



Budget Speech 2015

Electricity levy to be increased: What are the consequences for the economy?

On 25 February 2015, South Africans tuned in to listen to Finance Minister Nhlanhla Nene's first full budget speech. For the coming financial year, an expected total revenue of R1,189 trillion to fund expenditures of R1,351 trillion was budgeted.

The Minister identified the main challenges that South Africa faces in attaining sustainable growth and development. He referred to the international situation that is far from stabilised. Although the conditions and projections for different countries vary considerably, the general outlook is that growth is expected to be slow: China's growth will slow down this year, the USA's growth is expected not to exceed 3,6%, and Europe will be more vulnerable than ever. Although the decrease in the oil price will benefit South Africa, international trade conditions will put pressure on the country's commodity exports. South Africa's electricity crisis will also hamper growth, in particular in the main economic sectors of manufacturing and mining. Considering all the challenges, the projection for South Africa's economic growth is just 2% – down from the projection of 2,5% in October 2014. The Minister is, however, confident that the country will return to a growth path above 3% from 2017.

As in every year's budget speech, the increases in taxes and levies drew the attention of especially consumers and small enterprises that usually get affected more severely. The usual 'suspects' were there: income tax (raised by one percentage point for all taxpayers earning more than R181 900 per annum), fuel levy (increased by 30,5c a litre from April), and 'sin taxes' (increased excise duties on alcoholic beverages and tobacco products).

Although subsequent media reviews expressed the feeling that the Eskom management/revenue crisis did not receive the expected weight in the speech, the Minister did announce that to ease the financial problems of the utility, the government would 'inject' R23 billion into it this year. Also, an additional amount of R108 million would be allocated to research in the energy sector. No mention was made of the much discussed topic of nuclear power generation.

The Minister did identify the national energy supply crisis as a top priority because 'Electricity constraints hold back growth in manufacturing and mining, inhibit investment in housing and raise costs for businesses and households'. He noted the importance of the carbon tax to be introduced next year and vouched for its use as an additional tool to assist in managing the electricity shortage and supporting energy sustainability in the country. Promoting tariff instruments further as remedies for the difficulties in the sector, he announced an increase of the electricity levy by 2c/kWh, from 3,5c/kWh to 5,5c/kWh, 'to assist in demand management'. He indicated that 'This levy of 2c/kWh will be withdrawn as soon as the electricity shortage is over'.

This seemingly small increase of 2c/kWh immediately raises the question of just how much it will contribute as a demand-side management tool and what its impact on the economy in general will be in the near term. To answer these questions the Department of Economics at the University of Pretoria employed its General Equilibrium Model (UPGEM) and simulated the impact of the increased levy. UPGEM is a dynamic computable general equilibrium (CGE) model that contains detail on many industries and commodities in the South African economy. Following the standard dynamic UPGEM methodology, we first simulated a business-as-usual baseline forecast. For this baseline simulation we considered the latest macroeconomic projections presented in the 2015 Budget Review, expected electricity price increases and the scheduled build programme outlined in the Integrated Resource Plan (IRP). For the policy scenario, our simulation

combined two parameters: i) impose the electricity tax levy increase in 2015; and ii) remove the levy in 2018 when the electricity situation is expected to have stabilised.

Our UPGEM simulation showed a number of interesting results. For the purpose of this brief we focus our attention on the impact on real GDP, household consumption and the demand for electricity in the short term. According to Minister Nene, the main objective of this tax increase is to assist with short-term demand-side management – hence its temporary nature. Regarding the main macroeconomic variables of concern, we found that real GDP would be reduced by a cumulative 0,09% relative to the baseline by 2016. Household consumption, a common measure of welfare, would be reduced by a cumulative 0,13% relative to the baseline by 2016. Of particular relevance was the impact on electricity demand due to the increased levy. We found that electricity demand would be reduced by a cumulative 0,6% by 2016. It should be stressed that a reduction relative to the baseline by the end of 2016 does not necessarily imply a reduction relative to where we are today. For example, if electricity consumption is expected to grow by 5% between 2014 and 2016, resulting in an increase from around 40 000 MW in 2014 to 42 000 MW in 2016, the reduction of 0,6% predicted by UPGEM implies that only 41 748 MW of electricity will be demanded by 2016 as a result of the imposition of the increased electricity levy, all other things being equal.

Assuming that the increase in the electricity levy was reversed in 2018, we found that much of the ‘damage’ caused by the levy up to 2017 quickly dissipated. In that scenario, electricity demand recovered to only 0,09% below the baseline by 2020, and real GDP and household consumption were virtually fully restored to their baseline levels.

Our UPGEM results, therefore, suggested that the short-term purpose of the levy – to act as a demand-side management tool – would be achieved, albeit only on a relatively small scale. This is to be expected: small price increases typically have relatively inelastic demand responses. However, given the scale of the crisis, every little bit will help. The expected revenue from the increased electricity levy, around R6,5 billion by Treasury estimates, may be more significant if properly channelled towards solving the country’s electricity problems. All in all, the levy seems to be a good idea in helping the economy ration its currently scarce supply of electricity. However, once Kusile and Medupi are online and the carbon tax is introduced, the levy should be reversed.

We would be interested in hearing the thoughts of other energy experts and commentators on this matter. Our analysis and results are only preliminary and will no doubt evolve over the coming months.

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Disclaimer: The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of the Department of Economics and/or the University of Pretoria.