

## Electricity – NERSA

31 August 2022

*A significant announcement was made on Friday 26 August about electricity, but the news has for all practical purposes been ignored by the media. Given this 'black-out' I have decided to do this note to keep you abreast of the developments.*

Late on Friday 26 August, the National Electricity Regulator of South Africa (NERSA) put out an innocent-sounding and typically bureaucratic statement. It asked for public comment on three section 34 determinations made by the Minister of Mineral Resources and Energy, Gwede Mantashe, which the minister sent to NERSA for concurrence.

The bureaucratic story goes like this: NERSA has to 'give concurrence to', ie agree with, the minister's determinations before the latter can take effect and power can be legally procured. Before NERSA can give concurrence, it must obtain public comment. Once concurrence is given, the minister can open bid windows that will then be implemented by the Independent Power Producers' Office. It is a cumbersome and dirigiste system, but that is how it currently works. (This will change too, but that is a different topic.)

The significant news is in the three determinations the minister sent to NERSA for concurrence.

The first one is for 14 791 MW of solar, wind and storage capacity to be procured. A second one is for 1 000 MW from biomass and landfill projects. The third one is for 3 000 MW of gas. This is a massive announcement. It more than doubles the total MWs in procurement, pushing the total over 33 000 MW of capacity that will be opened for bids, and in due course connected to the grid.

Even if we assume there will be no feasible contracts under Bid Window 5 (because prices have moved out of kilter after the war on Ukraine was launched), it will still leave us with more than 30 000 MW of new power to be procured and connected. To put this in context, consider three figures:

1. Eskom currently generates around 32 000 MW maximum (installed capacity is much more, but efficiencies are low).
2. Total installed renewables currently run at about 7 000 MW.
3. A further 80 projects, involving more than 6 000 MW, are in various stages of development and registration with NERSA.

These figures make the 30 000 MW a very significant number. It really means the renewables genie is out of the bottle. Granted, renewables are intermittent. They do not constitute base load and as such one must be careful with comparing numbers, but the quantum cannot be denied.

When renewables are used, base load is important and that is where storage and gas come in. Renewables have become a well-known part of the electricity story, but gas, landfill and biomass haven't yet.

## Gas

The determinations for 3 000 MW of gas/diesel set the stage for expanding the gas industry as a fully-fledged alternative energy source. In a world of renewables, storage and gas are needed to even out fluctuations and help provide base load. Gas can also replace the expensive diesel 'peaking plants' used by Eskom during times of high

demand. The environmentalists do not like gas, but it is certainly cleaner than coal and diesel, cheaper than diesel, and until battery technology has developed further and prices have declined further, indispensable for making renewables a reliable part of the system. Expect a lot of noise and controversy about gas. Furthermore, the development of gas infrastructure will probably be developed by i-Gas, a state-owned enterprise. That will intensify the noise and controversy.

In June, well respected Meridian Consulting calculated that there was no role for large-scale gas-fired power generation in South Africa and that the only 'economically rational role for gas...would be for *peak or standby capacity*.' (my emphasis). For that purpose, they calculated that about 8 000 MW of flexible capacity will be required by 2030.

In July, Eskom indicated that it would need 3 000 – 6 000MW of new gas power. The minister's determination for 3 000 MW fall well within these parameters.

## Other technologies

The minister also made a determination to procure 1 000 MW of generating capacity from landfill and biomass. Although these technologies will probably always be only a small part of overall power provision, landfill and biomass create opportunities for new businesses. In Cape Town, a black women's empowerment group has signed an agreement with the biggest dairy farm in the Cape to use biomass to generate electricity that they sell to South African Breweries. Everybody wins. Cape Town metro is putting up a 1 MW plant at one of its landfill sites, getting rid of rubbish and generating electricity at the same time. Imagine if all the litter in South Africa is used to generate watts!

## Game-changer going unnoticed

Two things about this development last Friday are astonishing. The first I have already referred to and it is the quantum of new megawatts that is now in the process of being opened up for bids. As the reference numbers above indicate, the determinations constitute a real game-changer. The second is that virtually no media outlet carried this news over the weekend, nor indeed to the time of writing on 31 August. Only Engineering News picked it up. As the various bid windows are opened up, the matter should move to the front pages and get some attention.

Very few of the 27 economic research houses and economists in the country have incorporated an investment in electricity in their economic forecasts. As the bid windows are opened, they will no doubt higher investment into their models and, all other things being equal, higher growth forecasts should result.

## So what?

- Clearly, the president's televised speech to the nation on 25 July did not make empty promises. The door has been opened for projects that will run to 2030 and beyond, involving at least R1,2 trillion in investment over the next eight years.
- The 2019 IRP was adopted in October 2019 and now, three years later, the entire IRP has been fulfilled. Sure, Stage 6 load-shedding has no doubt helped to nudge things along, but that is what crises do. Never let a good crisis goes to waste is the old saying.
- Given the bureaucratic nature of the current system NERSA must now consider public comment, then give concurrence and then the minister can open bid windows with due dates. I expect all this to happen by the end of the year.
- I stick to my forecast that load-shedding will still be with us for two and a half years until the end of 2024. No interim relief there. But the road ahead is clearer than ever.