POLICY BRIEF

Recommendations to strengthen South Africa's renewable energy procurement programme

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GSB POWER FUTURES LAB

Policy brief February 2025

EXECUTIVE SUMMARY

South Africa's Renewable Energy Independent Power Producer Procurement Programme (REI4P) has been instrumental in diversifying the nation's energy mix, reducing renewable energy costs, and driving socio-economic development. From its inception in 2011 to 2015, REI4P awarded over 6,237 MW of renewable energy capacity, achieving a 99% project realization rate while reducing wind and solar costs by 77% and 93%, respectively.[1] However, evidence of systemic challenges—grid constraints, procurement process inefficiencies, and weakened socio-economic commitments in later bid windows—has underscored the need for strategic reforms to ensure the programme continues to effectively and sustainably serve South Africa's energy security and just transition goals.

This policy brief outlines actionable recommendations to strengthen REI4P, including revitalizing, transforming and properly resourcing the Independent Power Producer Office (IPPO), optimizing bidding processes to reduce transaction costs, addressing grid constraints with targeted solutions, and reinforcing commitments to socio-economic development. By implementing these measures, South Africa can enhance the programme's efficiency, attract greater investment, and drive meaningful socio-economic transformation, ensuring a sustainable and equitable energy future. Policymakers, industry stakeholders, and society must work together to champion these reforms and secure the programme's continued success.

CONTEXT AND INTRODUCTION OF REI4P

The South African government's REI4P was designed to diversify the nation's energy mix away from coal, stimulate a clean energy industry through private sector investment, and address the nation's energy security crisis. In its initial period (2011-2015), the programme set a global benchmark for transparent and successful procurement processes. More than 90 renewable energy projects were built, mitigating electricity shortages and reducing renewable energy prices, while also stimulating enterprise development and socio-economic development commitments (Figure 1).

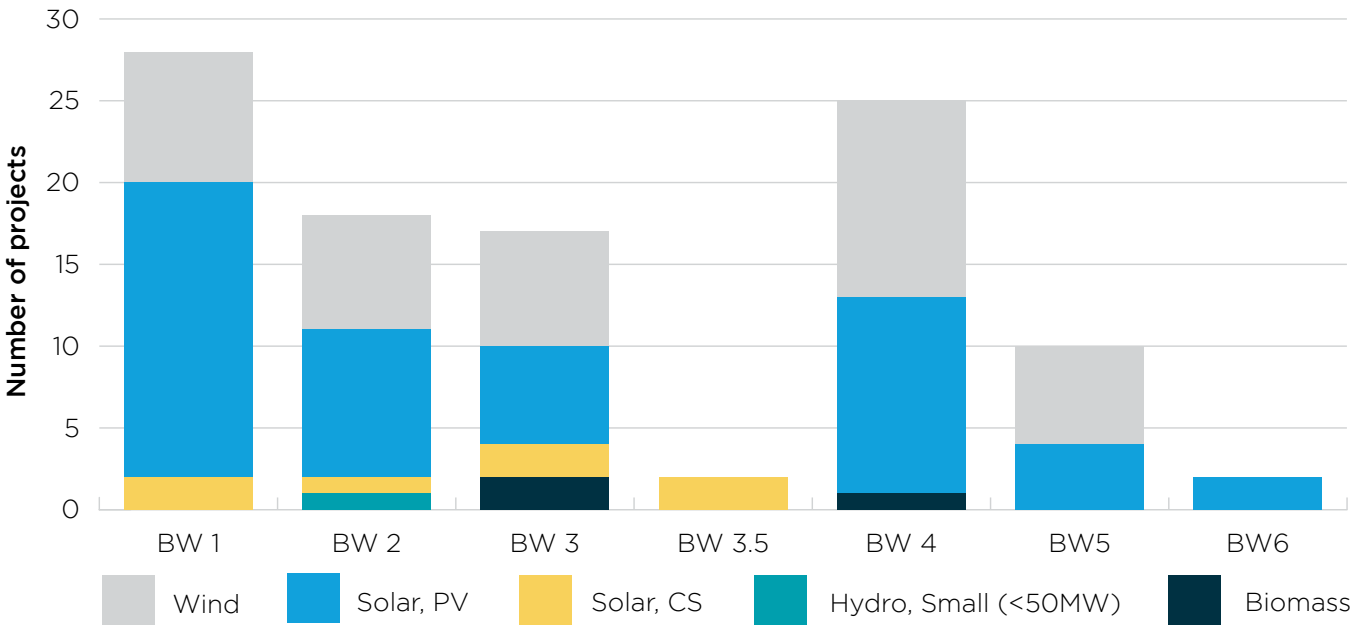

Figure 1: Number of projects & technology types, per Bid Window

Despite these successes, the programme faltered in 2015 when delays in signing of power purchase agreements (PPAs) by Eskom, coupled with diminishing political support, effectively led to a three-year suspension (Figure 2 and Figure 4). This hiatus severely impacted the country's nascent renewable energy industry and exacerbated power cuts.

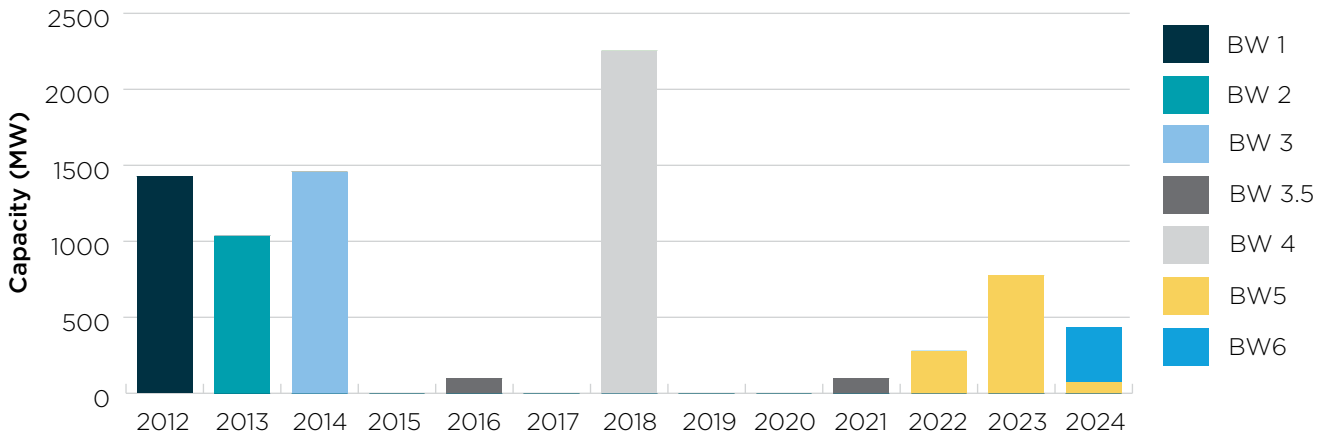

Figure 2: Capacity Additions by Year of Investment

Renewed support in 2018, after President Ramaphosa assumed office, revitalized the REI4P, resulting in the contracting of a cumulative total of 11,741 MW, of which 7,937 MW was either operational or had reached financial close by January 2025. Including RMI4P, the total capacity that is operational or has reached financial close stands at 9,151 MW[2] (Figure 3).

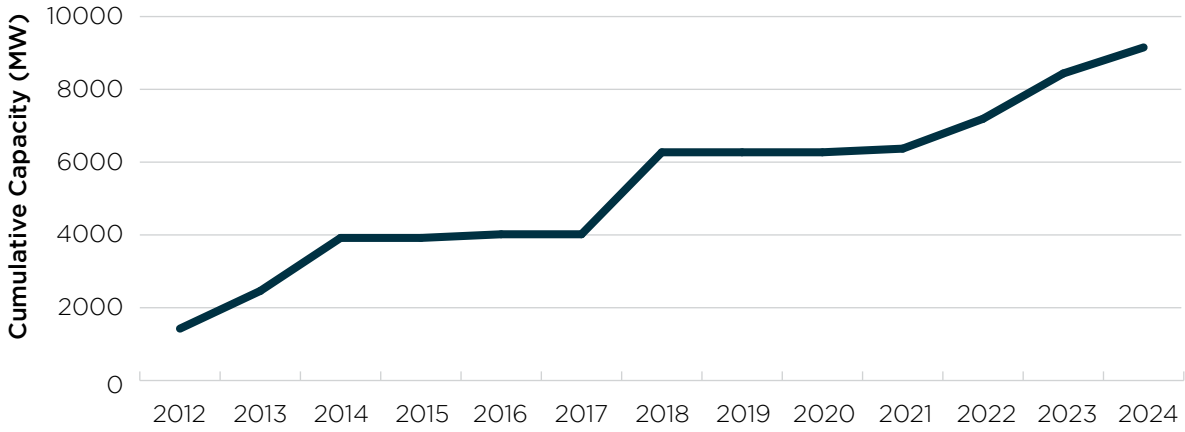

Figure 3: Cumulative capacity (MW) by Year of Investment – RE IPP Procurement Programmes[3]

With regulatory reforms such as the government's 2022 removal of IPP licensing requirements and the opening up of the power market,[4] private-to-private renewable energy projects have surged.

However, the private market cannot be relied upon solely to advance the broader goals of system stability and a just energy transition. By exploring REI4P's successes and challenges, this brief offers actionable recommendations for the evolution of this vital public programme.

A revitalized REI4P is essential for:

- Filling investment gaps to ensure system stability and functionality
- Ensuring competitive energy pricing
- Driving socio-economic development & transformation

THE DATA[5]

Power Future Lab (PFL) developed a one-stop knowledge repository or "dashboard" to facilitate fact-based assessments of the IPP procurement programme[6]. Tabulated data is also included in an appendix to this note.

Public IPP Procurement: an overview of project realization & technology diversification

Figure 4: Key milestones for IPP Procurement: an overview[7]

Phase 1 (2010 – 2015): Awarded 6,237 MW across 92 projects, achieving a 99% project realisation rates despite delays in Bid Windows (BWs) 3.5 and 4. Small-scale (SPI4P) projects aimed at local participation failed due to lack of follow-through, while awarded coal IPPs failed to secure funding[8].

Phase 2 (2015 – 2018): Experienced a three-year suspension caused by PPA delays and leadership instability. Projects from BW 3.5, 4, and SPI4P stalled. Government abandonment of small IPP projects undermined local sector development.

Phase 3 (2018 – present): Resumed public procurement with new bid windows (RMI4P, BWs 5-7), including for new technologies (e.g., battery storage and gas). While some successes emerged, significant challenges, especially around grid-capacity issues, persisted and many projects did not reach financial close.

- **RMI4P**: Launched in August 2020 as an emergency response to the electricity supply crisis, the auction sought 2000 MW of "technology-neutral" dispatchable power. However, design flaws in the auction terms limited its effectiveness. Only 428 MW of capacity reached financial close, and most projects faced significant delays.
- **REI4P Bid Windows 5-7**:
  - **BW 5** (April 2021): This round aimed to procure 2,600 MW. While bids were highly competitive, global supply chain disruptions caused by

COVID-19 delayed progress, with only 1,057 MW reaching financial close.

- **BW 6** (April 2022): Targeting 4,200 MW (primarily wind), this round was hindered by insufficient grid capacity. As a result, no wind projects could proceed, and only 1,200 MW of solar capacity was awarded.

- **BW 7** (December 2023): Planned to secure 5,000 MW (3,200 MW wind and 1,800 MW solar), this round experienced multiple delays before finalizing its RFP deadline in August 2024. In December 2024, 1,760 MW of solar PV was awarded at competitive prices, but grid constraints once again prevented wind projects from advancing.

- **Battery Energy Storage IPP Procurement Programme (BESI4P)**: This programme addresses grid stability through battery storage solutions.

  - **Storage BW 1 (November 2023):** Four projects totalling 360 MW were awarded, with an additional 154 MW approved after negotiations.

  - **Storage BW2 (December 2024)**: Eight projects were awarded, delivering 615 MW at 35% lower cost compared to the first round.

- **Gas-to-power IPP procurement programme (GASI4P):** Introduced in December 2023, this programme aims to diversify South Africa's energy mix by incorporating natural gas. Initial industry feedback prompted significant revisions to the auction framework, with the bid submission deadline extended to March 2025.

Total Renewable Energy Capacity added by REI4P

Solar PV: 3,033 MW
Solar PV+ Storage: 1,080 MW
Concentrated Solar Power: 600 MW
Wind: 4,160 MW
Wind + Storage: 209 MW
Biomass: 60 MW
Small hydro: 10 MW

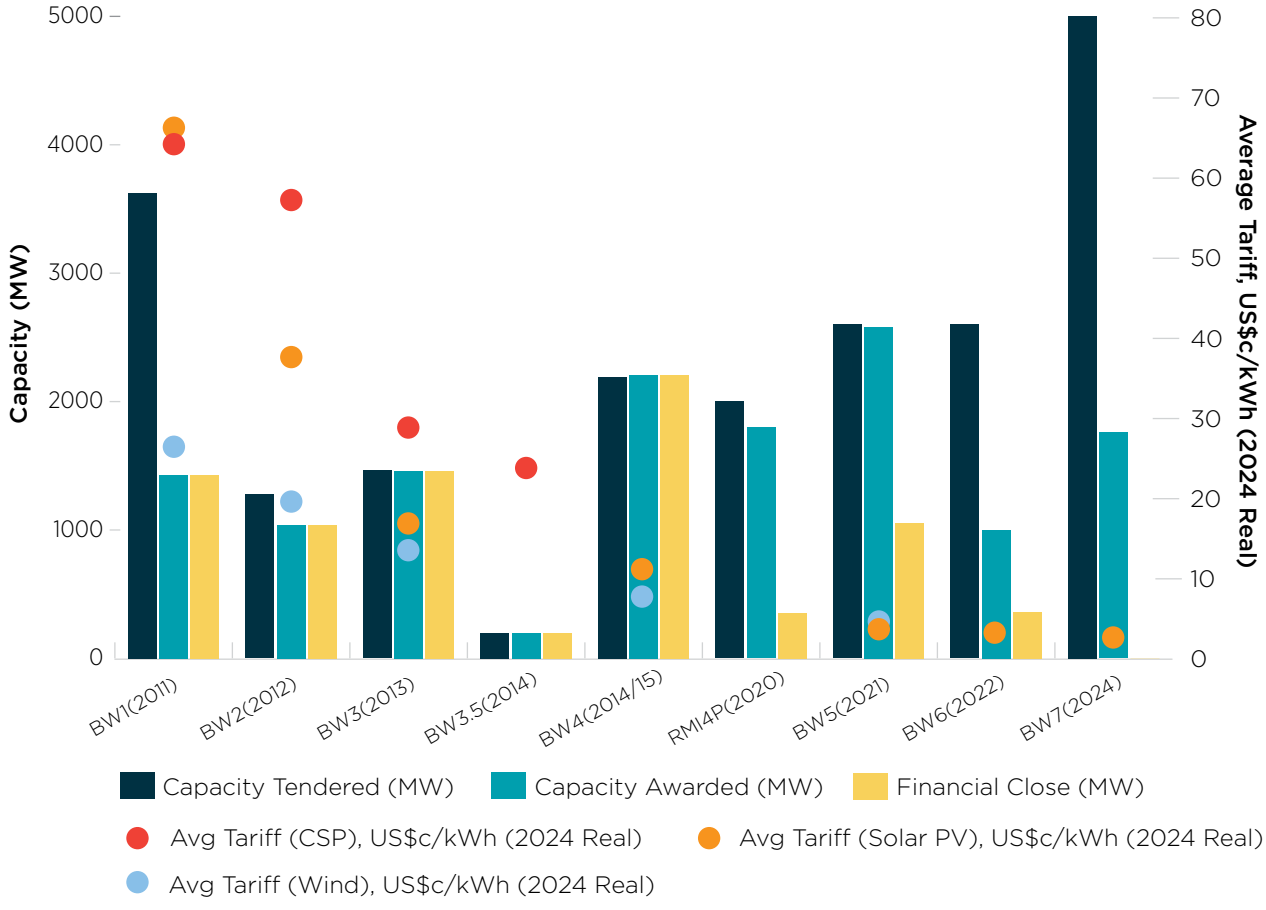

Figure 5: Summary of Public IPP Outcomes across BWs, with average tariff per kWh plotted alongside[10]

Pricing & Competition (Figures 5-6)[9]

The REI4P drove dramatic reductions in renewable energy prices through competitive bidding (Figure 5).

Cost reductions – across technologies (Figure 6) - were driven by heightened competition; falling technology costs; lower cost of capital; and industry maturation, reducing margins across the value chain. Consequently, solar PV and wind power have become the most cost-effective options for new power generation capacity in South Africa.

Socio-economic and enterprise development commitments (Figures 7-9)

REI4P's emphasis on enterprise development (ED) and socio-economic development (SED) contributed to, among others, **local content creation** (local sourcing of goods, services, and labour in project development and operation) and **local shareholding** (project ownership stakes held by SA citizens or entities, with emphasis on historically disadvantaged individuals).

Critically, while renewable prices steadily reduced, these economic development commitments generally increased.

However, reduced evaluation criteria for ED and SED in recent rounds have led to lower commitments, weakening the programme's long-term socio-economic impact. The prolonged procurement hiatus between bid windows 4 and 5 also undermined SA's nascent renewable energy industry (local manufacturing capacity, technical skills, and expertise), and may have further contributed to the observed dip in local content (Figure 6).

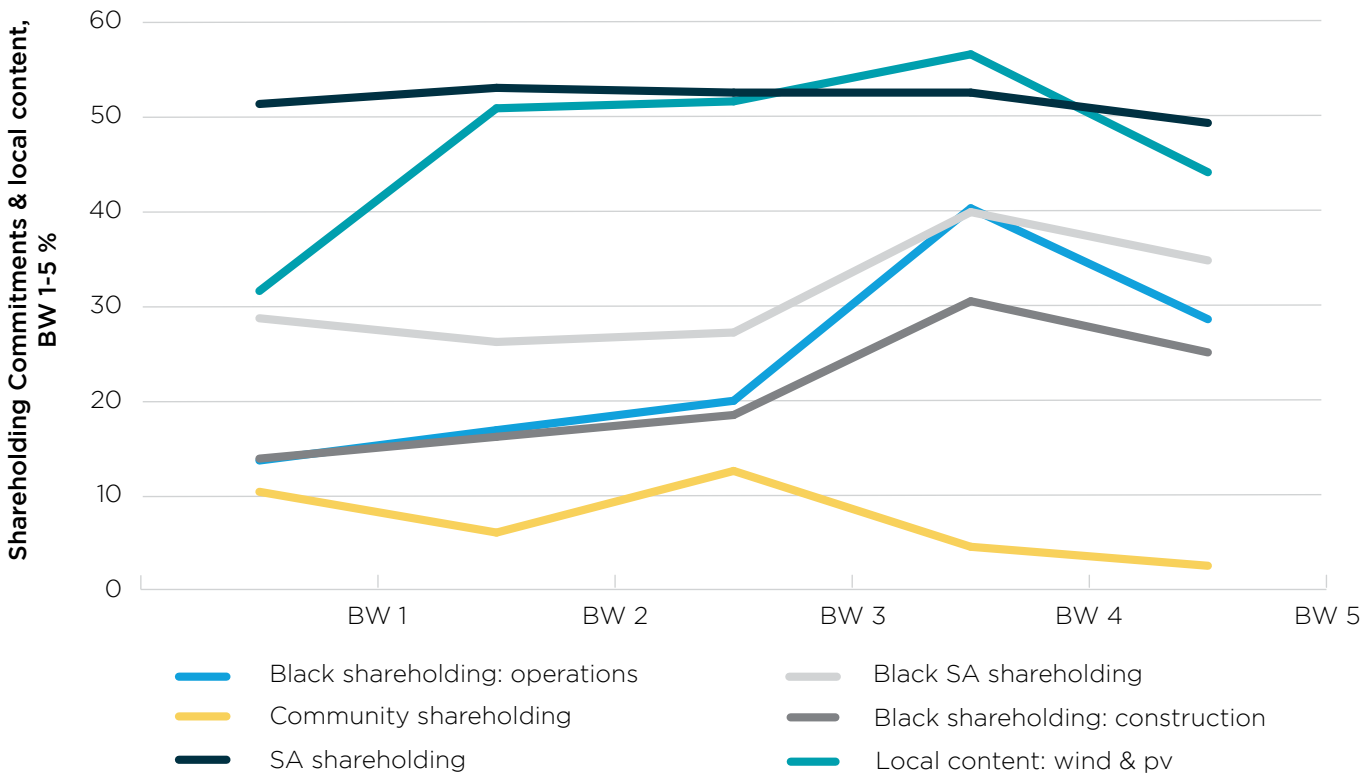

Figure 6: Shareholding Commitments and Local Content, BWs 1-5 %[11, 12]

RECOMMENDATIONS

The REI4P is arguably sub-Saharan Africa's most successful IPP procurement programme and its earlier rounds were globally lauded. South Africa now has the opportunity to refine the programme's design to achieve better financial close and construction realisation rate and to speak to changes in both industry and investment contexts. Chief among these are the complexities of the system's real-time unbundling and the increasingly diversified IPP and technological landscape.

The following recommendations aim to build on and complement the industry's call for an overhaul of South Africa's renewable energy procurement programme by offering actionable strategies to address systemic challenges. While they align with industry priorities—such as the need for a revitalized Independent Power Producer Office (IPPO) and improved grid capacity—they also provide targeted solutions to enhance efficiency, socio-economic impacts, and long-term sustainability in ways that extend beyond existing proposals.

1. Strengthen IPPO's Institutional Role and Integration

Revitalize, transform and properly resource the Independent Power Producer Office (IPPO) to oversee renewable energy procurement effectively. Immediate actions include:

- Establishing close coordination with the National Transmission Company of South Africa (NTCSA) to align transmission planning and procurement decisions.
- Empowering the IPPO to access top-tier legal, commercial, and technical advisory support.
- Creating a dedicated research office within the IPPO for ongoing programme evaluation and innovation.

In the long term, the IPPO should transition to a **permanent home** within an independent transmission, system, and market operator (TSO) to streamline its role in procurement across public and private sectors.

As its credibility is strengthened, the IPPO's procurement role could expand to **streamline current parallel public and private procurement processes**. Acting as procurer for the entire distribution system (municipalities, Eskom Distribution, and large industrial users), the IPPO can **leverage economies of scale** and competitive pressure to reduce sector-wide costs and risks. And once it is transferred and absorbed by an independent TSO, it might also play a role in procuring capacity reserves for the Central Purchasing Agency and ancillary services for the System Operator.

2. Optimise the Bidding Process

Streamline auction design to reduce costs and improve efficiency while maintaining compliance incentives:

- Introduce prequalification steps to filter credible bidders.
- Implement electronic bidding platforms to reduce administration burdens.
- Allow flexibility mechanisms, such as indexation for key cost drivers (e.g. shipping, steel prices), to address market volatility.
- Conduct legal and financial evaluations post-award to reduce upfront costs.
- Hold regular, more frequent, and smaller auctions to enhance market certainty and confidence, increase competition (keep prices down), and reduce the bottlenecks that can stymie mega rounds.

3. Address grid capacity bottlenecks

A critical barrier to new generation projects, grid constraints can be addressed by:

- Prioritizing bids located near existing load centres, reducing grid upgrade needs or improving system stability through an adjusted bid scoring process.
- Implementing "plug-and-play" solutions by securing and pre-developing sites with necessary permits and infrastructure.
- Allocating grid capacity to prequalified projects to reduce uncertainty.

4. Reinforce Just Transition priorities

Ensure that socio-economic and enterprise development objectives remain integral to the programme:

- Introduce special bid windows prioritizing ED and SED impacts in transition-affected regions like Mpumalanga (see Spain's Just Transition Tenders).
- Support SME and community-owned projects through targeted bidding rules or capacity-building initiatives.

CONCLUSION

The private power market is growing. However, as old coal power plants are retired, and electricity demand grows, tens of thousands of new megawatts will need to be procured. The IPPO will remain a key parallel instrument to ensure South Africa procures sufficient power and maintains supply security. REI4P remains a cornerstone of South Africa's energy transition, but its sustainability depends on addressing systemic challenges. Strengthening institutions, optimizing processes, and committing to socio-economic priorities will ensure the programme delivers affordable, clean energy while fostering inclusive development.

REFERENCES

Filipova, A., Wewege, S., Unite, E., Kuse, S., and Kruger, W. (2019) *South Africa Country Report.* Report 6: Energy and Economic Growth Research Programme. Cape Town: Power Futures Lab.

IPP Office (2022a) "REIPPPP Bid Window 6 Bidders' Conference." YouTube.

IPP Office (2022b) The Risk Mitigation IPP Procurement Programme. Available at: https://www.ipprm.co.za/

IPP Office (2020) "RMIPPPP Bidders Conference 2020." YouTube.

Kruger, W. (2023) "I was wrong—South Africa's energy procurement programme is in serious trouble". In *Daily Maverick.* Available at: https://www.dailymaverick.co.za/opinionista/2023-11-27-i-was-wrong-south-africas-energy-procurement-programme-is-in-serious-trouble/ (Accessed: 30 November 2024).

Kruger, W. and Alao, O. (2022) *The status of South Africa's Renewable Energy Independent Power Projects Procurement Programme.* Cape Town: Power Futures Lab Working Paper.

Power Futures Lab Dashboard (2025) Available at: https://powerfutureslab.co.za/sa-ipp-data (Accessed 8 January 2025).

Wlokas, H. (2015) *Energy: A review of the local community development requirements in South Africa's renewable energy procurement programme.* Cape Town: World Wildlife Fund.

Endnotes

1 Ninety-two projects were successfully awarded; only one project (the 17 MW Mkuze Biomass project) failed to reach financial close (FC).

2 REI4P capacity is counted in nominal terms and not dispatchable terms. For example, Kenhardt contracted 150 MW as against an installed 540 MW.

3 Inclusive of all projects reaching commercial operations, beginning from the DoE peaker additions, the REI4P, RMI4P, etc.

4 IPPs previously could only sell to Eskom (or, in rare cases, municipalities)

5 See PFL's dashboard: https://powerfutureslab.co.za/sa-ipp-data

6 Offering regularly updated snapshots of SA's IPP landscape, the PFL dashboard data is also, unless otherwise indicated, the data source for this brief's visualizations and discussions

7 This table provides an overview of the timelines of the different bid windows (BW). BW S = small IPP bid window (the BW S rounds each had two bid cycles, e.g., 1S1 & 2S1); BESI4P = battery energy storage; RMI4P = risk mitigation; RFP = request for proposals; Preferred bidder = winners; Financial close = when projects secured funding; Commercial operation = when projects start operating. Black lines = successful bid windows (reached commercial ops); red lines = bid windows that never reached project realisation; green lines = bid windows still open/in progress; the shaded red area notes the programme's "hiatus" period.

8 An expedited Bid Window for 1800 MW in 2015 was also abandoned, despite offering the most competitive tariffs to date at the time.

9 Tariffs here are in real terms.

10 Until BW4, each bid round had a price cap, meaning no bid could be awarded above that cap. Because of low competition in the first rounds, prices were right at these caps. Exchange rate (US$ to ZAR), BW 1 = 8.21, BW 2 = 8.16, BW 3 = 9.97, BW 1S2 = 11.07, BW 4 = 12.31, BW 2S2 = 13.58, BW 5 = 14.87, BW 6 = 17.26, and BW7 = 18.3

11 The information here regards shareholding; as with local content, there were minimum requirements and targets for each bid window for local shareholding, BEE shareholding, community shareholding, black women, BEE construction companies, BEE operations companies, and black women construction and operations.

12 Local content: weighted average of wind% and solar photovoltaic%.

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APPENDIX

1. Ministerial Determination for IPP Procurement in South Africa

Technology	First det. (Aug 2011) – IRP 2010	Second det. (Oct 2012) – IRP 2010	Third det. (Aug 2015) – IRP 2010	Fourth det. (May 2016) – IRP 2010	First det. (May 2020) – IRP 2019	Second det. (Sep 2020) – IRP 2019	Third det. (Dec 2022) – IRP 2019	Total	Share of Total %
Wind	1,850	1,470	3,040			4,200		10,560	44%
Solar PV	1,450	1,075	2,200	1,500		2,600		8,825	37%
CSP	200	400	600					1,200	5%
Biomass	13	48	150					211	1%
Biogas	13	48	50					111	0%
Landfill gas	25							25	0%
Hydro	75	60	60					195	1%
SP-I4P	100	100	200					400	2%
Neutral					2,000			2,000	8%
Storage						513		513	2%
Total	3,725	3,200	6,300	1,500	2,000	7,313	18,000	42,038	100%

2. Milestones for Public IPP Procurement in South Africa

Bid Window	IRP	Latest Determination	RFP release	RFP deadline	Preferred Bidder	FC: First Project	FC: Final Project	COD: First Project	COD: Final Project
BW 1	2010	Aug 2011	Aug 2011	Nov 2011	Dec 2011	Jun 2012	Nov 2012	Jun 2014	Dec 2014
BW 2	2010	Aug 2011	Dec 2011	Mar 2012	May 2012	May 2012	Dec 2012	May 2013	Dec 2016
BW 3	2010	Oct 2012	May 2013	Aug 2013	Oct 2013	Oct 2013	Jul 2014	Dec 2014	Dec 2017
BW 3.5	2010	Oct 2012		Mar 2014	Dec2014	Sept 2015	May 2021	Apr 2020	
BW 1S1	2010	Oct 2012	Aug 2013	Oct 2013	Mar 2014				
BW 2S1	2010	Oct 2012	Aug 2013	May 2014	Feb 2015				
BW 1S2	2010	Oct 2012	Aug 2013	Nov 2014	Oct 2015				
BW 4	2010	Oct 2012	May 2014	Aug 2014	Jun 2015	Jul 2015	Apr 2018	Oct 2020	May 2023
BW 2S2	2010	Aug 2015		Jun 2016	Jan 2017				
RMI4P	2010	May 2020	Aug 2020	Dec 2020	Mar 2021	Jul 2022		Dec 2023	
BW 5	2010	Sept 2020	Apr 2021	Aug 2021	Oct 2021	Nov 2022	Jun 2023		
BW 6	2019	Sept 2020	Apr 2022	Sept 2022	Dec 2022	May 2024			
BESI4P 1	2019	Dec 2022	Mar 2023	Jul 2023	Nov 2023				
BESI4P 2	2019	Dec 2022	Dec 2023	Aug 2024	Dec 2024				
BW 7	2019	Dec 2022	Dec 2023	Aug 2024	Dec 2024				
GASI4P	2019	Dec 2022	Dec 2023						
BESI4P 3	2023	Dec 2022	Apr 2024						

3. Outcomes of Public IPP Procurement in South Africa

Bid Window	Outcome	Wind	Solar PV	CSP	Biomass	Biogas	Landfill Gas	Hydro	Battery	Total
BW 1 (2011)	Capacity Tendered (MW)	1850	1450	200	13	13	25	75		3,626
BW 1 (2011)	Capacity Awarded (MW)	649	627	150						1,426
BW 1 (2011)	Number of Projects Awarded	8	18	2						28
BW 1 (2011)	Avg Tariff ($c/kWh), Nominal	14.00	35.00	34.00						
BW 1 (2011)	Avg Tariff ($c/kWh), 2024 Real	26.00	65.00	63.00						
BW 1 (2011)	Avg Tariff (ZAR/kWh), Nominal	1.15	2.87	2.79						
BW 1 (2011)	Avg Tariff (ZAR/kWh), 2024 Real	2.13	5.34	5.17						
BW 1 (2011)	Financial Close (MW)	649	627	150						1,426
BW 1 (2011)	Total Investment (US$ million)	1734	2945	1486						6,165
BW 1 (2011)	Commercial Operation (MW)	649	627	150						1,426
BW 2 (2012)	Capacity Tendered (MW)	650	450	50	13	13	25	75		1,276
BW 2 (2012)	Capacity Awarded (MW)	559	417	50				14		1,040
BW 2 (2012)	Number of Projects Awarded	7	9	1				2		19
BW 2 (2012)	Avg Tariff ($c/kWh), Nominal	11.00	21.00	32.00				13.00		
BW 2 (2012)	Avg Tariff ($c/kWh), 2024 Real	19.00	37.00	56.00				23.00		
BW 2 (2012)	Avg Tariff (ZAR/kWh), Nominal	0.90	1.71	2.61				1.06		
BW 2 (2012)	Avg Tariff (ZAR/kWh), 2024 Real	1.55	3.02	4.57				1.88		
BW 2 (2012)	Financial Close (MW)	559	417	50				14		1,040
BW 2 (2012)	Total Investment (US$ million)	1,736	1,743	642				91		4,212
BW 2 (2012)	Commercial Operation (MW)	559	417	50				14		1,040
BW 3 (2013)	Capacity Tendered (MW)	645	401	200	60	12	25	121		1,464
BW 3 (2013)	Capacity Awarded (MW)	787	435	200	17		18			1,457
BW 3 (2013)	Number of Projects Awarded	7	6	2	1		1			17
BW 3 (2013)	Avg Tariff ($c/kWh), Nominal	8.00	10.00	17.00	14.00		10.00			
BW 3 (2013)	Avg Tariff ($c/kWh), 2024 Real	13.00	17.00	28.00	23.00		17.00			
BW 3 (2013)	Avg Tariff (ZAR/kWh), Nominal	0.80	1.00	1.70	1.40		1.00			
BW 3 (2013)	Avg Tariff (ZAR/kWh), 2024 Real	1.30	1.70	2.79	2.29		1.70			
BW 3 (2013)	Financial Close (MW)	787	435	200	17		18			1,457
BW 3 (2013)	Total Investment (US$ million)	1,721	826	1,820	108		29			4,504
BW 3 (2013)	Commercial Operation (MW)	787	435	200	17		18			1,457
BW 1S2 (2013)	Capacity Tendered (MW)									
BW 1S2 (2013)	Capacity Awarded (MW)	5	35		10					50

Bid Window	Outcome	Wind	Solar PV	CSP	Biomass	Biogas	Landfill Gas	Hydro	Battery	Total
BW 1S2 (2013)	Number of Projects Awarded									
BW 1S2 (2013)	Avg Tariff ($c/kWh), Nominal	7.14	7.27		10.00					
BW 1S2 (2013)	Avg Tariff ($c/kWh), 2024 Real	12.00	12.00		17.00					
BW 1S2 (2013)	Avg Tariff (ZAR/kWh), Nominal	0.79	0.80		1.11					
BW 1S2 (2013)	Avg Tariff (ZAR/kWh), 2024 Real	1.33	1.33		1.88					
BW 1S2 (2013)	Financial Close (MW)									
BW 1S2 (2013)	Total Investment (US$ million)									
BW 1S2 (2013)	Commercial Operation (MW)									
BW 3.5 (2014)	Capacity Tendered (MW)			200						200
BW 3.5 (2014)	Capacity Awarded (MW)			200						200
BW 3.5 (2014)	Number of Projects Awarded			2						2
BW 3.5 (2014)	Avg Tariff ($c/kWh), Nominal			15.00						
BW 3.5 (2014)	Avg Tariff ($c/kWh), 2024 Real			23.00						
BW 3.5 (2014)	Avg Tariff (ZAR/kWh), Nominal			1.62						
BW 3.5 (2014)	Avg Tariff (ZAR/kWh), 2024 Real			2.48						
BW 3.5 (2014)	Financial Close (MW)			200						
BW 3.5 (2014)	Total Investment (US$ million)			1,741						1,741
BW 3.5 (2014)	Commercial Operation (MW)			200						
BW 4(a) (2014)	Capacity Tendered (MW)	590	400		40		15	60		1,105
BW 4(a) (2014)	Capacity Awarded (MW)	676	415		25			5		1,121
BW 4(a) (2014)	Number of Projects Awarded	5	6		0					11
BW 4(a) (2014)	Avg Tariff ($c/kWh), Nominal	5.00	7.00		12.00			9.00		
BW 4(a) (2014)	Avg Tariff ($c/kWh), 2024 Real	7.82	11.00		19.00			14.00		
BW 4(a) (2014)	Avg Tariff (ZAR/kWh), Nominal	0.62	0.86		1.48			1.11		
BW 4(a) (2014)	Avg Tariff (ZAR/kWh), 2024 Real	0.96	1.35		2.34			1.72		
BW 4(a) (2014)	Financial Close (MW)	676	415		25			5		1,121
BW 4(a) (2014)	Total Investment (US$ million)	1,122	709		100			20		1,951
BW 4(a) (2014)	Commercial Operation (MW)	676	415		25			5		1,121
BW 4(b) (2015)	Capacity Tendered (MW)									
BW 4(b) (2015)	Capacity Awarded (MW)	686	398							1,084
BW 4(b) (2015)	Number of Projects Awarded	7	6							13
BW 4(b) (2015)	Avg Tariff ($c/kWh), Nominal	6.00	7.00							
BW 4(b) (2015)	Avg Tariff ($c/kWh), 2024 Real	8.97	10.47							
BW 4(b) (2015)	Avg Tariff (ZAR/kWh), Nominal	0.74	0.86							
BW 4(b) (2015)	Avg Tariff (ZAR/kWh), 2024 Real	1.10	1.29							
BW 4(b) (2015)	Financial Close (MW)	686	398							1,084
BW 4(b) (2015)	Total Investment (US$ million)	1,226	669							1,895

Bid Window	Outcome	Wind	Solar PV	CSP	Biomass	Biogas	Landfill Gas	Hydro	Battery	Total	
BW 4(b) (2015)	Commercial Operation (MW)	686	398							1,084	
BW 2S2 (2015)	Capacity Tendered (MW)										
BW 2S2 (2015)	Capacity Awarded (MW)	5	45							50	
BW 2S2 (2015)	Number of Projects Awarded										
BW 2S2 (2015)	Avg Tariff ($c/kWh), Nominal	6.78	6.79								
BW 2S2 (2015)	Avg Tariff ($c/kWh), 2024 Real	10.14	10.15								
BW 2S2 (2015)	Avg Tariff (ZAR/kWh), Nominal	0.92	0.92								
BW 2S2 (2015)	Avg Tariff (ZAR/kWh), 2024 Real	1.38	1.38								
BW 2S2 (2015)	Financial Close (MW)										
BW 2S2 (2015)	Total Investment (US$ million)										
BW 2S2 (2015)	Commercial Operation (MW)										
RMI4P (2020)	Capacity Tendered (MW)									2,000	
RMI4P (2020)	Capacity Awarded (MW)									1,798	
RMI4P (2020)	Number of Projects Awarded									11	
RMI4P (2020)	Avg Tariff ($c/kWh), Nominal									11.30	
RMI4P (2020)	Avg Tariff ($c/kWh), 2024 Real									13.42	
RMI4P (2020)	Avg Tariff (ZAR/kWh), Nominal									1.70	
RMI4P (2020)	Avg Tariff (ZAR/kWh), 2024 Real									2.01	
RMI4P (2020)	Financial Close (MW)									353	
RMI4P (2020)	Total Investment (US$ million)									1,711	
RMI4P (2020)	Commercial Operation (MW)									150	
BW 5 (2021)	Capacity Tendered (MW)	1,600	1,000							2,600	
BW 5 (2021)	Capacity Awarded (MW)	1,608	975							2,583	
BW 5 (2021)	Number of Projects Awarded	12	13							25	
BW 5 (2021)	Avg Tariff ($c/kWh), Nominal	3.68	3.18								
BW 5 (2021)	Avg Tariff ($c/kWh), 2024 Real	3.70	3.24								
BW 5 (2021)	Avg Tariff (ZAR/kWh), Nominal	0.55	0.47								
BW 5 (2021)	Avg Tariff (ZAR/kWh), 2024 Real	0.55	0.48								
BW 5 (2021)	Financial Close (MW)	784	273							1,057	
BW 5 (2021)	Total Investment (US$ million)	1,085	270							1,355	
BW 5 (2021)	Commercial Operation (MW)										
BW 6 (2022)	Capacity Tendered (MW)	1,600	1,000							2,600	
BW 6 (2022)	Capacity Awarded (MW)		1,000							1,000	
BW 6 (2022)	Number of Projects Awarded		6.00								
BW 6 (2022)	Avg Tariff ($c/kWh), Nominal		3.02								
BW 6 (2022)	Avg Tariff ($c/kWh), 2024 Real		2.98								
BW 6 (2022)	Avg Tariff (ZAR/kWh), Nominal		0.52								
BW 6 (2022)	Avg Tariff (ZAR/kWh), 2024 Real		0.51								
BW 6 (2022)	Financial Close (MW)		360							360	

Bid Window	Outcome	Wind	Solar PV	CSP	Biomass	Biogas	Landfill Gas	Hydro	Battery	Total
BW 6 (2022)	Total Investment (US$ million)		376							376
BW 6 (2022)	Commercial Operation (MW)									
BESI4P 1 (2023)	Capacity Tendered (MW)								513	513
BESI4P 1 (2023)	Capacity Awarded (MW)								513	513
BESI4P 1 (2023)	Number of Projects Awarded								5	5
BESI4P 1 (2023)	Avg Tariff ($c/kWh), Nominal									
BESI4P 1 (2023)	Avg Tariff ($c/kWh), 2024 Real									
BESI4P 1 (2023)	Avg Tariff (ZAR/kWh), Nominal									
BESI4P 1 (2023)	Avg Tariff (ZAR/kWh), 2024 Real									
BESI4P 1 (2023)	Financial Close (MW)									
BESI4P 1 (2023)	Total Investment (US$ million)									
BESI4P 1 (2023)	Commercial Operation (MW)									
BW 7 (2024)	Capacity Tendered (MW)	3,200	1,800							5,000
BW 7 (2024)	Capacity Awarded (MW)		1,760							1,760
BW 7 (2024)	Number of Projects Awarded		8							8
BW 7 (2024)	Avg Tariff ($c/kWh), Nominal		2.52							
BW 7 (2024)	Avg Tariff ($c/kWh), 2024 Real		2.52							
BW 7 (2024)	Avg Tariff (ZAR/kWh), Nominal		0.46							
BW 7 (2024)	Avg Tariff (ZAR/kWh), 2024 Real		0.46							
Total	Capacity Tendered (MW)	6,935	4,701	650	126	38	90	331	513	21,468
Total	Capacity Awarded (MW)	4,970	4,302	600	52		18	19	513	14,032
Total	Number of Projects Awarded	46	64	7	1		1	2	5	145
Total	Total Investment (US$ million)	8,624	7,538	5,689	208		29	111		23,910

4. Real Price (2024) of Public IPP Procurement in South Africa

Bid Window	Tariff	Wind	Solar PV	CSP	Biomass	Biogas	Landfill Gas	Hydro	Neutral
BW 1 (2011)	Price Cap (US$c/kWh)	26.55	68.26	68.26	24.65	18.96	15.17	24.65	
BW 1 (2011)	Lowest Tariff (US$c/kWh)								
BW 1 (2011)	Average Tariff (US$c/kWh)	26.55	66.37	64.47					
BW 2 (2012)	Price Cap (US$c/kWh)	26.91	64.57	64.57	25.11	17.94	19.73	23.32	
BW 2 (2012)	Lowest Tariff (US$c/kWh)								
BW 2 (2012)	Average Tariff (US$c/kWh)	19.73	37.67	57.4				23.32	
BW 3 (2013)	Price Cap (US$c/kWh)	16.96	23.74	28.83	23.74	13.57	16.96	15.26	
BW 3 (2013)	Lowest Tariff (US$c/kWh)								
BW 3 (2013)	Average Tariff (US$c/kWh)	13.57	16.96	28.83	23.74		16.96		
BW 1S2 (2013)	Price Cap (US$c/kWh)								
BW 1S2 (2013)	Lowest Tariff (US$c/kWh)	12.11	11.06		16.96				
BW 1S2 (2013)	Average Tariff (US$c/kWh)	12.11	12.33		16.96				
BW 3.5 (2014)	Price Cap (US$c/kWh)								
BW 3.5 (2014)	Lowest Tariff (US$c/kWh)								
BW 3.5 (2014)	Average Tariff (US$c/kWh)			23.97					
BW 4(a) (2014)	Price Cap (US$c/kWh)			22.37	19.17		12.78	14.38	
BW 4(a) (2014)	Lowest Tariff (US$c/kWh)								
BW 4(a) (2014)	Average Tariff (US$c/kWh)	7.99	11.19		19.17			14.38	
BW 4(b) (2015)	Price Cap (US$c/kWh)	10.7	12.22	19.86	21.39	21.39	13.75	16.81	
BW 4(b) (2015)	Lowest Tariff (US$c/kWh)								
BW 4(b) (2015)	Average Tariff (US$c/kWh)	9.17	10.7						
BW 2S2 (2015)	Price Cap (US$c/kWh)								
BW 2S2 (2015)	Lowest Tariff (US$c/kWh)	10.36	9.12						
BW 2S2 (2015)	Average Tariff (US$c/kWh)	10.36	10.38						
RMI4P (2020)	Price Cap (US$c/kWh)								
RMI4P (2020)	Lowest Tariff (US$c/kWh)								12.01
RMI4P (2020)	Average Tariff (US$c/kWh)								13.72
BW 5 (2021)	Price Cap (US$c/kWh)								
BW 5 (2021)	Lowest Tariff (US$c/kWh)	3.81	3.64						
BW 5 (2021)	Average Tariff (US$c/kWh)	4.27	3.69						
BW 6 (2022)	Price Cap (US$c/kWh)								
BW 6 (2022)	Lowest Tariff (US$c/kWh)		3.1						
BW 6 (2022)	Average Tariff (US$c/kWh)		3.27						
BW 7 (2024)	Price Cap (US$c/kWh)								
BW 7 (2024)	Lowest Tariff (US$c/kWh)		2.3						
BW 7 (2024)	Average Tariff (US$c/kWh)		2.52						

5. Fulfilment of Local Content in Public IPP Procurement

Bid Window (BW)	Share of local content in total project expenditure (%)	Onshore Wind	Solar PV	CSP	Biomass	Biogas	Landfill Gas	Small Hydro	Neutral
BW 1	Min.	25	35	35	25	25	25	25	-
BW 1	Target	45	50	50	45	45	45	45	-
BW 1	Avg.	27.4	38.4	38.4	-	-	-	-	-
BW 2	Min.	25	35	35	25	25	25	25	-
BW 2	Target	60	60	60	60	60	60	60	-
BW 2	Avg.	48.1	53.4	43.8	-	-	-	76.3	-
BW 3	Min.	40	45	45	40	40	40	40	-
BW 3	Target	65	65	65	65	65	65	65	-
BW 3	Avg.	46.9	53.8	44.3	40	-	41.9	-	-
BW 3.5	Min.	-	-	-	-	-	-	-	-
BW 3.5	Target	-	-	43	-	-	-	-	-
BW 3.5	Avg.	-	-	-	-	-	-	-	-
SP I4P	Min.	50	50	-	50	-	-	-	-
SP I4P	Target	70	70	-	70	-	-	-	-
SP I4P	Avg.	-	-	-	-	-	-	-	-
BW 4	Min.	40	45	40	40	40	40	40	-
BW 4	Target	65	65	65	65	65	65	65	-
BW 4	Avg.	44.4	62.3	-	47.8	-	-	40	-
RMI4P	Min.	-	-	-	-	-	-	-	40
RMI4P	Target	-	-	-	-	-	-	-	75
RMI4P	Avg.	-	-	-	-	-	-	-	50
BW 5	Min.	40	45	-	-	-	-	-	-
BW 5	Target	-	-	-	-	-	-	-	-
BW 5	Avg.	44	44	-	-	-	-	-	-
BW 6	Min.	40	45	-	-	-	-	-	-
BW 6	Target	65	65	-	-	-	-	-	-
BW 6	Avg.	-	-	-	-	-	-	-	-