



Enel Green Power in Southern Africa

Localisation Policy Options

Learning from Partners and Investors

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04 August 2021

Enel Group Introduction

Leader in new energy world

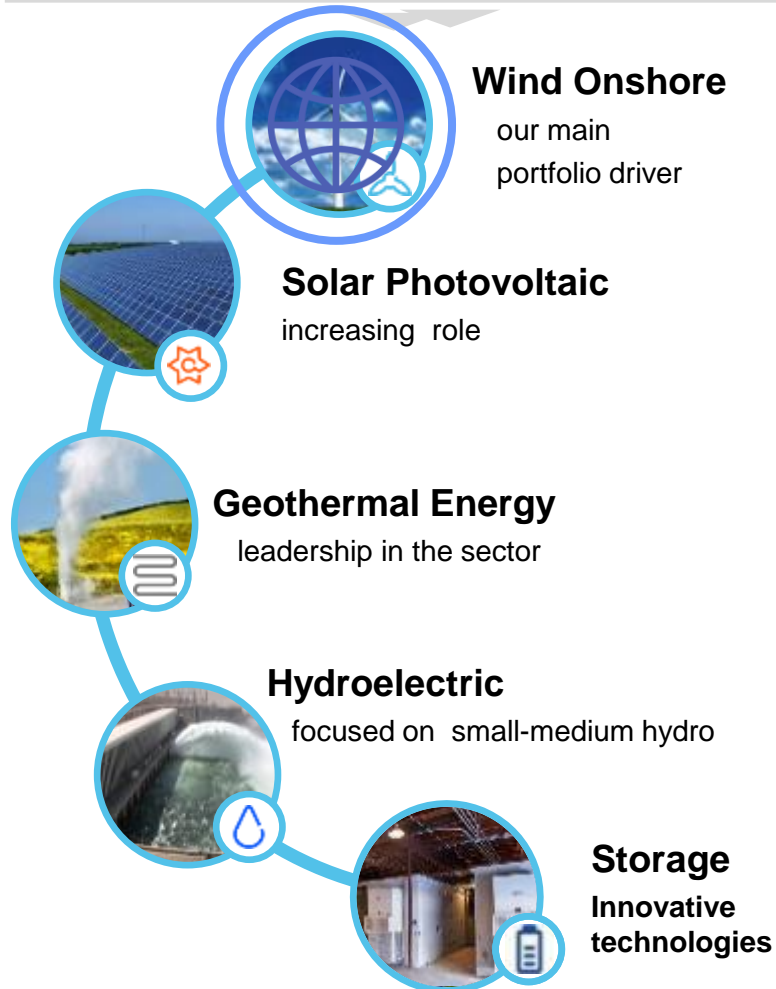


1. By number of customers. Publicly owned operators not included
2. By installed capacity. Includes managed capacity for 4.2 GW
3. It includes nuclear
4. Includes customers of free and regulated power and gas markets

Key levers for a winning Business Model

Technological and Geographical diversification with an optimized Value Chain

5 technologies across the Globe



How We Originate



PROJECT DEVELOPMENT

- Strategic partnerships and co-development agreements
- High quality pipeline of projects



COMMERCIAL STRUCTURING

- Tailor made solutions to meet a variety of customer needs
- Flexible structures squeezing risk-value trade offs

How We Execute



FINANCE SOURCING

- Access to competitive cost of financing
- Attractive alternatives to industry financial players



ENGINEERING & CONSTRUCTION

- Economies of scale, global procurement
- Design-to-value to increase reliability and minimize costs

How We Deliver



OPERATION & MAINTENANCE

- Big data and predictive maintenance
- Performance excellence at lower costs

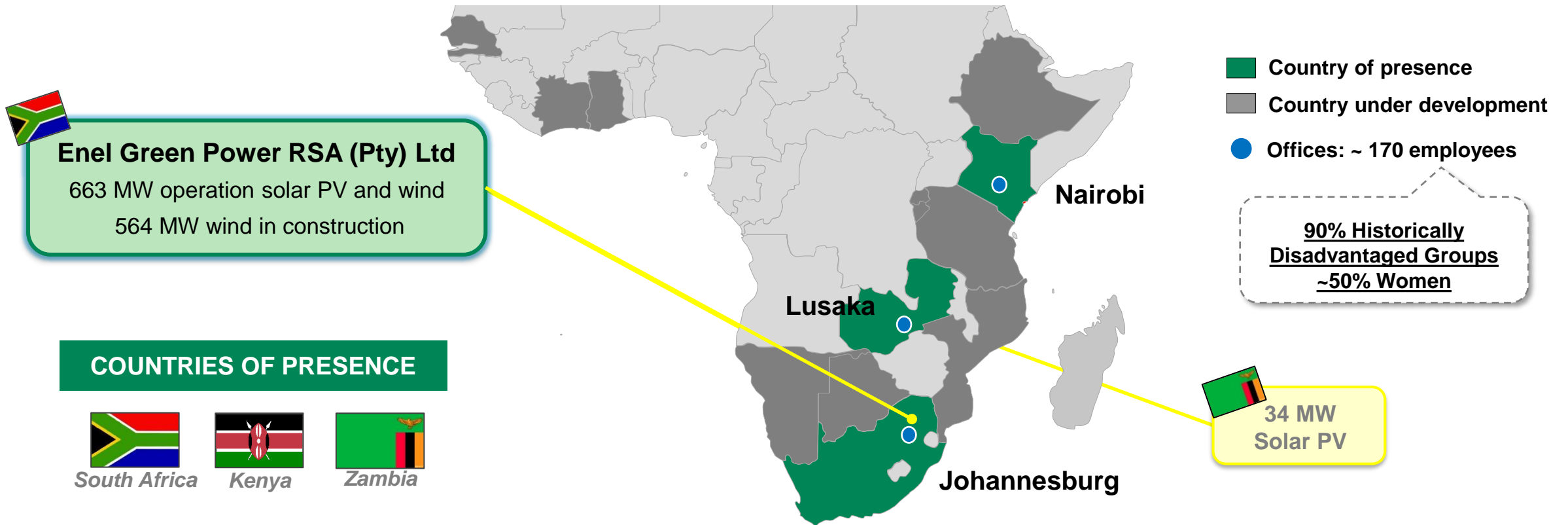


ENERGY MANAGEMENT

- Integrated portfolio (generation/retail/trading)
- Risk mitigation synergies at Group level

Sub-Saharan

Where we are



COUNTRIES UNDER DEVELOPMENT



Namibia



Senegal



Ghana



Ivory Coast



Ethiopia



Tanzania



Mozambique



Botswana



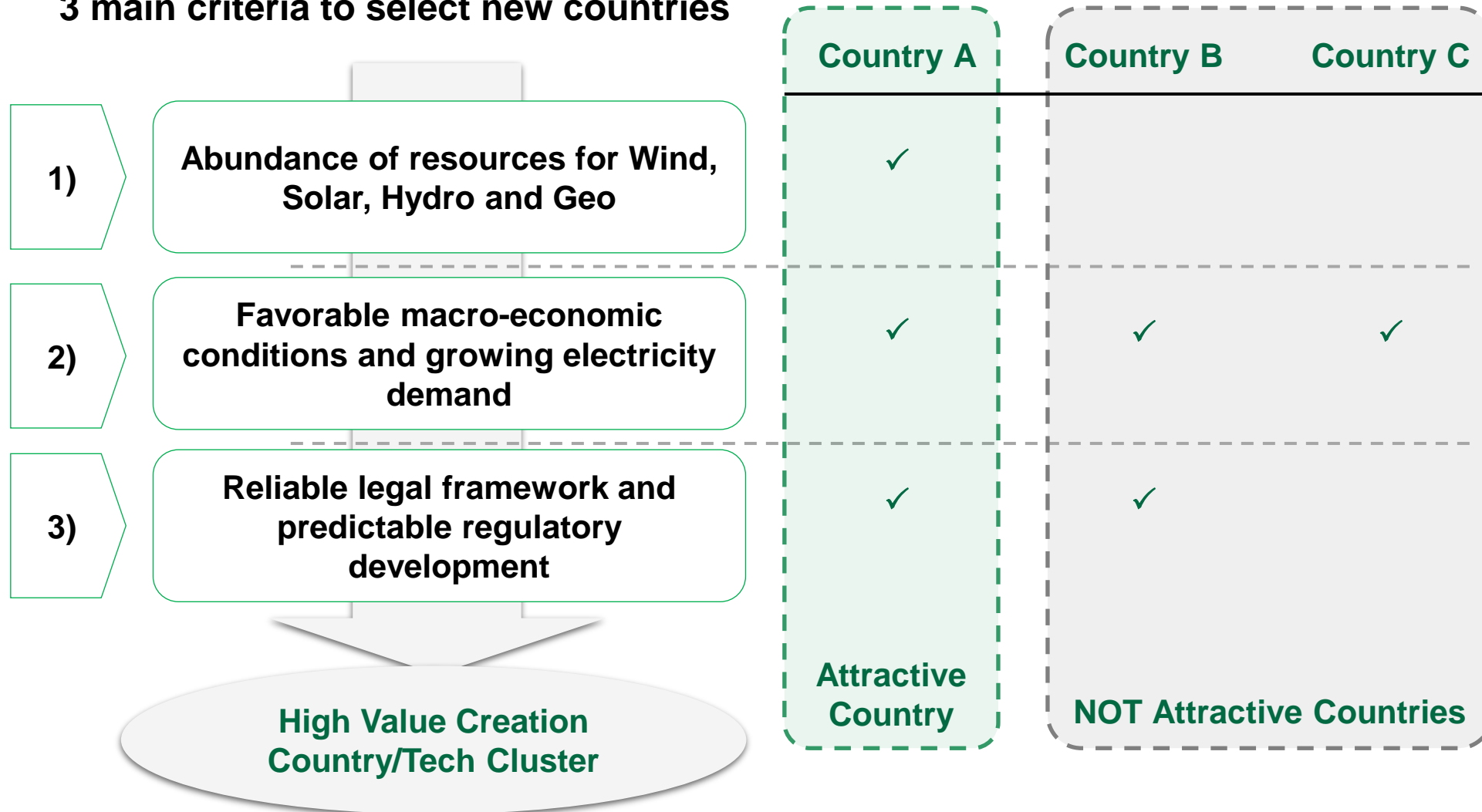
Uganda



Rwanda

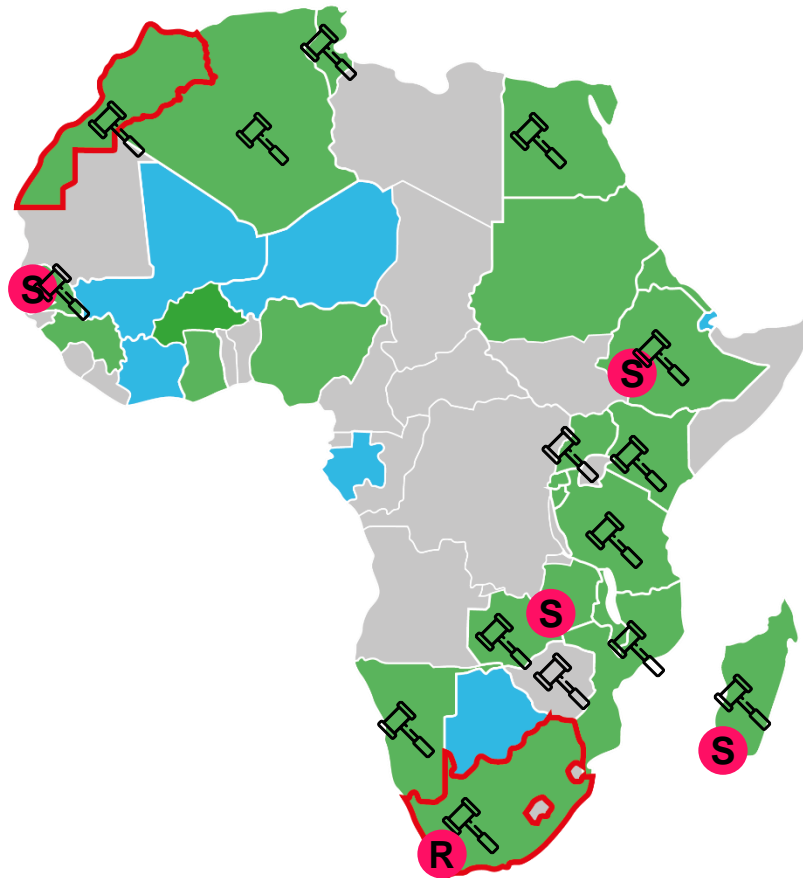
Enel approach to new markets

3 main criteria to select new countries









Renewable Regulations in place in Africa

RES support schemes



Over 20 countries adopted regulation for RES Development

Mainly through tenders and the IFC's Scaling Solar program

-  C&I PPA market
-  RES Target and support mechanisms (existing or announced)
-  RES Target but NO support mechanisms
-  Scaling Solar
-  REI4P – Renewable Energy Independent Power Producers Procurement Program
-  Auctions

South Africa's Integrated Resource Plan envisages 23GW of new solar and wind by 2030



Key highlights

The **2010-2030 IRP** outlined the official long-term Government plan for new electricity generation capacity, including timing, quantities and types of electricity sources

- The **2019 IRP** was circulated in October 2019: the table to the right shows the updated plan to 2030
 - More than **50% of all capacity added from 2019 to 2030 will be from renewable sources** – this will be achieved through the REIPPPP
 - Over the period, **c.10.7GW of coal capacity will be decommissioned** to comply with climate and environmental requirements
- Koeberg Power Station reaches end of design life in 2024, and **South Africa will be extending its life** and expand the nuclear power programme into the future
- **Natural gas assets** being pursued include indigenous reserves under exploration, piped natural gas from Mozambique and potentially shale gas

The 2019 Integrated Resource Plan envisages c.23GW of new solar and wind capacity by 2030

Year	Coal	Nuclear	Hydro	Pumped storage	PV	Wind	CSP	Gas & Diesel	Others
Current base	37,149	1,860	2,100	2,912	1,474	1,980	300	3,830	499
2019	2,155	(2,373)				244	300		Allocation to the extent of short term gap
2020	1,433	(557)			114	300			
2021	1,433	(1,403)			300	818			
2022	711	(844)		513	1,400	1600			
2023	750	(555)			1000	1600			500
2024			1860			1600		1000	500
2025					1000	1600			500
2026		(1,219)				1600			500
2027	750	(847)				1600	2000		500
2028		(475)			1000	1600			500
2029		(1,694)		1575	1000	1600			500
2030		(1,050)	2500		1000	1600			500
Additional capacity in 2019-30 (MW)	7,232	(11,017)	1,860	2,500	2,088	6,814	300	3,000	4,000
						>50%			
Additional capacity in 2019-30 (%)	16.6%		4.3%	5.7%	4.8%	15.6%	0.7%	6.9%	9.2%
Capacity 2030 (MW)	33,364		1,860	4,600	5,000	8,288	600	6,830	4,499
Capacity 2030 (%)	40%		2%	6%	6%	10%	1%	8%	5%

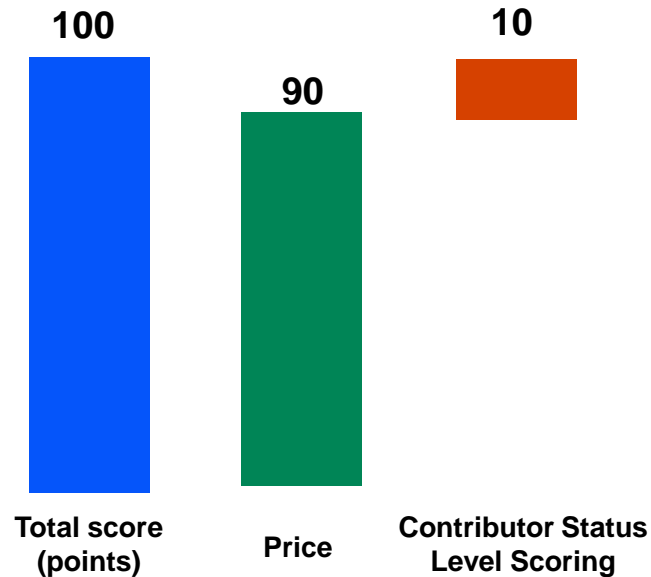
■ Installed capacity
■ Committed / Already contracted capacity
■ Decommissioned capacity
■ Extension of Koeberg plant
■ New additional capacity (IRP update)
■ Embedded generation capacity (generation for own use allocation)

South Africa renewable tender rules

Round 5 scoring and Economic Development criteria



Scoring



Minimum Economic Development criteria

OWNERSHIP: Minimum 49% South African (30% of Black Ownership) in the Project Company

ED elements

- 1. Minimum Local Content:** 40% for Wind and 45% for Solar PV, during the Construction and Operation
- 2. Designated Local Content:** designed components to be procured locally
- 3. Disadvantaged categories Ownership:** 2,5% Community and 5% Black Women
- 4. Minimum Ownership in the Contractors:** 25% by Black People and 5% by Black Women
- 5. Minimum Management Control:** 25-30% of Black People and 8% of Black Women

ED/SED Committed Obligations:

- 1. Skills Development, Enterprise Development, Socio-Economic Development (SED):** min 1,805% of Revenues
- 2. Supplier Development:** min 0,1% of Total Project Value in Construction and min 0,1% of Total Project Value in Operations


Leveraging on localization in the whole value chain as a key driver for success


Enel Green Power in South Africa

Where we are




In operation

340 MW Wind 

323 MW PV 

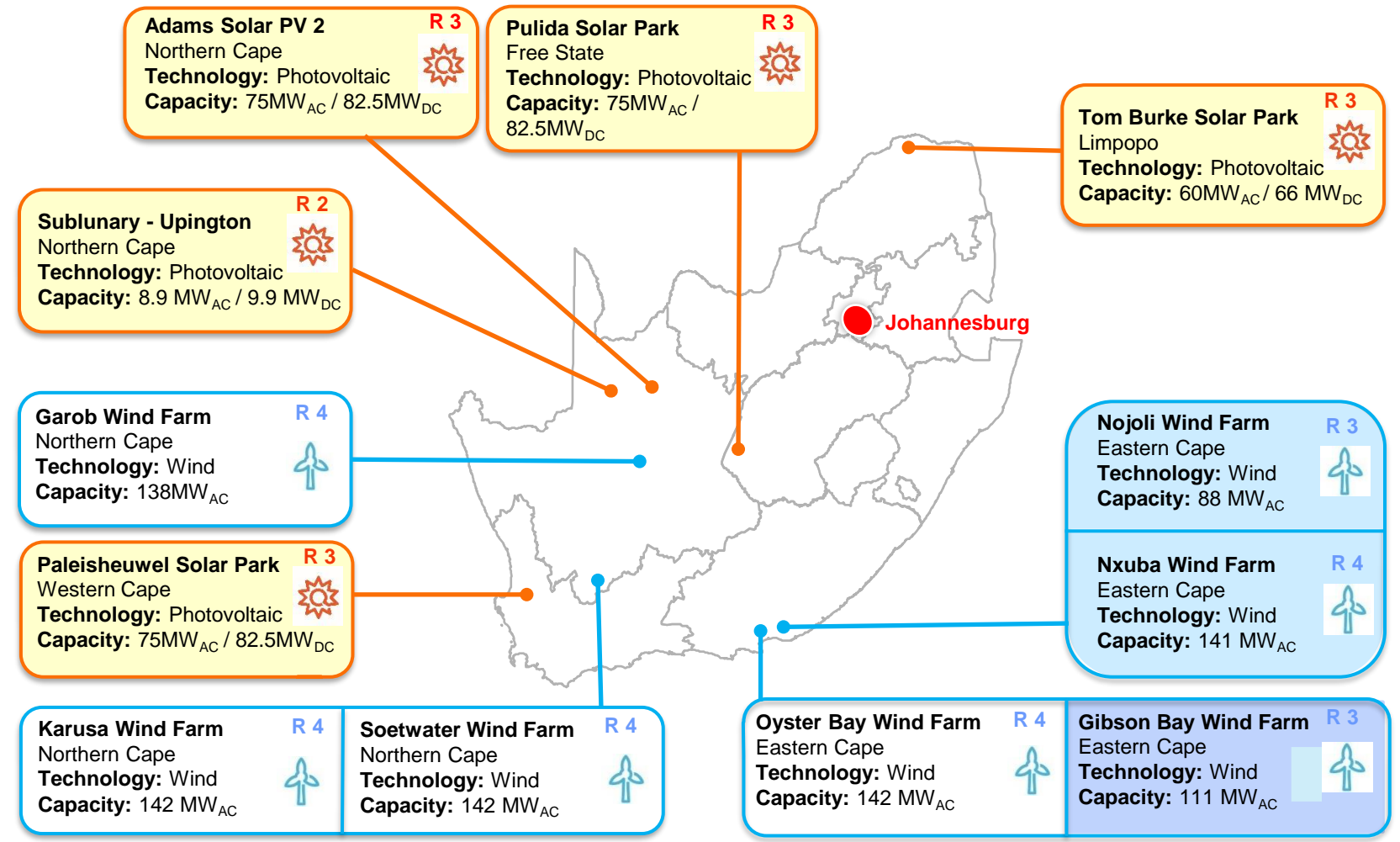
Under construction

564 MW Wind 

Total

> 1,200 MW

+R30 Bn investment



South Africa – Photovoltaic power plants

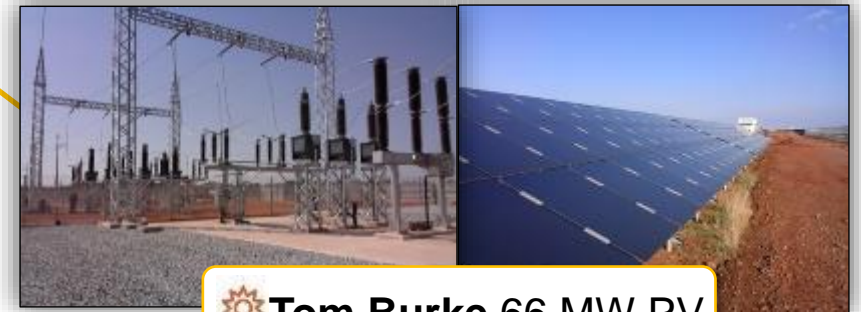
323.5 MW PV built and in operation



Upington 10 MW



Adams 82.5 MW PV



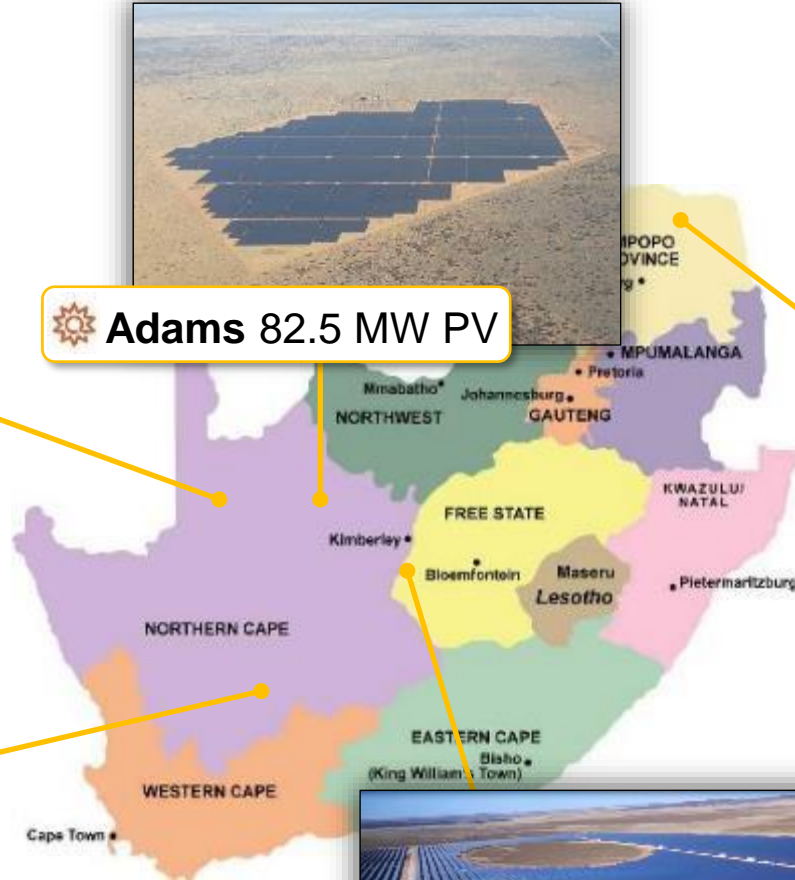
Tom Burke 66 MW PV



Paleisheuvel 82.5 MW PV



Pulida 82.5 MW PV




South Africa – Wind power plants

340 MW Wind in operation




 **Nxuba 141 MW**



 **Nojoli 88 MW Wind**



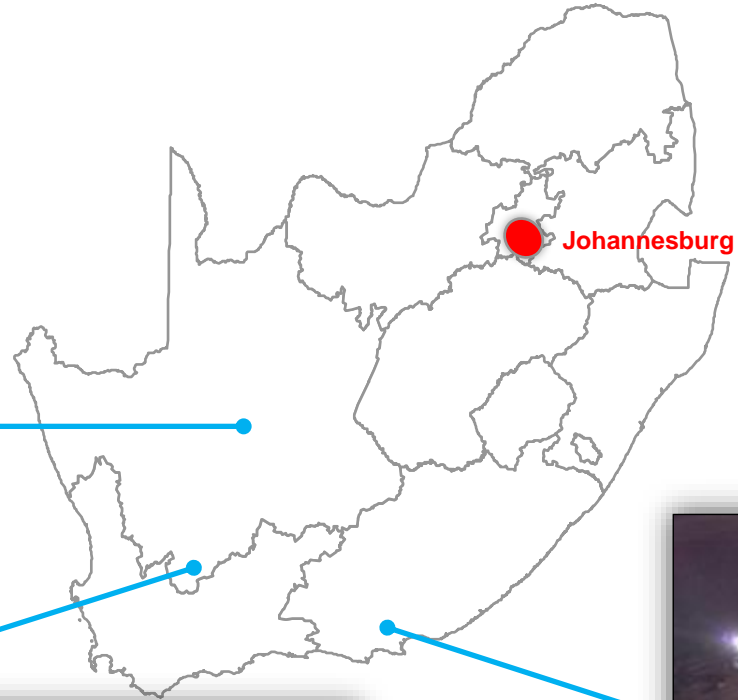
 **Gibson Bay 111 MW Wind**

South Africa – Wind power plants under construction

564 MW Wind under construction



↑ **Garob 138 MW**



↑ **Karusa & Soetwater 142 MW (each)**



COD in July 2021

↑ **Oyster Bay 142 MW**



Thank you