Department of Mineral Resources and Energy

"Water and Energy Security"

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Consulting Engineers South Africa Indaba
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DMRE VISION, MISSION, VALUES & MANDATE

Vision

A leader in the transformation of South Africa through economic growth and sustainable development in the mining and energy sectors

Mission

To regulate, transform and promote the minerals and energy sectors, providing sustain, development, and ensuring hat all South Africans derive sustainable benefits from the country's mineral wealth

Aspired Values

The aspired values DMRE are to be:

- ✓ Batho-Pele
- ✓ Ethical
- ✓ Integrity
- ✓ Accountability
- ✓ Professionalism
- ✓ Ubuntu
- ✓ My Public Servant - My Future (We belong, We Care and We Serve)

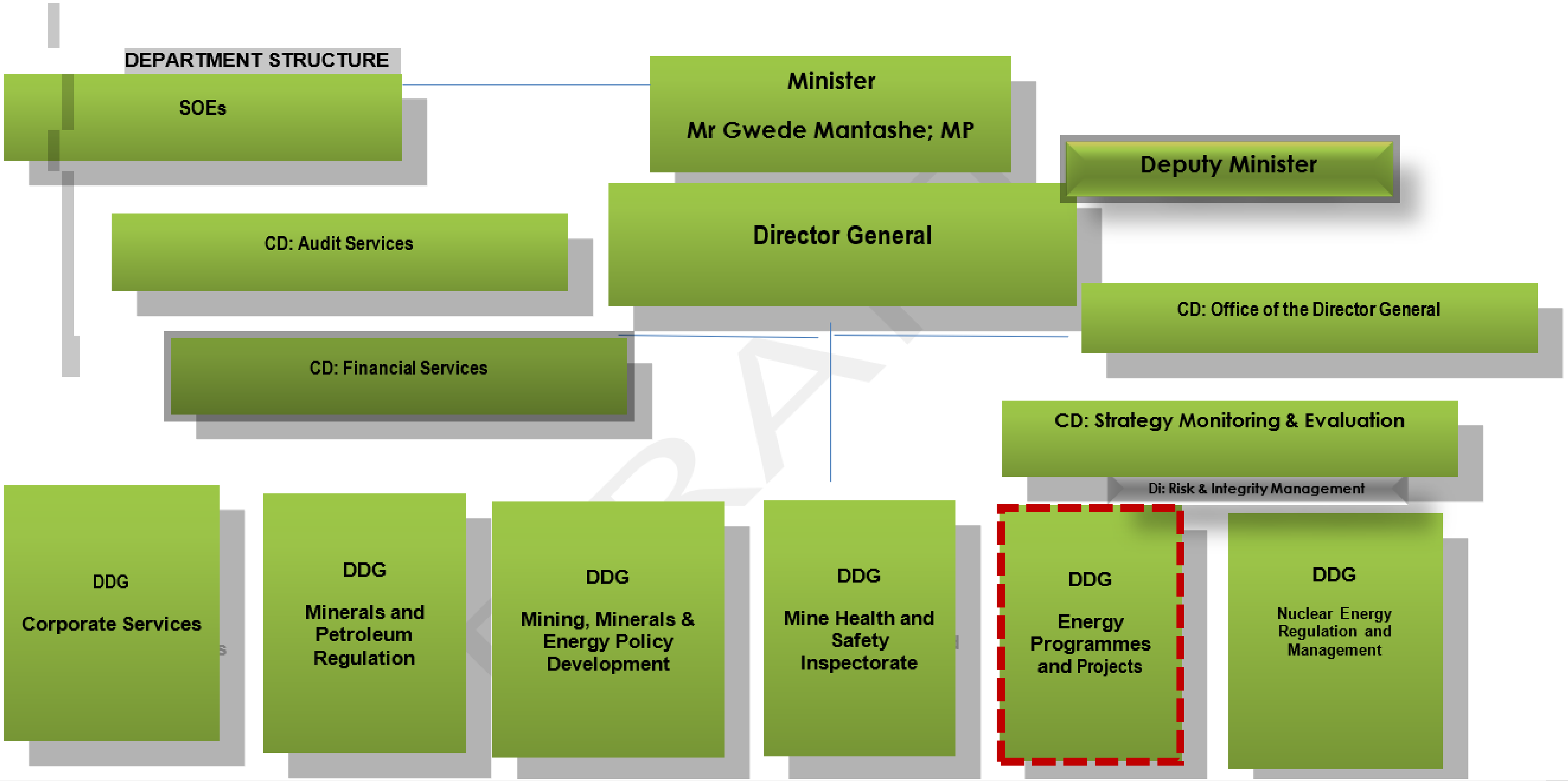
Constitutional and Legislative Mandate

DMRE derive its mandate from:

- ✓ ***Section 24 of the Constitution of South Africa, Act No 108 of 1996.***
- ✓ ***National Energy Act No 34 of 2008***
- ✓ ***Mineral and Petroleum Development Act No 28 of 2002***
- ✓ ***Mine and Safety Act No 29 of 1996***

…ensuring the transparent and efficient regulation of the development of South Africa's **Energy,** Mineral Resources and Mineral Industry meet national objectives and bring optimum benefit to the nation!

DEPARTMENTAL ORGANISATIONAL STRUCTURE



DMRE SOEs

CEF
Group of Companies

iGas
The South African Gas Development Company (SOC) Ltd

PetroSA

SOUTH AFRICAN AGENCY FOR PROMOTION OF PETROLEUM EXPLORATION AND EXPLOITATION
PETROLEUM AGENCY SA

SFF
A Subsidiary of CEF (SOC) Ltd

AE
African Exploration Mining and Finance Corporation (Pty) Ltd

MINTEK

Council for Geoscience

state diamond trader
REPUBLIC OF SOUTH AFRICA

sanedi
South African National Energy Development Institute

NATIONAL NUCLEAR REGULATOR

necsa
We're in your world

MHSC
Mine Health and Safety Council

SOUTH AFRICAN DIAMOND AND PRECIOUS METALS REGULATOR

nersa
NATIONAL ENERGY REGULATOR OF SOUTH AFRICA

NRWDI
NATIONAL RADIOACTIVE WASTE DISPOSAL INSTITUTE

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INTRODUCTION

Objectives:

- *To share government's commitment to dealing with the current energy challenges whilst simultaneously working towards ensuring an energy secure future.*
- *To engage and gain valuable insights from industry players within the Infrastructure Environment.*

Ground Rules:

- *This is not the platform to discuss and/or comment on* ***Draft IRP2023*** *– Public consultation process is now open.*
- *We encourage all stakeholders to submit their comments for our consideration.*

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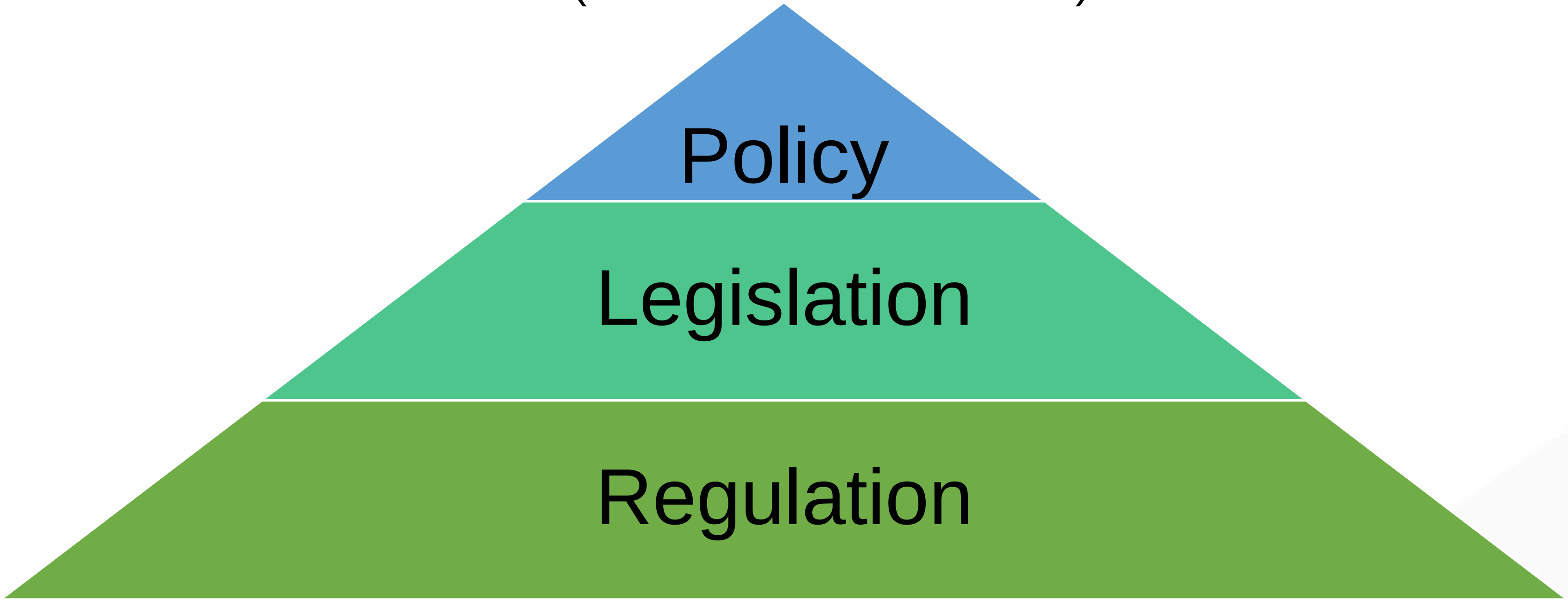
SOUTH AFRICAN ENERGY SECTOR IN CONTEXT

Electricity
(IRP2023– under revision)



Gas
(Gas Utilisation Master Plan – under development)

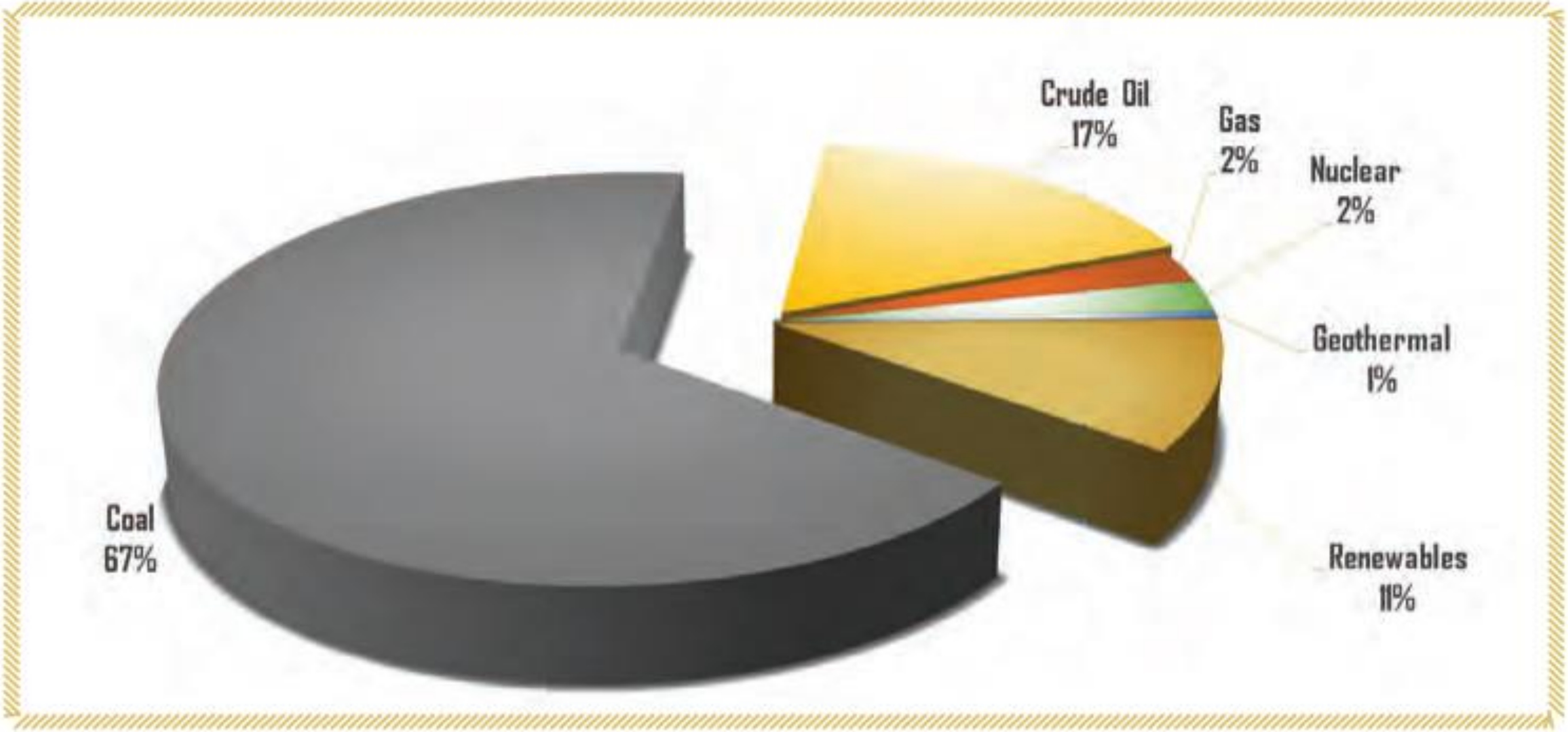
Liquid Fuels
(IEP – under development)

KEY FACTORS THAT INFORM SA ELECTRICITY SUPPLY OPTIONS

- The primary objective is to achieve energy security at the **least cost** to the overall economy, recognising the following key factors:-
  - ✓ *Reliability, availability and cost of all supply options.*
  - ✓ *Environmental impact associated with such sources.*
- By implication, a **mixed bag of technologies** to meet the above criteria is inevitable.
- To date our power system comprises of various technologies namely; Coal, Gas, Renewables (Solar PV, CSP, Wind, Biomass, Hydro), Nuclear, Pump Storage and Battery Energy Storage System (BESS).
- Central to the deployment of the above-mentioned technologies is the development of the associated **infrastructure**.

COMPOSITION OF SA TOTAL ENERGY SUPPLY

Total primary energy supply



Source: DMRE Energy Balances,

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KEY ENERGY SECURITY ENHANCING INTERVENTIONS

- Cap removal in Schedule 2 of the Electricity Regulation Act, 2006 (“ERA”)
- Energy Action Plan – to address loadshedding.
- Electricity Regulation Amendment Bill.
- IRP 2023.
- Renewables and Battery Storage Programmes.
- Transmission Infrastructure Development (ITPO underway).

- Gas Amendment Bill.
- Gas to Power Programme launch.
- Gas infrastructure development (starting with the Ports).
- Other interventions on the cards to address current industrial Gas crisis.

- IEP development.
- Liquid Fuels Charter.
- Liquid fuels infrastructure development (starting with the Ports).

KEY ENERGY SECURITY ENHANCING INTERVENTIONS CONT…

- The passing of ERA bill in National Assembly last week marks a significant milestones for the industry.
- The bill paves a way for decentralised energy sector encouraging more private sector participation, more competition, hence benefitting the consumers.
- Additional electricity, new generation capacity and transmission infrastructure.
- Unbundling of ESKOM: Clear roles for Generation, Transmission and Distribution.
- Assignment of duties, power and functions of Transmission System Operator and the National Transmission Company.
- Open market platform that allows competitive electricity trading.

QUICK STATS - ACHIEVEMENTS TO DATE (REIPPPP)

Target and Catalytic Effect (as at 31 December 2023)

	Bid Window 1	Bid Window 2	Bid Window 3	Bid Window 3.5	Bid Window 4	Bid Window 5	Bid Window 6	Total
Number of Projects (procured)	28	19	17	2	26	25	6	123
MW[1]	1 425	1 040	1 452	200	2 205	2 583	1000	9 906
Bid Window Closed[2]	Nov-11	Mar-12	Aug-13	Mar-14	Apr-18	Aug-21	Oct-22	-
PPA Signed (FC)[3]	Nov-12	May-13	Dec-15[4]	Apr-21[5]	Dec-18	Nov-22[6]	-	-

Performance	Bid Window 1	Bid Window 2	Bid Window 3	Bid Window 3.5	Bid Window 4	Bid Window 5	Bid Window 6	Total
Spend to Sep 2023	R 28 753mn	R 19 506mn	R 31 064mn	R 12 024mn	R 41 516mn	R 1 781mn	-	R 134 644mn
Spend Oct 2023 to Dec 2023	-	-	-	R 582mn	-	R 2 395mn	-	R 2 978mn
Spend to Dec 2023	**R 28 753mn**	**R 19 506mn**	**R 31 064mn**	**R 12 606mn**	**R 41 516mn**	**R 4 176mn**	**-**	**R 137 622mn**
Budget (Planned construction costs)	R 33 982mn	R 23 822mn	R 35 205mn	R 15 004mn	R 40 831mn	R 35 911mn	-	R 184 755mn
% Spend to date	**84.6%**	**81.9%**	**88.2%**	**84.0%**	**101.7%**	**11.6%**		**74.5%**
Operational (excludes EOP)	28	19	16	1	26	-	-	90
Early operations (EOP)	-	-	-	-	-	-	-	-
Delay in operational start (not GC)	-	-	-	-	-	-	-	-
In construction	-	-	-	1	-	11	-	12
No financial close	-	-	1	-	-	14	6	21
Jobs (FTEs[8]) (realised)[9]	14 328	7 089	12 196	5 115	18 974	2 033	-	59 736
Youth (FTEs[8]) (realised)[9]	6 365	3 749	5 461	1 940	9 940	793	-	28 247

Note 1. Contracted capacity figures as at financial close (if reached) or as at bid submission. **Note 2.** Bid submission date. **Note 3.** Financial close date. **Note 4.** First projects reached financial close by December 2014, and by December 2015, 16 of 17 projects have reached financial close. The remaining, unviable project was withdrawn from the procurement process. **Note 5.** First project reached financial close on 9 May 2016, while the remaining project reached financial close on 14 April 2021. **Note 6.** The first projects reached financial close in November 2022. By the end of December 2023, 11 projects have reached financial close. **Note 7.** Costs reported in terms of total project value: the total project cost involving capital costs and costs of services procured for construction, but excluding finance charges, land costs, mobilisation fees to the operations contractor and costs payable to the distributor, national transmission company and/or a contractor for the distribution or transmission connection works. **Note 8.** Person months (reporting unit of IPP agreements, converted to FTEs as per EPWP definition). **Note 9.** Reflecting employment of SA Citizens only. **Note 10.** BW6 information is included in the table, however the projects have not yet reached financial close. Reporting on BW6 will be limited to what has been procured to date.

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PROVINCIAL DISTRIBUTION OF REIPPPP PROJECTS

Province	Provincial totals		Technology share					
			BM	LG	SH	CS	OW	PV
Eastern Cape	Number of projects	**19**	-	-	-	-	18	1
	Capacity procured (MW)[1]	**1 733**	-	-	-	-	1 664	70
	Capacity online[2]	**1 496**	-	-	-	-	1 426	70
Free State	Number of projects	**16**	-	-	2	-	-	14
	Capacity procured (MW)[1]	**1 388**	-	-	9	-	-	1 379
	Capacity online[2]	**204**	-	-	8	-	-	196
Gauteng	Number of projects	**1**	-	1	-	-	-	-
	Capacity procured (MW)[1]	**13**	-	13	-	-	-	-
	Capacity online[2]	**8**	-	8	-	-	-	-
KwaZulu-Natal	Number of projects	**2**	1	-	-	-	1	-
	Capacity procured (MW)[1]	**157**	17	-	-	-	140	-
	Capacity online[2]	**0**	-	-	-	-	-	-
Limpopo	Number of projects	**3**	-	-	-	-	-	3
	Capacity procured (MW)[1]	**118**	-	-	-	-	-	118
	Capacity online[2]	**118**	-	-	-	-	-	118
Mpumalanga	Number of projects	**1**	1	-	-	-	-	-
	Capacity procured (MW)[1]	**25**	25	-	-	-	-	-
	Capacity online[2]	**25**	25	-	-	-	-	-
North West	Number of projects	**8**	-	-	-	-	-	8
	Capacity procured (MW)[1]	**695**	-	-	-	-	-	695
	Capacity online[2]	**275**	-	-	-	-	-	275
Northern Cape	Number of projects	**55**	-	-	1	7	17	30
	Capacity procured (MW)[1]	**4 400**	-	-	10	600	2 143	1 647
	Capacity online[2]	**3 463**	-	-	10	500	1 458	1 495
Western Cape	Number of projects	**18**	-	-	-	-	10	8
	Capacity procured (MW)[1]	**1 377**	-	-	-	-	1 018	359
	Capacity online[2]	**592**	-	-	-	-	458	134

Note 1. 16 of 17 BW3 projects have reached financial close. The remaining project has been cancelled due to unviability and inability to reach financial close. **Note 2.** Excluding projects in early operations.
Note 3. Includes projects from BW5 and BW6 that has not yet reached FC.
BM – Biomass, LG – Landfill Gas, SH – Small Hydro, CS – Concentrated Solar, OW – Onshore Wind, PV – Photovoltaic.

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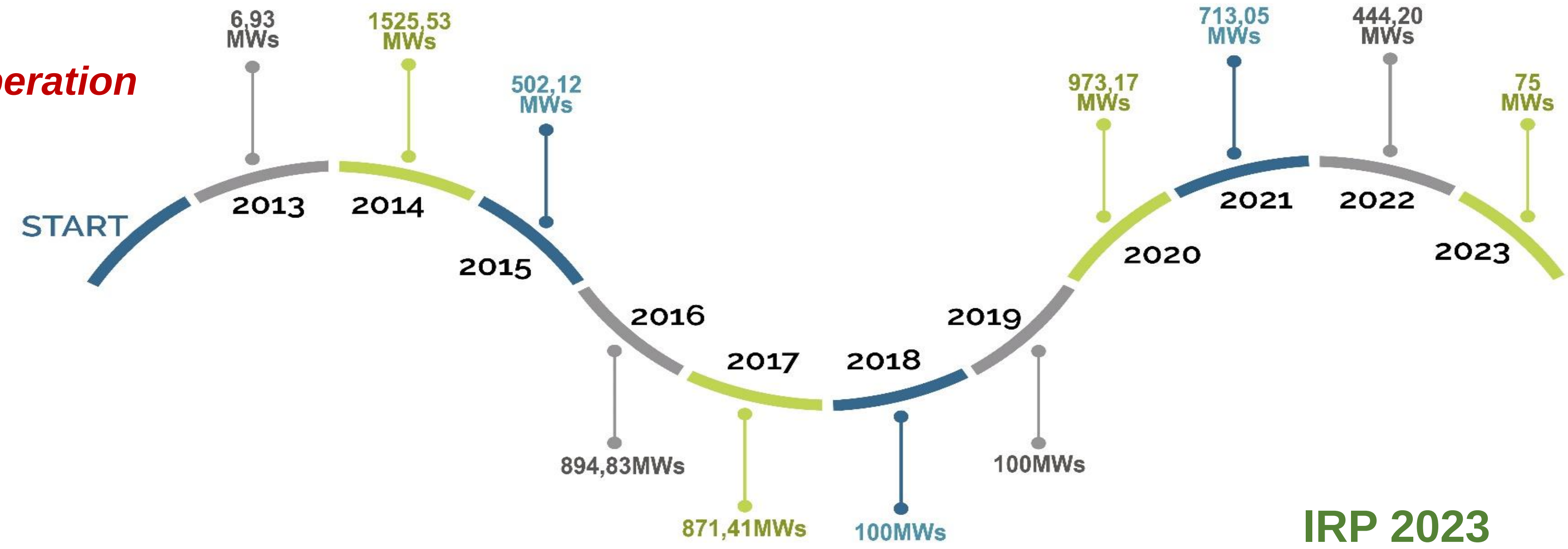
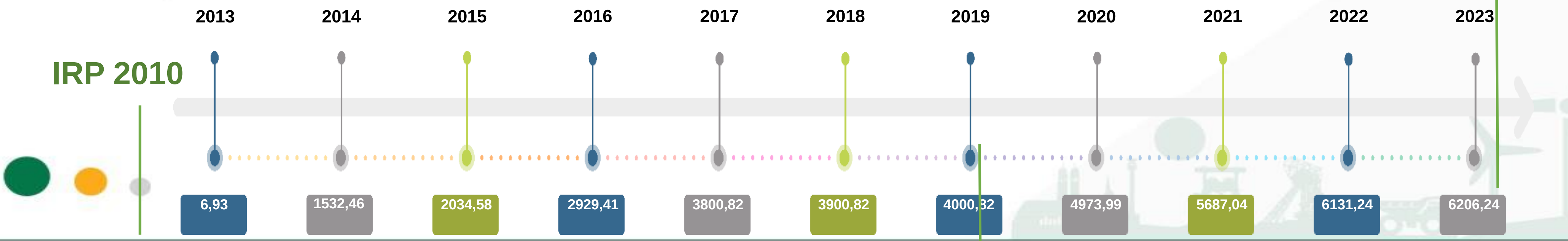
IPP PROGRAMME

Mega Watts in Operation
Per Annum



IRP 2023

Mega Watts in Operation Cumulative



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BATTERY ENERGY STORAGE IPP PROCUREMENT PROGRAMME

Programme Purpose:

- Seeking to procure new generation capacity from energy storage capacity in accordance with Ministerial Determinations gazetted under the IRP2019.
- Bid Window (BW 1) – **513 MW**:
  - ✓ Four (4) preferred bidders (360 MW) announced on 8 December 2023.
  - ✓ Value for money negotiations with an additional Bidder (153 MW) underway.
  - ✓ Aiming for commercial close of BW 1 projects by June 2024.
- Bid Window (BW 2) – **615 MW** RFP released on 14 December 2023.
- Bid Window (BW 3) – **616 MW** RFP planned to be released before end of March 2024.
- Anticipated total investment value ca **R50 - 60 BN**.

GAS IPP PROCUREMENT PROGRAMME

Programme Purpose:

- Seeking to procure **3 000 MW** of new generation capacity, energy and ancillary services from gas-fired power generation technology in accordance with Ministerial Determinations gazetted under the RIP2019.
- Specifically targets land-based electricity generation facilities utilising natural gas and located anywhere within the borders of the Republic of South Africa.
- Bid Window (BW 1) – **2 000 MW**: RFP released in December 2023.
- Bid Window (BW 2) – **1 000 MW**: Targeting to release the RFP before the end of 2024.
- Anticipated total investment value in excess of ca **R100 BN**.

INVESTMENT OPPORTUNITIES ABOUND

- Globally acclaimed REI4P continues to attract investor interest.
- **Aggressive procurement** is on the cards to help secure our future energy supplies.
  - ✓ Transmission – ca **R490 BN** for 14km transmission lines in the next 10yrs.
- More energy related infrastructure development initiatives will be outlined once the **IRP2023, Gas Master Plan** and **IEP** are finalised.
- Above-mentioned initiatives give impetus to much-needed investments in the energy sector, thus creating **investment opportunities** for the private sector.
- Strong **partnerships** between government, private sector and industry players (like CESA) will steer our country through the shortest distance to an **energy secure future**!

KEY TAKEAWAY POINTS

- The prevailing energy security challenges present opportunities for **infrastructure development** in the country.
- One of the key success factors in pursuit of a **secure energy future** is the extent to which local players meaningfully participate in the aforementioned infrastructure drive (e.g. inclusivity, transformation, local content…etc).
- Government remains steadfast in collaborating with **like-minded industry players** for the betterment of our energy system (e.g. CESA, NECOM, Energy Council SA and others).
- **Transformation and local industrialisation** should remain a central feature of our infrastructure development initiatives.

THANK YOU!

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