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Border Tax Adjustments to Negate the Economic Impact of an Electricity Generation Tax

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In the 2008 Budget Review, the South African government announced its intention to levy a 2c/kWh tax on the sale of electricity generated from non-renewable sources. This measure was intended to serve a dual purpose of helping to manage the current electricity supply shortages and to protect the environment (National Treasury 2008).

An electricity generation tax is set to have an impact on the South African economy. However, several instruments have been proposed in the literature to protect the competitiveness and economy of a country when it imposes a green tax, one of these remedies being border tax adjustments (BTAs). We evaluated the effectiveness of BTAs for South Africa in counteracting the negative impact of an electricity generation tax on competitiveness in 2010, and the research was published as ERSA Working Paper nr. 167.

The remedial effects of the BTAs were assessed in the light of their ability to maintain the environmental benefits of the electricity generation tax. Additionally, the Global Trade Analysis Project (GTAP) model was used to evaluate the impact of an electricity generation tax on the South African, SACU and SADC economies and to explore the possibility of reducing the economic impact of the electricity generation tax through BTAs. The results showed that an electricity generation tax would lead to a contraction in South African gross domestic product (GDP). Traditional BTAs were unable to address these negative impacts and we therefore proposed a reversed BTA approach where gains from trade were utilised to counteract the negative effects of an electricity generation tax, while retaining the environmental benefits associated with the electricity generation tax. This was achieved through a lowering of import tariffs which would reduce production costs and thereby restore the competitiveness of the South African economy. The reduction in import tariffs not only negated the negative GDP impact of the electricity generation tax, but the bulk of CO₂ abatement from the electricity generation tax was retained.

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