	1	8
Other	"Everyone lives in the main house"	Unclear	1	16
	Multi-household shared house		1	10

Compared to South Africa, our sub-sample for household ethnographies had a similar proportion of skipped-generation households but did not otherwise resemble the national aggregate. Our sample had a lower share of two-generation 'nuclear' (parent-child) households than South Africa's 39.9%, and most of the households here were three-generation households, compared to 14% nationally.¹² The qualitative nature of this research allowed and required a looser, more participant-driven concept of what constitutes a household than StatsSA's strict definition, but the income and expenditure discussion later shows that the participants' ideas of what makes a household usually meant something substantively similar to the StatsSA definition, which revolves around people pooling food and sharing a domicile (not necessarily sharing a building).

One can explain multi-generational and horizontally extended households in many ways, starting with family bonding, care and respect for the aged, easing childcare by sharing it, displacing childcare onto female relatives, and even

¹² StatsSA. 2020. *General Household Survey 2019*. Statistics South Africa, Pretoria.

competition for inheritance of the once-'council' houses in Soweto that people were first issued deeds for in the 1990s. But none of these go untouched by the fact that (affordable) housing remains a scarce resource in and around Johannesburg for the black working class, so that considerations of how you *want* to live must sometimes take a back seat to the need to keep a roof over your head. These large households, recurring decades after the end of the pass laws, recur partly because rights to access the city in post-apartheid South Africa are now documented with a signed lease in a marketised housing economy. Pooling this valuable resource, that is, housing, is doubtlessly a key reason in addition to sociability for these households being extended. Later, the report will look at how electricity costs and irregular supply make the homes of a particular strata of people less liveable.

Another important aspect entwined with household size and configuration is that of dependency.

The dependency gap

In the bar-line graph in Graph 6 on page 18, the gap between the top of the bars and the pinkish circle for household size equals the number of people in each household who did not personally have a source of income (except, in some cases, via renting) and therefore depended on others in the household. This gap was substantially more than half the household in several of the larger households in the bar-line graph.



The vast majority of households had dependent members. If we define dependents as all children (even those receiving grants) plus all adults who do not have one of the sources of income mentioned in Graph 6¹³, we see in the outermost ring of this purple doughnut chart, that half of these 24 households had **5 or more** dependents (darker = more dependents). Three of the household ethnographies were not included here as they did not provide enough detail. About two fifths of this outer ring had 1 to 4 dependents. The median number of dependents (not shown on the graph) was between 4 and 5 dependents.

Three of these households, however, earn income from collecting rent. We do not know how rental income was shared within the households, so those households are separated out in the grey wedge in the middle ring of the doughnut. The households with rental income were spread across the categories, with each category losing one or two households to renting, still leaving 2 out of 5 of the households with more than 5 dependents. Finally, the innermost ring illustrates the change if we remove children who are allocated child grants from the category of dependents (although we do not recommend thinking about dependency in this way). Two households moved into a lower category as a consequence of this consideration, still leaving a third of these households with more than 5 dependents and a bit more than a third with one to four dependents.

Who is in this "dependency gap" in these households of the people we interviewed?

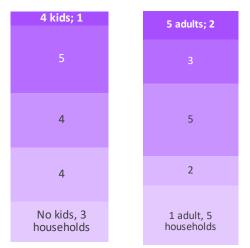
¹³ Calculated by subtracting all sources of income except child grants from the number of adults.

Adults and children

Is the "dependency gap" filled by children? Children were part of most of these households and we should not forget them when reading later sections of this report because children have specific needs and face particular dangers in relation to the energy crisis. The first purple bar in Graph 9 shows that most of the households included children (Darker purple = more children). The numbers on the bars indicate the number of households in that category. About half of these households had one or two children, and about a third had 3 or 4 children. These children could be siblings or cousins, as we know from a previous section.

However, the dependency gap was still several people wide in larger households that received child grants in Graph 6, indicating that there were also adults in these households without any source of income.

Out of 17 households for which we had this data, nearly two thirds had 3 to 5 adults, as shown in the second purple bar in Graph 9. Adults outnumbered children in 12 of 14 of the households with children, as Table 5 shows. The two households were one 3-person household, and one 7-person household. (Household sizes are not shown in the table.)



Graph 9: Number of children per household and number of adults per household

	Children as a percent of the household	
Fewer children than adults	Up to a quarter	2
	More than a quarter but less than half	5
As many children as adults	Half	5
More children than adults	More than half, up to three quarters	2
	More than three quarters	0

Table 5: Adults outnumbered children in most households

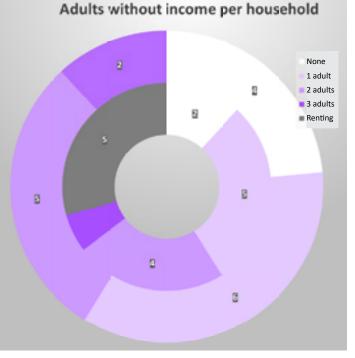
It is possible that people forget children when they are asked to name the people in a household in the context of talking about the household's income sources. Even so, forgotten children would not be included in our count of the household size so it remains certain that the dependency gap is widened in many of these households by a number of *adults* who have no personal source of income.

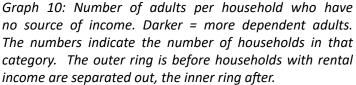
Dependent adults

For close to a quarter of the 17 households, there was at least a source of non-rental income for every adult, excluding child grants, as shown by the white wedge in the outer ring of the doughnut in Graph 10.

The majority of households, however, had at least one adult more than the number of sources of income; two fifths of the total had two or three "dependent" adults. When households with rental income were separated out (inner ring), more than half of the total remained with adult dependents.

Having one adult dependent in a household of ten well-paid workers would not be so bad. The question is therefore, "What proportion of adults is dependent?" The table in Graphic 3 and its visual representation shows that a disturbing number – a third – of these households have more dependent adults than adults with sources of income, even when rental income households are separated out.





Dependent adults a	Graphic 3: The outer ring of the doughnut graph shows de adults as a share of all adults in the household. Darker = higher dependent adults. The inner ring separates out rental income hou The attached table explains each colour category and categoris according to whether dependent adults outnumber non-de adults or vice versa.				
-		Proportion of adults who were dependent	Number of households (outer ring)	rental income separated (inner ring)	
	Uncertain	Rental income	-	5	
	None	No dependent adults	4	2	
	Fewer	Up to one quarter of adults are dependent	2	1	
	dependents	More than a quarter up to half	4	3	
	More	More than half, up to two thirds	5	5	
	dependents	Up to three quarters	1	0	

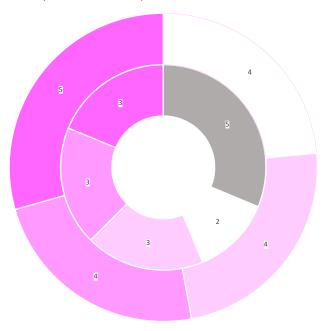
Finally, the pink doughnut (Graph 11) shows that a quarter to a half of the household, counting children, was made up of dependent adults for *one third* of the households even after separating out renting. Not shown here is that the higher dependency ratios tended to be amongst the larger households.

Taken together, these figures suggest that the households which provided household ethnographies are carrying a substantial responsibility for unemployed adults alongside dependent children. In the next section, it will become clear that they are sometimes pooling very limited resources.

3.5 Household budgets

Table 6 tabulates the estimated incomes and expenditure of some of the households in the sample, number of dependents, income per head and income sources, and importantly reports people's own representations of how their households get and spend their incomes.

Income and expenditure data is always difficult to collect, but the fieldworkers came at the question from many different angles to build a picture of a household and its budgets together with the participants. They asked directly, they built monthly budgets with participants item by item, they subtracted the



Dependent adults as a percent of the whole household

Graph 11: Shares of dependent adults. Darker = higher share of dependent adults. Numbers indicate the number of households in that category. The outer ring is before rental income households are separated, the inner ring after.

reported expenditure from income in the interview and asked about the difference, they prompted the participants about spending on specific items such as clothing and transport, they probed if there was anything else households spent money on, they asked what the spending priorities were, they linked spending with incomes, they asked about each member of the household to get a better understanding of incomes, and they layered several of these techniques upon each other for a rich picture of household budgets. Nevertheless expenditure, in particular, is usually a low estimate, based on adding items the person could put a number to. Additional expenses that are hard to keep track of and occasional expenses emerge from some of the quotes in the table. Some participants touched on the intricate ways the electricity crisis wraps itself up in household budgets, and these appear in red text in the table. Bold text serves the usual function of emphasising elements of what people said.

For several of these households, a meagre income is shared in many ways, and their consequent precariousness is sometimes alarming, with several people depending on a single pension plus a precarious job at a fast-food outlet, either of which can be lost at any moment, as one participant's lament near the end of the table below, illustrates. A handful of households in the table had comfortable "middle class" salaries, but they too shared these amongst several dependents. Signs of strain were evident in other participants' descriptions of monotonous food or "compromising on food" to make ends meet, and it was clear that the electricity crisis has severely compromised food security for a number of these households.

The analysis of budgets also makes it clearer that "dependence on grants" often means dependence on *other* people's grants. It is to be expected that a parent must also eat in order to care for a child, but some participants expressed discomfort about being in the situation of having to draw on resources meant for the special needs of the child or old person receiving the grant.

School fees, transport to school and school lunches were big budget items for households with children.

Other kinds of insecurity became apparent in some participants' budgetary concerns about health and burial societies ("It's corona, anything can happen", said one participant speaking of how their mother's pension was allocated in the household), and another sign of distress was that some households noted that they were now reluctantly cutting corners on these expenses.

People also noted, here, turning to family living elsewhere or on the same property to fill the gaps. Various ways of splitting and pooling resources are reflected in the table below, including partial pooling (buying food together but leaving other expenses separate) and occasional support.

Energy was often listed amongst the basics when people offered summaries of household expenditure. Electricity was often a large component of expenditure and being without it incurred even higher costs. Remember that these households do not represent the whole of Soweto or all townships, but note that some are very precarious and electricity problems weighed disastrously on them.

Table 6: What households get and how they spend it. *Red text* relates to electricity. **Bold** text highlights notable items of expenditure and income.

,		e unu meonne.			_	
ашоо иоот 1800	Income per head	How they get it "No one is working."	səsuədxə 1450	<i>What they spend it on</i> Food, bottled gas. "You tell me [how much we	Household income profile	o No. of dependents
1000	100	Receives a pension grant.	1450	spend on food] when you are supposed to go to Shoprite every day to buy chicken pieces? We are now buying chicken feet, gizzards, necks, that is what we are eating every day here. You dish up one feet [sic] per person and tomorrow the same thing happens again there is no fridge, this is the new life that we are living here at Sun Valley there are a lot of things that need to be covered by that one income, sugar, mielie meal, cooking oil, it is just too much."	Grants	5
1800	450	"No one is working." [Gets a grant]	-	-	Grants	3
1800	900	"No one is working . The main source of income for this household is a pension grant."	-	-	Grants	1
1900	317	-	-	"They must keep money aside for mum's transport to medical appointments."	Grants, renting	5
2250	1125	"The garage, I am renting for R1500, they negotiated and then it is R1200, and the room is R600 because it is small."	2500	"We compromise when buying food because it is just the two of us – bread and tea. From that [R1800] I have to pay for my child's school transport, I have to buy food in the house [about R600], we both have to buy clothes, I have to pay school fees, they do not care that he only attended three days [as a result of the pandemic]. School transport is R700 a month. The sister helps with school fees. The school uniform is also expensive and he does not have a school tracksuit. We are thinking of taking him out of that school [in town] because I cannot take it anymore."	Grants, renting	1
2500	417	"One of my brothers is working, but the other one is not working, he is just trying here and there because he is working in a car wash." The mother also bakes cakes.	-	"We can try to raise R1500 a month then we buy groceries that can last us a month. So in actual fact what my brother does is like a top up of maybe R800 a month because of the other things that are needed. You cannot expect my mother to pay for the whole month because there are other things on a daily basis, she must make sure she has money if she is sick we live in difficult times now, there is corona, anything can happen So we try not to jeopardise everything and to work together as a family we do not go for wants, we go for needs."	Working, odd jobs, hustling	?
3000	188	"There are two incomes in this house, my mother's pension grant and my daughter who is working at KFC (Kentucky Fried Chicken)."	2000	Food: "Too much, I think R2000 goes towards food."	Working, grants	13

3000	600	-	3350	"Food I will say about R2000 a month, electricity	Odd jobs	4
				R650, transport R700, my sister I don't know how	··· , ···	
				much she spends on her transport."		
3150	450	"My daughter and myself	-	"Transport for three children to school is R1000	Grants,	6
		are getting a grant [she is getting for] three kids."		a month. She now buys homemade clothes 'because buying direct from the shops is very	renting	
		is getting for j three kids.		expensive I love this kind of fabric because		
				there is no need to iron them since we no longer		
				have non-electric traditional irons."		
3600	1800	-	2600	"I think on food we spend R1000 because in	Grants	1
				a month when we go to collect money so we		
				contribute R500 each to buy food. But before		
				the month end, when something gets finished,		
				we buy. Maybe I can say we are spending close		
				to R1500. When it comes to clothes, we have an		
				account for clothes so we are spending close to R800 a month paying for the instalments. We		
				use [electricity] for free."		
5000	556	-	3000	Groceries, electricity and overall maintenance of	Working,	6
				the home.	grants	
5000	714	"Threepeopleareworking	3800	Groceries, electricity, "Yes, but there's school	Working,	4
		in the household".		fees also" Monthly R1500 (Thabo R450, Thabiso	renting	
				R700, youngest (in crèche) R350. "Then we have		
				to prioritise what they eat and they have to also carry the lunchboxes to avoid giving them		
				money [for lunch] every day. We have to buy		
				polonies maybe three or four of them so that		
				they can last them. The pension of my mother		
				is something I can say is helping a lot but what I		
				can tell you is that if the schooling was free then		
				it was going to be something better. If we were		
				having a flat rate for electricity then we were		
				quite sure that we were going to pay R500 per		
				month then it was going to be better, right now the issue of paying electricity is fluctuating. It is		
				not stable at all."		
15000	3750	-	15000	"It fluctuates on a monthly basis so maybe, with	-	3
				petrol included, maybe R10000 to R15000."		
40000	5714	"I am the only one	12000	"About R4000 on food. R2000 on transport.	Working,	5
		working [The main sources of income for		R6000 on kids clothes for winter."	grants	
		the household are] my				
		money and my mother's				
		pension".				
-	-	-	1000	"For food if I do not have electricity. I would	-	3
				spend R1000 because my children are not		
				working. And the remaining R800, I would pay		
				my policies then R200 lights and water, I am no longer paying because I do not have money and		
				I last paid for these two by the time when my		
				husband passed on."		

-	-	"[Per individual, we are contributing] maybe R150 from the R450 (child support) grant money, you cannot spend all of it. We are all dependent on the grant Whatever that they have, you have [but] you cannot contribute all of it, I mean the R450 grant. Maybe you can contribute R150 or R200 and leave some money for the child so that we can cover here and there at school or any other needs of the child."	1400	"Food. These days we are no longer buying in bulk because of power cuts. We can buy a 5kg of chicken pieces, mielie meal and stuff for lunchboxes. It is a disadvantage if you go back to the shops time and time again, it wastes money. We have to save some money for the burial society as well because we will die one day and we have to prepare for that day."	Grants	
-	-	-	3000	"I will give you a round figure, on food, electricity, and running the home. It comes to R3000."	Grants, business	0
-	-	"One person is working. Just an odd job. We are hustling, trying to make ends meet. We do not have wages, we do not have pensions in this yard."	5000	Food, about R5000. School transport 1200. "We are no longer buying clothes, it's too expensive."	Odd jobs, hustling	?
-	-	-	8000	"Food, transport, electricity".	Grants, business	2
-	-	"No-one is working (in the main house or the backrooms], the other one who is staying in the garage, she was working but she lost her job, at month end she got part time. The other one is selling food in the house. She is the only one who has something that is coming in, the other one is still waiting for her UIF money. These other two [children] are SASSA grant."	People buy groceries	"What we are doing is Zanele buys meat and then [the two children] share in buying groceries. They are buying sugar, mielie meal, rice, coffee, tea, and those other important things that are needed in a house. Sometimes they call me to say please bring us this and that it has run out and you cannot refuse, you just have to help and give them because they are many and they do not have that much income."	Working, grants, renting	9
-	-	'Only my son is working. Me and [my spouse] are not pensioners. [Those who are staying in the shacks] are doing piece jobs. They rent out backyard shacks.'	-	"The money that I get from rent I am paying for the burial societies and the municipal rates except electricity."	Working, renting	4

-		"Don't even ask, it is painful my father passed away, he was the breadwinner because he was getting grant money for pensioners. We are staying with my aunt and she is sick. She cannot work so there is no income, and my other aunt she just qualified now to get a grant. We are also being helped by this other relative of ours who is staying in Diepkloof. He gives us whatever he can afford sometimes. "	-	"Transport for children to school is R600. Also they need to buy gas, petrol for generator, and paraffin."	Grants	9
-	-	"Me and the children are getting the SASSA grant. [the disability grant] sometimes I do not get it and will have to wait for two to three months without getting paid and I will have to re-apply for it. No-one (staying in the rooms) is paying rent, they are all family."	-	"R1200 on electricity alone".	Grants	5

3.6 A brief history of the Sun Valley saga

Sun Valley is located in Zone 7 of Pimville, Soweto, South Africa's largest township. When we began writing this report, Sun Valley was still experiencing an extended blackout that began in August 2020, when the country was placed under lockdown due to the outbreak of the COVID-19 virus. This is what made it central to this research and why so many of the interviews were conducted there.

Pimville is an old neighbourhood of Soweto, which was established more than 100 years ago and is named after an English settler, James Howard Pim. It was Johannesburg's first municipality¹⁴. It has nine zones and two electoral wards. Sun Valley is located in Zone 7, which shares borders with Zones 2, 3, 5, and 6. Sun Valley is made up of a distinct grouping of old, apartheid-era council housing that was defunded in the 1950s and therefore started to dilapidate as apartheid's

project for spatial segregation expanded. But during this time, the classification of Pimville as white or black was contested, which meant that there was a period of state-funded development of Pimville as a white area, and 7,000 bankbonded houses were built. The name "Sun Valley" remained because the structures are so distinct see Image 1.



Image 1: A house in Sun Valley. Photo by Nhlanhla Lwazi Griffin.

¹⁴ See <u>https://sahistory.org.za/place/primville-soweto-johannesburg</u>

Since power to Sun Valley was cut off completely, its residents have been living a nightmare that was only compounded by complications brought on by COVID-19. Transformers were at last replaced in October 2021, weeks before the local government elections, meaning that residents had been in the dark for almost 14 months. This period off the grid brought great hardship and suffering to the residents, resulting in loss of income and trauma. The struggle for electricity, however, is not new to Zone 7. In 2001, the SECC called upon the ruling ANC to stop terrorising its supporters (in other words, the black working class) by instituting power cuts and water cuts. Although the SECC and other community organisations previously managed to help themselves when Eskom refused to do so, reliable and safe electricity was still being denied to the residents of Sun Valley twenty years later.

Working from home since March 2020 meant that some Sun Valley residents lost income because they could no longer work from their computers, laptops, or cell phones without power. In addition, some landlords lost income, as tenants moved to areas where electricity was more readily available: "We used to have tenants but they left within a period of a month after all these electric problems and they said they will be back. I was left with one tenant; she stayed for 3 months but after that she left also." To avoid losing income, some landlords sought alternatives to ensure their tenants did not leave, as this resident highlights: "Some other people are doing business from renting accommodation to UJ [University of Johannesburg] students. They are installing the solar systems so that the tenants do not leave their accommodation." This is yet another example of how electrification is directly linked to income strategies, in this case, both for landlords and those now working from home.

Residents remember times when they were charged a flat rate: "I remember I was still going to school on those receipts that we were paying, it was something like R 34 and after that it went up and we were paying R 50 something. Actually, all the municipality bills under one flat rate were R 100." *Interviewer: [When was that? Was it during] apartheid or it was during Nelson Mandela's time?* "It was during apartheid; they were the ones who were signing off as JM [Johannesburg Municipality]." They also recall that they were disconnected from the old municipal boxes and were switched over to the new pre-paid metres. This change brought with it a new set of day-to-day challenges with electricity, including what residents call "on-off electricity" that has damaged their appliances. But most notable is the 14-month extended blackout from August 2020 to October 2021.

Residents talk of how living in the dark for such a long period has disrupted their lives and left them living with shame, guilt, and fear. With no way to provide power to the household, this man told the interviewer how he has been affected psychologically: "My spirit is broken when I see that I am not able to provide for her. Especially failing to refill the gas cylinder, it really pains my heart. If only I could get a job, it will be better, now it is very clear that there are some things which I cannot do as a male person which I am supposed to be doing. I feel that I am under a lot of pressure. Too much." A woman resident also told of the pressure of having to cook and provide for her family during the blackouts: "This anxiety is too much because you will be like what I am going to do for these couple of hours?" Since the lights have been out, residents fear that crime would increase, as this pensioner told us how it has affected her family: "The kids are not at ease with this darkness. You cannot send them anywhere as long as it starts to be dark outside, they start to be scared. We as adults are also scared, we are hearing a lot of things that are happening in the streets out there."

Although people tried to find out why their power had been cut, they could not get a clear answer from Eskom about the root of the problem. Was it permanent load shedding? Was it due to cable theft or vandalism? Or was Eskom punishing the community for its historic debt or resistance to the "green boxes" (see page 48)? The people of Sun Valley were left in the dark. Residents tell the same story of a meeting promised by Eskom for January 2021 but the day came and went, without the restoration of power. All this changed in late October 2021, when new transformers arrived on flatbeds, apparently organised by the local councillor. The arrival of these boxes coincided conveniently with the municipal elections on 1 November 2021 (see Images 2 and 3, below).

Despite the power coming back, more research should be done on what really happened in Sun Valley, because it is an example of how Eskom's policies and practices are blatantly anti-poor. Knowing the reason for the extended blackout

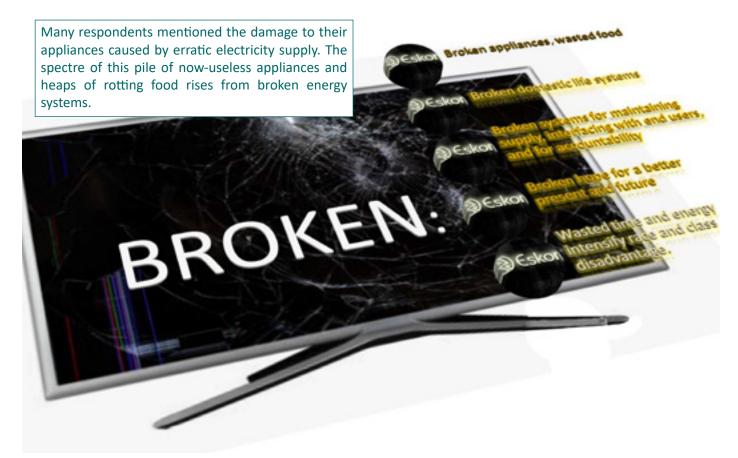


in Sun Valley may help protect other townships from experiencing the same.

Image 2 and Image 3: Workers install a new transformer in Sun Valley, Pimville Zone 7, after almost 14 months without electricity.

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SECTION 4. Brokenness, burdens and waste



This section provides an overview of the five levels and aspects of the energy crisis as it is experienced by township residents, viewed here through the lens of brokenness. Brokenness is not used as a metaphor here: systems and infrastructure are literally breaking. The levels range from domestic specifics to systemic disjuncture, and aspects range from the physical to mental and emotional.

We found that the energy crisis is interacting with a bigger and broader crisis to further disadvantage people who were already disadvantaged. The electricity crisis intersects with unemployment, gender imbalances and wealth inequality to produce deeper elements of crisis.

4.1 Broken appliances, wasted food

"If you can look here our appliances are no longer working and it is dark in here. Our TVs are burnt because the way we experience these power cuts is on and off. Sometimes our appliances will be on when the electricity is back and it comes back in another manner, which ends up burning our appliances."

"It is a difficult experience to live without electricity, even our meat is going bad in the fridges. Our appliances have been damaged, things like TVs, stoves." [Eskom's load reduction announcement (page 3) admits this danger.]

The complete absence of power meant that some residents "are no longer using our fridges; actually, they have turned out to be used as cupboards because of electricity". Even intermittent power failures cause devastating food waste, making participants poorer, and diverting scarce resources from this participant's health: "I have lost meat which is worth over R 450 which is not for somebody like me as I have said I have thrown away my medication (insulin) and that's it. I feel terrible". Several participants complained about food waste: "...sometimes when you have bought food in bulk in the fridges, it gets spoiled. You have to buy food again"; "In some instances, this load shedding can be there maybe for two to three days then the things that will be in the fridge, get spoiled"; and "...They reconnected the electricity after some days, but already our food was spoiled".

4.2 Broken domestic life systems

"We grew up using electricity and there is no way that we can adapt to using other sources of energy in a blink of an eye. Things are a mix up in our lives, I cannot do without electricity, and everything is upside down."

Broken appliances and wasted food damaged people's nutrition (see section on incomes and expenditure) and broken strategies for stretching incomes: "You cannot budget as long as you are buying food from hand to mouth, you are not able to save. You have to buy something which you will consume at that time and finish it. Electricity has brought us a lot of problems", said the person who complained that their fridge was now a cupboard.

Holding life together in the households in our sample is a finely balanced juggling act, as most of them had been extending themselves in various ways, captured in Table 4 and Table 6 (page 20 and page 25), to face high unemployment and its attendant stresses, as Sarah Mosoetsa¹⁵ noted in her KwaZulu-Natal study. Much of the added burden is absorbed by unpaid labour in the household,¹⁶ especially but not only the labour of women and pensioners. Power cuts may break systems that people have developed for maintaining their households. For example, people were forced to abandon money-saving practices such as buying in bulk once a month, and instead were forced to live hand-to-mouth, as this participant from Meadowlands notes: "It is a waste to use this system of hand-to-mouth. As long as we are not able to buy in bulk, food does not last. This issue of power cuts also ruins our appliances and you have to constantly call upon the handyman and we do not have such kind of money for endless repairs. The other thing is that it has really affected me badly if there is no electricity".

Electricity is convenient, relatively safe, and comparatively clean (at the point of use, and its generation can be cleaned up by replacing coal, for example). Adapting to frequent disruption or its complete disappearance for long periods further disrupts already strained domestic systems, requiring many additional hours for cooking, washing the children before school, procuring food and completing other routine household chores. "When we want to charge our phones, right now, we have to go to Zone 5 and ask them to charge for us."

Meanwhile, domestic techniques for stretching the food budget by buying in bulk are no longer an option: "...We cannot be found buying food in small batches or every day but we need to buy our food in bulk so that we can manage our households properly. Buying in bulk, you are able to save, but buying stuff in small quantities, is expensive. We cannot use our refrigerators right now", said a Sun Valley resident.

Participants lost labour saving devices, communications and home entertainment: "I need lights for security reasons because we live in the townships, there is a lot of criminality around, television set which I normally use for news, a radio, I have a washing machine and also I need it to charge my cell phone and that's it. I have a hoover to clean. Right now if you can see the dust in the carpets, you could actually feel the dust when you step on the carpets that they are dirty."

Social life within the household is disrupted and strained by miserable cold, darkness and boredom: "You cannot even warm up food because you do not want to waste the little paraffin that you have if it is cold, you just eat it as it is". Familial relations suffer and relations with friends and neighbours are also disrupted: "People are now irritated because [going to charge our phones there] is an everyday thing. When they see you coming from afar, they lock their houses, you will knock on their doors and they will not respond to you because they are tired of us. People are tired and irritated because imagine going to someone's house every day. It is not an easy thing".

Households frequently fill in for a shortage of medical and aged care, but the energy crisis interfered with this kind of care too: "Since [my mother] is under medication, they have to cook for her every time... Or they have to make tea or prepare some food for her before taking her medication, it is not advisable to take them on an empty stomach. If we run out of gas, it becomes difficult to refill it, then we will have to opt to use paraffin and you will find that we do not have that kind of money. She is using her pension money and some of us are not working..."

Altogether, these disruptions make it difficult for people to thrive. Still more time is wasted going back and forth to Eskom's offices, with little progress.

 ¹⁵ Mosoetsa, S., 2011. *Eating from one pot: The dynamics of survival in poor South African households*. Wits University Press, Johannesburg.
¹⁶ For example, Bezuidenhout, A., and Fakier, K., 2006. Maria's Burden: Contract Cleaning and the Crisis of Social Reproduction in Post-apartheid South Africa. *Antipode* 38, 462–485.

4.3 Broken systems for maintaining supply, interfacing with end users as "customers", and for accountability

"I do not know how I can put it so that you can understand the state our box is in right now, the best word I will say it is a skeleton. They removed everything inside. It was our first time seeing such things, we were shocked when we saw the box, and it was as if we were seeing a dead body in front of us."

Many participants reported decaying infrastructure which is not expanding capacity with increased demand. "Since they installed these pre-paid meters and these other green boxes, the big ones, they have never been serviced, they came and installed them and they left. No one is coming to check, now it is winter the boxes are burning. Maybe here in Orlando there are about three boxes that have been burnt. I mean the ones that I know..."

People reported long delays in repairs in townships and faulty components not being replaced: "It has been long, at least if they can come and install a new system and try to see whether these issues with transformers and other things that the community is complaining about, will the problem persist or not. Sometimes, when we have load shedding, you will find that their generators or their plants have some fault".

Faults were therefore never ending: "I remember two, three months back we used to have electricity for a week, it goes away for two weeks and it comes back for two days and then it goes away for a week. Sometimes that thing continues for a very long time and the councillor will be called in or dragged in whichever way because these councillors never come. There are times where they will just come in and I think we will be told to make sure that the issue is sorted out. Like I said, these people from Eskom will be working and trying to fix the problem. After fixing it the very same day it will be gone again for three days".

Additionally, revenue recovery technologies such as prepaid meters had complicated obtaining electricity and throttled the free electricity allocation: "With these prepaid meters, it means that the pensioners will have to wait for the cards to come out so that they will be able to purchase electricity. Sometimes, you will find that when you try to buy electricity, the card is not working, which means that they will have to stay in darkness because they could not buy electricity. So that issue of prepaid meters was giving them problems".

Costs rise without warning: "The use of prepaid, initially R 100 was supposed to give you 74 units; it went down to 58 units, this year (2021) it went down to 52 kilowatts. I am surprised now it went down to 50 kilowatts, R 100. After the 7th of each and every month, it goes down maybe to 40. From the 20th to the 28th, it will be at 35. R 100 will give you 35 kilowatts. When and how come they have reduced electricity? We do not know. So, it is daylight robbery".

However, some people accepted prepaid meters because billing for conventional meters is an even bigger mess that often lands residents with exorbitant debt or incorrect charges. "[My parents] have been paying R 100 in that debt ... nothing is changing, the debt is not going down. Instead, you are just wasting your money in trying to pay towards this debt. But you know the older people... they will tell you that "I do not want to get arrested; it is better for me to pay the R 100." But when I look at the amount that is in the bill the debt is not going down, the R 100 it does not make any difference. The debt is more than R 20,000."

In addition, systems for ensuring accountability were also not working. "... We have engaged, we have done almost everything, we have gone to your municipalities, to the highest offices of Eskom that one can go to in the local area to raise all those issues. But we always find that there is no response or positive response from Eskom or the municipalities in terms of addressing those issues permanently." Another participant said, "I was involved in making appointments with the right people but nothing has worked in those efforts. The last time I talked to Eskom people, it was by email and phone call." Participants felt frustrated and abandoned when they tried to get help: "We tried to engage with the councillor, calling Eskom, we even tried to send emails but we have not yet received any positive responses from anyone".

For some there was resignation: "I do not have a choice, I have to live with it, there's nothing much that you can do, if there is no electricity then life has to go on. If you want to charge your gadgets, then you can go to Zone 5 or 2 or go to areas such as Roodepoort if it means to. I have to go to friends if there is a need because I cannot wait for Eskom, I guess we are so used to it happening all the time. We are so used to it happening so often, we know that it could be a day thing or two-day thing or more. You have to do what you have to do, report the issue. Maybe you cannot just wait and do nothing. You can go to the councillor and they will give you airtime to call Eskom, you will understand the incompetence there as well, so there is not much that you can do".

The system's breakdown was also expressed as a broken contract where they have done all the things to be good, selfsustaining citizens only to be frustrated by Eskom: "I feel that it is unfair because I have to make means to survive and sustain myself and, at the same time, I am paying for electricity only to find out that people in the offices like in the Megawatt Park or in Diepkloof offices or in Braamfontein, those people they earn a lot and there is no service that they are delivering on top of that."

People therefore took other avenues to force those official gears to grind: "We did not even bother to call the councillor or Eskom. We protested and we started burning stuff". *Interviewer: Did they respond to your actions?* "Yes, they reconnected electricity for a few days. We did not do anything to try and solve the problem. What is it that we can do? Nothing." But councillors and Eskom officials are safely walled off from community influence by police: "We even tried talking to the councillor, our kids protested, they were dispersed by the traffic cops, they were just shooting at them, and they did not even ask what the problem was. We were not fighting with anyone but we were just venting out our anger since no one is listening to us."

On the flip side, Eskom, meanwhile, was not shy to make everyone in an area accountable for overloading (which is not the fault of residents) or illegal connections (which result from high costs or Eskom's failure to extend the grid to new settlements), regardless of their actual involvement in some of these practices. "Everyone [has to pay a R6000 fee for reconnection] whether you have or you do not have. Since our box was damaged, [Eskom] sent us some papers to sign, as if we were using pre-paid meters or we have bridged electricity in a way. We did not sign those papers, we told them that we do not have pre-paid meters."

4.4 Broken hope for a better present and future

"There are a lot of things which have gone wrong in our communities, I do not want to lie to you. The community is crying, this place is full of pensioners and some of these old people who are using insulin and it needs to be kept in the fridge but we do not have electricity. So how are we going to survive that? We have a school here, how do we prepare for the children to go to school? The children cannot even do their homework properly, they cannot concentrate properly without electricity."

Apart from the severe material consequences of being without electricity, the emotional burdens of the energy crisis have yet to be fully uncovered. Anger and frustration are routinely recognised in any news clip about a protest, as discussed in the previous section. In the interviews, people also expressed despair, hopelessness, damage to their self-esteem and emotions bordering on grief, such as: "Nothing is going alright, everything is ruined. If you can check the situation, it goes from bad to worse."

People spoke about lacking control: "They [Eskom] do not say anything or tell you at what time are we going to cut, we are in a limbo, and we do not know anything". (Not everyone can rely on a Twitter account for notices but even being in the notified dark is still a limbo.) Said another, "We will just have to wait until they reconnect. There is no one to ask, everyone will not have any idea what is going on, we just have to wait and see."

One person expressed it as a crisis of adulthood: "I think it has reached a point where we are just folding our arms and saying, what can we do? Nothing. I am almost in my 40s; there is almost nothing that I can do". Self-esteem was at risk for the person whose words introduce the next section.

For another, it encapsulated a crisis of liberation: "...We started in 1976; that is where the true revolution was coming from but when you look at what is happening now, I would say that all that was in vain. People are not winning anything; our fights are just that we fight because we have to fight and try to go on and on fighting. But all in all, I do not see any victory."

There was resignation entangled with distorted resilience – "normalising", as one person put it:

"Life goes on with or without electricity. I think we are used to it, that it is on and off, so even this time, we are now used to it. We are used to it. As we are sitting right now, it can just go (off) and it will be cold in the house. We have normalised our situation."

The reference to the cold hints at what an absurd normal this has normalised. "Life will never be easier without electricity," Someone else in the sample said, "There is no way. How will that be possible?"

4.5 Wasted time and energy intensifies race and class disadvantage

"I feel belittled because of this whole situation, I am not happy at all because I do not know what our government is doing under the circumstances."

Feeling small in the face of the electricity crisis reflects unresponsive Eskom and government but also that the crisis threatens people's efforts to sustain themselves. Because there is a disproportionate and therefore discriminatory burden on townships in the form of load reduction and infrastructure decay, these setbacks deepen race-class disadvantages in a variety of ways. Apart from the disruption to domestic systems, the electricity crisis sets back people's ability to:

WORK:

"... because I work from home this then becomes difficult for me to do my work without electricity. It has affected me badly because it is either load shedding or cable theft or something is wrong with the sub-station; you will never know which one is the truth."

"I am working from home so the minute there is load shedding with production for my work it also goes down because my battery life of my computer or laptop is ... less than 2 hours, about one and a half."

"At work, they will be expecting productivity; you cannot keep telling them about load shedding. Sometimes, this load shedding thing does not happen at the same time. Your bosses might be staying in town and they could be having electricity when you have load shedding, so they will not understand your explanation of load shedding."

CARE FOR THEMSELVES:

"Besides that, you get sick more often due to coldness, you cannot put on the heater, you will always have to light on your fireplace and use things like the gas heaters to try and warm up."

GET EDUCATION:

"Even children who are going to school cannot do anything or those who have assignments cannot work on them without electricity. They cannot charge their electronics; you cannot access emails or anything then how do you expect the students to do their work."

MAINTAIN OTHER SOURCES OF INCOME:

"When you are selling things like vegetables, if there is no electricity the stock will go bad and the little money that you have you will have to go and buy more stock. You will end up giving your stock away for free to people because it is better to give people than to throw away when it is bad. The next day you will have to buy fresh produce and start again."

"We used to have back rooms and rented them out but those tenants left because they cannot stay where there is no electricity. You cannot stay in a place where you see clearly that nothing is going right. You would go somewhere and look for greener pastures. You cannot wait and just waste your money."

THRIVE

Such day-to-day disadvantages are the building blocks of structural racism and class disadvantage. Someone articulated the disadvantage for school children: "Our children need to be educated now we have this pandemic which is disrupting the schools. ... It is a big disaster here but now because of this online maybe the technology that God has given to mankind, there are those who cannot afford it; they can do it online and then there are those who cannot, they are doomed."

People are further marginalised and excluded by the energy crisis: "If electricity is not there, it seems like we are deep in poverty. So, it is painful if we do not have electricity when the government is addressing their budget, we also need electricity". As someone else said, the energy crisis is "costing the economy of our country and also undermining the cost of life, particularly for the poor and marginalised communities."

SECTION 5. "Life stops when you have no electricity"

"Whenever there is no electricity, there are a lot of bad things that are happening. The colour black is good in clothes, not in our lives. We need light in our lives, enough about this darkness."



Image 4: A Soweto resident shows solar charging "candles" which she uses as a safe alternative during blackouts. Note the anthracite heater at the back, which is meant for heating, is being used for cooking.

This section further explores people's experiences of the electricity crisis. It elaborates on some aspects discussed in the previous section and details how residents try to cope without electricity, what it means in their lives, and the costs of being without it.

The importance of electricity was reflected in the idea that "life stops" without it: "In essence, this whole scenario renders one incapable of doing other things. The lack of electricity means that there are quite a number of things that you cannot do if there is no power".

This person was not being melodramatic, especially in the middle of winter. The lack of electricity really does limit what you can do: "You see this lady that helps me to charge my phone. Usually, I cook and eat over there. When I get back home, I go straight to sleep because I cannot just sit in the cold doing nothing. Going to bed early helps because I will be warm as well."

Person after person echoed this bleak schedule: "...what will you do next? Nothing. Whenever the sun sets, you go straight to bed for two reasons, sleeping and to keep warm. There is nothing more to do if there is no electricity" and "Around 6:00 o'clock we go to sleep with no entertainment, we even forgot about the TV. We do not have electricity."

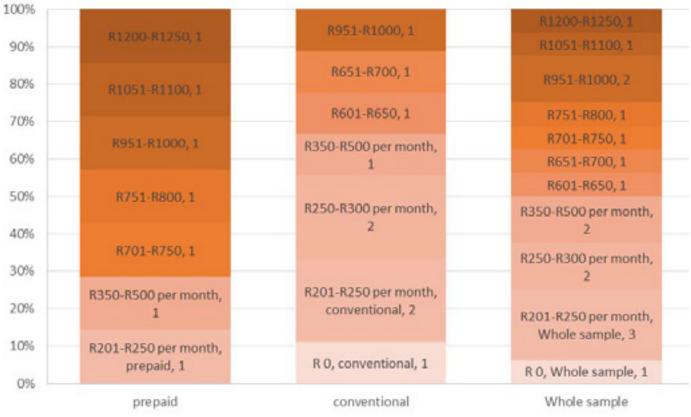
The previous section already mentioned the disruption to work and studies, which was similarly echoed: "It affects our livelihoods because ... the phone dies then you cannot work at all. You cannot attend important meetings..." The next sub-section provides an overview of who has electricity, how often, what it costs, and what it means in people's lives.

5.1 Access to electricity for the sample

Cost of electricity

Half of the participants who answered this question spent more than R500 a month on electricity, according to Graph 12. Those with prepaid meters however spent more: the halfway mark for those with prepaid metres was in the category of R751 to R800 (See Table 6: incomes and expenditure, page 25).

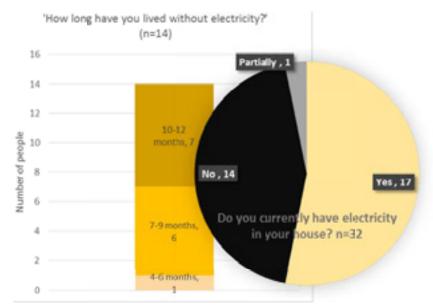
Participants with prepaids tend to pay more for electricity than participants with conventional meters



Darker = higher expenses per month.

Graph 12: Cost of electricity

Electricity access



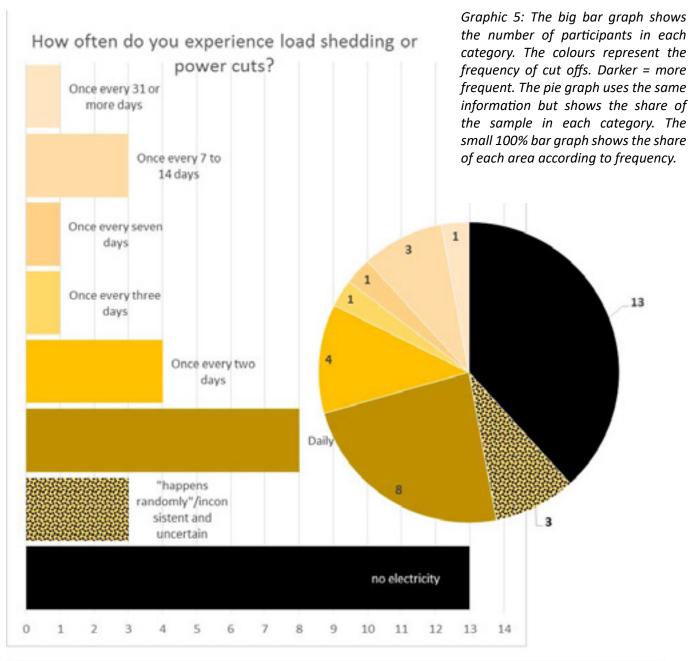
Graphic 4: Electricity access. The pie graph shows whether people had electricity on the day of the interview. Pale yellow had electricity, black did not. The bar to the left shows how long those without electricity had been without it. Darker = longer. The numbers on the bar give the time category and the number of participants in that category.

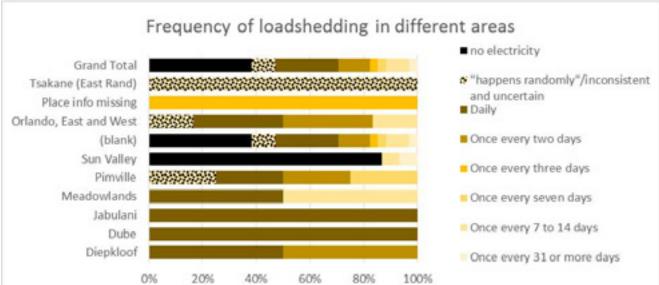
More than four out of ten people interviewed had no electricity at the time of the research. Of those, most had been without electricity for more than six months.

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Frequency of power cuts

Of those interviewed who had electricity, more than half had power cuts at least every second day.





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What does electricity mean for people's lives?

Electricity was high in households' priorities, even for those with low incomes.

What are the priorities in how you spend money in the household?

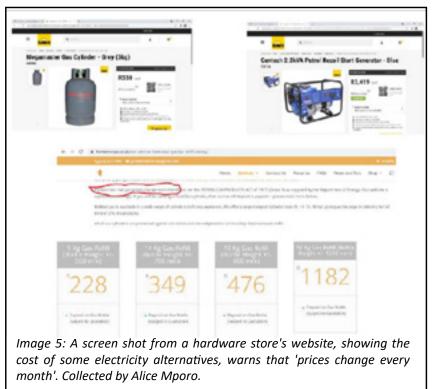
- "I would say it is food, electricity, water, transport to get the kids to school and everyone to get to work. Those are the main things in the house and health maybe."
- "I do not think that we talk about electricity [simply] as a priority, I think it is top priority because it allows you to bath with warm water, to eat, cook, bath children, use the refrigerator to store food, so I would say it is as important as the other two that I have mentioned [education and food]. It is a priority."
- "Right now, it does not exist."
- "I would say it is number two or three in the list."
- "What is the place of electricity in the list of priorities, let us say groceries and fuel are top priorities, electricity can be priority number what? Number two."
- "Very important."
- "If only we can have electricity back, life will go back to normal."

Electricity was usually the preferred power source for the participants. How do people manage without it?

5.2 Energy alternatives when the power is out

"We stock up on coal, wood and make sure that the gas heaters are functioning well and there is enough gas and those lights that we charge ... you see those lights, when electricity is not there, they are able to run for about an hour plus. We put those on in other rooms so that it should not be that dark."

People in the sample used various alternatives to cope without electricity. Three of the four alternatives mentioned in Diagram 1 below – gas, paraffin and firewood – are described as having negative, disruptive effects on people's day-to-day lives: "It is difficult because I will have to go and buy that paraffin and if I do not have the money to buy paraffin then I do not a have a choice but to join the ones who are going to look for firewood so that we can cook. *How has that affected your life?* Using fire and going to the forest to look for firewood is something that we are not used to. It is difficult". Not shown in the diagram is that some people were reduced to very basic



measures such as putting water in the sun in a metal bowl to take the chill off and putting milk and other perishable or left-over foods on the ceramic or cement floor to keep them cooler.

The only alternative that is not unsafe to use in homes is solar power, which is also the least accessible alternative for families who rely on grants and other precarious forms of income. Solar was often described as the preferred alternative: "When it comes to electricity, if we could find a solar system, I think it would work for both the government and the people. I think the solar system is cheap and affordable". Another participant noted that solar energy could also act as a source of energy for only the most important household tasks: "Personally, if I could, I would go for solar just to boil water and put on the lights, fridge, and cooking. Those are the most important ones".

Diagram 1: Assessment of common alternatives to electricity based on a presentation by Lydia Moyo.

EXPENSIVE GAS

Participants largely agreed that "gas is expensive!" People also told the research team that they feared using gas, as this quote shows: "I am afraid of using gas as well because it is also dangerous to use. Even though this one is now better than the one which we used to use back in the day."

Appliances such as gas stoves and gas heaters might be expensive or potentially dangerous, but during the winter months, they become important for heating homes and water. This research was conducted during May and June, when temperatures in Soweto can drop to as low as -2 degrees Celsius.

> What alternatives do you use when the power goes out?

SOLAR

Many of the respondents said that a solution to moving away from electricity would be solar: "Personally, if I could, I would go for solar - just to boil water and put on the lights, fridge, and cooking. Those are the most important ones." However, very few reported having access to this expensive alternative. One participant who had solar power said, "What made me to install the solar system is because we are staying with elderly people who are on medication and their medicines need to be kept in the fridge. So, we [had] to come up with a plan." This suggests that for people in working-class areas such as Soweto, solar energy is a matter of survival for life off the grid. It is not a choice.

FIREWOOD, CANDLES, AND IMBAWULA

POISONOUS PARAFFIN Participants noted that while paraffin is

cheaper than gas, it has other costs, mostly

health and safety, as this quote shows: "Life is

at a standstill without electricity. The paraffin

that we are using, I do not understand it, it is

a threat to our health, it seems like it has some

poison. The way this paraffin smells we all

have headaches in the house because of the

smell..." For people with young children in the

Participants also shared horrible stories about

neighbours being burnt and injured from

using gadgets that work with paraffin, such as

the jelly stove. Incidents like this leave the

community in fear of having to use these

alternatives, but their choices are limited

given that electricity is often off and that gas

is so expensive.

home, this presents a further safety hazard.

People also reported trying to use fire as a source of energy in their homes. Firewood, candles, and *imbawula* (or traditional fire) made up the core of fire-related energies and were not preferred by people in the sample. Gathering firewood forces people to participate in environmental violence, as highlighted in this quote: "Sometimes when we go out there in the bushes to look for firewood, sometimes, we do not get enough or nothing at all because everyone is looking for firewood, so it is now scarce..."

Cooking requires water to be boiled, and since the burden of cooking falls on women, women are further exposed to threats of gendered violence when collecting firewood, as this resident shows: "Sometimes, you go there in fear that you will meet up with wrong people who will end up raping you, so it is difficult."

Costs of not having electricity

Electricity is expensive but being without it is more costly.

- "Candles are also expensive. In my family, we use one packet of candles in one day, imagine that and it costs us R26 every day."
- "We are spending more than R110 for a 10l of paraffin and it does not sustain us throughout the month. So, we need 20l for it to get through the whole month."
- "Charcoal a bag is round about R100."
- "How much is it to fill the gas cylinder? R 220."
- "We need 450 to go through the month for the gas stove."

These alternative sources carry additional costs. Electricity is readily available in the home but gas must be fetched, costing transport money, time and effort: "I am using gas stove even now after talking to you I have to go to Protea to fill it up because that is the cheapest place ...They charge R 170 to refill a 9kg gas cylinder whereas in other places they charge between R 220 to R 270. So, when I travel to Protea, refilling and transport, it is R210".

Collecting firewood is free, but dangerous and not sustainable.

There are also the costs of diverted resources: "When we have electricity, it is much better, we are able to buy in bulk and buy enough electricity. The money that we can save is for emergencies – when someone gets ill, for example, we are able to hire a car".

Finally, the health costs of these sources can't be quantified in money: exhaust gasses can damage the lungs, and most of these sources are also greenhouse gasses, which contribute to climate change.

Breaking budgets. EXAMPLE 2: Gogo Maria

Gogo Maria is 64 years old. She is a single mother with 6 children and 4 grandchildren. She lives in Sun Valley in Zone 7 of Pimville, Soweto.

Her family's monthly income is:

1. Social grant = R 1800

2. Child grants X 3 =R 1200

Gogo Albertina's family had not had electricity for 10 months at the time this preliminary analysis was compiled.

Breaking budgets. EXAMPLE 1: Mama Lilian

With the high rate of unemployment, Mama Lilian started a small business selling food. She is the breadwinner in her home, but because of the electricity crisis, she has invested in paraffin stoves so that the business should continue.

Half a litre of paraffin costs about R20. This is very expensive **because in a week** she spends **R2600** on **paraffin** alone.

Before the blackout, she was buying electricity for about **R1800 a month.**

Clearly there have been significant economic changes in households and people's lives due to the electricity crisis. Budgeting for the sustainability of the small business is no longer predictable. (Compiled by Cleopatra Shezi)

The monthly family budget is as follows:

- 1. Food = R2000
- 2. Paraffin = R840
- 3. Transport = R1000
- 4. Clothes = R1000

Gogo Albertina's family's monthly income and their expenditure clearly tell us that the economic hardships of life worsened during the COVID-19 pandemic. The government is giving Gogo Maria a social grant to survive but it is not enough. This has been compounded by the electricity crisis. (Compiled by Cleopatra Shezi)

Reversing improvements

"Our lives used to revolve around electricity because we did not have a problem by then. We even threw away our old traditional appliances like paraffin stoves, coal stoves but we are back to now; we are buying paraffin and coal and we need the stuff that we threw away but we are back to that life."

When we think of Soweto today, we no longer get the image of people making their way to work through thick air pollution that obscures the rising sun on a winter's morning, as it was during apartheid. The coal smoke inside people's homes was obviously devastating for their breathing and general health.

When electricity was extended in townships after the end of apartheid, people naturally abandoned expensive and dirty sources of energy as quickly as they could get connected to the grid. By 2002, only 16% of households in South Africa used paraffin for cooking and by 2019 that had shrunk to just 3.9%. The use of wood fell from 20% to 7.8% over the same period, according to the Statistics South Africa's 2019 Household Survey.

Coal smoke remains deadly for communities living near coal burning power stations and threatens to remain so for some time (contractors left off the scrubbers of South Africa's newest coal burning plant, Medupi, to save money). The way electricity is generated has to change.

The current energy crisis, however, is even reversing improvements, bringing the smog back into the homes of residents who live far from power stations. This non-monetary cost of the energy crisis threatens to deepen the exclusion of township residents from an improved quality of life.

5.3 The human cost of not having electricity

"Sometimes, there is load shedding or power cuts for more than two days, so we have to make other plans to provide energy, such as buying gas and paraffin which are also expensive. It is just complicated."

This section details how power outages complicated the participants' lives, compromised their future and stressed individuals and their social networks. Frequent or long disruptions to electricity force people into an adaptive mode of living where the circumstances sabotage long-term thinking while nevertheless requiring people to do a great deal of extra contingency planning. Life is characterised by unpredictability, anxiety and depression.

Disrupted lives

"Sometimes, you will have to readjust how you live your life because your life is wrapped around electricity, if it goes, then, it is something else."

"Eating times have changed like for instance I now have my supper by 5:30pm while there is sufficient light. I have to see what I am cooking and then prepare my flask for tea. The thing is my life has been severely disrupted in capital letters. Right now, I have to take my insulin, so I have to go to my neighbour to fetch one more. You know that kind of thing is a hassle. I cannot clean because I cannot put on the hoover to clean my carpets. I have been disrupted."

The previous section showed that the electricity crisis disrupts *domestic systems*, including some which were adaptions to the broader crisis, as well as systems for ordinary daily care in the household. Bulk buying and freezing food were two of the former, frequently lamented and the disruption had

"We are like dead people inside"

Give me a picture of a typical day without electricity. Everything will be a mess, you will just shout for no reason, when you wake up you will be angry. You wake up and go outside try to think that after this where am I going and what will happen next. Look everywhere, bask in the sun and you will be hungry at that time. You will be confused the whole day because you cannot visit people because there is COVID, you have to stay with your poverty at home. How do the children bath? What can you do, they must bath. With cold water? What else can you do? You cannot wake up in the morning and go to the forest to look for firewood. I cannot even hold something properly because my hands will be very cold. Maybe when it is afternoon I can also go and try to look for firewood. If there is no electricity also at the school it will be the same, so they cannot cook for them as well. They will be hungry when they leave for school from home and when they get to school, they also did not cook because there is no electricity. Yes, it is traumatising us. When looking from the outside you will think that these elderly people are just complaining or crying about everything. There is nothing that has changed. We are dying from the inside slowly, even if we did not go to the forest, we are like dead people inside."

knock on effects: "Right now, you have to go to the spaza shops and buy two slices of polony every now and then for kids' lunchboxes, which is expensive, so you cannot save." Disruptions to budgets to get alternate sources of energy

"There will be no peace"

There will be no peace, we fight every now and then. There are misunderstanding when you send him to go and buy bread he will be thinking and then what after this, there is no hot water. The bread will choke you if you try to eat it just like that... you will end up fighting with the child, when he thinks he is going to bath in cold water he will simply say "I am not going to school" of which this will affect him educationally. Maybe he also has homework, so all those things they need electricity, then he has to go out and borrow from a classmate, he will go out of the house running and he will leave everything behind, his bed is not done because he is in a hurry to do the homework, before he could even finish, the electricity goes also in the friend's place. It is not possible to do homework in the dark, the book will end up being messed with candle wax and the teacher will think the child is untidy and they will end up shouting at them, forgetting that some of us, we are having electricity problems."

were also detailed in a previous sub-section of this section and has been discussed above that work, incomes and education are also disrupted. Nutrition suffers: "People need to be warm, people need to eat, without electricity you will have to survive on bunny chows and they are not the healthiest food around."

For people whose social interactions are confined to home, life without electricity becomes boring: "In reality, we are now sleeping early and we are no longer staying up late as we used to. We cannot go on until maybe 9:00 or 10:00 pm. We are now sleeping way earlier than that. We no longer have a TV which can entertain us, maybe we can play the radio using batteries. We have forgotten about the TV even the programmes that they used to play because it has been so long, we can no longer follow them. We can listen to a radio only for a while and go to bed and try to be on the phone for a while because charging phones also is a problem." (See the speech bubbles)

People were having to adapt their lives in many ways. But not everything is flexible: health, for example, cannot adjust to accommodate the lack of electricity.

"Most of us we are not working since there is no electricity, we have to buy paraffin and the paraffin that we are buying it emits a very bad smell. For those people who have such diseases such as asthma, it is a problem for their health. There are a lot of people who have chronic diseases; they are at a disadvantage; some they are injecting themselves and their injections or whatever medication, should stay in the fridge. If we do not have electricity or the fridge then how are you going to take your treatment or to store it? The problem is that you will not take your medication as indicated."

The medication comes in batches meant to last a whole month (and, although the person did not say it, collecting the medicines probably involves a trip and an appointment, making it difficult to recover a loss). Another person told the interviewer about three children in the neighbourhood who had to use oxygen. They were forced to relocate to relatives. Another reported, "I knew why my blood pressure was high because I do not have electricity, cooking using gas, I have to minimise so that I can save on it. I have been eating food that is not recommended due to lack of electricity because I cannot even cook properly". And for another participant, it increased the care burden: "She is asthmatic then she cannot use paraffin stove. I have to wake up in the morning and prepare things for her to go to work. The smoke affects her badly, she always has those attacks but we decided that I will warm her water in the morning, cook for her, and literally do everything so that she does not inhale the smoke which can worsen her situation."

One person felt they were literally paying with their lives: "They are sending us near to our deaths because of the conditions that we are exposed under. They are sending us to an early grave."

Psychological and social impact

"...this anxiety is too much because you will be like what I am going to do for these couple of hours."

"Me and her grandchildren are staying together... My spirit is broken when I see that I am not able to provide for her. Especially failing to refill the gas cylinder, it really pains my heart... it is very clear that there are some things which I cannot do as a man which I am supposed to be doing."

As has previously been mentioned, the intersection of the electricity crisis with other crises damaged self-esteem and placed special pressure on women presumed to be responsible for the home: "As a mother, I have to look after everything and provide. Emotionally, I feel like I can scream and cry. You can even ask yourself, where I should begin if things are like this."

The absence of electricity caused social embarrassment: "My nieces have to go to school, they will have to go and ask for help in other people's houses, which is very difficult and embarrassing for me." Without electricity there is no hot water for washing clothes or bodies. One person from Sun Valley felt self-conscious about going out since the blackout: "There is now a difference between us and other people, people can easily distinguish between us because of being dirty, and people can point at us and say these are the people from Sun Valley."

Family peace was challenged by power outages: "The kids become restless, they will be fighting left, right and centre. You will be asking them, what is their problem. Some will be fighting for your phone [to] play games. At that time, you are trying to save the battery but the kids ... will be bored, there is no radio or any other source of entertainment."

On top of that, relations with neighbours and relatives were strained for some as those without electricity came to rely on them for help, causing more embarrassment and feelings of exclusion for those in the dark: "Weekend we are visiting relatives. They are tired of us ... you were going to call them and say I am coming over to visit, the response that you were going to get was, I am not available, do not come." Another said, "There are some women that used to go to church together. ... They always complain when you visit them, they will be saying "she is always here drinking tea and watching TV, when is she leaving?" You could tell that they are fed up with your visits." And another said, "People are now irritated because it is an everyday thing [to go and charge our phones]. When they see you coming from afar, they lock their houses, you will knock on their doors and they will not respond to you because they are tired of us ... imagine going to someone's house every day is not an easy thing." The price of electricity helped to drive this wedge into neighbourly solidarity: "You cannot go to Zone 5 every day and ask for their help to boil water; they are also buying electricity. They will tell you directly, 'We are buying electricity and here you are you want it for free'."

The lack of electricity also increased fear. One person complained that "there are a lot of bad things happening out

there since we do not have electricity. People are robbed, some end up being killed and they lose their possessions because we are staying in the dark" and another told of taxi passengers being mugged because the whole area was in darkness.

In a very real sense, "Not having electricity like this is like having trauma."

Financial impact

Financial effects of the crisis were substantial. Previous sections have mentioned:

- Extra costs of alternatives to electricity: "I am cooking to make money and since I do not have electricity which means I cannot do my business. Now I have to buy coal which means I am taking that money which was supposed to be my profit trying to replace my source of energy".
- The inability to save by buying in bulk and losing money to food rotting: "The only way to survive is for us to buy food on a monthly basis. That is the only way we can sustain ourselves. You know during these power cuts, we threw away a lot of meat because it was rotten, so it was a loss to us. Because there was a time when we spent the whole week without electricity, so we were forced to throw away everything. We do not have money to buy bread every day."
- Disruptions to incomes from not being able to work or to sustain a small business ("It was difficult because here at home, my mother survives on baking, so she could not bake because there was no electricity. So that is how we get to live or to survive by making those cakes and selling them to people and then you know you have something to eat. So, on that day we struggled a lot.") or from tenants, "If I do not have electricity and I am not working then where should I get the money to pay and also, my tenants are giving me grief, I also have to pay for my child's transport money because I also wish that my child should be educated. So, this issue of electricity is affecting us big time, I do not want to lie."

How, then, do people cope with these situations? Do they cope?

"If the sun has gone down, we go to sleep"

Interviewer: What happens when you do not have electricity? "Wake up, wipe the child with cold water and accompany them to school. Clean the house and afterwards, bask in the sun. When it is time to go and collect the child from school, it is either I bath in cold water or go to school without bathing. When we come back, they do their homework, go back to bask in the sun. If the sun has gone down, we go to sleep. Sometimes, we put water in the sun and follow where the sun goes so the water can heat up a little."

5.4 Coping mechanisms and "not coping"

We found that individual households and communities cope with the electricity crisis across two axes: 1) collectively or individually and 2) in terms of their agency, to either adapt themselves to the situation or to try to change the situation. In Diagram 2 (overleaf), the vertical axis represents the spectrum of agency from coping to directly changing the situation, and the horizontal axis represents types of action from individual to collective action. Where these intersect, four types of coping mechanisms emerge. These types do not typify *people* but possible *forms of action*: people might use strategies from all four corners under different circumstances.

1) Collective-Influential

In this type of coping, Soweto residents in our sample came together to collectively change the situation of not having electricity. The main ways they did this was through regular meetings and attempts to do the job themselves, since Eskom often leaves communities without electricity for what can be very long periods of time. In order to cope without having power, communities collectively protest in order to bring attention to the issue, to get the attention of Eskom or the local authorities, and because they are desperate for a solution, given the frustration of being in the dark for extended periods on a regular basis. The quotes in the diagram show that residents of this particular area in Soweto have been forced to make their own plan for electrification because Eskom has quite literally left them in the dark. We observed several instances where the community had few alternatives but to connect themselves because their other attempts (see below) yielded no results. Other interventions of this type included holding public meetings with residents, the local councillor, and (when they do show up) Eskom; writing collective letters to Eskom; signing petitions to Eskom; and hosting workshops to share experiences and information.

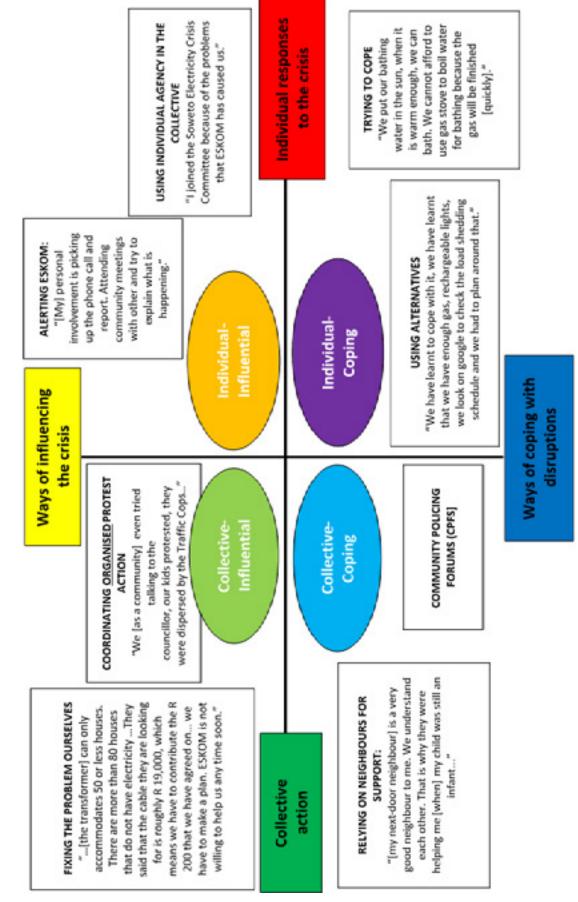


Diagram 2: Different ways of responding to the energy crisis

2) Collective-Managing

In this type of coping, the community collectively deals with the situation by initiating interventions such as community policing forums (CPF) to manage the problems produced by the power outage, since people fear that muggings and house robberies increase when the power goes out at night. Participants in the sample told of using whistles to alert neighbours and those on CPF duty of any possible criminal incidents. Another important way of coping as a collective

related to social solidarity between community members. A common response to questions of coping told of a neighbour who had graciously agreed to allow people to visit, charge their phones, and store medication in fridges. The quotes in the diagram show that people are forced to cope with the situation and that the collective offers an albeit thin safety net for those without power. (In the previous sub-section and in a later section, however, we also show the limits of this social solidarity). Other ways of coping collectively included relying on local shops for credit for the purchase of alternatives such as gas and especially paraffin. Interventions of this type allow the community to collectively make-do without power, but these are short-term solutions that do not sufficiently address the issues at hand.

3) Individual-Influential

In this type of response, residents use their individual agency to get their electricity back. Many participants reported personally calling Eskom to enquire, not only about their own household, but also about the broader street or area in Soweto. Participants also reported joining organisations as a way to individually influence the situation. This shows how the collective and the individual interact intricately with each other. People reported using their own, politically non-aligned agency by joining meetings of organisations such as the SECC, the Pimville Community Forum (PCM), and Meadowlands Community Forum (MCF). Personal involvement in the struggle for electricity includes sharing information about the crisis on local WhatsApp groups, regularly attending meetings and putting individual pressure on Eskom to turn the power back on. Without individuals, the collective will weaken and the chances of the people having a strong stake in the energy sector will decrease.

4) Individual-Managing

In this type of response, we observed four main ways in which individuals cope without having electricity, all involving alternatives to electricity, namely, gas, paraffin, fire-related technologies – namely firewood, candles and *imbawula* – and solar power (although to a very limited extent).

Most of these are short-term coping mechanisms that present more challenges than benefits to residents without power (see the assessment of alternatives earlier in this section). For example, gas is expensive and paraffin is a health hazard. It is worth noting that all participants reported using more than one alternative in order to cope without having electricity in the household. This shows that the effect of not having power is multifaceted and requires an array or responses to cope.

Section 7 provides more detail on how people try to address the crisis and how the crisis affects community solidarity. The sub-section immediately below shows that many people reported *not* coping without electricity, which shows the limits of this type of response as a meaningful way of addressing the problem.

"We are not coping..."

"To be honest with you, whether short or long term, we cannot cope in that situation because electricity in the days that we are living in – everything is electrical, so you just cannot cope with that situation, financially and also emotionally. When electricity is gone, it is like life becomes dark, it is terrible."

While we have shown how Sowetans cope when there is no electricity supply, many people in the sample reported *not* coping, as this participant put it bluntly: "We are not coping at all without electricity."

People are forced to use alternative energy sources and, rather than commend their responses as innovative, they should be taken to reflect the little choice they have in the situation: "As I have said earlier, we use our braai stand as a stove, put it outside, apply sunlight liquid in our pots so that they do not get black outside and we cook. We do not have a choice. We also use it to boil water for bathing but obviously, you get to a point where you do not have to get it on a daily basis."

The scope for coping is very limited because alternative resources are often expensive and must be used as supplements to each other. So even when people make successful plans for alternative power, they still do not feel like they have coped, as this person tells: "I would say personally I am coping because I bought a gas stove, gas heater. So, I will say I am coping but only a little bit because I have to refill the gas every two weeks if you are using it every day. It is R200 and in other places it is R185".

Another person highlighted that coping without electricity is necessarily impossible because urban planning in South Africa is centred on electrification: "We cannot cope because we are use to electricity, we do not know any other life without it. We grew up using electricity so we are not coping. It is not easy at all. Out of nowhere, we do not have electricity. It is very difficult;" and "It is like we are beginning a new life that we do not understand".

SECTION 6. Eskom attitudes to electricity users

This section examines people's experiences of interacting with Eskom regarding their electricity problems. For most people interviewed, this was an intensely negative experience.

When people tried to follow "proper" channels for resolving electricity problems, they were left feeling frustrated, alienated, confused and helpless, and were often still literally left in the dark, as this section documents. Other authorities such as the local councillors and central government seemed equally ineffective.

Meanwhile Eskom officials constantly shifted the blame on to other members of communities or other communities and, based on what some Eskom employees said, people wondered if the supplier was collectively punishing¹⁷ whole communities for the actions (according to Eskom) of a few people. Some Eskom senior officials tried to use electricity access to bully people into accepting pre-paid meters.

6.1 People cannot easily access Eskom without electricity

"People have complaints against Eskom but there is nothing that they do about it."

Even if you can afford the internet at home, there is no internet access without access to electricity, and phone access also becomes difficult, meaning that residents without power are compelled to spend time and transport money going up and down to charge phones in order to call Eskom or to visit Eskom's offices in person. When its offices were closed during the pandemic, contacting Eskom became impossible:

"They will put you on hold and you will hold on that line and after about 30 minutes, they will say unfortunately nobody can be reached. When my grandmother tried to go to Eskom Power Supply in Diepkloof, they said they are working from home due to COVID-19 and nobody can help her.

...we are not allowed to come in [to Eskom offices] since there is COVID. You tell the security your story by the gate and the security relays your story. Hoping that he is going to relay your story correctly and then he comes back with the answer. So, there is no name, I even asked that security the name of the person, so I see that he was scared and I understood because I was putting him in a tight corner. He was just a security guard; he does not want to run into trouble because he might even lose his job and those kinds of things."

When calls are logged, systems for follow-up or reporting back seem to be lacking, and call centres seem to work as a buffer between the customer and the solution: "You will call them and they will tell you that no, we have logged that complaint, it was in our system, and it was resolved. Then you will be like but no we still do not have electricity and they will tell you we have already dispatched people and then after that it will be a to and from situation. They will keep on telling you that the problem was logged in and they have already sent someone, but we still do not have electricity."

People were told that they were not experiencing what they were experiencing: "If you can call [Eskom], they have a call centre and you will be told that you should have electricity even in that 6-month period they were telling us the same thing, can you imagine that they are telling us that we should be having electricity but we are at home we are telling you our situation and that is your best response. We were telling them that we called you before; you told us the same thing and still, we do not have electricity."

6.2 Communication from Eskom is not reaching people

"We are not informed that they are working on a particular place or sub-station and these areas have been affected. It is only when we call them and ask what is going on with such a problem that is when they update their website [to say] that 'we are busy working on a sub-station located in such a place or these are the affected areas."

For those without smart phones and Twitter (and even for those with access when there is no electricity), Eskom's communications are inaccessible, but other residents also complained that communications were inadequate and confusing: "... you will be surprised when the electricity goes off and you do not even know which level are they in whether they are going to cut for 2hrs, 6 hrs or 4 hrs we do not know. They just cut electricity as they wish", leading

¹⁷ The idea of "collective punishment" has a long and dishonourable history in repressive states, first made globally famous by Apartheid Israel, which regularly demolishes the homes of families of resisters, explicitly without proof that the families know about or support what the resister was doing. Apartheid South Africa used an infamous 'common cause' law to charge people for murder for simply being part of a crowd.

one resident to demand, "One thing that Eskom can do is try to provide us with a schedule of load shedding because I do not think they have one".

There was unpredictability about planned outages ("Sometimes, they notify us and they do not switch it off and the following day, they switch it off for a couple of days. They will tell you that there has been a cable theft at Lime rock or somewhere") and contradictory information about faults: "Honestly, this whole thing has affected us very badly because you would think that it is load shedding but actually it would be cable theft and because I work from home, this then becomes difficult for me ... It is either, load shedding or cable theft or something is wrong with the substation, you will never know which one is the truth." A Meadowlands resident related that "...the community was complaining that there is no warning when it comes to load shedding or schedule it just goes on and off. It becomes difficult then to re-arrange our lives so that we can solve or fit in into the issue of load shedding".

And one person complained about inconsistency within Eskom, "The thing is you are talking to somebody then the other one is saying something else that is why we have this problem with Eskom. They will come and we will talk and agree on something then they will tell you the Head Office has decided to do this therefore the problem is that the other one is doing something and the other one does not tell the other one what to do".

6.3 Eskom is slow to respond and unsympathetic

"I have received the same message which says, 'your query will be dealt with within 4-7 and a half hours; here is your reference number' and I think I have got about 6 of those reference numbers. I have stopped sending messages to them."

"Talking to Eskom will be a waste of time because they do not even come even if you have a problem with electricity, they take their own time. They do not care about their customers at all, that is the problem that they have."

"Eskom is not willing to help us any time soon."

Even when the call gets through, response times are often slow: "Whatever problem that we have, we call Eskom and they have to come but they do not come immediately; that is the problem. As a paying customer that is not a good thing when we tell them that we have such a problem or our transformer has been burnt or I do not have electricity and I do not know what is happening, maybe it is a circuit breaker or there are wires that have been cut or something they do not come. They can come maybe after two or three days."

The electricity supplier refused to take responsibility for power surges when residents approached them: "Just here in my location, about 8 stoves were broken because of load shedding and when they went to Eskom to go and inform them about what has transpired, Eskom told them that they will pay nothing because load shedding is something that is affecting the whole country."

In one case where Eskom did accept some responsibility, the burden still fell on the electricity user's shoulders: "I have been going to their offices with regards to my issue, they said they will put a generator for me and I must use a two-plate stove but I told them that I do not have a two-plate stove, I am using a 4-plate stove. I could not use it and I ended up going to the councillor ... I told him, why are you doing all these things, making *me* go round and round but the Eskom people are the ones who cut off my electric cable? I am sure I was trying to fix this issue for almost a month without electricity."

For people of Sun Valley, the promises became lies: "Eskom promised that they will come and fix the box since the transformer is problematic. We waited and waited and they did not come. Nothing is working out, even the promises that Eskom is giving us, they don't fulfil them." Another person said, "Yoh, hey, hey those people that you are mentioning they are all full of lies. Last year August, they promised that they will definitely solve this crisis in January but look which month are we on, it is May now. They have been promising that they are coming and we have been waiting for them and we are still waiting for them even today".

Another person involved in liaising with Eskom complained: "They will even give me a date that by this day we will be there and I will do my best to talk to the community that on this day Eskom is coming. After that they do not come and the community will end up not trusting me because they do not know who is lying between the two of us. I am now a lying person because Eskom people are lying and I am also lying to people because of them".

6.4 Blackouts and blackmail

"I went there [to Eskom's offices] to reduce my debt as well but they told me that I have to install a pre-paid meter first."

"... The treatment that we are getting from Eskom is that they do it purposely because they want to introduce the system of the green boxes."

Several people said that Eskom was manipulating cut-offs to force people to accept a key arm of Eskom's cost-recovery method for Soweto: pre-paid meters or "the green box" (See image 6). The green boxes were Eskom's reply when people mobilised to stop Eskom from cutting off pensioners' electricity. The cut-offs in turn were meant to break what Eskom imagined to be a boycott mentality lingering from the past (despite the obvious signs that this was a contemporary problem – accounting chaos, poverty amidst election promises of free electricity and many other reasons that Soweto's debt should have been cancelled).

With a pre-paid meter, you cut *yourself* off, *in advance*. No messy confrontations, no chances to appeal to the humanity of the Eskom worker

"It is surely happening, if you stay for such a long time without electricity they will force you into using green boxes."



Image 6: THE GREEN BOX. Eskom has installed the prepaid 'smart meter'. Residents call it the green box. If you refuse to accept the green box, Eskom switches off blocks of houses for long periods until you agree. This is happening in many townships and not only in Soweto. People say it charges them prices they cannot afford for electricity.

sent to do the cut off, no chance to plead for mercy at the Eskom offices and no bad press for the electricity supplier. Eskom was very committed to this technique. While some hoped the prepaids would free them of Eskom's nightmare accounting tangle for township residents, many other residents saw the implications and kept resisting the meters and insisting on free electricity.

This person was not alone in believing that Eskom exploits area-wide blackouts to get their way: "You know what they do when they see that you are now tired, you cannot protest anymore, that is when they install the pre-paid. Those are the tricks that Eskom is using, and they will play by their tricks until a time where the community will fall under Eskom's tricks. When you have no options and are tired, that is where Eskom comes in and hurts you more than before". Several others expressed the view that Sun Valley's transformer was not being fixed because people rejected pre-paid meters there.

What makes this believable to residents is that Eskom employees openly weaponised the blackouts to get the green boxes in: "There is this other person from Eskom here in Diepkloof, who is a manager. I think he is Mtshali. I think you know him". *Interviewer: Yes, we heard about him.* "He told us that for you to get help from Eskom you must have a reference number and for you to have that number you must be a paying customer."

Another person related how "...We will call Eskom in that meeting as well and when they come, they will start engaging that conversation of prepaid We will tell them that we are not talking about preferences of electricity grid. We do not have electricity now. What is the story? Then they will tell us to log in and give them the reference number and that will be done".

A journalist confirmed this kind of talk from Eskom: "Eskom's Reneiloe Semenya said that, in order to restore power, the issue of illegal connections must be resolved ... 'before we restore or repair supply'."¹⁸ Illegal connections had to be "audited" and removed before the power would be restored, Semenya said.

Eskom-isation of electricity

"It is bad but there is nothing that you can do because we do not have means to go off the grid. If we have money, we would go off the grid and put solar panels and leave Eskom with its electricity."

People are trapped with Eskom because Eskom controls a resource that has become essential to comfort, safety and life in the city.

"When it comes to electricity, I would say that there is nothing that you can do because we depend on electricity and we live through it. We are not able to generate electricity on our own, at least if only we knew how, then we were going to give it a try."

¹⁸ Mohoali, V. 2020. Cut illegal connections or stay in the dark, Eskom tells Soweto residents. *Eye Witness News EWN*, 27 August.

6.5 Who is to blame? Eskom's excuses and collective punishments

"What we are asking ourselves is what have we done which is so big that we are **being punished** [that] they are not coming to fix our box, that is the million-dollar question that we are asking ourselves for all these nine months." Sun Valley resident.

How did Eskom explain the long delays in fixing some faults? The favourite reasons given to residents blamed other residents. However, people experience this practice of shifting the blame as being punished for things they did not do. Below, we list and evaluate where Eskom laid the blame for unplanned outages and delays in fixing faults.

Technical difficulties:

"They said that the materials to repair the box has not been delivered."

"Eskom said that they will come back to us after 6 months because they said that they are waiting for the transformer which was somewhere."

Is this fair? Does it sound plausible? How is it possible that the sole national electricity supplier did not have at least one spare or refurbished transformer in its spares' stores?

What is under the surface? The true causes of the problem are shrinking state budgets alongside expanding need have effectively diverted spending from maintenance and infrastructure in residential areas.

Informal settlements, illegal connections and "bridging"

"As we speak, we do not have electricity at Lawley ... if it is not load shedding, they blame it on the informal settlement surrounding the area but for me, I think it is just an excuse."

"Eskom is blaming certain community members that they are responsible for the blasting of the transformers over the fact that Eskom generators or transformers have been overloaded so they are not able to check the extra energy or electricity that people are taking from these transformers."

"There were people who connected electricity illegally and ... they were caught and they were arrested. Eskom has a case against these people who were doing illegal connections and we are now facing the consequences as a community. We are all now being blamed for this case as if we were all involved in illegal connections."

Is this fair? It is true that bridging can overload a transformer. But people would not be bridging if the settlement had its own power and its own transformer.

Equipment also fails when people are not bridging even though the average Soweto household does not have appliances to rival the northern suburbs, where transformers rarely explode.

And sometimes, it's just false: "Eskom was saying that we have bridged electricity, but the fact was we did not have electricity at that time and we did not have electricity for the past 6 months".

What else is wrong with this scenario? It should not be your fault if someone else bridges. It is almost as though Eskom is agitating residents to police the transformers. This is not the residents' responsibility. Eskom is setting people up to fight their neighbours.

What is under the surface? Townships are more crowded than the suburbs and need more infrastructure, but this is not what has happened.

To live in an overcrowded informal settlement without electricity is dangerous – shack fires are a tragic reality in informal settlements. We cannot blame people for helping themselves to electricity when the ruling party promised free basic services but did not deliver. Electricity access is a problem within the bigger problem of a shortage of decent housing in urban areas.

When electricity was extended to Soweto, nobody planned for densification. When housing is expensive and hard to find, it is inevitable that people will extend houses and build back rooms for family or tenants: "When growing up, the circuit breaker that they were installing was suitable for that four-room house. Then they build two rooms outside and a garage... the circuit breaker was not meant for all those shacks ... the circuit breaker will end up burning".

Eskom's capacity to generate power remains a basic problem even when transformers do not explode. Nothing was done to correct this when Eskom officials first sounded the alarm because government had been trying to commercialise Eskom (run it like a business) in preparation for privatising it, and as a result, it failed to build new power plants. (When at last a new plant was authorised, it was a coal fired plant – as if we were not already confronting the problems of climate change – which ran way over schedule and budget¹⁹ even though they left out the air scrubbers to save money.)

Debt

Soweto's debt to Eskom is claimed to be crippling the electricity supplier. The debt is alleged to be R18 billion, but Eskom wrote off part of the debt in 2021 to reduce it to R13 billion.

Is this fair? Whose debt is it really? Eskom billing has a nightmare history and tales of wrong charges abound. R5 billion of the debt is interest,²⁰ that is, it has nothing to do with actual services but a financial punishment for late payments.

"...Here, it is the same whether you are paying or not, it is the same. Because here we are suffering the same fate", said a Sun Valley resident. In other words, you do not have to be defaulting to be switched off. "Eskom does not uphold the truth; the rumour is saying that Mtshali and their crew is saying that we are not paying for electricity. How is that so because we were given pre-paid meters and they were installed and we were told that they will come and activate them but, even now, we are still waiting? We have been waiting just like the way they have switched off the electricity for us."

Some people genuinely cannot pay: "I think it is a double-sided issue here to get people from the townships to pay for electricity is one thing, but I do understand that it is not everyone who has the money to pay for electricity, but we all need to make an effort to do so".

Plentiful and free electricity in the townships should be regarded as reparations for decades of going without, especially since access to electricity was a key promise from the ruling party.

What is under the surface? "We cannot just blame Soweto for non-payments when we have all these departments which ... year after year they survive on bailouts. It is not our fault that they have a problem that they have, they have financial problems, failures, and South African Airways, you name it. They all have problems. Is that Soweto's fault that we are being blamed for non-payments?"

It is not only Sowetans who owe Eskom. Many municipalities owe Eskom money too.

Mismanagement and unwise policies such as commercialisation have wasted much more than Soweto's debt. The overrun on the Medupi power station was R154 billion, from an initial budget of R80 billion²¹. Expensive, dirty diesel generators kick in to keep supply stable when there is a sudden rise in use or a decline in generation from other sources, but now Eskom is load shedding when it runs low on sufficient diesel, and diesel prices have almost doubled in recent years.²² Instead of building different, cheaper and more climate friendly ways of enhancing generation. Tariffs have increased in order to fund these poor investments and new boards of directors in the commercialisation of Eskom.

People in Soweto are less able to keep up with payments because they **are paying four times more for electricity than a decade ago**²³ – without receiving reliable supply.

Eskom's special pricing agreements give two of the world's biggest mining houses, South 32 and Anglo-American, electricity costing a tenth of the tariff charged to residential customers. ²⁴

Grudges against protestors

"We know that Eskom needs money, we are willing to meet them halfway financially so that they can fix our electricity problem. We signed some papers that they have sent that said it is fine that they can bring the pre-paid meters. We will try our level best to pay for them. But they are not responding to us, they are not coming to us, they are holding on to that issue that they were chased away."

¹⁹ Nxumalo, L. 2021. After billions in cost overruns, design flaws, delays and load shedding, Medupi is finally complete. *Fin24*, 2 August.

²⁰ Jooste, R. 2020. Government needs to act on Eskom and Soweto residents' debt duel. *Business Maverick,* 5 October.

²¹ Nxumalo, L. 2021. After billions in cost overruns, design flaws, delays and load shedding, Medupi is finally complete. *Fin24*, 2 August.

²² Stoddard, Ed. 2021. Eskom running on empty: Diesel supplies are 'critically low'. *Daily Maverick*, 7 November.

²³ Jooste, R. 2020. Government needs to act on Eskom and Soweto residents' debt duel. *Business Maverick,* 5 October.

²⁴ Ngwane, T. and Bond, P. 2021. Eskom's reboot won't work until a new CEO adopts and energy justice philosophy. *IOL*. 10 November.

"Then you will realise that Eskom has a grudge against us or those people who are responsible for switching electricity. You would see that really, it is not good at all, maybe there is something that we have done that we are not aware of. Since this is our 11th month without electricity."

"We even tried to write an apology letter, we signed it, we also sent a petition, and what else can we do as a community to get back our electricity? We even agreed and asked them to come and install pre-paid meters. We will pay for them but still, they are still failing us." Sun Valley resident

Is this fair? This feels like collective punishment. "Eskom ... are still telling us very old news that we once chased Eskom away, but it seems like we are all suffering because of that, because we do not know who chased them away. We just heard these rumours that they were chased away but we did not see it happening. Even now, we see the Eskom cars as they pass by; no one is disturbing them. We are being punished for something that we do not know about. Not having electricity is a problem."

What else is wrong with this situation? "Because even those who were paying, they do not have electricity, they will also end up not paying because there is no use, you pay or you don't pay, still you do not have electricity."

Eskom is not taking responsibility for its failure to provide solutions.

When we talk like normal people ...

"We as adults are trying to play by the book but Eskom is saying to us 'voetsek'.

Because the "correct" channels so often disappoint, people turn to other channels, and protesting is one of those: "Protesting, they only understand when we vandalise things, when we talk like normal people, they do not take us seriously".

"We do not know whether they were fixing the box, or they were slow or they were not fixing it, we do not know what they were doing. We just saw them fixing the box after we protested. The moment they saw that it seems like the community is serious about protesting, then after two days, electricity was reconnected."

See Section 7 for more information on the protests.

What Eskom does not tell you: planning for shrinking supply.

"Please hold. We've been cutting workers out of our commercialisation diet²⁵, along with stores of parts that make up a physical network. While you wait, let us tell you about the exciting new investment company that will soon be managing government's 100% stake in our stocks²⁶. Your call is important to us. It will be answered in approximately four days."

Is this fair? In government and business circles, there is a widespread belief that Eskom is overstaffed. Eskom does not need many workers, the argument goes, because municipalities do most of the distribution. But the calculations for how many workers Eskom needs *assume that Eskom will produce less power than it was producing before loadshedding*. The Benchmarking Analysis produced by NERSA (National Energy Regulator of South Africa) is informed by 2018/19 figures, where Eskom workers were producing only 5.3 gigawatt hours per employee compared to 2007/8 (the year loadshedding started) when they produced 7.26GWH each with 6000 fewer employees. The supplier however only delivered 216 771 GWH in total in 2018, compared to 239 109GWH in 2007/8.

Load reduction is also collective punishment in that whole areas of townships are being cut off because Eskom says they are "using too much", "overloading", not paying, or some people are bridging. This must be turned upside down to instead ask why Eskom is not producing enough for the need (for cables and transformers and so on and for power).

²⁵ Shange, N. 2021. 2000 Eskom employees gone in a year, but 6000 more must go to reach 'right size'. *Times Live*. 24 February.

²⁶ Smith, C. 2021. Govt wants to launch a new investment company to manage Eskom, Transnet and other SOEs. *Fin 24,* 16 September.

6.6 Appealing to other authorities

One possibility, when people failed to get a satisfactory response from Eskom, was to appeal to other authorities. Local councillors were mentioned most frequently. This section falls mainly in the top half of Diagram 2 on page 44 (attempting to influence the crisis). People turn to councillors as individuals and collectively, with and without protest, but with very limited efficacy.

National government is more distant from Sowetans, but people were thinking about its complicity and negligence in the energy crisis.

Local councillors

"Nothing, nobody is helping us. We even asked the councillor [name redacted] to come and help us and she said she is not Eskom, what do we expect her to do since she does not supply electricity. The councillor is failing us, it is almost ten months now without electricity."

There were occasional positive stories in the interviews about local councillors solving electricity problems, like this one from Meadowlands: "We once had a problem some time back, we did not have electricity, maybe for three days and it was said that there was something wrong with the switch at the main box. We reported the matter to them, and the councillor came and facilitated the whole conversation. ... she called Eskom while we were there, and they came, and they fixed the problem. So there have been some instances where the councillor assists the community whenever we need her, as long as we have reported the matter of electricity to her."

But disappointment was more common: "I have phoned the councillor because he frequently visits my neighbour; I have personally called him to try and assist with the problem. He asked me to send my grandmother's details and said he would call me back, but he hasn't done that ... When I phoned him again, I could not get hold of him, but he has my grandmother's details and, to this day, nothing has happened. There is no communication, none whatsoever", said a Diepkloof resident.

Sun Valley's councillor was drawn into electricity issues, partly by protests, but faded, people say, after Eskom stopped returning the councillor's calls: "We used to call her at first and she would attend, but now, she does not come", said a Sun Valley resident. "We once had a protest and she came and she said the Eskom people are not responding to her calls", said another. One resident was sympathetic: "She is trying, I will not say, she is failing, but she is trying, it is only that the problem is not yet fixed but she is trying to help." But others felt this was a poor excuse: "I asked [name redacted], the councillor, why she is not helping us because she is the councillor. Her response was, she is far from Eskom stuff; she is not the right person to solve such problems. I said to her then why were you placed to be a councillor?" Another explained that the councillor was supposed to be "a point of contact whenever we are facing any challenges".

Others no longer thought of taking electricity problems to a councillor because "Ah, it is a waste, they will never tell you anything those ones, it is like they are not there" and the word "useless" cropped up several times in discussions about councillors: "Our councillor is useless; we must just forget about him like the Ward 39 councillor is useless" and "The councillor is useless, if she was someone who loved her job ...she should have taken seriously the fact that this area is a place which is mostly populated by elderly people and there is a school as well [that does not have electricity]".

The councillor, therefore, became just one element in the strategy described here:

"We will have meetings with the councillor and try to find the underlying cause of the problem. Sometimes the councillor will be unavailable but we will be trying to fix the problem together. We will try to engage the councillor, try to find out what is going on with Eskom, and log in the complaint that we do not have electricity and we do not know what the reason is ... But in most cases we do not win with the councillor until we can call a community meeting and then summon him there that is when he will show up. But regularly you cannot get access to him."

"Right now", said someone else, "I would say it has reached to a point where we are having meetings as a community here at Zone 7, our councillor is not someone that we can rely on as a community".

What makes many councillors "useless"?

The research team did not ask councillors about the electricity crisis. This could form a further phase of the research. But we can see how confronting Eskom, as an individual saviour, is likely to make a councillor feel small. By themselves, councillors have more authority than the average resident, but still little leverage against Eskom and its national priorities. The alternatives are also risky: protesting together with people or getting together with other councillors to take up electricity problems would, in most cases, bring them into conflict with their parties' policies. This is unlikely for most councillors not only because they value their positions, which are controlled more by parties than by voters, but also because they generally agree with their party's policies.

"What is government saying to us mothers who are poor?"

"... The country's constitution says that every single person has a right to basic services such as electricity, so they are not supposed to switch off electricity for the people."

"As a mother, the children look up to you, so it means that you have to hustle with all your power so that you can provide. I feel that the government does not care about us as women. They must not do this load shedding thing because we depend on this electricity for our daily survival. What is the government saying to us mothers who are poor? I do not think they care. They are staying wherever they are, they do not care about others, but we are the ones who voted for them to be where they are. They do not think about some of us even though they know very well that it is us who gave them the powers to sit where they are..."

People did not talk explicitly about government's role as the owner of Eskom, but several people implicated government in the crisis: "Both the government and Eskom, when I look, there is nothing that they are doing". Someone else emphasised government's distance from the problems in townships: "This is pure negligence from our government because they are not in the situation, they also do not see much that is happening there, now you are closing your ears and eyes. They are simply not doing their work."

That in turn was linked to electioneering hypocrisy ("...but we voted for the ruling party, which is the ANC, they promised that they will provide us with all the services but here we are today, we are suffering") and hypocrisy in how government treated Eskom compared to residents: "Our Minister of Finance, Tito Mboweni, he is bailing out Eskom and those people are just squandering the money, those people are being paid to spend money but they cannot bail out the residents. Then let us tell the truth: Who are the bosses? it is Eskom! Even in the parliament, Eskom does not respect the society but they respect the parliament more than us. Those people are being paid by us as society."

SECTION 7. Solidarity and division

"Somebody said to me once there is nothing which brings people together in the community like electricity. Also, there is nothing which separates or divides the community like electricity. If ever we have a problem in our block, then the community would come out and put our heads together and try to solve that problem...."

"I have heard that some people fix their own problems ... sometimes people will say those people with many shacks in the yards, they are overloading electricity. Then people will be divided in those things, some will even say 'why is this person having such a thing?' That's why I said electricity can bring people together and divide them at the same time."

The response to the electricity crisis has been characterised by both solidarity and fragmentation. An earlier section showed that the crisis creates tensions in families (see Psychological and social impact, page 42) and it produces complicated solidarities for households and individuals: people turn to family and friends to charge phones and so on, but that frequently created rifts in social networks because of the cost of electricity and the social awkwardness, as detailed earlier. Occasionally, though, it proved the depth of a friendship: "She is a very good neighbour to me. We understand each other. That is why they were helping me and my child was still an infant by then"; "No, I am not paying [my friend to recharge my phone], she is my friend, she is really helpful"; "As much as it is a problem but there is a silver lining, you are able to visit or see more of your family, you are able to create better bonds and sit down and talk with your relatives. Even though I acknowledge that there is a good part, but it takes away our humanity..."

Collective responses likewise involved solidarities and divisions. Group responses are not automatic but far from unnatural. The previous section, however, also noted that blame could be deflected onto other parts of the community, both by Eskom and by the residents. People also have different ideas about what they should do and whether they should do it together, such as whether it was right or wrong to chase away Eskom employees sent to install prepaid meters. Another kind of fragmentation reflects the variations and tensions amongst people with a common need for electricity, but who were positioned slightly differently towards it, perhaps by their housing or by their income. An example is people from an informal settlement trying to get electricity and the formal houses nearby trying to maintain their access to electricity, in the invisible context that the electricity supply had not been formally extended to the settlement. There seemed to be less coming-together across these differences.

7.1 Collective responses

"Normally, when it happens for three-four hours, we take it as load shedding but if takes the whole day, the second day, the whole community will meet in most cases and we would ask each what is going on. We have a councillor as much as he is useless. But other members of the community would contact Eskom."

Collective responses are natural enough. At the simplest level, neighbours ask each other for information, and sometimes residents who are already organised in the area respond to the issue. This section is situated mostly in the top left corner of Diagram 2 on page 44 and it elaborates on those responses. Collective responses are not necessarily or even usually protest-oriented. The purposes of collective responses which emerged from the interviews included the following, which we have described and briefly evaluated. Most collective responses involved some combination of these. We have not itemised the collective response which could be called "strategizing" (putting heads together to understand what could be the most effective response) because that is implicit in all of them.

Gathering and pooling information and resources; publicising the issue

"I am part of the WhatsApp group where we communicate what is needed or what is required. Mine has been a financial contribution as I am unable to go to the many sites that they go to and check the problems. Mine has been a financial contribution which we do as a community."

"...we even went to the media because of the crisis just because we were paying for our electricity, they were forced to fix it. You cannot hear about other areas, maybe such as Randburg, for instance, they cannot spend a week, let alone six months, without electricity."

Strengths and limitations: Information is always useful and this is a low risk way of getting together. But the information alone won't fix the problem. Similarly, media attention is useful but Eskom as an institution is not easily embarrassed.

Liaising with authorities and keeping track for accountability

"We had some representatives, and they were doing a good job ... We would send them, and they would bring back the answers to us as well. They would show us the proof of the emails where they engaged with them, the conversations between the two. They would even read the conversation and explain to us what Eskom is saying."

"We have gone to the extent of selecting people to go to Eskom and try to liaise with them to look at our situation because things are getting out of hand."

Strengths and limitations: This too is a low risk way of starting to get together. It allows people to experiment with organising practices such as mandating, reporting back and record keeping and establishes the principle that public institutions should be accountable. It aims at the right targets by targeting people in authority and holding them accountable. But authorities are often unhelpful when we play on their field, sometimes because they agree with Eskom's policy and sometimes because they do not want to risk their positions or because institutions are not designed for power to filter up (see Section 6). The person you speak to is often not the decision maker, so it could be like playing broken telephone. Even so, going through such processes can be a way of learning the real contours of power and the limits of "proper" channels.

Do-it-yourselves (DIY)

"There is nothing that Eskom can say they have done for us, we bought electricity for ourselves, we even installed it ourselves, we did put the cables ourselves. They did not put anything for free, we bought everything."

Dube resident.

Strengths and limitations: Things get done faster when people themselves act than when they wait for Eskom. People regain some feelings of control. Cost-recovery issues no longer dominate what gets repaired and who gets power. But communities do not always have the resources themselves to address and resolve the issue. It is one thing to DIY a cable or bypass a meter, but you cannot pop into Builder's Warehouse for a new transformer. "We should remember that not all community members can afford to contribute and this factor may cause the division within the communities," observed one member of the research team.

DIY anti-DIY:

"As a community, we are starting to come together and ... we are trying to make sure that there is enough security around all Eskom stuff like boxes, sub-stations and those people who are bridging electricity, we try to talk to them not to do that. We are trying to reason with people not to take things into their own hands..."

Limitations: Of course, it does not help anyone to blow up a transformer, but patrolling the boxes to prevent people from bridging keeps the lights on (except for load shedding) for one community by keeping another community or part of the community in darkness. It sets up communities to police other communities while letting Eskom off the hook: you are so busy looking out for people coming to bridge electricity that you forget to look at why those people do not have power in the first place. You will spend the rest of your life on patrol. There is a danger of starting to feel that some people are more deserving of electricity. This does not solve the underlying problem of inadequate physical infrastructure in the townships and a lack of capacity for generation.

Organising around electricity may empower women

"As a community, we selected a group of women because, as you know that women are leading, we selected mostly women and there were a few men in that group."

We do not know from this research how widespread this practice is and whether it is because of conscious effort of the people organising, but we do know from other experiences, such as that of the Soweto Electricity Crisis Committee, that women may dominate organising on this issue. Men and women alike suffer from electricity cuts but disruptions to basic services disrupt domestic systems, and because society says that domestic systems are women's responsibility, it legitimates women's involvement in organising around power cuts, thus opening the door, and even requiring women to assert their opinions and analyses of "extra-domestic" matters.²⁷ Organising thoroughly around an issue that is entangled with so many other issues does not permit people to restrict their interest to domestic concerns.

²⁷ It is worth emphasising that we mean it *allows* opinions to come out and maybe take organisation effect; we do not mean 'be awakened', because we should not assume that a woman was not already, before she organised, acutely aware that larger forces were pinning down the smallest details of her domestic life down to the small coins she's counting in her palm.

Protesting

"It was only two weeks ago when the community decided to protest, we blocked the road with tyres, stones and anything that we could find."

"We have tried many things as a community, tried to block the roads to stop buses' movement such as Rea Vaya, hoping that they will give some attention. Despite those efforts, nothing has been done to help us."

Protesting frequently arises from disappointment in following other channels in the present or in the past (See "A typical sequence" on page 57.) Protests take so many different forms that they should not be under a single heading, but we can classify them broadly as ranging from mainly demonstrative, when people try to raise their issues (by marching in an orderly way to an authority, to perhaps bringing a memorandum and a deadline with you), to the direct and disruptive, where people try to gain and exercise real leverage by, for example, blocking the road or blocking the doors to the Eskom offices,²⁸ to make the crisis visible and costly to people who are not otherwise affected. In practice, communities combine strategies from many points on this spectrum, together or at different times in the struggle and forms grow into other forms as people draw lessons from their experiences.

Strengths and challenges: Protesting leverages collective power for communities who have little individual daily power in society through wealth, political connections or "race". Protest allows people to take back some initiative and control by taking things on to a terrain that is not entirely controlled by Eskom and webbed with rules and regulations from "above". People feel less helpless. It encourages people to reach out to others in their communities because bigger protests are always more effective. Protesting together can cement deep feelings of solidarity which can keep people connected long after the dispute. There are written rules and regulations about the correct procedures to follow in a dispute with Eskom (which mostly favour the status quo) but choosing the right protest for a particular time, situation and community needs a lot of analysis as well as trial and error. Things that worked yesterday may not work tomorrow. This is an overall strength because it requires people to think about society and build their understanding of it, but when they get it wrong, it could discourage those who do not recognise these intricacies. When protest is starting to be effective, that is often when repression increases and police start using rubber bullets and arrests to make protest more costly for people. Protest is also costly in peculiar ways for different people, for example, there are different risks of protesting for people with jobs or with babies, and this makes it more challenging to keep everyone involved.

Often, protest must be escalated to get results. There are cases where a single protest achieved results, but people may get discouraged along the way ("We had a protest and nothing materialised" – Sun Valley resident) because effective protest is often long haul, involving repeated protests of different kinds with many small victories and defeats and surges and receding actions. (But note that protesting usually arises when *not* protesting has yielded very, very slow or stalled results). Paradoxically, small victories can trick people into releasing the pressure (for example, Eskom agreeing to talk after refusing to talk).

Does protest still work?

One person said, "Stayaway, marching and doing a lot of protests, ungovernable government – we are talking about that period of the apartheid government – even now we are trying to do that, and it seems like they are now used to our strategies because there is no consistency." *Interviewer: These strategies, they are not working anymore?* "Yes, they are not working, it seems like the president and his people, they are now used to it because they know after some time, we will start again. I think we need to come up with something radically."

Is this true? Protest strategies must change constantly to fit the task and the circumstances, but it is too soon to say that the strategies that defeated apartheid, are outdated. There have been some giant protests and some very long strikes and struggles since the end of apartheid but nothing yet approaching the breadth or consistency of the protests in the last decades of apartheid. Some of those methods and experiences are still useful. But that is not a reason to be uncreative. New ideas for protest emerge and should be explored.

²⁸ Mohoali, V. 2020. Cut illegal connections or stay in the dark, Eskom tells Soweto residents. *Eye Witness News EWN*, 27 August.

Widening horizons: Beyond single issues and isolated communities

"We believe, that is how much electricity means here in Soweto. That is why, when it comes to housing, we are in partnership with the whole of Soweto. As MCF [Meadowlands Community Forum], we have been working with other organisations in other areas so that we can try to fix these problems. When we go to Eskom as a community, they will probably listen to us."

"In general, this electricity problem, it is just unfortunate that Sun Valley has gone for 9 months but I think that if it were to be followed up properly, there are other areas in Soweto that are having the same problem."

Strengths, limitation and challenges: Residents could strengthen their actions by linking up with other communities facing the same predicament; by looking for unity with others who are differently affected by the same crisis, such as people from informal settlements with no formal connection with people in formal houses facing load shedding; by linking the electricity crisis to other crises such as the housing crisis, and analytically, by thinking about the electricity crisis as part of a bigger crisis in society. Sometimes, this means working with people who have had different experiences of organising, so you may have to repeat some experiments.

A typical sequence of collective experience

This typical sequence of organising, described below by Siphiwe Mbatha, one of the research team members, shows how collectives combine various purposes and how people's experiences may push them to move from one purpose to another. Those organising are opening or creating platforms for communities to self-organise – "inverted spaces"²⁹ – rather than the relatively undemocratic or "invited spaces" that are usually the means for politicians to sell dreams to the communities:

"In the case of the electricity crisis in South Africa, in Soweto in particular, my analysis is that most communities are rather going on with their lives as usual but when the crisis arises, it leaves them with no option ... Well on the first day of the load shedding, the communities will have hope that their electricity will be restored and no action or mobilising will be done, but if it takes more than two days or more then the communities will start mobilising by calling community meetings by blowing whistle (bashaya impempe) and loud hailing around the community. In these meetings, the electricity crisis will be on top of the agenda and other items that might be related to the electricity crisis and its after-effects like high crime rate due to load shedding, especially in the morning and at night when people are coming from or going to work. During the meeting, a task team or ad hoc team will be elected, and remember that these communities are risking their lives by having these community meetings due to load shedding under lockdown and COVID-19.

The ad hoc team will be mandated to meet with the relevant stakeholder such as Eskom and government and come back to report back to the communities but obviously, those demands will fall on the deaf ears of the authorities and that will lead to more frustration amongst the communities and they would have been without the electricity for days or months, without any explanation from the authorities. And such silent response from the official leads communities to do the picketing, demonstrations and peaceful protests.

But before the community can resort to the above actions, they will try and find other solutions to the crisis that they are facing. Most communities will meet and decide to contribute some money in order to solve their crisis, as in the case of Meadowlands, where 35 households contributed R200 each in order to buy a cable that was burned. The community contributed R7000 and the cable cost the community R3000 and R4000 for labour.

This also shows that most communities are willing to solve the electricity crisis without resorting to protest but the communities are pushed to go in the street because of the authorities who do not care about the livelihood of the poor black people in Soweto and other similar areas."

²⁹ More conventionally these have been referred to as invited and invented spaces, but we propose the concept of an inverted space for the implication of working to invert power relations between people and state institutions.

Not born yesterday: Organisations and activists

Community organisations such as the Meadlowlands Community Forum (MCF) and the Pimville Residents Association (PRA) have been fighting for residents to have better housing, a historical issue in Johannesburg and Soweto. It has been a slow, difficult fight because of the challenges of dealing with state institutions. Connected to the broad struggle for housing, is the issue of electricity. In Soweto, the SECC – started in 2001 – played a major role in challenging unjust electricity policies such as Eskom cutting off household power. Some of the community leaders were actively involved in the anti-apartheid struggle as far back as the 1970s and the 1980s and 1990s, as well as the 'new social movements' of the early 2000s, including many in the SECC. This illustrates how people commit their lives to struggle but also that people's material conditions have been systematically engineered over long periods of time. That the SECC is now twenty years old is indicative of the extended problem of electrification for Sowetans.

Electricity and other problems with other basic services have left community leaders feeling betrayed by the ANC – the former hope for the new democracy: "We were told that changes are coming when they referred to electricity and it was a better life again. But today, it is no longer a better life when we are going back to using paraffin stoves".

Even though organising around electricity is connected to other issues (such as access to housing or water), fighting for reliable, safe, and affordable (or free) electricity takes up a lot of time for some activists. Electricity struggles are shaping activists and leaders, as this quote shows: "The people who are suffering in all this, it is the poor people, for me in my life, I reflect more on such issues and it encourages me to continue fighting and also being the activist that I am today".

7.2 Divisions and contestations

"When it comes to the community, I do not know what to say, I would say there is no solidarity in the community, for instance, you have to look after yourself or your business since people are now individualistic. Each and every person has their own ways when it comes to dealing with electric issues because they are working, and they are okay, so it means, each man for himself."

"We have formed forums; we have formed area committees to ensure that we fight this thing, but it has not been easy. That is why one will say the working class is not as strong at the moment, but even if we fight, it is not everybody that will come out and support such issues, [so] that solidarity between the working class is still lacking."

Many factors, including cuts to state services, promotion of entrepreneurship and demobilisation in the years after the end of apartheid have sent a strong message that individuals must sort themselves out by themselves. Nevertheless, many people never accepted that or quickly overcame that when faced with crisis, as described above. What else stands in the way of community unity? Some factors were mentioned on page 56, in evaluating protests. Before that, the report looked at how the electricity crisis itself fragments people. Two sources of fragmentation of collective responses emerged from the interviews: different strategies (or politics) and different positions in relation to the electricity crisis.

What is to be done?

"...some want us as a community to fix the electricity without involving Eskom. Some are waiting for the councillor; some are waiting for Eskom. So, there is no unity, we are pulling in different directions and as a community, we do not have a straight-forward direction."

Differences in how to deal with the crisis, and different interpretations of what went wrong when things did not work, were the source of division most often mentioned in the interviews.

Prepaid meters were another source of division: "Even if we meet up with them, they are divided, they pull in different directions. Some say they want pre-paid, some they say they do not want it, they are not united, and everyone wants to say or talk about what they think or understand that is okay with them. But the thing is, they all want electricity."

Then there were disagreements over putting money together for DIY in Sun Valley: "In the community we are now divided, and we are fighting with our neighbours. We once contributed some money so that they can come and fix the box, it only worked for 2-3 days and that is a problem ... Before the box was vandalised, we agreed that we must contribute some money as a community and others refused and said let us go to Eskom offices first. What happened next was that Eskom did not help us in any way till today we are still waiting for them to come and fix the box or replace it. We are pulling in different directions. Some people are even hiding. They do not want to contribute but they also need electricity," said a Sun Valley resident. Others wanted to blame the people reconnecting electricity: "Those doing

illegal connections are the ones who ruined everything because as a community we are not united, some people are snitches".

Those with no faith in protesting can even make it difficult for those who do believe in its value: "I still remember another year we protested, and we blocked the roads but there were people who were arrested. So, the community is now afraid to do that again because there are some people who call the police and snitch on others. When they arrive, they will just say to you, who is wearing this shirt or t-shirt, come, and they will arrest you. Because of that the community no longer wants to be involved in such things." Orlando West resident.

Differences such as these are a fact of organising, because people have had different experiences of power in their lifetimes and have been exposed to different theoretical frameworks (politics) for understanding power. Patient debate and discussion is needed about what to do, alongside trying things out and seeing what works. We should also accept that some differences will be too deep to solve in one meeting about electricity.

Differences in specific positions

"It also creates a divide in the community because people who have generators and solar panels, they do not feel affected because they do not join the struggle, they feel that they are better off, why do they need to buy electricity? They are fine without electricity. It has created a wedge between the communities."

It has already been mentioned that people who share a need for electricity can be in different practical positions in relation to its delivery. Having or not having solar panels is, unfortunately, not yet the main divide in Soweto. More common divides are between those who can and those who cannot pay, those with and without pre-paids, and those with and without connections (particularly informal settlements compared to formal housing).

People may also be divided by perceptions of their social worth: "We are in the same ward with Zone 7 and under the same councillor which means she is checking who are better than the other, who deserves to have electricity and who doesn't. That side of us, it is new stands, they are bond houses, so they fixed their problems quickly but us this side, it is a very old location full of pensioners. So, it all comes down to class, who are you?"

People can find commonality across differences in position by taking a broader, systemic view which allows them to see what is common amongst them and to therefore seek, at the same time, to get the informal settlement connected and stop load shedding. In the next section, we offer some analysis which may help build unity.

SECTION 8. The electricity crisis is part of a larger crisis

To better understand the current electricity crisis and its impact on South Africa's black working class, as detailed in this report, it must be located within the larger crisis of everyday life in post-1994 South Africa, what we call "the South African Crisis". In this section, the report zooms out from the experiences of residents to show the factors beyond Soweto that shape what happens in Soweto. The electricity crisis is part of a larger crisis in two senses: 1) crises such as unemployment interact with the electricity crisis to compound disadvantage to those already disadvantaged, and 2) in the sense that policies intended to rescue the economy by increasing profit have created the crisis in Eskom. This section begins with an analysis of the electricity crisis specifically. It then further illustrates the intersection of crises, using the example of the COVID-19 pandemic compounding the electricity crisis, and finally sketches the depth and breadth of the multifaceted crisis through the recent looting of supermarkets.

8.1 Explaining the electricity crisis

Here, we argue that Eskom's current crisis is the result of a much broader broken capitalist system that has resulted in the inequalities and energy racism we currently witness and experience.³⁰

Eskom itself was shaped by British conquest, colonialism, apartheid and mining capitalism in the southern African region. Brian Kamanzi traces the history of electricity in South Africa back to the attempts of the colonialist industrialist, Cecil John Rhodes, to power the Rand mines from Victoria Falls, through the Power Act of 1910 which tried to regulate private suppliers of electricity, to the establishment of ESCom/EVKom in 1922.³¹ ESCom, underwritten by state subsidies and cheap coal, guaranteed cheap, plentiful and stable electricity for the mines, and white residential areas enjoyed the overflow, while mining profits were propped up by the apartheid state. The state electricity supplier was at the core of the "minerals-energy complex"³² developing at the core of the national economy, and state subsidies and cheap coal were core to ESCom's cheap electricity. Coal, with the rest of the minerals-energy complex, "was predicated on a large supply of cheap black labour excluded from circuits of production, distribution and much of consumption".³³ Kamanzi writes:

Renfrew Christie charts the role that electrification played in the industrial development of South Africa until the height of the apartheid era. Central to Christie's observations are the changing links between finance capital and industrial production, which shifted from conflicts between competing industrialists to the rapid formation of a state monopoly, all the while providing some of the cheapest electricity in the world for decades. This was accomplished by the availability of cheap black labour, extensive coalfields, and significant state support.³⁴

In the later days of apartheid, however, the old regime set in motion commercialisation and privatisation of ESCom and other state companies³⁵, following global trends in high level capitalist institutions such as the World Bank. The post-apartheid government took these on as an inheritance rather than halting them.

Today, the new political elite are increasingly using state entities and strategic economic sectors as sites of private capital accumulation, as Kamanzi suggested in one of the seminars (see page 8). Eskom has not been exempted from this legalised looting of public funds for private, individual gain. The powering of mines, big businesses, and residential areas remains based largely on electricity generated by burning coal, an industry that is currently dominated by Eskom, big mining conglomerates, and other independent power producers (IPPs). In other words, electrification in post-apartheid South Africa has prioritised big business by selling energy at special deals. Kamanzi shows how Eskom favours mining and industry over residential electricity supply and even agricultural production (Graph 13).

³⁰ This subsection draws on notes taken by Terri Maggott at the CRSP Energy Racism seminar series.

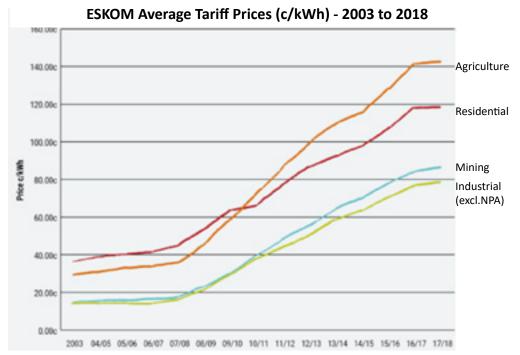
³¹ Kamanzi. B. 2020. The Crisis in South Africa's Energy Sector: Towards a Just Transition. *Working Document no 3,* Tricontinental Institute for Social Research.

³² Ashman, S. 2021. SA's Climate Crisis is Embedded in Coal and Exports. *New Frame*, 30 August.

³³ Ashman, SA's climate crisis.

³⁴ Kamanzi, The Crisis in South Africa's. pp.6.

³⁵ See Kamanzi, The Crisis in South Africa's; and Ashman, SA's climate Crisis.



Graph 13: Eskom tariffs for residential and business customers, 2003 to 2018.³⁶

The global demand for coal has decreased over the past ten years, but in South Africa, the price of coal has increased. By selling energy to mines and the manufacturing industry at low tariffs, Eskom has created for itself a guaranteed demand for coal-powered electricity and substantial wealth for its executives. Energy is now a key site of looting within the post-1994 state. IPPs, which are built up almost exclusively by multinational mega-companies, benefit disproportionately from power purchasing agreements with Eskom for cheap electricity. Even though the ANC promised in 1994 and subsequent elections to deliver basic services including water, electricity, and education to its constituents with socially owned resources, what has resulted instead is the financialisaton of energy and electricity. Capital accumulation has found a new avenue in the coal/energy sector, in this case, in South Africa, and the pricing system itself is part of the looting that the state and other mega-companies are pursuing.

Load shedding is a constant feature of our democracy but is regarded as an issue of generation. It is not an issue of generation but rather of accumulation for the new South African elite. Recent research has shown that the problem of electrification is not due to a problem of generation and that it is not an issue of a lack of abundance. In other words, there is enough electricity in the national grid to supply the national demand for electricity. Instead, the public is being manipulated by capital, given that the grid is public.

For the public, what we pay for our electricity is also currently being interfered with by companies who profit from the sale of electricity from Eskom to the municipality to the local spaza and finally to the "end user". The tariff is where the public interacts with the current commercialised structure of electricity and energy more generally. In July 2021, NERSA approved a 14.6% increase in the electricity tariff for all municipalities to consumers across South Africa. Part of the problem is how municipalities are structured and funded through taxpayers and ratepayers. Given the legacies of apartheid on income, poor, black communities bear the brunt of this issue.³⁷ Eskom's pricing system itself perpetuates inequality when selling energy to residents.

In addition, municipalities often do not own the land they operate on, forcing them into pursuing cheaper, shortsighted plans for electrification. For example, Eskom's smart prepaid metres or 'green boxes' require maintenance that has to be cleverly planned for. Working class communities, rural and urban, have been excluded from being part of any long-term development of the country and its people, and the denial of proper, safe, and clean electrification demonstrates this clearly. The energy inequalities detailed here are built into the structure of our society and it is this structure that must change because its beneficiaries are an elite few. Early scholars such as WEB Du Bois argued that racism is the cornerstone of capitalism, and when applied to this case, we witness how the black working class are punished by Eskom and the new black elite-in-government. The concept of energy racism highlights how the black working class bears the brunt of the electricity crisis and are also used as scapegoats by the government who accuse townships of enjoying a "culture of non-payment" and having huge historical debt, even though the former has long

³⁶ Kamanzi, The Crisis in South Africa's, p.23.

³⁷ Fiil-Flynn, M. 2001. *The Electricity Crisis in Soweto*. Occasional Papers Series. Municipal Services Project.

been debunked.38

In addition to using old coal technologies, Eskom is also Africa's biggest polluter and used an average of 320 000 million litres of water per annum over the past ten years to produce its electricity³⁹. This is part of the process of environmental racism and violence for profits that causes destruction for local communities. In parts of Soweto such as in the sample, struggling households often opt for illegal electricity not because they enjoy criminality but because they must make means to access power for their families' survival. In municipalities such as Soweto's, the state is weak and local processes of service delivery are bound to the structure of racial capitalism since residents – much like the working class residents of mining towns, who work in electrified mines but go home to be in the dark – have been historically and systematically denied basic services such as electricity.

Private energy renewal will never work for all. A (global) white-capitalist elite and a growing black South African elite accommodate each other in their pursuit of profits at the expense of the working masses. South Africa generates solar and wind energy. There is an abundance of energy available. The 'just transition' has referred to a move away from fossil fuels, but it should be expanded to include an understanding of how the privatisation of public goods such as energy and entities such as Eskom are positioned to enjoy a monopoly over the profits these generate.

What has resulted is a society marked by incoherence and contradictions: Narratives about law and order cannot hold given the deep context of state corruption and looting. In addition, the ANC and COSATU no longer have authority over the working class and the world knows that the ANC is experiencing internal instability and is no longer able to deliver on its promises to its people. Who is doing the real looting? Who are real *izinyoka* stealing electricity from working class families and pensioners?

The silent crisis: Climate change

"Around 85% of the country's energy is generated by Eskom burning coal, making it the largest emitter of greenhouse gases in Africa and among the top 20 in the world. ... Coal has been a critical commodity throughout, as a source of lucrative export revenue as well as cheap power, which benefitted corporate consumers ... historical state support created a system of "cheap" fossil fuels. Eskom and Sasol continue to benefit significantly from state subsidies, while oil companies operating in South Africa have received similar support. This has locked the country into a chronic dependence on carbon ... Medupi and Kusile [power stations] further embed coal-generated power and accumulate debt. The Southern Africa region is considered a climate change hotspot, a region more vulnerable than average to climate change. Temperatures here have risen at twice the average rate [globally]. And while much of the world is getting warmer and wetter, southern Africa is getting drier. At the same time, flooding is likely to be heavier and the declining rainfall will come in the form of destructive storms. ... The kind of rapid decarbonisation that South Africa needs can only be brought about with structural change."

For more detail

- Watch the recording of the seminar (link on page 8).
- Study "The crisis in South Africa's energy sector: towards a just transition", by Brian Kamanzi (*Working Document No. 3,* Tricontinental Institute for Social Research, 2021).
- Read "SA's climate crisis is embedded in coal and exports" by Sam Ashman (*New Frame,* August 2021).

³⁸ Fiil-Flynn, The Electricity Crisis in Soweto.

³⁹ Available at: https://www.eskom.co.za/about-eskom/about-electricity/

⁴⁰ Ashman, SA's Climate Crisis.

8.2 How COVID-19 has compounded the electricity crisis

The following quotes show how life has changed dramatically since March 2020, and how issues of energy and electricity not only intersect with issues brought on by COVID-19 (for example, working and learning from home) but are intensified by the lockdowns.

"It has affected us a lot because sometimes you will be working at home. Let me say you are in a conference call, when they switch off electricity it means that your WIFI is going to switch off therefore the communication will be cut."

"... also those who are going to school who have been asked to study from home as well we buy data, they are also affected because there is no electricity, they cannot use their computers." "...you can go outside to look for warm water from people or neighbours who have other sources of energy or electricity. Going out to other people is actually exposing us to the risk of being infected with Covid. Without electricity, it simply means that we will constantly be outdoors with friends, eating, hence being exposed to this pandemic. On the other hand, the more exposed you are to different people the higher are the chances that you may come across people who are sick with Covid. The problem is you cannot stay indoors without electricity because you are trying to figure out what to do next or to go and buy candles or whatever. So, these are the situations constantly exposing us to Covid."

"Covid-19 has made jobs to be scarce, we are just sitting here at home because of this pandemic. We do not know where it is now, and where it is coming from and where it is going. We are not working and here at home they have taken our electricity as well. We do not know how to survive in such situations. These two situations are like brothers." "It was difficult, especially the first few months of the pandemic. We were getting our grant money very late of which we have suffered a lot."

8.3 Three key insights from Soweto-based activists about the "attacks on the malls"

In July 2021, partly orchestrated, partly spontaneous attacks on malls, what came to be called 'looting', occurred in parts of Gauteng, KwaZulu-Natal, and the Western Cape. More than 300 people were killed over the course of the attacks; more people than were murdered in Marikana in 2012. To begin to make sense of what went on, the research team conducted interviews mid-July 2021 with four Soweto-based activists, who shared their views and first-hand experience of the action. Here are three key insights gained from those interviews.

Insight 1: "A combination of factors started the attack on the malls"

The attacks on the malls have three major elements that gave it form, according to the four activists:

- 1. The imprisonment of former president Jacob Zuma incited his supporters to block national roads along the N3 in KZN. This violence then spread to other parts of Gauteng with Zulu strongholds, such as the hostels in Soweto which are dominated by Zulu men. Allegiance to Zuma is consolidated through this Zulu nationalist identity, and some activists suggested that the attacks were organised and not simply spontaneous.
- 2. Soon the violence moved to parts of Gauteng and the Western Cape as people from poor communities then joined in. This was not because people wanted to, but because they are desperate. The COVID-19 pandemic has also caused disruptions of economies and livelihoods, resulting in an even higher unemployment rate and a deepening of poverty that comes with not earning an income. Activists told us how the people in the communities they serve were genuinely desperate for essentials such as mielie meal and meat.
- 3. Other criminal elements then also joined in "the looting" looking for an easy opportunity to get things for free.

Activists relayed stories of heist-style robbing of ATMs which requires tools and manpower to accomplish. Although activists said there was a small element of criminality mixed into the uprisings, ordinary people also joined in because they saw an opportunity to get away with doing what they saw others doing.

Insight 2: "Here is a powerful message for the leading sectors of our society"

Activists and community leaders are offering a critique of:

The ruling ANC and government

What is needed is long-term development plans and no more looting of state funds and institutions, such as is being uncovered about the depth of corruption and state capture at the Zondo Commission. The question about who is doing the real looting arose: Activists see that state entities and politicians are bailed out and protected by the government at the expense of the black working class. Who is looting who? Regarding the ANC, activists felt that factional ANC battles were coming to light, further exposing the mess that is the ANC.

The South African Left

There was no working class organisation to channel the anger of the masses into productive channels that averted the destruction of township facilities such as shops and malls, as was the case in Soweto, where many locally-owned shops were destroyed. Activists said that this series of incidents showed the fragmentation of the Left to offer guidance and solidarity with the mass of ordinary people. Organisations such as COSATU have lost legitimacy with the working mass, and it was clear to activists that people who participated in the attacks were not organised but sporadic and "spur of the moment".

Community leaders

We need to organise, organise, organise. Activists noted that after the attacks happened, the R 350 COVID-19 relief grant was brought back into effect, as a direct result of the mass action witnessed in three provinces. The victories of people to bring about change must therefore be recognised by community leaders as a chance to not only organise collective interventions to address social problems such as unemployment, but also as a tool to be used in struggle: when we can put pressure on the government, we can achieve what we want, need, and deserve.

The South African media

Activists noticed with disgust how the media blamed the public for the looting and presented the black working class as criminals. In doing so, the media has pushed a dangerous narrative that ordinary people are petty thieves. This takes away responsibility from the larger forces that force people into increasing poverty, such as unemployment, hunger, and inadequate housing. Activists also felt that the media did not report enough on the material conditions that cause people such daily and generational suffering.

Insight 3: "This was a ticking timebomb, an explosion waiting to happen"

Structural inequalities such as unemployment, retrenchments, and downsizing brought on by the COVID-19 pandemic have left people in desperate situations. Unemployment has reached a historical high in the second quarter of 2021, at 34.4 percent. Food and job insecurity have also increased since the hard lockdown in the middle of 2020.

As the mass of poor increases, there is a need for a stronger class consciousness, activists warned. The lootings are an example of what happens when the conditions are right for the bomb to explode, as one activist noted. Desperate to change their conditions by any means necessary, ordinary people expressed their frustrations by taking some necessities that have been structurally denied from them: food, toilet paper, new clothes – the list goes on.

Given an essential go-ahead from a faction within the ruling party, community members at times physically fought with their local leaders in an attempt to access the malls. One activist told a disturbing story of how three of his front teeth were violently knocked out when he clashed with members of his community after asking them to rethink their decision to break into a mall. Activists experienced feelings of sadness, shock and disbelief at what they saw happening in their beloved communities. They saw the violence that is possible when the masses rise. But this violence is a product of a more violent system, of which the electricity crisis is one part.

SECTION 9. What next?

This section concludes the report by evaluating suggestions for solving the crisis and avenues for further research, and we suggest how communities can use the report.

9.1 What people want from and for Eskom

Table 7: Solutions suggested by people we interviewed

Table 7. Solutions suggest	ted by people we interviewed
Consultation and accountability	"One thing that can work or which is working is consultation between Eskom and communities. They must also provide meaningful explanations as to why there is load shedding, at what time is it going to happen, how many blocks are going to be affected. The problem with Eskom is that they impose things of load shedding without consulting with the community."
Remove the cost recovery motive	"They should stop installing the pre-paid meters and give us a flat rate. If they can say here is your electricity flat rate you are going to pay R500 per month – not a situation whereby this month, I pay R500, next month R800, the following month more than a R 1000 then that way it is very wrong. You will find that your bill is escalating"
	"Eskom is looking to fix its machines so that they can provide electricity to the people and charge them for that electricity. Their lives will go on and they do not care where are we getting the money to pay for electricity . In fact, they do not want to know what is going on. If Eskom manages to put everything back to normal, they are only doing that so that they can cash in from the people."
by recovering funds from elites and big corporations	"The government should be punishing all those Eskom officials who were corrupt so that they can get back the stolen money but they are doing nothing. It seems as if the government is adding to the problems. The money should come back and help the poor communities."
	"they can make money from these people who own big businesses , from the mines and other people who are making money, they should go and ask for money from them not from us who are poor communities. They should look for money from well off people not from poor people."
to increase generation capacity.	"They can reduce the Eskom salaries, the office bearers – it is possible to build another power station or many other power stations . The reduction of salaries can create a whole lot."
Alternate sources of energy	"The best way is to try and use sustainable energy; this coal thing is not working . We need to look for other energy possibilities ."
	"For me, the long-term solution would be finding an alternate way to generate energy that is not dependent on the current status quo as we are battling issues of global warming"
Introduce competition	"I think the only solution that we can have if Eskom could have a competition because it is the only one that is operating; that is why we are facing these problems because they do whatever that they want to do. The only other way is to get an alternative energy because Eskom is failing ESKOM cannot solve its problems, it needs to be helped in a way of a competition where one has to choose which one to take."
or keep Eskom accountable?	"people are now looking into other ways of generating energy , which is a good thing but it is also taking away that accountability that needs to be there from Eskom or from the government" (See below, 'Are private producers the way?'
Continue organising	"we even asked the youth to help us because they are still energetic and they can walk for long. They also need electricity just like us, they need to use laptops, and they need to study so they need to work as well in this electricity crisis. They have to help us. We all need electricity." (Also see below, 'The coalition'.)

The coalition on electricity: Organising more widely

Interviewer: Tell me more about the coalition on electricity?

I think that was a wonderful move by Dube [to] find the other areas that need electricity in Soweto. We work together, in a way, it is something parallel to SSRC (Soweto Students' Representative Council) but this time dealing with electricity just like SSRC was dealing with Bantu Education by then. It was something similar to that but this time looking at electricity issues, there are other issues right now but what it is in front, is electricity. It is the right step in the right direction this coalition, in which we will hear from them as the first step in the right direction. The coalition was just formed recently after the Orlando, Dube, it is a brand new organisation which was formed recently.

Interviewer: Like a few weeks?

Yes, it is something new and I think it is a big step in the right direction. Maybe one day, we should have Electricity Political Party. It should not come to that point. But the way things are, electricity is a hot burning issue which needs to be addressed very quickly. Somebody who does not have electricity ... someone has been in a cold condition for five months and somebody is warm for five months, then we cannot see in the same way. Somebody is comfortable and somebody has to struggle, trying to find their next meal or where their next meal will come from, so those two people cannot reason the same ... Yes, it is a main central issue, the crisis of electricity.

Are private producers the way? Why we still need public utilities

One of the key proposals on the table for rescuing the electricity supply while decarbonising it revolves around licensing private producers to produce renewable energy. Kamanzi contests the wisdom of this idea:

"The fifth competitive round of the Renewable Energy Independent Power Producer Programme, initiated a decade ago, released results of its process at the end of October, with winning projects totalling over 2.5GW of variable generation at record low tariffs ... [but] with as much as half of the coal generation fleet offline by mid-October, an additional 4 GWH of generation capacity would have been required to avoid stage four load shedding. ... even if [the private producers' projects] materialised overnight, the proposed projects would only meet the 4GW threshold 37.5% of the time ... South Africa is poised at a cliff edge and needs an urgent commitment to rebuild Eskom into a public utility capable of managing trade-offs and facilitating a just and equitable energy transitions in a phased, technically sound manner. Instead, those charged with governing the sector arguably most critical for facilitating our already unequal energy sector to create secure, de-risked opportunities for multinational private power utilities, commercial banks, large landowners and private equity players abroad will not serve the interests of all South Africans."⁴¹

⁴¹ Kamanzi, B. 2021. Wind and solar are no quick fix for load shedding. *New Frame*, 12 November.

9.2 The research team's conclusions

- Load reduction must stop. It is a discriminatory form of energy saving that reinvents and revives racial discrimination and class disadvantage. It illustrates and embodies broader energy racism.
- The electricity crisis worsens the crisis of everyday life and can push households from coping to crisis. It is linked to and compounded by other crises such as a crisis in affordable housing and the unemployment crisis.
- Electricity is a basic need, not a luxury. People need reliable, affordable and clean energy for health and happiness.
- Eskom must stop punishing people for 'bridging' and overloading. Instead, Eskom must extend the physical network to informal settlements and electricity must be free or very cheap. Eskom must expand generating capacity urgently to supply everyone while moving rapidly to carbon neutral sources of energy, and it must properly maintain the existing plants and equipment until they can be replaced. Working class lives must come before profit.
- Communities could **mobilise broadly** around common goals such as these to bridge some of the divides.
- The electricity crisis is part of **a bigger crisis in the economy and society**. Alternate technologies for generating electricity exist but we need to start thinking about alternate institutions and priorities for society. We also need to understand the social and power relations webbed around electricity provision, such as the fact that it is currently embedded in the extraction of minerals from Africa.

9.3 What next for the researchers?

These are some directions that the research team could follow next.

- **Can PAR combat "research fatigue?"** One of the participants complained: "I am very cross and you will have to forgive me, I am tired of being interviewed. I have done several interviews and for what, because it is not helping." *Interviewer: Who are those people, the newspaper or what?* "Yes, the newspaper people, Soweto TV, etc ... The bad part is that these people who were interviewing us, they do not come back to say, you know what, we have failed to help you. They interview you; they go and they never come back. I was very angry saying that I am fed up, I do not want anyone who will come and interview me, because nothing good comes out of it." How can the report get back to people?
- How are **people in informal settlements** experiencing the electricity crisis and are there grounds for unity across communities?
- How do Eskom officials and local councillors see and represent the electricity crisis?
- How does being without electricity in the suburbs compare to not having electricity in the townships?
- What is the **extent** of the national and Soweto crisis? (Extending this study to more places in Soweto or more places in the country or collecting an online archive of people's self-submitted electricity stories.
- What are the differences in how men and women are forced to navigate not having electricity?
- What strategies have worked and why?

SECTION 10 Appendices: interview schedules

10.1 Electricity crisis Survey

UNIVERSITY OF JOHANNESBURG - CENTRE FOR SOCIOLOGICAL RESEARCH AND PRACTICE

Electricity Crisis Interview Schedule

SECTION A: QUANTITATIVE

1. How do you identify?

(Tick or cross appropriate box)

Man	
Woman	
Non-binary	
Other (prefer to self-describe)	

Notes:

2. What is your current age?

(Tick or cross box to the right)

18-24	61-65
25-29	66-70
30-35	71-75
36-40	76-75
41-45	76-80
51-55	81-85
56-60	86-90
61-65	90+

Notes_

3. What is your race?

Black African	
White	
Coloured Non-binary	
Indian	
Other (prefer to self-describe)	

Notes_

4. Are you currently employed?

Yes	
No	
Partially	
Other (prefer to self-describe)	

Notes_

5. If answered YES or PARTIALLY, what sector/industry do you work at?

Notes_

6. If a	nswered NO, I	how long h	nave you been	unemployed for?
---------	---------------	------------	---------------	-----------------

1-6 months	
7-12 months	
13-24 months (longer than 1 year up to 2 years)	
25-36 months (longer than 2 years up to 3 years)	
37-60 months (longer than 3 years up to 5 year)	
61 months+ (more than 5 years)	

Notes_

7. What is your main source of income?

Employment (permanent and/or full-time)	
Partial employment (casual and/or part-time)	
Social grant	
Family assistance	
Other (prefer to self-describe)	

Notes_

8. Do you currently have electricity power in your house?

Yes	
No	
Partially	
Other (prefer to self-describe)	

Notes_

9. If, answered YES, how do you pay for your electricity?

Prepaid meter	
Conventional meter	
Don't pay	
Other (prefer to self-describe)	

Notes_

10. If, answered YES, how much do you pay?

RO	R701-R750	
R1-R49 per month	R751-R800	
R50-R100 per month	R801-R850	
R101-R150 per month	R851-R900	
R151-R200 per month	R901-R950	
R201-R250 per month	R951-R1000	
R250-R300 per month	R1001-1050	
R350-R500 per month	R1051-R1100	
R501-R550	R1101-R1150	
R550-R600	R1200-R1250	
R601-R650	R1251-R1300	
R651-R700	R1301+	
Other (prefer to self-describe)		

Notes_

11. How much of your weekly or monthly expenditure goes to electricity (estimate)? PROBE

0%	
1-5%	
6-10%	
11-15%	
16-20%	
21-25%	
26-30%	
31-35%	
36-40%	
45-50%	
50%+	
Other (prefer to self-describe)	

Notes_

12. How often do you experience load-shedding or power cuts?

Once a day	
Once every two days	
Once every three days	
Once every four days	
Once every five days	
Once every six days	
Once every seven days	
Once every 7 to 14 days	
Once every 15 to 30 days	
Once every 31 or more days	
Other (prefer to self-describe)	

Notes_

13. If CURRENTLY NO ELELCTRICITY, how long have you lived without electricity?

Less than a day	
1-6 days	
1-3 weeks	
1-3 months	
4-6 months	
7-9 months	
10-12 months	
13 months+	
Other (prefer to self-describe)	

Notes_

GENERAL NOTES: OBSERVATIONS AND REFLECTIONS

SECTION B: QUALITATIVE

IMPACT/EFFECT OF ELECTRICITY CRISIS AND COVID-19

Intro: I would like us to talk about how the power cuts or load shedding affect you today. I would also like to talk a bit about COVID-19.

- 1. How has load shedding/power cuts affected you at home?
- 2. If you are working or have a small business, how has load shedding/power cuts affected you?
- 3. How has COVID-19 affected you at home?
- 4. If you are working or have a small business, how has COVID-19 affected you?
- 5. How has both COVID-19 and load shedding/power cuts affected you at home?
- 6. Tell me more about how the electricity crisis is affecting you, your family and your community today?

COPING

Intro: I would like us to talk about how you and the community cope with the problem of no electricity in your area.

- 1. How do you cope when there is no electricity?
- 2. Over the many months of living without electricity, has anything changed in the way you cope with the problem of no electricity?
- 3. How do you feel about the things you must do to cope with living without electricity?
- 4. What do you do to make life easier despite the crisis of electricity?

RESPONSES TO ELECTRICITY CRISIS

- 5. What have the authorities done to solve the electricity crisis? (Eskom, government)
- 6. What has your family and/or community done to solve the problem of load shedding and power cuts (PROBE)?
- 7. What has worked and what has not worked in attempts to solve the problems of electricity? In the short term? In the long term?
- 8. What has been your personal involvement in these attempts?
- 9. What do you think should be done to solve this problem once and for all (PROBE)?

HISTORY - IN THE PAST

Intro: Let us now look back into the past, going back many years, as far back as possible.

- 1. Looking back, what has been good about your life in the past?
- 2. What were the challenges?
- 3. Were there any problems with electricity in the past?
- 4. Were people able to cope with their electricity bills?

- 5. What do you remember about the problem of cut-offs for non-payment?
- 6. What do you remember about the problem of Eskom wanting to install pre-paid meters ("the green box")?
- 7. How did the community respond to some of these problems?
- 8. Was the community able to solve the problems?
- 9. What were the victories and defeats in past community struggle for electricity?
- 10. Looking back, how do you feel about electricity issues in the past?
- 11. What can you say about problems of electricity when you compare the past and the present?

SECTION C: HOUSEHOLD ETHNOGRAPHY

Intro: I would like to find out more about the people who live in this household and their basic needs. I know that people usually don't want to share this information but it is important to know the economic situation of the people and the difficulties they face in order to find solutions. It is amazing how much different households share the same problems but don't know it.

- 1. How many people live in your household?
- 2. What are their ages?
- 3. How are they related to each other?
- 4. How many rooms are there inside the house?
- 5. How many rooms are there outside the house (in the yard)?
- 6. How many live in the main house?
- 7. How many live in the backrooms?
- 8. Do you have any lodgers?
- 9. How many people are working in the household?
- 10. What kind of work do they do?

INCOME AND EXPENDITURE

- 1. What are the main sources of income for this household?
- 2. Do you think this money is enough to take care of the needs of the family/household?
- 3. Can you list all the amount from each source of income e.g. R3 000 from wages, R1 900 from pension, etc.?
- 4. Can you list how much money do you individually and collectively spend on
- 5. Food
- 6. Transport
- 7. Clothing
- 8. Electricity
- 9. PROBE for more items
- 10. What are the priorities in how you spend money in the household?
- 11. What is the place of electricity in the list of priorities?

USE OF ELECTRICITY/ENERGY

- 1. How important is electricity in the life of this household?
- 2. Who usually buys electricity in this household (when it is there)?
- 3. Did you have other energy sources besides electricity when you still had electricity?
- 4. What did you use electricity for?
- 5. How much electricity did you need for each of your different uses?
- 6. What sources of energy do you uses when there is no electricity?
- 7. Do these sources cost less or more than electricity? How much?
- 8. When there is no electricity, what problems does it create for the household?
- 9. How do you manage electricity or energy use in the household?
- 10. How important is electricity for the life and well-being of this household?
- 11. Tell me more about life in this household a typical day for household members.
- 12. Tell me more about how the electricity crisis has affected life in the household.

SECTION D: LIFE HISTORY

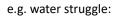
BIOGRAPHY

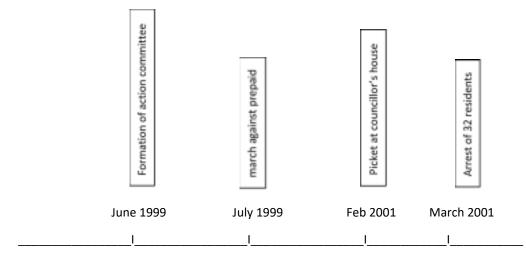
- 1. When were you born?
- 2. Where did you go to school?
- 3. How long have you stayed in Sun Valley?
- 4. Tell me more about your life, key moments, events and memories (PROBE)
- 5. What are the important things in your life?
- 6. How have you experienced the electricity crisis?
- 7. What do you think about problems of electricity?
- 8. What have you and your community done about these problems? (PROBE)
- 9. What do you think should be done to make life better for all?

COMMUNITY BIOGRAPHY

Intro: I would like you to share with me your knowledge about this community, how it is like, and how it has dealt with challenges and struggles. Let's talk about the types of organisations that exist today and in the past, the strategies used by these organisations and the community, the victories and defeats, unity and disunity, etc.

- 1. Open-ended discussion covering these issues. PROBE. PROBE. PROBE.
- 2. Draw a timeline together with the participant of events and struggles in the community going back as far back as possible according to their knowledge, involvement and memory.





10.2 Attacks on shopping malls questionnaire

QUESTIONNAIRE: ATTACKS ON SHOPPING MALLS AND OTHER ACTIONS

A. DEFINITION/FRAMING

1. What happened? (describe)

- 2. How did you get to know about it?
- 3. What was it about? (protest/crime/politics/other)
- 4. What does the government/media/community leaders say about it?
- 5. Was it a good/bad/not-so-good/not-so-bad thing?

B. CONTEXT

- 1. Where did it happen? (area/township/town/city/province)
- 2. What kind of people live where it happened? (socio-economic conditions)

C. DYNAMICS

- 1. How did it start?
- 2. Who started it?
- 3. How did it spread?

CAUSES

- 1. Why did it happen? (socioeconomic/political/ideological/poverty)
- 2. Is there any link with the electricity crisis? (probe)

D. NATURE

- 1. Who participated?
- 2. Why?
- 3. What were they feeling then?
- 4. How do you think they are feeling now?
- 5. What did they do exactly?

E. RESPONSES

- 1. How did the community respond?
- 2. How did the police respond?
- 3. How did the media respond?
- 4. How did government leaders respond?

F. FUTURE

- 1. What changes (if any) do you think will happen in the medium to long-term?
- 2. What lessons can society get from what happened?
- 3. What should people like you do about this?

Thank you.

Some ways to use the report

- **Discuss the report** with other people in your community. Lend it to your neighbours. Bring it to community meetings. Start with Section 1 and Sections 8 and 9.
- Watch the seminars (links on page 8).
- Use the additional readings (see "For more detail" on page 62).

Two ways to focus a discussion of the report in a meeting

- **Evaluate your area's energy deficits and strategies**. How are people in your area experiencing and responding to the energy crisis? Evaluate strategies. How is Eskom shaping the response? What are the forces outside the township that shape life inside the township?
- What should and what can be done about electricity supply? Brainstorm your plan, as a group, then evaluate and critique Eskom's plan. What about the "broader crisis"? How is that affecting electricity supply and how can we change that?



Image7: Mama Lilian, who cooks for a living, was forced to switch to paraffin, which is putting her budget under severe strain. See page 40 of the report.

Who can use this report?

People organising around the electricity crisis in Soweto and other townships will find an analysis of the crisis that starts from other experiences of the electricity crisis who share common living conditions.

Anyone living in areas affected by load reduction will finally understand why they are being punished, and see what others are trying to do about it.

Academics, journalists and NGOs will find descriptions of how people are experiencing load reduction to complement other research initiatives looking at the state of Eskom and electricity supply and be introduced to the concept of energy racism. The daily experiences detailed in this report allow us to see how Eskom can also be understood through the lens of resistance. The communities do not sit back and wait for energy; they organise and pressure Eskom.

Send your electricity story to <a>lsinwell@uj.ac.za if you want to be included in an online archive.

Space for writing and reflection

