**ADDRESS BY THE HONOURABLE PREMIER OF KWAZULU-NATAL, HONOURABLE NOMUSA DUBE NCUBE AT THE ETHEKWINI METRO ENERGY TRANSFORMATION SUMMIT ON 01 MARCH 2023**

Programme Director; Co-Chair of the KZN Growth Coalition, **Mr Moses Tembe;**

Leader of Government Business and MEC for Economic Development Tourism and Environmental Affairs, **Mr Sboniso Duma;**

Our Host, Your Worship the Mayor of eThekwini Metro, **Cllr Mxolisi Kaunda;**

The Deputy Mayor of the eThekwiniMetro **Councillor Zanele Myeni;**

Ambassador for Asia and BRICS at Large: Department of International Corporation, South Africa, **Ambassador H.E. Anil Sooklal;**

Durban Chamber of Commerce and Industry, **President: Prasheen Maharaj**

Head of Infrastructure South Africa: **Prof Kgosientsho Ramokgopa**

Captains of Industry and CEOs of Business Entities present;

Energy Experts;

Director-General of KwaZulu-Natal and HODs present;

Municipal Managers;

Senior Officials;

Ladies and Gentlemen.

Good morning!

I wish to start by commending the eThekwini Metro for the vision of convening this Energy Transformation Summit to tackle one of the most important and critical challenges of our generation – which is the energy security crisis.

This Summit comes at an opportune time. A few days ago, we presented the State of the Province Address which took place in Pietermaritzburg where we made a number of pronouncements regarding the key priorities of the Provincial Government.

But one of the most important pronouncements was our approach to the current energy crisis, and our thoughts on what KwaZulu-Natal should be doing to assist the country in its bid to address this challenge.

Ahead of the State of the Province Address, His Excellency President Matamela Cyril Ramaphosa, on 09 February announced a State of Emergency on the energy crisis in South Africa.

After the National Special Cabinet meeting held on 27 February 2023, the Minister of Cooperative Governance and Traditional Affairs (COGTA) Dr Nkosazana Dlamini-Zuma in terms of Section 3 and 27(2) of the Disaster Management Act, 2002 (Act No. 57 of 2002), gazetted the disaster management regulations on electricity constraints on the Impact of Severe Electricity Supply Constraints on society.

Among the objectives of the regulations are to assist the energy generating entities to restore their capacity to generate electricity and provides for an array of measures to protect and provide relief to the public, and to deal with the effects of the disaster.

The regulations call on government institutions among others, to adopt energy-saving measures to contain the effects of the disaster and to prevent the escalation of the electricity supply shortfall.

They also call for the continuous operation of health facilities, water infrastructure and other specified essential services. This is to be done by installing alternative energy sources or other measures to provide an uninterrupted power supply.

In addition, where “technically possible”, essential infrastructure will be exempted from load-shedding. Under the emergency, processes will be streamlined in decision-making on energy generation projects, and shortening environmental authorisations, waste management licences, atmospheric emission licences, condonations and exemptions associated with energy infrastructure and generation, transmission and distribution facilities, for the duration of the national state of disaster.

The regulations facilitate the sale of electricity generated by individuals, organs of state or private institutions to license distributors as defined in the Electricity Regulation Act 2006 (Act No. 4 of 2006).

The state of emergency also provides that water boards and municipalities review the operational levels for reservoirs; water treatment schedules to maximize water treatment while electricity is available or other measures; or take other measures to ensure security of water supply.

We welcome the announcement that emergency procurement procedures will be subject to real time audits by the Auditor-General in order to avoid corruption. We also welcome these regulations and the following list of essential infrastructure:

* Health Infrastructure, including military health facilities;
* Water infrastructure including water treatment plants;
* Rail and ports infrastructure;
* Food production and food storage facilities;
* Critical electronic communications and broadcasting infrastructure.

**REDEFINING OUR ROLE IN SOLVING THE ENERGY CRISIS**

We converge here to redefine our role and map a way forward on how, we as the province starting with our only Metro, will play our part in resolving the energy challenges of our modern times and continue to expand services to our citizens whilst delivering on the promise of a better life for all.

As we respond to this question through the expert knowledge of our social partners, we cannot do so without taking note of the technological advances in the sector.

Ladies and Gentlemen, the cost of rolling power cuts in South Africa has been to reduce GDP by 1 to 1.3 percent annually since 2007, according to estimates by Quinten Bertenshaw, executive director of ETM Analytics.

Bertenshaw argues that had load-shedding never occurred, “the country’s economy could be 17 percent larger than what it is today”. The consequence is that the country’s growth outlook in 2023 is according to Minister of Finance Enoch Godongwana “not [impressive](https://www.moneyweb.co.za/news/economy/godongwana-paints-gloomy-gdp-outlook-ahead-of-wef-meeting/)” all due to the insecurity of energy supply.

In an online article titles “The Dark Reality Of South Africa’s Energy Crisis”, in February this year, Sarah McCann writes that Minerals and Energy Minister Gwede Mantashe told mining industry participants that the power cuts cost the economy R1 billion rand per day, and the World Bank estimates that the nation’s economy lost 24 billion dollars in 2022 due to power cuts.

The South African Reserve Bank has been on record predicting that unless drastic measures are adopted, there will be [250 days of power blackout](https://www.bloomberg.com/news/articles/2023-02-06/blackouts-may-cost-s-africa-51-million-day-central-bank-says) in 2023, which translates to a historic economic loss of $12.7 billion.

Governor Lesetja Kganyago predicts economic growth to dwindle to [0.3% this year from 1.1% in 2022](https://www.news24.com/citypress/business/south-africa-will-only-see-growth-of-03-this-year-says-sarb-20230126) with saying that “without power outages, South Africa’s GDP growth could have been at 2.3% this year”.

So, the first major consequence of the electricity crisis is loss of economic growth and leaking of revenue by Eskom and business that would otherwise be used to invest and grow the economy.

The second is a dichotomy, and relates to the fact that calls for reduction of electricity use with the aim of reducing consumption and reliance on government will severely affect the revenue to the municipalities. This is because the bulk of municipal revenue comes from reselling electricity.

The current energy crisis is turning almost every sector on its head. Many options are being discussed and debated at households, boardrooms, production line and shop floor level. Plans are as big as ensuring almost all homes have a solar roof, uses home battery that utilises and stores solar energy which will have a huge impact on utility companies such as Ethekwini and Eskom. With this energy revolution that is taking shape. It is important for municipalities to rethink their offering.

 In affecting municipal revenue, the switch to alternatives has the potential to negatively affect service delivery and create disruptions that rea positive and negative.

To be clear, it is important that transition does not leave people behind not only in terms of jobs, but in benefitting entrepreneurs and black industrialists.

The transformation must go beyond the change from carbon to green but must also bring meaningful transformation to the majority. The powerful and the connected should not be allowed to monopolise the Green Economy. Those who historically control the commanding heights of the economy are not the natural leaders of catalytic projects in KwaZulu-Natal. This crisis can be turned into a massive opportunities for all and help lead the transformation of our society especially in KwaZulu-Natal where we are battling to address unemployment, poverty and inequality.

South Africa’s endowment with coal has created a natural inclination towards the commodity and with almost 80% of South Africa’s energy currently coming from coal, the country has consequently been branded the 11th largest carbon emitter in the world. South Africa is the seventh biggest coal producer in the world, and this historically has given South Africa access to cheap electricity.

The Premier of KwaZulu Natal is the Africa Chair of the Under2Coalition Against Climate Change and we have set up the Climate Change Council to leading initiatives aimed at addressing the impact of climate crisis.

The long-term solution to our energy demand in KZN and indeed elsewhere in is to ultimately transition to alternative energy sources at the corporate and household level. Chief among the alternatives is solar as the country receives over 2,500 hours of sunlight and averages around abundant solar radiation thus, making it a prime location for solar energy development.

In addition to wind and hydropower which are viable alternatives, solar is one of the more sustainable and potentially has the scale, with the potential to reduce both water use and carbon emissions.

Renewable energy is the only electricity generation technology whose price has decreased dramatically, with solar PV module prices falling by 80% during the past five years, while wind turbines have become 30% less expensive.

In addition, South Africa’s wind resources are regarded as amongst the top five in the world and could sustain 25% of our grid’s capacity. Furthermore, it is estimated that by 2020 the price of wind and solar PV will be at least R0-50/kwh, unlike Eskom’s Medupi power station, which - once completed - will charge close to R1-10/kwh.

To add generation capacity to the grid, and also to strengthen the grid by adding more storage and transforming capacity in December ESKOM announced the R11billion Phase 1 of Eskom’s BESS project which in Elandskop.

As announced during SOPA, this includes the installation of approximately 199 MW additional capacity, with 833 MWh storage of distributed battery storage plants at eight Eskom Distribution substation sites throughout the country. This phase also includes about 2 MW of solar photovoltaic (PV) capacity. The project is being funded through concessional loans from the World Bank, African Development Bank and the New Development Bank. This is one of the largest BESS projects to be implemented in South Africa.

Phase 2 of the project includes the installation of a further 144 MW of storage capacity, equivalent to 616 MWh at four Eskom distribution sites and one transmission site. The solar PV capacity in this phase will be 58 MW.

Distributed storage provides an alternative to support renewable energy expansion in South Africa and all Phase 1 sites will be commissioned by June 30, 2023, and Phase 2 by December 2024.

Ladies and Gentlemen, the provincial government estimates that as an energy-hungry province that consumes in excess of 6 700 MW of electricity per year, in order to maintain economic growth rates of between 6% and 7%, KwaZulu Natal requires between 400MW and 470MW more electricity every year.

As part of the transition towards a low carbon economy, there is a need to consider alternative energy options at the district, provincial and industrial level. As indicated during SOPA we have identified a number of sustainable solutions which include the installation and supply of solar water heaters, and heat pumps, solar energy, biomass, biogas, bio-fuels, wind, hydro, waste to energy, industrial symbiosis and also the circular economy and energy efficiency measures.

We are establishing a KZN Energy War Room comprising government and experts to oversee the province’s response to electricity crisis;

We have started the rollout of solar panels to households in the province especially at the level of ensuring that every new development by government in the form of RDP houses and other infrastructure it is fitted with the alternative energy mix.

We are exploring interventions in the use of alternative energy sources including tapping into the Ocean energy, tidal wave, biogas, hydrogen and renewables;

This we do while we will still be extending planned electricity connections to 25 000 households through the INEP Grant from DMRE to bring the electrification connection rate in KwaZulu-Natal to 93.89%;

Ethekwini Metro has taken a lead in its own energy generation plans which are being discussed in detail at thus gathering. At the Executive Council level we have approved policies to enable Ethekwini to steam ahead in implementing reliable energy security options including sourcing from Independent Power Producers.

We have in the province announced projects worth R170 billion in the Eskom 300 Mw Gas to Power Plant (R97billion), Mabasa Energy and Fuels (R10billion), Phakwe RBGP (R34billion) and NFE BGE Gas Supply (R25billion). With abundance of sugarcane the Province has a competitive edge to become a leader in biofuels, especially in ethanol for blended energy solutions. We have uninterrupted access to the ocean we are exploring tidal energy while turning the Richards Bay IDZ into an energy hub.

In a 2019 the research paper titled “Assessment of renewable energy potential in Kwazulu-Natal province, South Africa”, Marc-Alain Mutombo of the Centre for the Development of Green Technologies at Mangosuthu University of Technology finds that:

The KZN province has a Renewable Energy potential exploitable of about 45 GW from solar (74%, 13.52 % of wind energy, 9.51 % of geothermal and 0.06 % of biomass energy that can be converted into electricity. This excludes ocean energy and hydropower.

“Based on the analysis made, it is clear that the province of KZN has a sufficiently exploitable RE potential of about 45 GW. This potential energy, which is largely solar followed by the wind, can produce electric power eight times greater than the potential of Medupi coal fired power plant and would lead to a reduction of 240 million annual metric tons of greenhouse gas emission CO2”, says Marc-Alain Mutombo.

As we conclude ladies and gentlemen, I wish to say, the time has come for all of us to rethink the future which is beyond just ending the current load shedding crisis. That future is beyond just dependence on fossil fuels, but is grounded on our natural resources, such as wind, water, nuclear, biogas and solar energy etc.

As I was preparing for this summit I came across a headline which read “Change is the only thing constant in this world” and “Progress is impossible without change”.

This triggered in my mind that years ago when cell phones were new, many never anticipated that the level of penetration will be what it is today. It disrupted the then popular Telkom landlines. I also recalled that more than half the cell phones in the world came from Nokia.

Nokia CEO is recorded as ended his last speech at the helm of the company with the words “we didn’t do anything wrong, but somehow, we lost”.

The lesson we learn here is that tragedy befalls those who do not have the courage to change for the better nor have the foresight to adapt to new situations. The world of energy is changing too fast. As KwaZulu-Natal we must not miss out on the opportunity it brings, we must learn and change and adapt. The energy crisis while solving the current load shedding crisis must give birth to a new economic architecture and address the apartheid spatial economic patterns. The milieu of options must be spread across the various corners of the province.

Municipalities must now imagine that it is possible to be in a city where all your residents are powered by battery or solar. Electricity is a major source of revenue for local governments. What does this mean for the survival of municipalities? The energy game will certainly change. Are we ready to be municipalities of the future?

Are our by-laws, policies and other legislative regimes suited for this energy revolution? How ready are we for our SMMEs to benefit from the economic value chain?

We need our mind-set to catch up with time. As they say “the advantage you have yesterday, will be replaced by the trends of tomorrow”

Let us spend time here crafting solutions and weaving a blanket that will warm all of us tomorrow. This eThekwini Energy Transformation Summit will plant a seed that will germinate and make all municipalities in our province alive to the new change.

We are in an emergency, less talk and more decisive actions.

I look forward to the resolutions of this summit, which we will process in our energy command centre (the energy war room) that will coordinate the implementation of the energy emergency in our province.

Behind every crisis, there is a silver lining. We will solve the current crisis whilst we usher in a better economic future, sustainable development and clean environment.

I wish you all the best in your deliberations during the Summit and I look forward to practical solutions that will ensure energy security in our province and country.

I thank you