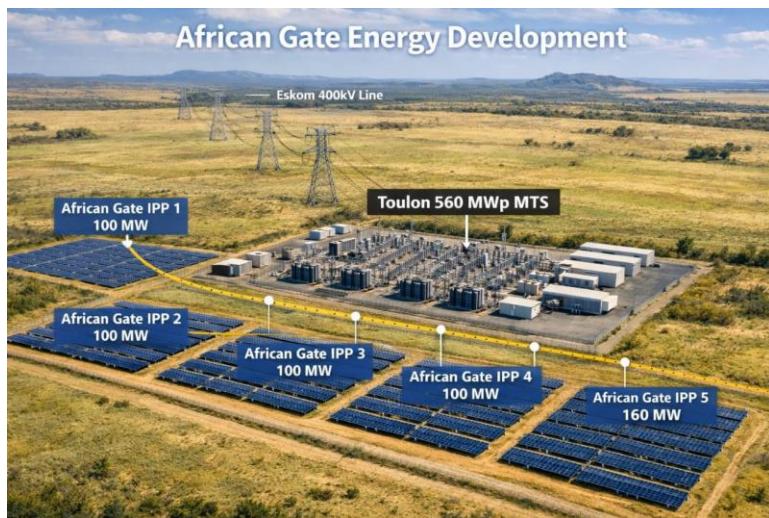


560 MW Transmission-Connection Energy Hub

African Gate Energy is creating South Africa's first privately developed transmission pooling hub, establishing a defensible, repeatable and high-value infrastructure business



1. INTRODUCTION

African Gate Energy is developing a 560 MW transmission-connected renewable energy hub anchored by a new 400 kV Eskom-operated Main Transmission Substation (MTS) near Lephalale, Limpopo Province. The project introduces **South Africa's first** transmission-level shared grid connection platform for multiple independent solar IPPs.

The project transforms grid access into a **standalone, low-risk infrastructure asset**, separating transmission risk from generation risk, and creating predictable long-term revenues supported by Eskom's Grid Code, CEL and CUOSA framework.

2. Market Problem

South Africa's renewable energy market is constrained by **grid availability**, not by solar resource, wind resources or land.

- The 132 kV network is saturated while the 400kV network is widely open for projects more than 300MW which is hardly to find.
- Large-scale projects (100 MW) and more cannot connect at distribution level, only onto the 400kV network which makes connections costly and 100MW not viable.

- Individual IPPs face long delays, rising costs and forced into joint ventures which developers do not like.

Grid access has become the **scarcest and most valuable asset** in the power market while African Gate Energy has secured 860MW on the 400kV network.

3. African Gate Energy Solution

African Gate Energy is implementing a **renewable pooling hub model**, widely used in Spain, Chile, Texas and the Middle East, but **never before implemented at Eskom transmission level in South Africa**.

The model:

- A single, Eskom-compliant **400 kV transmission substation**
- Owned and constructed by African Gate Energy
- Operated and maintained by Eskom
- Shared by multiple independent IPPs through private 132 kV feeders

This allows IPPs to access **guaranteed grid capacity** without each developing a standalone transmission connection.

4. Project Description

Location

- 20 kilometers East of Lephalale in the Limpopo Province of South Africa.
- 3,265 hectares of secured land with no environmental constraints, main road access.

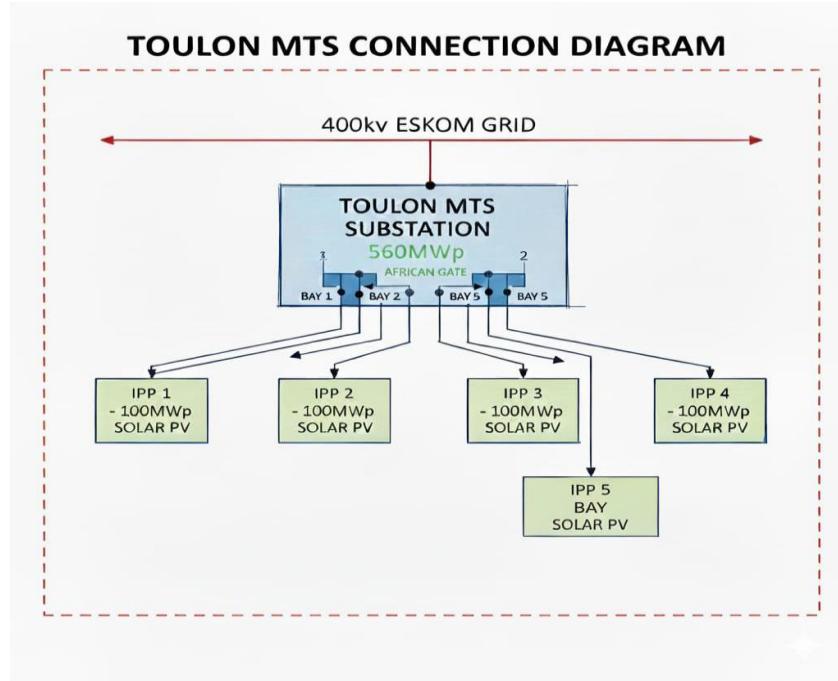
Grid Infrastructure

- New Toulon 400 kV Main Transmission Substation
- Direct connection to Eskom's 400 kV transmission backbone

Technical Configuration

- 2×500 MVA, 400/132 kV power transformers
- 400 kV main and transfer busbar
- 2×400 kV line bays
- 2×400 kV transformer bays
- 5×132 kV generator feeder bays
- Full protection, SCADA, telecoms and Eskom National Control integration

The substation will be built to **Eskom Transmission standards** and handed over to Eskom for operation and maintenance.



5. Capacity Allocation

The total 560 MW capacity is divided into five independent development nodes:

IPP	Capacity
IPP 1	100 MW
IPP 2	100 MW
IPP 3	100 MW
IPP 4	100 MW
IPP 5	160 MW
TOTAL	560 MW

Each IPP has its own feeder bay, metering and private 132 kV connection.

6. Development Model

Each IPP receives:

- A Ready-to-Build (RTB) site, fully permitted and NERSA registration.
- Dedicated 132 kV feeder bay
- Guaranteed 400 kV Eskom grid access
- Water and dedicated road access
- PPA negotiate structure
- Freedom to sell power via:

- Wheeling
- Bilateral PPAs
- Traders / aggregators
- NPAR structures

African Gate Energy retains no exposure to generation performance.

7. Capital Cost of Substation

2026 Eskom-Realistic CAPEX Estimate

Category	Low (R million)	High (R million)
Power Transformers (2×500 MVA)	320	480
400 kV Switchyard	230	360
132 kV IPP Yard (5 bays)	70	120
Protection, Control & Telecoms	80	140
Civil Works	140	220
Engineering & Project Management	80	130
Contingency	90	140
Total	1,0 million	1,5 million

Most realistic budget: ~R1.2 billion (~USD 70 million)

8. CUOSA-Aligned Cost Sharing

Total Substation Cost: **R1.2 billion** (excl. VAT)

Cost Pools

Pool	Description	%	Value
A	Transformer Capacity Assets	45%	R540m
B	Shared Grid Infrastructure	40%	R480m
C	Dedicated Generator Bays	15%	R180m
Total		100%	R1.2bn

Final Connection Cost per IPP

IPP	Capacity	Total Contribution
IPP 1	100 MW	R 218.14 million
IPP 2	100 MW	R 218.14 million
IPP 3	100 MW	R 218.14 million

IPP 4	100 MW	R 218.14 million
IPP 5	160 MW	R 327.43 million
Total	560 MW	R 1.2 billion

9. Revenue Model

Revenue Stream 1 – Selling of RTB site to IPP

IPP Size	
100 MW	USD 13 million
160 MW	USD 18 million

Total revenue from selling a site:

$$4 \times \text{USD } 13\text{m} + \text{USD } 18\text{ m} = \text{USD } 70\text{ million}$$

This fully recovers substation CAPEX.

Revenue Stream 2 – Substation Feed-In Fees

- Tariff: ZAR 0.025/kWh
- Annual energy per 100 MW node: 192.8 GWh
- Year 1 revenue per node: ZAR 4.82 million
- Escalation: 2.5% p.a.
- Term: 25 years

25-Year Revenue per 100 MW connections

- **ZAR 165 million**

10. Aggregate Energy & Revenue

The 560 MW aggregated connection generates approximately 1.7 TWh per annum. At an initial feed-in tariff equivalent of R0.025/kWh, the project delivers Year 1 revenue of approximately R 42.9 million. Over a 25-year term, assuming 2.5% annual escalation, cumulative revenues are projected at approximately R1.47 billion

Total connected capacity: **560 MW**

Assumed capacity factor: **35%**

Annual Energy: $560 \times 0.35 \times 8,760 = \mathbf{1.717 \text{ TWh/year}}$

Initial tariff equivalent: R0.025/kWh

10.3 Revenue Projection

Year 1 Revenue

$$1,716,960,000 \text{ kWh} \times \text{R0.025/kWh} = \text{R42.9 million}$$

Total 25-Year Revenue (Escalating)

Applying a 2.5% annual escalation over a 25-year term, cumulative revenue is projected at approximately R1.47 billion

Investment Characteristics

The Aggregate Energy & Revenue profile demonstrates that:

- Revenue over 25 years is decoupled from individual project performance
 - Cash flows are long-dated, predictable, and inflation-linked
 - The infrastructure enables multiple IPPs to connect without incremental grid duplication
 - The model supports full CAPEX recovery with material long-term surplus
 - The Project provides shared grid and substation infrastructure supporting an aggregated connected capacity of 560 MW.
 - Revenue is generated through regulated-style substation feed-in fees, payable by connected generators and independent of individual plant performance.
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Energy Assumptions

- Connected capacity: 560 MW
 - Net capacity factor: 35%
 - Annual energy:
 $560 \times 0.35 \times 8,760 = 1,716,960 \text{ MWh p.a.}$
 $\approx 1.717 \text{ TWh per annum}$
-

Tariff & Term

- Initial tariff equivalent: R0.025/kWh
 - Annual escalation: 2.5% p.a.
 - Contract term: 25 years
-

Revenue Profile

- Year 1 revenue:
 $1,716,960,000 \text{ kWh} \times \text{R}0.025 = \text{R}42.9 \text{ million}$
- Total 25-year revenue (escalating):
R1.47 billion

This revenue stream reflects long-dated, inflation-linked infrastructure income with high visibility and low volatility.

Capital Recovery & Surplus (Value Bridge)

- Estimated CAPEX recovery: R 1.2 billion from IPP's
- Revenue surplus from R 0.025 per kWh: R 1.47 billion

The surplus represents the embedded value created by the shared grid and substation infrastructure over the concession life.

Investment Characteristics

- Revenues are decoupled from generation ownership and performance
 - Cash flows are predictable, contracted, and inflation-linked
 - Infrastructure enables multi-IPP access without grid duplication
 - Model supports full capital recovery with material long-term surplus
 - Attractive profile for infrastructure investors and strategic exits
-

11. Risk Profile

African Gate Energy has no exposure to:

- Solar yield risks and income from IPP's
- Weather variability
- EPC or O&M costs including MTS operation and management costs.
- Equipment failure
- Power price volatility

Eskom owns, operates and maintains the transmission assets.

This is a pure infrastructure yield asset, comparable to toll roads or pipelines.

12. Strategic Value to Shareholders

- First-mover advantage in grid pooling, selling of RTB sites to reliable developers

- Ownership of scarce transmission access
 - Replicable national platform
 - Attractive to infrastructure funds, DFIs and pension funds
 - Asset life over 40 years
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13. Shareholder Conclusion

African Gate Energy is not a power producer under this concept should African Gate Energy develop none of the 5 dedicated sites.

African Gate Energy is a grid infrastructure and access platform company and if developing a power producer as well.

In a market constrained by transmission availability, grid access is the highest-value and lowest-risk asset.

The Toulon 560 MW Transmission-Connected Solar Hub:

- Is fully aligned with Eskom Transmission standards
- Is CUOSA- and CEL-compliant
- Is lender- and DFI-bankable
- Has long-life infrastructure characteristics (40 years)
- Is replicable across South Africa

This concept positions African Gate Energy as a first-mover owner of strategic grid infrastructure, rather than a merchant generator exposed to volatility.

17. Security Package

Each IPP must provide, within 30 business days of agreement signature, one of the following securities for 100% of its allocated connection cost:

- Irrevocable on-demand bank guarantee
- Letter of credit
- Parent company guarantee acceptable to Eskom

Security reduces pro-rata as payments are made.

18. Default and Step-In Rights

If an IPP defaults:

- Connection rights are suspended

- Capacity may be reallocated
- Amounts paid are forfeited

Eskom and lenders retain step-in rights to protect grid integrity.

19. Future Expansion and Monetisation

- Spare transformer margin may be sold to future generators
- New IPPs must compensate original contributors
- Expansion handled strictly under CUOSA rules
- Expansion is available up to 860MW

This preserves fairness and bankability.

20. Final Shareholder Statement

This document intentionally includes technical, financial, regulatory and commercial detail to ensure shareholders understand:

- The depth of Eskom alignment
- The robustness of the financial bankable model
- The low-risk nature of revenues
- The scalability of the platform

African Gate Energy is creating South Africa's first privately developed transmission pooling hub, establishing a defensible, repeatable and high-value infrastructure business.

African Gate Energy needs the first € 500 000 in order to achieve the following:

- ⊕ Permits and permissions
 - ⊕ Engage with Eskom with design and single line diagrams
 - ⊕ Specific site planning and mapping.
 - ⊕ CEL extension fees and revisions.
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THIS DOCUMENT WAS CREATED BY JOHAN VISAGIE
