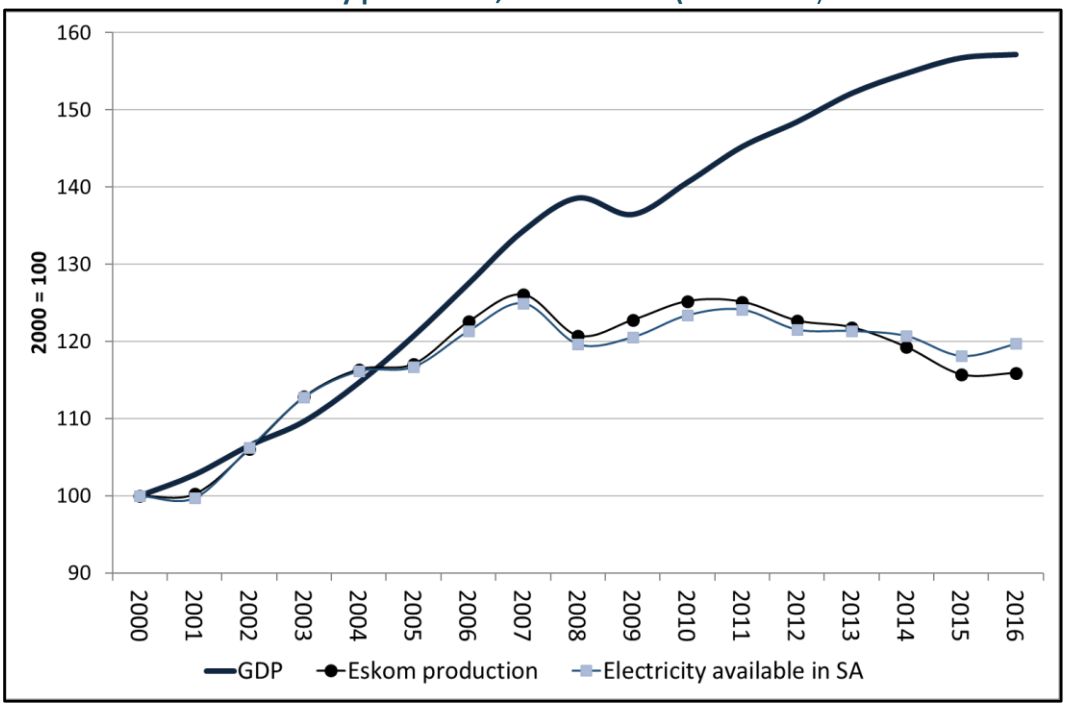
Briefing note: The electricity oversupply – Implications for economic policy

Since 2011, Eskom has experienced a sharp decline in demand, while the electricity-intensity of the South African economy fell by a quarter from 2005 to 2017. A TIPS briefing note (available at *Responses to the electricity supply*) analyses the factors behind the fall in demand and, on that basis, a range of strategic responses.

As the Graph 1 shows, electricity production is now substantially lower than in 2008, despite continued growth in the GDP.

Graph 1. Indices of the GDP in volume terms and annual electricity production, 2010 to 2016 (2000 = 100)

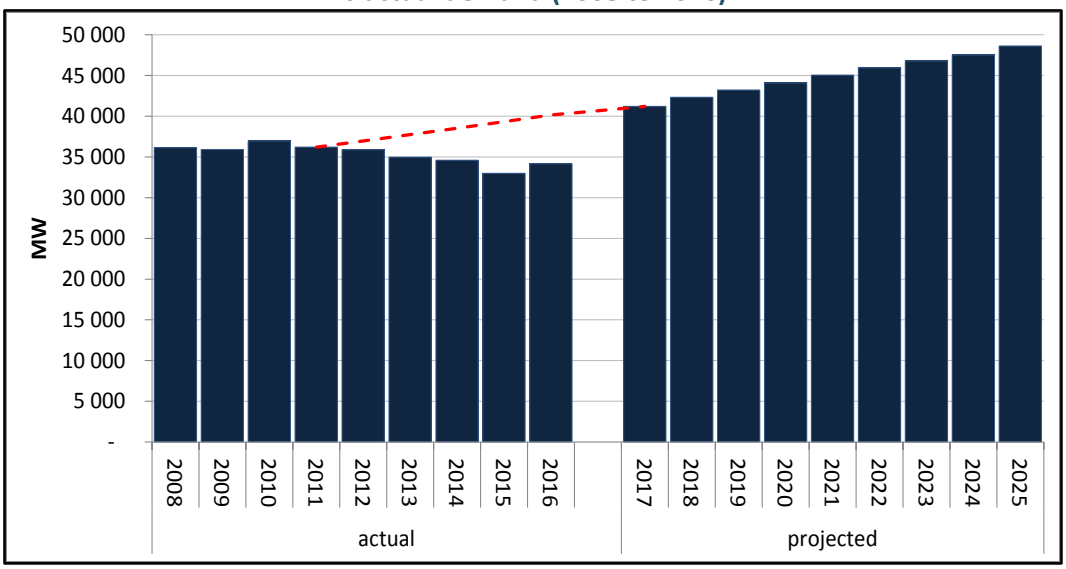


Source: For GDP, calculated from South African Reserve Bank. Interactive dataset. Series on GDP in constant rand. Downloaded from www.resbank.co.za in May 2017. For electricity, calculated from Statistics South Africa. Electricity generated and available for distribution. 201703. Excel spreadsheet. Series on monthly electricity generated and available for distribution, not seasonally adjusted. Downloaded from www.statssa.gov.za in May 2017.

Despite these trends, both Eskom and the regulator assume that demand will pick up in the near future. That belief ignores both the likelihood of slow growth in metals exports at least for the next few years as well as the strength of national and business strategies to reduce energy intensity. The risk is that it could lead to substantial overinvestment in generation in the next few years.

Graph 2 shows that NERSA's projections for electricity demand have not been corrected to take into account the realities of the past nine years.

Graph 2. NERSA's projections for peak demand (2017 to 2025) vs actual demand (2008 to 2016)



Source: NERSA. "System Adequacy Outlook." Issue 12. 4 January 2017. Pp 2-3.

The TIPS briefing note concludes that it would be unsustainable in economic, environmental and social terms to fall back on the historic solution of boosting demand by subsidising new investment in metal and coal refineries.

Instead, Eskom has to develop a new business model that takes into account current realities - in particular the decline in metals refining due to higher electricity costs and the end of the commodity boom, as well as efforts to reduce greenhouse gas emissions. These realities mean Eskom will have to adapt to more or less stagnant electricity demand for the foreseeable future. To achieve that end, it should adopt smaller-scale and more flexible generation technologies.

Promoting future growth also requires that electricity supply be far more closely aligned with industrial policy. That would entail substantial modifications in current processes for determining tariffs and the allocation of electricity. The aim would be to prioritise projects that support industrial deepening and inclusive growth, which in turn would sustain Eskom over the longer run.