## Load shedding – taking back control

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ver three years ago, the United Kingdom voted to leave the European Union in a referendum; a process that has since triggered the 'Brexit crisis'. The highly creative catch phrase used by the leave campaign in this controversial referendum was 'take back control', which 'Brexiteers' such as Boris Johnson continue to reiterate every time they feel their 'hard Brexit' preference is slipping away.

They argue that UK voters in the referendum and democracy itself will be 'betrayed' if full control is not wrestled back from Brussels. Ironically, the UK parliament itself seems to have little control over the process and the average UK voter is unlikely ever to have any direct control over the trade deals, customs tariffs and emigration policies that are at the heart of the Brexit debate.

Identifying the 'least worst Brexit option' is now the challenge facing the UK government and parliament. With South Africa's sixth democratic election imminent, a similar dilemma is facing us and the hope of 'taking back control of our country' is as distant as ever.

Load shedding has now been suspended, but Eskom's Andrew Etzinger is warning that we are not out of the woods yet. "There is an underlying reality that things can change at short notice. That is why we do not want to declare victory," he said.

Isn't it irrationally comforting to have him back as a spokesman, though, even if his role seems different every time he is quoted? Senior general manager: Demand Management? Acting head of generation?

At the time of writing, Public Enterprises Minister Pravin Gordhan and Eskom board chair Jabu Mabuza were about to deliver a media briefing at 'a power station 90 minutes outside of Johannesburg' about the current status of South Africa's electricity supply. Whatever the outcome, however, will South African people and businesses have any control over when and where they can use electricity?

At a media briefing held in Pretoria on 28 March, senior energy experts from the CSIR gave scientific advice on how South Africans can alleviate the impact of load shedding, "taking control of their household electricity usage and saving money at the same time".

The talk, by principal researcher of the CSIR's Energy Centre, Jarrad Wright, and senior researcher Joanne Calitz, discussed a range of options available to reduce electricity usage in households, while also supplying household needs during load shedding or grid outages. Wright and Calitz urged South Africans to become more energy efficient, change their behaviour and make use of complementary energy sources. "Taking control of electricity in households by installing energy efficient devices and appliances, while also implementing alternative energy strategies, could minimise the impact of load shedding or grid outages, while also saving money," said Wright.

The detailed presentation by Wright takes a properly scientific view of the benefits and consequences of such choices and starts by pointing out the severity of the load shedding in February and March of 2019. Not only was it the first time in our history that Stage 4 loadshedding had to be implemented (4 000 MW), but March 2019 was our worst month of loadshedding with an estimated total of 595 GWh of undeliverable demand in the month. In addition, while loadshedding in 2015 affected mostly peak periods, during this 2019 crisis, loadshedding occurred both day and night.

Wright argues for adopting a cascade approach to minimising the risks of supply disruption: reduce demand by implementing energy efficiency initiatives; shift demand by changing time of use behaviour; replacing electricity use with alternative energy sources such as LPG, solar heaters, wood or charcoal; and installing one's own electricity generation systems such as standby generators, solar PV systems, batterybased backup supply systems or combinations of these.

He says that readily available options in combination can help households as well as the power grid in different ways, and he rates each option in terms of helping to reduce grid costs, improving supply reliability and environmental impact.

Neither Brexit in the UK nor the results of South Africa's May 8 election are likely to leave anyone feeling more in control of their destiny. Nor will knowing what is wrong with Eskom, how long it will take to fix and how much more it is going to cost us.

But making some of the changes suggested by the CSIR, so that during load shedding and, more routinely, during peak/expensive use periods, households have alternative energy and electricity supply options, does amount to taking back control.

We should all be investing in alternative energy options, for the good of the economy, for the sustainability of Eskom and, most importantly, to enable us to feel less helpless and more in control of our daily lives.

