

SOUTH AFRICA'S INDEPENDENT POWER PRODUCER PROCUREMENT PROGRAMME AND ENERGY SECTOR OVERVIEW- September 2020



SAWEA
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South Africa's IPP Procurement Programme: Global, regional and local policy context



South Africa has an unmatched wind resource potential throughout most of the country, particularly along the extended 3000km coastline.

Global and Regional Context

Political | Social | 4IR | Technology
Economic | Legal | Environmental
Energy Security | Energy Poverty



Wind sector carbon emissions reductions

25.8 Mtons
CO2 reduction from
wind power

Sustainable Development Goals

Goal 7 Affordable and Clean Energy

7 AFFORDABLE AND CLEAN ENERGY



Refinancing of IPP projects to reduce electricity price for bid windows 1-3

National strategies, plans, policy and processes:

National Energy Act, 2008 (Act No. 34 of 2008) | The Electricity Regulation Act, 2006 (Act No 4 of 2006) | The Central Energy Fund Act (Act No. 38 of 1977) | White Paper on Renewable Energy | National Development Plan | Integrated Energy Plan (IEP) | The National Environmental Management Act, 1999 (Act No. 107 of 1999) | The Electricity Act, 1987 (Act No. 41 of 1987),

The Integrated Resource Plan and future of REIPP

1980 MW

Integrated Resource Plan 2019 was published in October 2019 with a new allocation of 14.4 GW for the wind industry up to 2030.

6 282 GWh energy supplied to grid between March 2019 to March 2020.



IRP 2019 Objectives

Designed to meet the forecast energy demand:

- Ensuring there is security of supply for South Africa
- Minimising the cost of energy supply in South Africa
- Reduce water usage related to the supply of energy (Water-food-energy nexus)
- Reduction of CO2 emissions from the generation of power



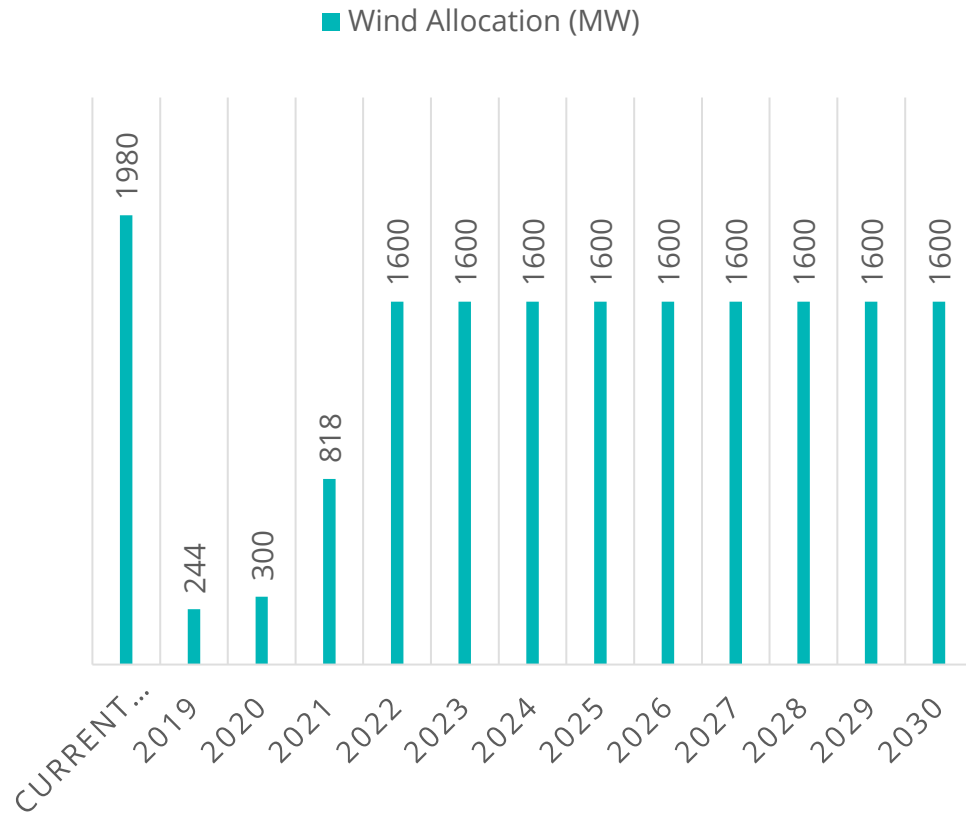
Q1 2021/2022

Bid Window 5 to commence within the last quarter of 2020/21.



IPP in Process : REIPPPP MW Renewable Energy through 4 Determinations

WIND ENERGY ALLOCATION, INTEGRATED RESOURCE PLAN 2019 (MW)



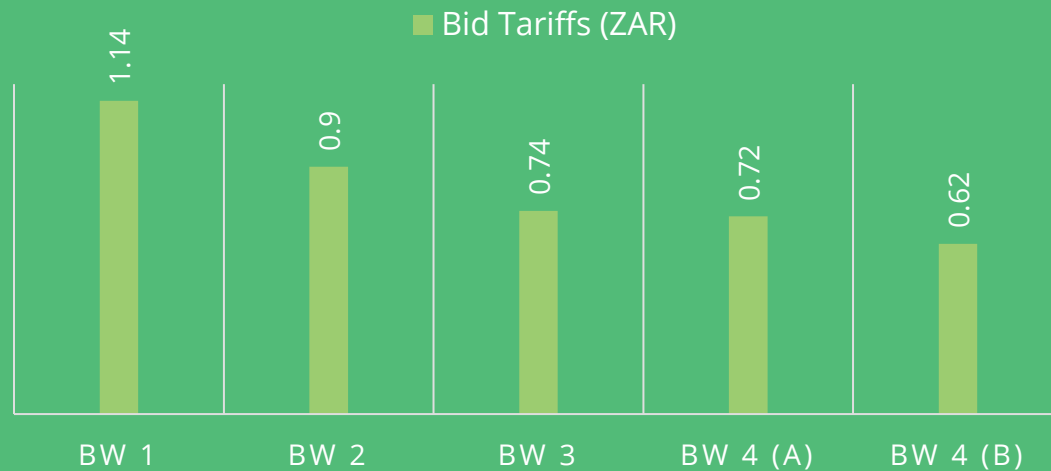
Decommissioning of 11.02 GW coal up to 2030.

Gas and diesel 3 GW new allocation

The IRP2019 decision indicates that the Nuclear New Build Programme must commence immediately, adding 2 500 MW to the grid, as this is a no-regret option in the long term.

Achievements from IPPPP: Renewable Energy and supporting broader economic development objectives

BID TARIFFS FOR WIND (ZAR)



- Significant decline in energy pricing over the last four (4) bid rounds.
- Lower bid prices now possible whilst achieving an acceptable rate of return.
- Declining international pricing for wind turbine equipment, due to excess supply, has contributed to costs decreasing.

Policy and Just Transition Planning Context

Transitional Challenges

- Macroeconomic risks
- Geopolitics
- Business Environment
- Energy vision
- Technology



DMRE Strategic Goals (2020 – 2025)

- to invest in accelerated inclusive growth and industrialisation,
- support localisation and export promotion,
- greenhouse gas reductions and;
- improving geological infrastructure.



Renewable Energy Development Zones

- In terms of section 24(3) of the National Environmental Management Act, 1998
- Defining of Renewable Energy Development Zones
 - Zone 9- Emalahleni for large solar photovoltaics
 - Zone 10- Klerksdorp for Large Solar Photovoltaics
 - Zone 11- Beaufort West- Large scale wind and solar photovoltaic facilities

South African Energy Landscape in 2020

The Energy Crisis

Demand Exceeds Supply

Eskom energy availability factor below 65%

Maintenance backlog, several plants due for decommissioning

Load Shedding

Government Commitments to Resolve Energy Crisis

Issuing of section 34 determination to enable procurement of new generation capacity

Procurement of emergency power from projects that can deliver electricity into the grid within three to 12 months

Fast-tracking of small-scale embedded generation applications by the regulator

Opening of bid window 5 of the renewable energy Independent Power Producers (IPP's) procurement programme

We will negotiate supplementary power purchase agreements to acquire additional capacity from existing wind and solar plants

Put in place measures to enable municipalities in good financial standing to procure their own power from IPP's

Fast-track of applications by commercial and industrial users to produce electricity for own use above 1MW

Accelerating the completion of bid window 4 RE projects

Current Energy Sector Policy and Regulatory Updates



Municipal Self generation poses risk to municipal revenue



Refinancing of BW 1-3 Projects to lower tariffs



2000MW Technology agnostic Risk Mitigation Independent Power Procurement Programme



Eskom Unbundling into three entities: Transmission, Generation and Distribution



Ministerial Engagement Forum launched for entire industry for open engagement on industry issues

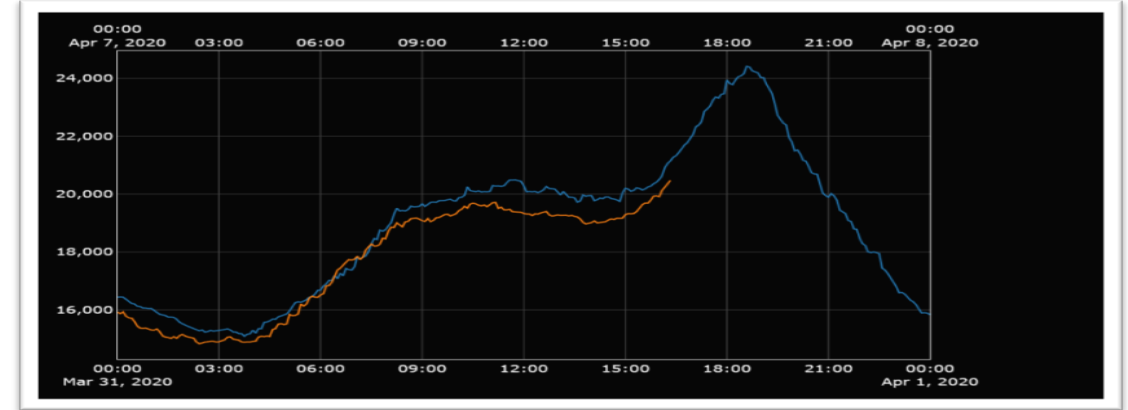


Central Energy Fund (CEF) restructuring to an “energy company” and will become a player in the renewable energy space

Covid-19 lockdown impact and Green Economic Recovery

Energy demand dropped significantly during phase 5 of the national lockdown.

- During night minimum 8 April actual residual demand was 6182 MW below forecast.
- During morning Peak 8 April, actual residual demand was 6453 MW below forecast.
- The Wind Energy industry was affected by a national lockdown which put a stop to all economic activities which were not deemed essential.
- The operational projects suffered curtailments without compensations due to the prevailing force majeure that was imposed by Eskom, luckily this has been since lifted by the end of level 4
- The wind sector has been looking forward to the post-COVID-19 period through its calls to the government and business to prioritize renewable energy in the country economic recovery
- South African Wind Energy Association (SAWEA) is pushing for a green economic recovery plan, which should consider renewable energy as one of the main components of the government economic stimulus package post-COVID-19



- The COVID-19 pandemic has brought a severe strain on the economy of South Africa resulting in disruption of capital flows, increased unemployment rates, and growing debt burdens.
- Government should take measures to stimulate demand by moving decisively to electrify the economy. Renewable energy is well positioned to play an important role in the country's economic recovery post COVID-19, since it is infrastructure investment that government does not have to put capital investment in

Covid-19 lockdown impact and Green Economic Recovery

- With regards to the Enterprise Development (ED) & Socio-Economic Development (SED) commitments, SAWEA reached out to the IPP Office to request flexibility to allow the IPPs to amend their plans and redirect SED funds toward Covid-19 response activities.
- The IPP Office has responded by requesting all projects who may wish to redirect their ED and SED Obligations to submit their proposed initiatives to the IPP Office by the 26th March 2020



Construction Projects

- Cease operation 23 March
- Re-opened mid May
- Disturbance of supply chains globally & locally
- Logistical challenges
- Impact on COD



Operational Projects

- Curtailments without compensation (Force majeure)
- Challenge legality of Force Majeure (FM) Claim
- FM has since been lifted at the end of level 4



Post Covid-19

- Wind sector calls for RE to be prioritised in the post Covid-19 economic recovery plan

Social Economic Development and Economic Development

Committed Investment (REIPPP)

R209.7 bn

Job years to date

2723

Foreign Investment
Share

16%

Wind share of investment

R80.6 bn

Black South Africa shareholding
(active projects)

33%

Operation capacity household equivalent

3.6 million



IPP Achievement- Jobs

- Numerous employment opportunities are being created by the REIPPPP. To date, a total of 50984 job years have been created for South African citizens, of which 41345 were in construction and 9639 in operations
- To date, 41345 job years for SA citizens were achieved during construction, which is 23% above the planned 34694 job years. These job years are expected to rise further since 24 BW4 projects are still in, or entering, construction.
- A total of 20 100 full time equivalent jobs will be created in Limpopo and Mpumalanga through the First Coal Bid Window. In the remaining Coal Energy Determination is procured, this will deliver a total estimated 60 000 full time equivalent jobs for SA citizens.
- The planned Gas-to- Power IPP Programme will deliver about 50 000 per annum economy-wide, full- time equivalent job opportunities over the next 25 years.
- Although jobs are created during the construction period, the anticipated rolling procurement programme was designed to ensure ongoing job creation.

Sources

- South African Wind Energy Association Database
- Department of Mineral Resources Strategic Plan 2020–2025, Department of Mineral Resources and Energy Resources
- REIPPPP focus on wind as at 31 March 2020. IPP Office Quarterly Report
- The South African Renewable Energy IPP Procurement Programme: Review, Lessons Learned & Proposals to Reduce Transaction Costs- Anton Eberhard & Raine Naude
- Integrated Resource Plan 2019, Department of Mineral and Energy Resources
- CEF Group 2020/2025 Corporate Plan, Presentation to the Mineral Resources & Energy Portfolio Committee

THANK YOU



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