Good Morning

It is my pleasure and honour to be given the opportunity to say a few words on behalf of the National Energy Regulator at this convention. Congratulations on this stimulating convention held under the theme: *Technical Solutions for our Changing Business Model.*

I would also like to congratulate the AMEU for the work it does in promoting uniform approaches and technical excellence in the industry. Conferences such as this are to be valued for their contribution to the industry.

Ladies and gentlemen, NERSA has a vital role to play in the electricity supply industry and part of that role is the balancing of interests amongst
various stakeholders. We are required to execute our mandate without fear or favour.
Likewise the municipalities have an extremely critical role to play. They are at the coal face when it comes to government’s service delivery to the people of South Africa. Amongst these services is the supply of electricity.
In regulating the municipal electricity supply industry NERSA endeavours to create an environment where municipalities can achieve their goals.

What are some of these goals?
1) Customers will enjoy good quality of supply at affordable prices.
2) Customers will be treated fairly and with justly
3) The infrastructure will be always in a good condition.
4) The electricity departments will be adequately staffed in terms of both the quantity and quality.
5) That there will be good and accurate information on which decisions can be based.
6) That there is environment where the economy of the municipality can thrive.

You may be surprised that tariffs are not mentioned there. That is because tariffs are a means to an end and not an end in themselves.

As this is a technical conference and I will now shift my comments to technical issues that are likely to affect the electricity distribution industry.

In 2008 NERSA introduced RE Feed in tariffs. The proposed tariff for Solar PV was about R4.00 per kWh. However the DoE stepped in and reminded NERSA that there is no provision in the Electricity Regulation Act for NERSA to predetermine tariffs. That put paid to the idea of
REFITs. Subsequent to that the DoE initiated the REIPP Programme. In the 1st round the lowest price for PV was R3.00, however in the 4th round the lowest price was about 99c/kWh. That goes to show the price is approaching Grid parity. The main reason for the decline in the unit price is the decline in the price of solar panels. It has declined by at least 60% from 2008.

During the same period we have seen Eskom’s average tariff increasing from 22c/kWh in 2008 to 89c/kWh in 2017. Clearly this is encouraging consumers to resort to self-provision through rooftop solar PV installations. Which we refer to as Small Scale Embedded generation. Thus consumers are converted to prosumers as there is a possibility for them to export power into the municipality’s grid. As a result the municipality is faced by at least 2 challenges: the 1st is that the legacy networks are not designed for this bidirectional flow of energy. The 2nd one is that municipality will lose sales/revenues – which is undesirable as the current business model is such that there is an over reliance on electricity revenues. The introduction of effective and reliable storage technology will exacerbate this situation.

The question now is how should municipalities deal with this threat? For one they should redesign their tariffs in such a way that the adverse effect of SSEGs is minimised. The value of the exported kWh cannot be the same as that of the imported kWh.

2ndly municipalities should change their business model and the question is how? To answer this question one has to look at developments in the telecommunications industry. When the cellular phone was introduced the main service was VOICE and voice was the main source of the telecoms service providers. Today voice is just but one of the services offered by the telecommunication services providers. With the introduction of Data services like internet browsing, WhatsApp, GPS etc
the main source of revenues is no longer voice. Thus the electricity distribution industry should look at ways to transform itself to the point where the sales of the kWh will no longer be main source of revenues. Again the question is how can this be achieved? Well, the advent of smart grids, smart meters, smart homes and smart appliances should present an opportunity for this transformation. I can envisage a situation where the wires business will be separated from the retail business. The network services business can offer network services to the retailers and the retailers can offer a suite of innovative services to the end users. As the share of RE increases in the generation mix there will be a time when some generation plants have to be curtailed to avoid congestion in the system. One of the services that can be offered by the retailers would be to switch on smart appliances in the smart homes to create a sink for the excess power. The smart meters would then change the applicable tariff to one that'll be much lower in line with the excess capacity. Electric cars can also present an opportunity to increase the load. In this way the retailers would not just be selling kWh to the end users.

The smart technologies will obviously require staff that has the prerequisite skills or should I say smart people? We know that many municipalities are currently battling to attract and retain skilled staff. To develop the required skills in the right quantities there should be collaboration between the suppliers of skills (TVET colleges, Universities) and the users of skills ie. the municipalities. The government role would then be to ensure that policies enabling polices are in place (eg the creation of a enabling market model). It goes without saying that NERSA would also be required to ensure that an enabling regulatory framework is in place.
I am looking forward to the deliberations that will take place in the next three days as I believe that this is the right time for them. What we call disruptive technologies are disruptive to the extent that we are not prepared for them. No one has ever succeeded in either avoiding or resisting new technologies. When Windows was introduced by Microsoft the experts in the Disk Operating System (DOS) were devastated as they felt they were going to lose control. Those who adapted found that Windows actually introduced more opportunities for much more control. Thus the only way to survive is to adapt.

Thank you