SAWEA

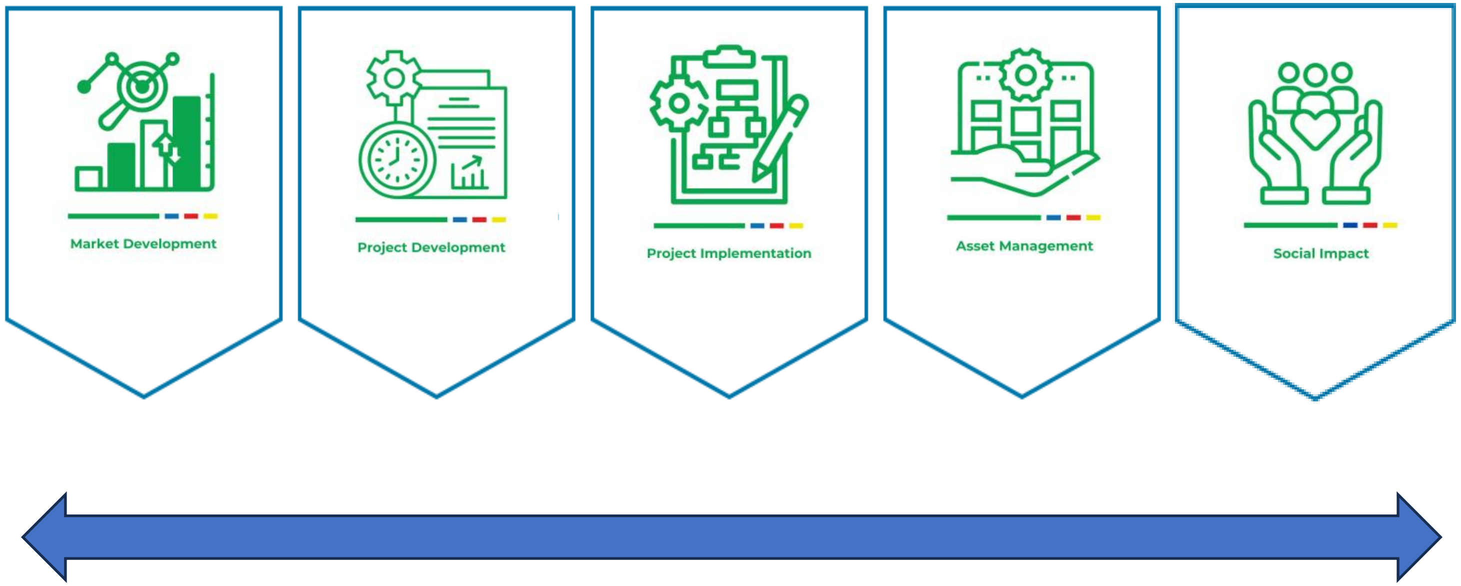
South African Wind Energy Association

BRIEFING: Portfolio Committee on Electricity and Energy

Niveshen Govender
SAWEA CEO

WHO WE ARE

SAWEA is a member-based not-for-profit industry association advocating for the accelerated growth of wind energy in South Africa. We aim to promote a better policy environment to sustain a thriving wind industry and support local participation and beneficiation.



140

We currently have 140 members across the wind energy value chain, including IPPs, Developers, Wind Farm Companies, Consultants, Investors, Logistics, Research & Academia.

SA WIND ENERGY ACHIEVEMENTS

36
wind energy projects procured

3442 MW
installed capacity

46480
GWhs of Wind Energy Contributed to the National Grid

3.6mil
ave. households powered annually

22 985
job yrs
82% in construction

38.8 Mton
CO2 emissions avoided

R89,6 Billion
invested in wind energy

70%
reduction of wind energy cost from 1.88c to 58c

84%
domestic investment

33%
black SA shareholding

R24billion
47%
of project value spent locally

R898mil
SED and ED initiatives

Source: DMRE REIPPPP Focus on Wind – Dec 2021 https://www.ipp-projects.co.za/Publications

GLOBAL PERSPECTIVE

Total global wind power capacity is now **up to 1TW**, helping the world avoid over 1.2 billion tonnes of CO_2 annually[1]

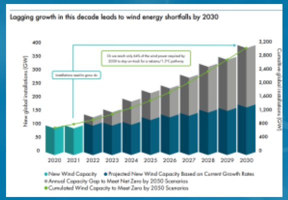
Wind power technical benefits to power systems are crucial for a sustainable transition to clean energy

Increase in Wind Powered Green Hydrogen Projects

Increase in Hybrid Projects

Offshore wind accelerating growth

Overall lagging growth during 2020-2030 – if continued, Paris Climate Accord targets will not be met



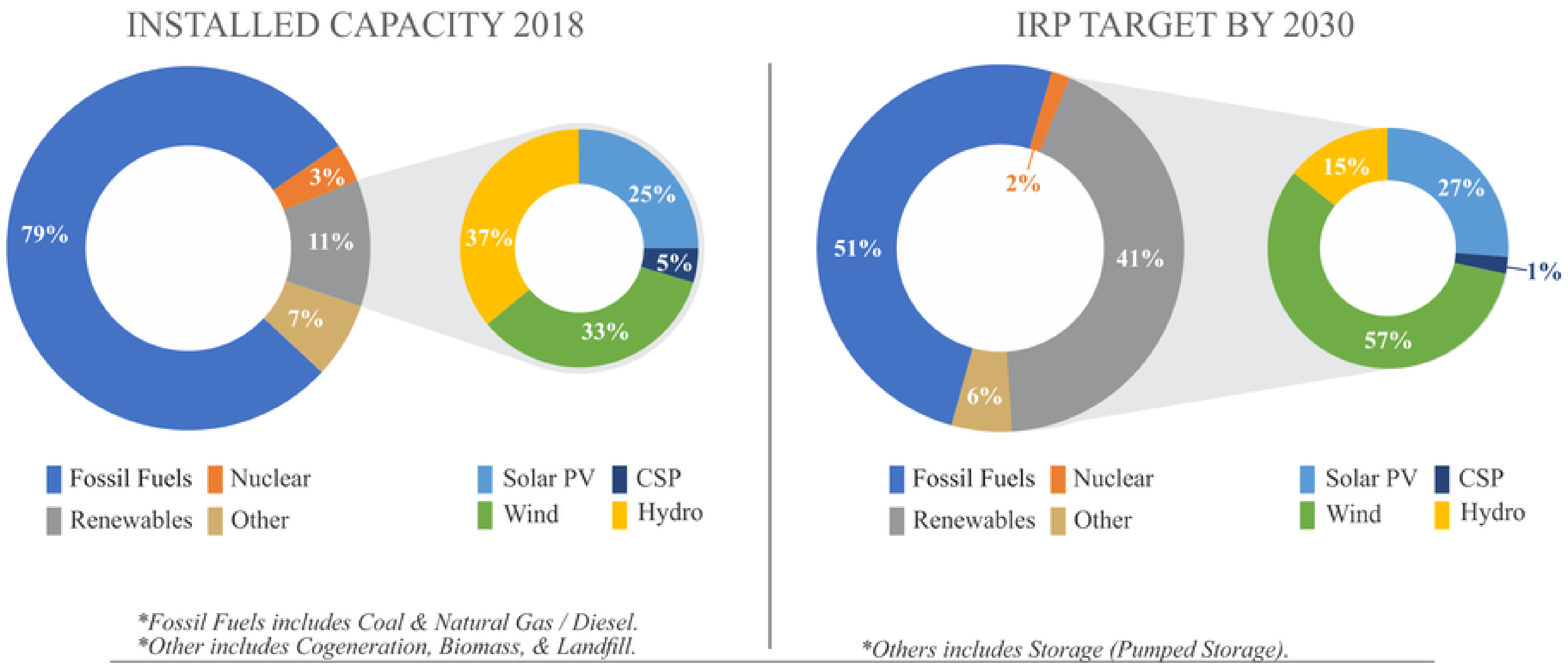
Global supply chain recovering slowly

Africa being an attractive investment destination for Wind Energy

South Africa representing 30% of Africa's Wind Energy Installed Capacity and development pipeline.

1) GWEC Annual Wind Report 2022

2030 OUTLOOK - IRP 2019



Data collected from IRP 2019. Graph by Seth Owusu-Mante.

Public Procurement

2010 -2019	2020	2021	2022	2023	2024
Launch of **Bid Windows 1 - 4**	**RMIPPPP:** Launched in 2020 to urgently bring new generation onboard	**BW5** launched resulting in 1608MW of wind procured	**BW6** launched with 4.1GW of wind bids submitted and no wind procured	**BW7** launched	**BW7** awaiting preferred bidder announcement
3442MW procured, constructed and operational	2 Hybrid projects with Wind Energy under construction totaling **150MW** of wind energy	12 wind projects procured, 6 in construction (**784MW**). 6 have not reached FC (824MW)	23 wind projects bid, 0 procured		8 wind projects submitted totalling 1692.4 MW bid
5 years with no signed PPAs (2015 – 2019)		Aggressive Market conditions, global supply chain challenges	Grid constraints in wind resource-rich areas		NOTE: 1.3GW of privately procured wind projects in construction.

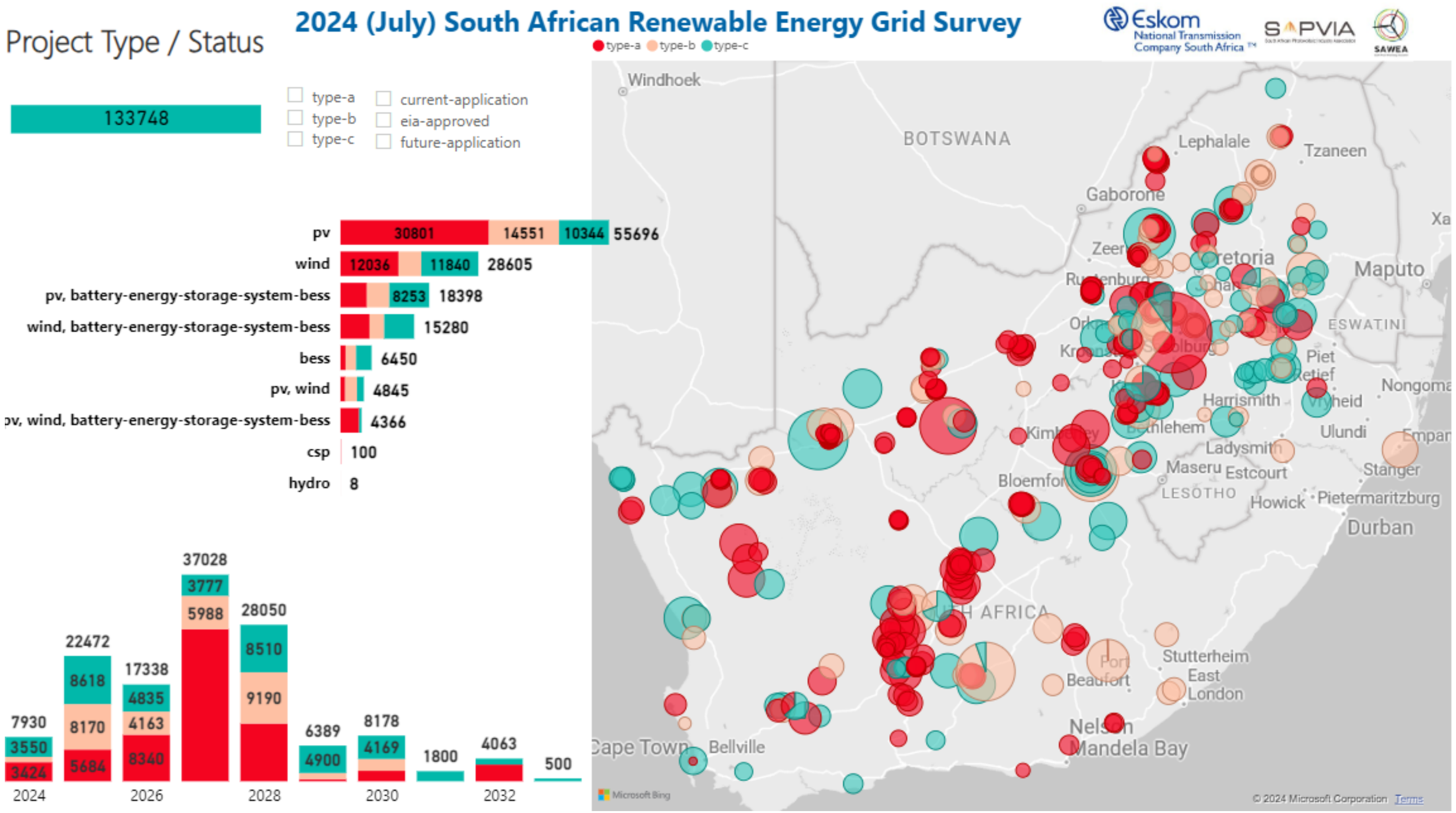
No new wind energy procurement

PROJECT DEVELOPMENT PIPELINE - SA

South African RE Grid Survey 2024

Total 53 096 MW of Wind Projects in SA

Type of Project	South Africa
Pure Wind Projects	28 605 MW
Wind + Battery Storage	15 280 MW
Wind + PV	4 845 MW
Wind + PV + BESS	4 366 MW
Total	**53 096 MW**

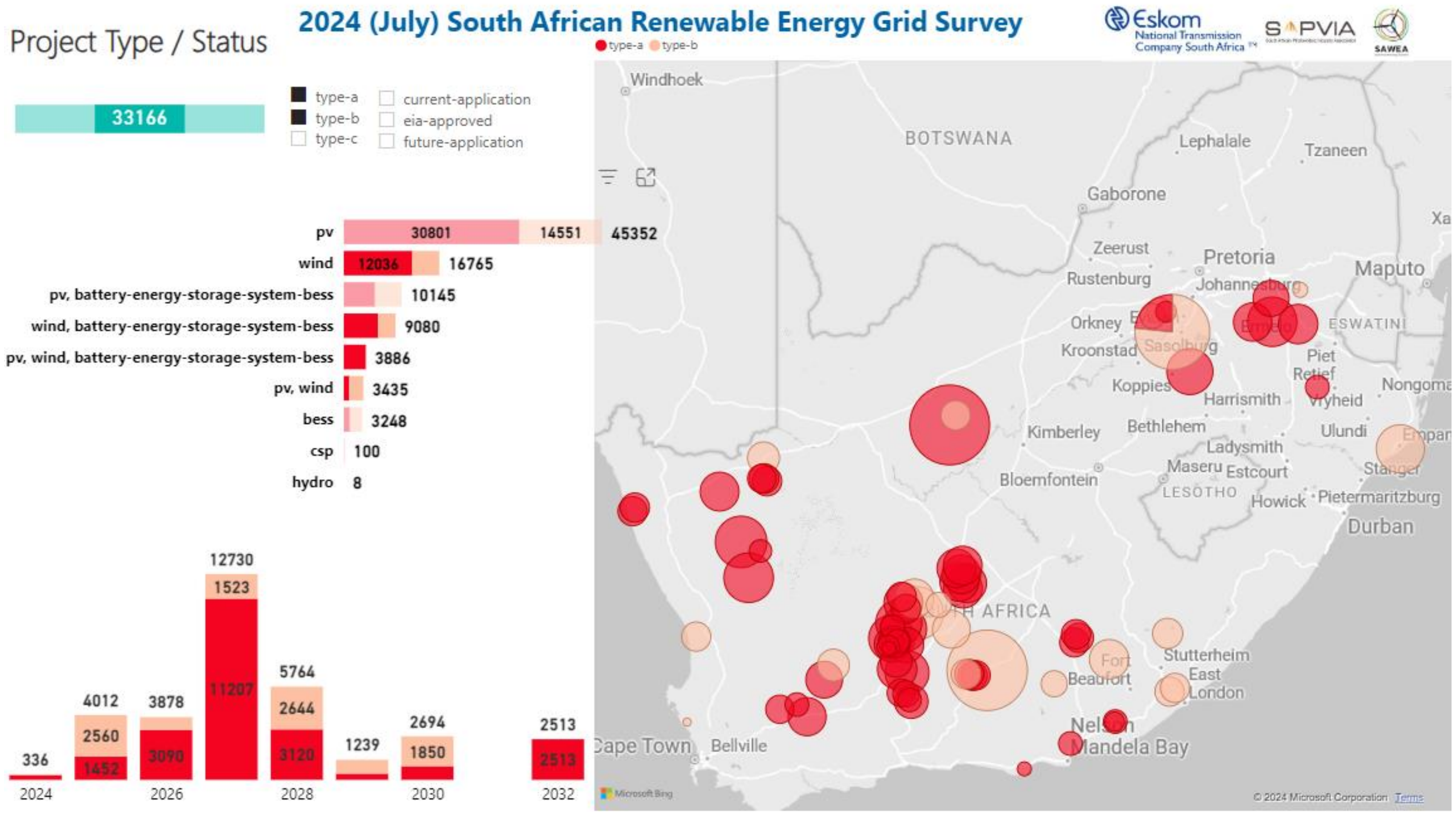


Source: 2024 SA Renewable Energy Grid Survey – July 2024 [South African Renewable Energy Grid Survey – Eskom NTCSA]

PROJECT DEVELOPMENT PIPELINE - SA

Wind projects which could be developed in the short term:

33 166MW of projects in the next 3-5 years



Source: 2024 SA Renewable Energy Grid Survey – July 2024 [South African Renewable Energy Grid Survey – Eskom NTCSA]

KEY CHALLENGES

In South Africa, the market also experiences its own challenges.

1.

Lack of certainty on Grid Capacity, Access and Allocation in wind resource rich areas

2.

Pending Policy Reform in Regulatory Environment

3.

Logistics in the construction of new projects

4.

Supply chain challenges are still affecting operating assets.

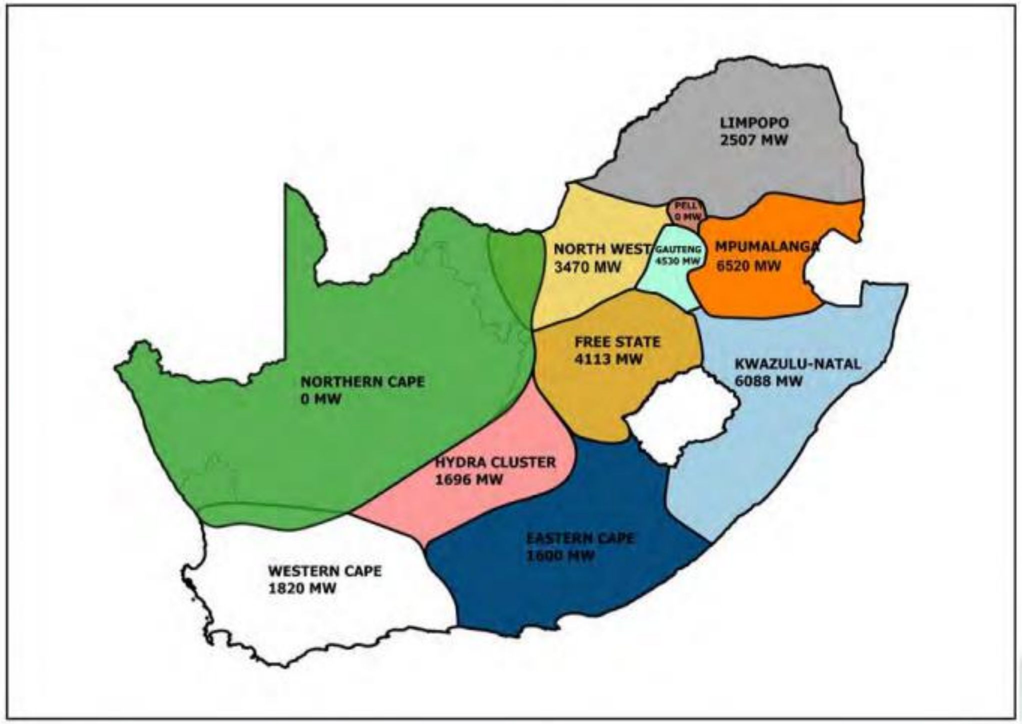
5.

Skilled workforce: The availability of a ready and able workforce with the necessary training and skills for the wind industry.

Grid Access – GGCA 2025

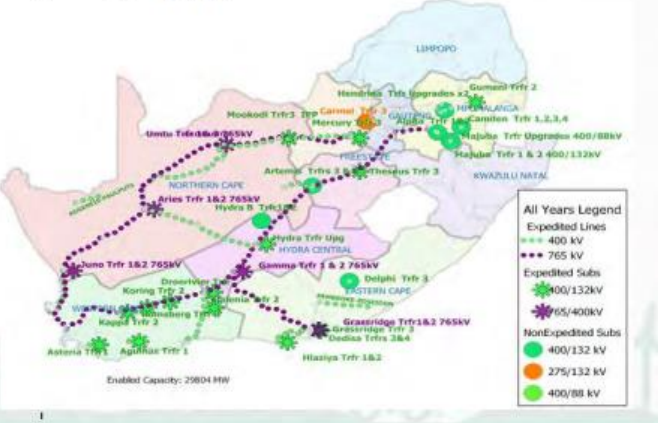
By accepting a reasonable share of no more than 10% of curtailment, 3 470 MW of additional wind generation can be connected to the grid almost immediately, with 2 680 MW in the Western Cape and 790 MW in the Eastern Cape.

MW of new generation capacity that can be added based on grid availability

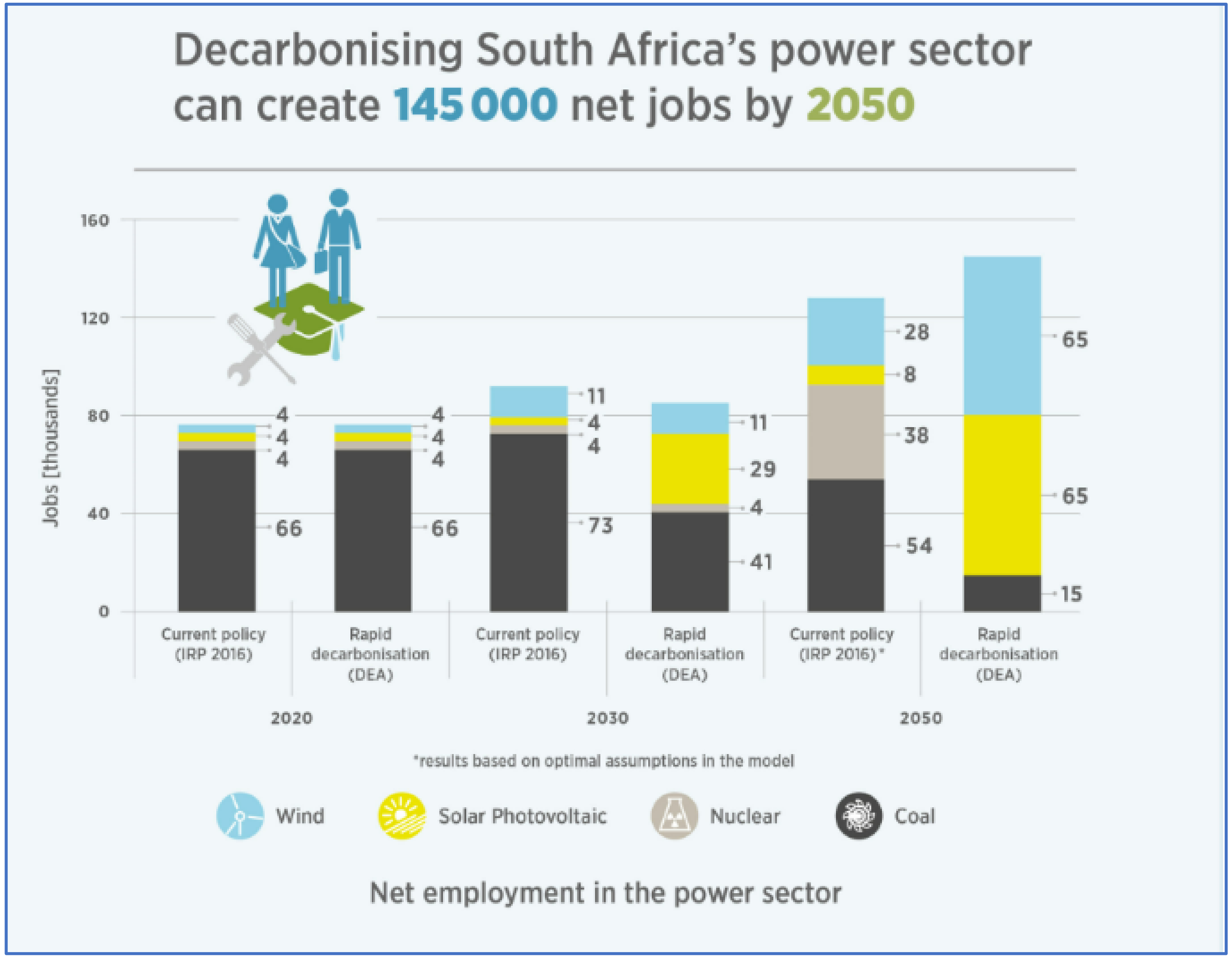


Insights

- Grid availability per province as per the Generation Connection Capacity Assessment 2024
- Capacity reserved for REIPPP Bid Window 5 and 6 as well as RMIPPPP.
- Development of the Transmission Grid is as per the TDP 2023-2032
- Estimated new transmission lines total more than **14 000 km** and more than **170** transformers in the period

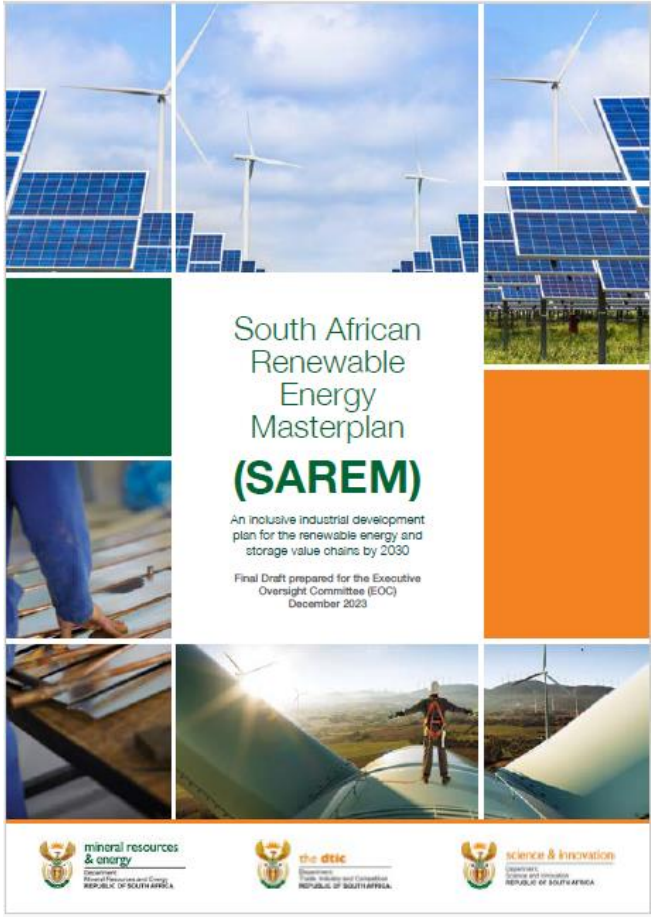


Skills and Job Creation Opportunities



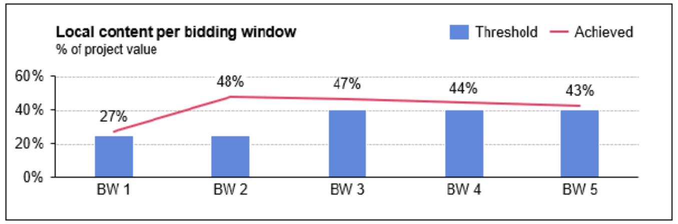
Source: https://www.cobenefits.info/resources/cobenefits-south-africa-jobs-skills/

Industrialisation Opportunities



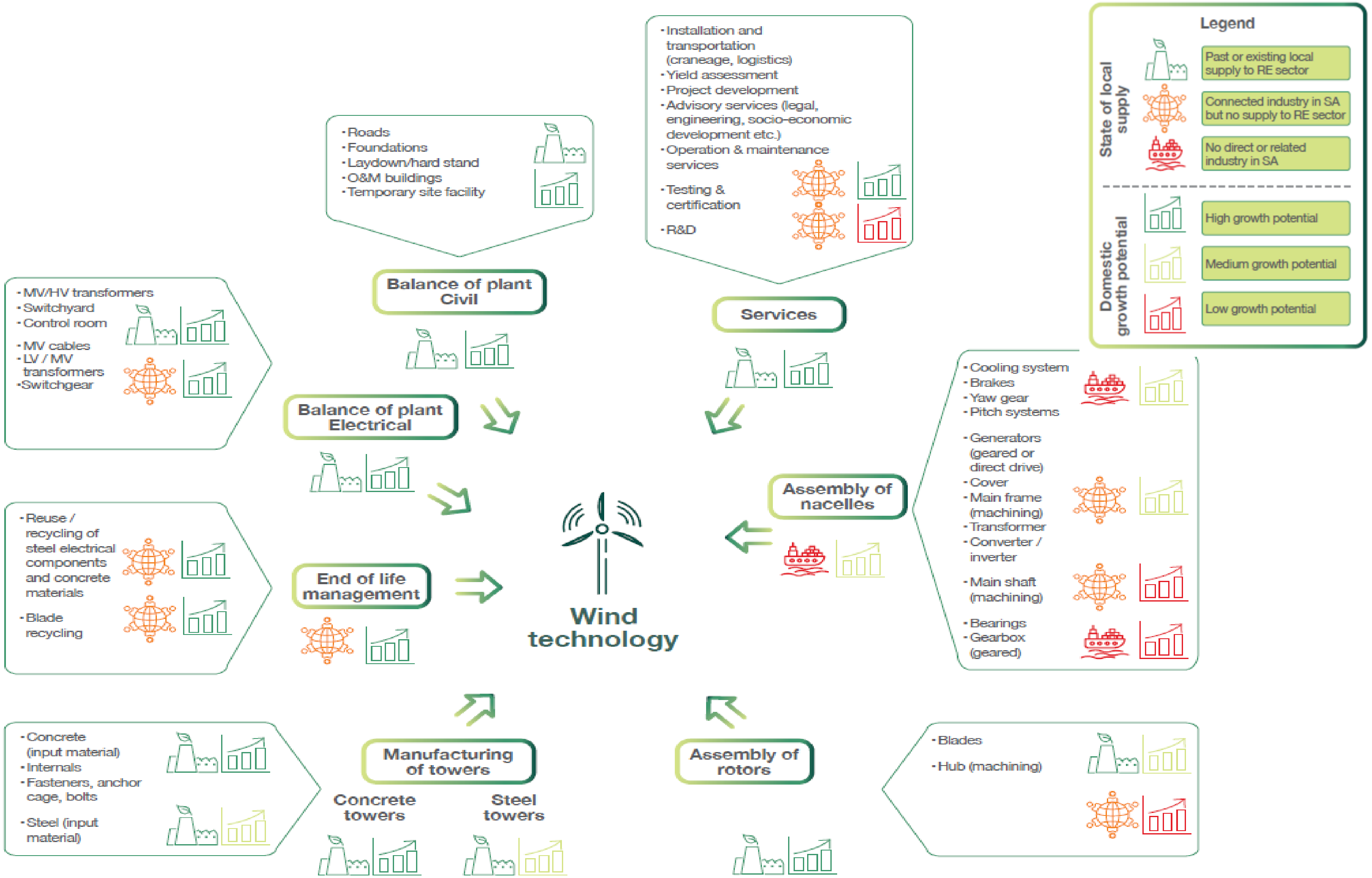
Local Content Opportunity Mapping

Figure 11: Percentage of value localised through the REIPPP



Existing Manufacturers to Support

Transformers	Towers
Zest WEG	GRI Towers
ACTOM Power Transformers	Concrete Units
Powertech Transformers	Nordex/WBHO Copperton
SGB-SMIT POWER MATLA	DCD Wind Towers (Closed)



Source: *2023 LSF Manufacturing Localisation Potential in Renewable Energy Value Chains* - ***Wind Energy Localisation Potential***

Key Considerations

Wind projects which could be developed in the short term:

33 166MW of projects in the next 3-5 years

1) **Grid Capacity – access through curtailment in the short term and intense transmission infrastructure development in the long term**
2) **Consistent Demand from both public and private markets informed through IRP**
3) **Clear and transparent rules for grid connection from Eskom/NTCSA**
4) **A reformed public procurement programme**
5) **An investable market including fast and more efficient permitting processes for:**
    1) **Approval of sites**
    2) **Environmental impact assessments**
    3) **General permitting**
6) **Incentives for localisation such as:**
    - I. **Tax incentives,**
    - II. **Research and development incentives**
    - III. **Government assisted financing mechanisms for SMMEs**
7) **Focus on Skills Development**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Thank you