Gas Exactly Where It's Needed

Prime Location, Long Life, Exploration Upside

The Mpumalanga Project, 100%-owned[1] by gas explorer/developer Kinetiko (KKO), is located ~200km southeast of Johannesburg, the largest city in South Africa (SA). The project sits within existing infrastructure including power generation, gas pipelines, high-voltage transmission lines, road and rail. The project hosts a 2C contingent gas resource of 4.9 trillion cubic feet (Tcf), found in shallow sandstone and coal formations, indicating a potential long-life gas development. Gas has been identified in every exploration hole drilled to date. KKO has engaged independent gas certification group Sproule to independently evaluate the gas reserves.

The project covers ~7,000 km^2 with 4,604 km^2 of granted exploration rights and over 2,300 km^2 under application. Only a fraction of the project area has been explored, presenting KKO with the potential to expand resources significantly through further exploration.

Near-Term Production: Gas to Power

KKO has a joint venture with highly experienced gas-to-power (GTP) partner Vutomi Energy. Existing wells at Mpumalanga will be utilised to produce gas powering an in-field generator linked to the existing grid. Further phases are planned to increase output.

Long-Term Production: SA Energy Crisis Creates Multiple Options for Gas Sales for KKO

SA's ageing and underinvested power generation (predominantly coal) infrastructure, declining domestic offshore and imported onshore gas supply and the existence of only one approved onshore gas producer reflects a nation facing a significant energy crisis. Solutions have to be found, such as gas to power; compressed natural gas (CNG) for transport; liquefied natural gas (LNG) for transport, power and industry; or just simple pipeline gas. KKO is in the enviable position of being part of both a short and long-term, lower-carbon solution to SA's energy needs. Successful demonstration of production should lead to staged project expansion.

The project's location and supportive government policy present further options for gas sales to state-owned power stations, industrial users and transportation.

KINETIKO ENERGY LTD

Kinetiko Energy (KKO) is an Australian company that explores and develops advanced shallow conventional gas and coal bed methane opportunities in Southern Africa. Its flagship project is the Mpumalanga Gas Project in South Africa. The company has a 4.9 Tcf 2C contingent resource and almost 7,000km^2 in granted rights and application areas. KKO's vision is to become a major player in South African onshore gas production. https://www.kinetiko.com.au/

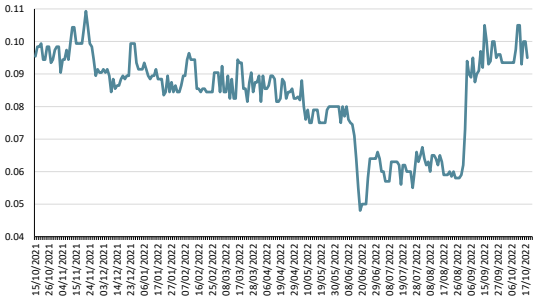
Click Here - Video - CEO Nick De Blocq on the Mpumalanga Gas Project

Stock	ASX: KKO
Price	A$0.092
Market cap	A$68m
Valuation (per share)	A$0.24

Next steps

- Maiden Reserves certification
- Core well program and well analysis near Majuba Power station

KKO share price (A$) – 1 year



Source: FactSet.

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Quality Partners Reflects a Quality Project

In addition to Vutomi Energy, KKO has entered into a joint development agreement (45% IDC/55% KKO JV) with SA's Industrial Development Corporation (IDC) to develop a 15 to 20-well pilot production field. The IDC is a wholly owned government subsidiary which supports growth and development in SA. Additionally, the IDC has a first right to participate up to 45% of the next 80 wells developed by KKO. The IDC JV has been funded predominantly by a subscription of ZAR60m from SA energy investment group Phefo Power, which boosts KKO's Black Economic Empowerment (BEE) certification.

Risked NPV Valuation A$0.24 – Resource Provides Large Potential Upside

Our base case valuation of A$0.24 is derived by estimating the risked value of developing the Mpumalanga project. Our unrisked discounted cash flow (DCF) valuation is A$0.43 per share. As a cross check we look at the EV/Resource method, deriving a valuation using average market multiples. The valuation of A$1.05 is derived from market average EV/Resource multiples, showing the potential upside to KKO as the project is developed, reserves are certified, and production increased. The key risks relate to development risks, reserves conversion and funding.

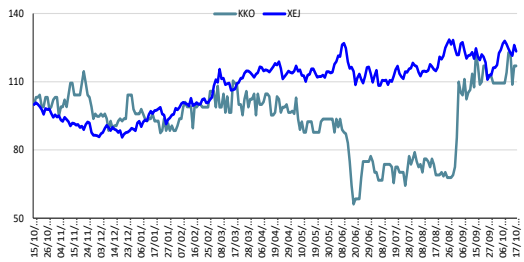
[1] On completion of shareholder approval to acquire 100% of Afro Joint Venture for the issuance of 597,704,812 shares in KKO to Badimo Energy (JV partner in Afro Energy). MST expects KKO shareholder approval around the end of November 2022

Exhibit 1 – Company summary – Year End 30 June

Kinetiko Energy Ltd (ASX:KKO)

Share Price	A$/sh	**0.09**
52 week high/low	A$/sh	0.11/0.05
Valuation	A$/sh	0.24
Market Cap (A$m)	A$m	68
Net Cash / (Debt) (A$m)	A$m	1
Enterprise Value (A$m)	A$m	67
Shares on Issue	m	743
Shares to be Issued - Afro Acquisition	m	598
Options/Performance shares	m	32
Potential Diluted Shares on Issue	m	1372

KKO Relative to XEJ 12 months



Ratio Analysis	2020A	2021A	2022A	2023	2024
EPS (Ac)	(0.50)	(0.30)	(0.93)	0.44	1.14
P/E (x)	(10.3)	(36.2)	(7.1)	22.5	8.7
EPS Growth (%)		n/a	n/a	-148%	158%
CFPS (Ac)	(0.45)	(0.35)	(0.58)	0.45	1.15
P/CF (x)	(11.4)	(31.4)	(11.3)	22.4	8.7
DPS (Ac)	–	–	–	–	–
Dividend Yield (%)	–	–	–	–	–
EV / EBITDA (x)	-14.2	-37.6	-10.8	15.3	5.4
EV / boe (x)	–	–	–	416.7	164.6
EV / PJe (x)	–	–	–	69.5	27.4
FCFPS					
FCF Yield (%)					

Assumptions (Yr end Jun)	2020A	2021A	2022A	2023	2024
Brent Oil Price (US$/bbl)	66.67	51.31	54.72	90.1	88.4
Exchange Rate (A$1:US$)	0.671	0.747	0.725	0.680	0.680
Gas Price (A$/GJ)	6.85	5.95	4.81	7.00	7.00

Production	2020A	2021A	2022A	2023	2024
Gas (TJ/d)	–	–	–	5	12
Gas (PJ)	–	–	–	1.8	4.4
LPG (kt)	–	–	–	–	–
Oil / Condensate (mmbbl)	–	–	–	–	–
Total (mmboe)	**–**	**–**	**–**	**0.29**	**0.73**
Gas (mmboe)	–	–	–	0.29	0.73
LPG (mmboe)	–	–	–	–	–
Oil / Condensate (mmboe)	–	–	–	–	–
Year End Reserves 2P (mmboe)	**–**	**–**	**30.3**	**30.3**	**29.5**

Reserves and Resources As at 30 June 2022	Working Interest	1C Gas (bcf)	2C Gas (bcf)	3C Gas (bcf)
Coal Bed Methane	100.0%	2,047	4,492	8,621
Gas in Sandstone	100.0%	190	370	629
Total		**2,237**	**4,862**	**9,251**

NET ASSET VALUE (WACC 12.0%)	A$m	Risking	A$m	A$ps
Mpumalanga Gas Project (~200 PJ) - 100%	335	60%	201	0.15
Total Operations	**335**		**201**	**0.15**
Net Cash / (Debt)	11	100%	11	0.01
Admin / Corporate / Other	(23)	100%	(23)	(0.02)
Exploration (risk-adjusted)	15	50%	7	0.01
CBM unconventional, 2C risked (~330 bcf)	253	50%	127	0.09
TOTAL VALUATION	**591**		**323**	**0.24**

Profit & Loss (A$m)	2020A	2021A	2022A	2023	2024
Oil / Condensate Revenue	–	–	–	–	–
LPG Revenue	–	–	–	–	–
Gas Revenue	–	–	–	13	32
Total Sales	**–**	**–**	**–**	**13**	**32**
Operating Costs	–	–	–	(2)	(5)
Government Resource Taxes	–	–	–	(1)	(2)
Exploration & Development Expenses	(1)	(1)	(2)	(1)	(2)
Other Net Income / Expense	(1)	(1)	(2)	(1)	(1)
EBITDA	**(2)**	**(2)**	**(4)**	**8**	**22**
EBITDAX	**(1)**	**(1)**	**(2)**	**9**	**24**
Depreciation & Amortisation	(0)	(0)	(0)	(0)	(0)
EBIT	(2)	(2)	(4)	8	22
Net Interest Expense	0	0	(2)	0	0
Pretax Profit	(2)	(2)	(6)	8	22
Tax Expense / Benefit	–	–	–	(2)	(6)
Net Attributable Profit	**(2)**	**(2)**	**(6)**	**6**	**16**
Reported Profit	(2)	(2)	(6)	6	16

Cash Flow (A$m)	2020A	2021A	2022A	2023	2024
Pretax Profit	(2)	(2)	(6)	8	22
D&A & Other Non-Cash Items	0	0	2	0	0
Tax Paid	–	–	–	(2)	(6)
Cash from Operating Activities	**(2)**	**(2)**	**(4)**	**6**	**16**
Development Capex	–	(0)	(0)	(4)	(14)
Exploration Capex	(0)	(1)	(2)	–	–
Acquisitions/Other (Net of Sales)	–	–	–	–	–
Dividends Paid	–	–	–	–	–
Free Cash Flow	**(2)**	**(2)**	**(5)**	**2**	**2**
Cash Provided by Financing	3	1	6	8	10
Net Change in Cash	**1**	**(1)**	**1**	**10**	**12**

Balance Sheet (A$m)	2020A	2021A	2022A	2023	2024
Cash & short term deposits	1	0	1	12	25
Receivables	0	1	0	0	8
Inventories	–	–	–	2	7
Property, Plant and Equipment	0	0	0	4	17
Capitalised exploration	–	–	–	–	–
Intangibles and Goodwill	–	–	–	–	–
Other assets	7	7	7	5	7
Total assets	**8**	**8**	**10**	**24**	**64**
Creditors	1	0	0	3	8
Borrowings	–	–	0	0	0
Other liabilities	–	–	–	(0)	6
Total liabilities	**1**	**0**	**1**	**1**	**15**
Shareholder equity	7	8	9	23	49
Shareholder Equity + Total Liabilities	8	8	10	24	64

Source: KKO, MST Access.

Investment Thesis: Opportunity Knocks with SA Energy Crisis – KKO's Gas Is Part of the Solution

Our view is that KKO has the potential to become a leading gas exploration and production company in SA, with exposure to large gas exploration acreage and near-term gas production located in a prime position in easy reach of SA's largest city and established infrastructure. KKO has a large contingent gas resource and imminent reserves classification.

The industry environment is supportive, given the energy crisis in SA. The government has indicated that domestic gas production will be a key part of the solution, and KKO is well positioned to play a part.

We value KKO at A$0.24 and see significant upside as KKO expands its resources and reserves and works towards delivering gas to a deprived market.

KKO's Key Asset: A Compelling Picture – 100%-Owned Large Tenement with Exploration Upside, Near-Term Production

Large tenement package with exploration upside: KKO's asset base is located ~200km southeast of SA's largest city, Johannesburg, and is close to infrastructure including a gas pipeline, power generation, rail and main roads. The project covers 7,000 km^2 with 4,604km^2 of granted exploration rights and the rest under application. A strong exploration opportunity exists, with only a fraction of the total tenement having been drilled or otherwise explored.

KKO's 100% (post shareholder approval of acquisition of 100% of Afro Energy via the issue of 597.7m KKO Shares to Badimo Energy (JV partner in Afro Energy). MST expects approval around end of November) ownership of its tenements adds flexibility around ownership structures and potential funding options.

Substantial resource base, low cost, reserve classification soon: KKO's tenements have 2C contingent resources of 4.9tcf of conventional gas and coal bed methane. The resource is shallow, ranging from 150m to 550m, allowing low-cost extraction which does not require fraccing. KKO has engaged independent reserve certifier Sproule to conduct a reserves review, with a reserve to be certified in the coming months.

Near-term production: KKO has entered a 50/50 joint venture with Vutomi Energy, a small SA power producer, to produce and sell to electricity offtakers. The gas will initially drive a 1MW gas reticulation engine. The project acts as a proof of concept; it is an important step in demonstrating commercial operation and may form the basis for future larger plants of up to 5MW.

Skilled Management, Strong Partners

KKO's management is highly experienced in oil and gas in SA. CEO Nick de Blocq brings 34 years of experience as an engineer and manager in the upstream oil and gas industry and has managed multi-country operations. The executive team and board bring a depth of experience ideal for growing KKO into a key gas producer in SA.

KKO has linked with several key partners to take the project to the next level. A funding agreement has been executed with the Industrial Development Corporation of South Africa (IDC) to develop a 15- to 20-well pilot production field. The IDC is a wholly owned government subsidiary mandated to promote SA's economic growth and industrial development. In addition, KKO has secured a subscription of ZAR60m (~$5.4m) from South African energy investment group Phefo Power, which boosts KKO's Black Economic Empowerment (BEE) certification.

Industry Context: Market is Primed for More Gas; SA's Energy Crisis Creates a Strong Opportunity for KKO on Several Fronts

The SA energy market supply situation is dire, with new supply required in order to meet demand and replace high-carbon-emission power generation. Existing, primarily-coal-fired, power generation is old and has suffered from years of underinvestment, leading to regular power restrictions and blackouts. In addition, SA's gas supply is limited. It relies on imported supply from Sasol that is in imminent decline. Domestic gas supplies are also limited with only one other gas production licence granted in the country, which has only recently begun production of LNG on a small scale. Industry relies on LPG, and SA imports all of its diesel requirements to support one of the world's largest trucking fleets. The SA Government has been clear that the country requires domestic gas production, and that an identified part of its coal generator fleet will be converted to gas.

KKO is a key player in the long-term solution to SA's energy issues, aligning with key partners to bring gas to market for power generation, transport and industry.

Recent Events: Exploration Updates, Funding, Afro Energy Acquisition

2022

- October: A$5m in funding secured from strategic SA institution
- September: Core well 271-23C spuds, restarting exploration program, target gas supply to Majuba Power Station
- September: 7 well exploration program announced; SA government announces plan to convert coal-fired generation to gas
- August: Sproule appointed to conduct reserves review
- June: Korhaan 4 exploration well flow of 40 kscfd (thousand standard cubic feet per day) of gas, with potential flow of 100 kscfd of gas
- June: Korhaan 3 exploration well flow of 83 kscfd of gas, with early flow of 210 kscfd of gas
- June: Entitlement offer closes, raising A$1.7m
- March: Ministerial approval received for acquisition of Afro Energy – KKO set to own 100% of Afro Energy
- January: Korhaan wells all intersect gas

2021

- December: KKO executes binding legal agreements with Badimo to increase its shareholding in Afro Energy (Pty) Ltd from 49% to 100%. Afro Energy holds the South African exploration rights and production approvals
- December: First energy sales joint venture term sheet executed with Vutomi Energy
- November: First well spudded at Korhaan
- April: Gas well flow test of Well KA-03PTR initial gas rates of up to 650 Mscfd, average flow rates 190 Mscfd

Potential Near-Term Catalysts and Timing

- November 2022: Shareholder approval of Afro acquisition and issue of shares in KKO
- November 2022: Maiden reserves certification
- 4QCY22/1QCY23: one core well program and well analysis near Majuba power station, followed by three core holes in each of ER270 and ER272. The latter borders onto Sasol's synthetic fuel refinery at Secunda
- CY2023: Joint fund and progress 20 well program with IDC
- 1QCY23: Gas to power gas production for 1MW of power
- CY2024: Gas to power to increase to 5MW

Risked NPV Valuation A$0.24 – Resource Provides Large Potential Upside

Our base case valuation of A$0.24 is derived by estimating the risked value of developing the Mpumalanga project. Our unrisked DCF valuation is A$0.43 per share. As a cross check we look at the EV/Resource method, deriving a valuation using average market multiples. The valuation of A$1.05 is derived from market average EV/ Resource multiples, showing the potential upside to KKO as the project is developed, reserves are certified, and production increased. The key risks relate to development risks, reserves conversion and funding.

Corporate History

Established in 2010, KKO commenced as a private gas exploration company to pursue advanced coal bed methane (CBM) opportunities outside of Australia. After identifying the Mpumalanga area as one of the most prospective areas, KKO approached Badimo Gas Ltd, a South African private company holding granted gas Exploration Rights in the area, to successfully secure farm out and operating agreements on the Mpumalanga project. The project was subsequently to be held as a joint venture: 51% Badimo and 49% KKO (and operator).

In 2015, Afro Energy Ltd. was incorporated as a joint venture company founded by KKO (49%) and Badimo Gas (51%) to own 100% of the exploration rights with required Black Empowerment Endowment (BEE) certification, and to facilitate greater South African investment.

In 2021, the company executed agreements to acquire Badimo, and will obtain 100% ownership of Afro Energy Ltd after obtaining shareholder approvals in November 2022.

Asset Overview: Flagship Mpumalanga Project – Location, Location

Project Overview – A Substantial Project, with 100% KKO Control

Size and Rights Details

KKO's 100%-owned Mpumalanga gas project includes exploration rights:

- ER270 and ER271 (into which ER38 and ER56 have been consolidated))
- ER272.
- ER320 (Under application)

This flagship asset covers ~7,000km^2 with 4,604km^2 of granted exploration rights and over 2,300km^2 under application.

Ownership and operatorship –100% KKO

KKO's operatorship and 100% equity interest in the project gives options for farm-downs to fund further exploration and development, reduce capital cost exposure and receive cash for resources prior to gas sales.

Afro Energy, the entity that holds 100% of the Mpumalanga project, was previously owned 49% by KKO and 51% by Badimo Gas. KKO has now acquired 100% of Afro Energy by converting Badimo's 51% Afro Energy stake to a ~46% equity interest in KKO. This has been achieved by the issue of 597,704,812 shares in KKO to Badimo, subject to KKO shareholder approval in November 2022.

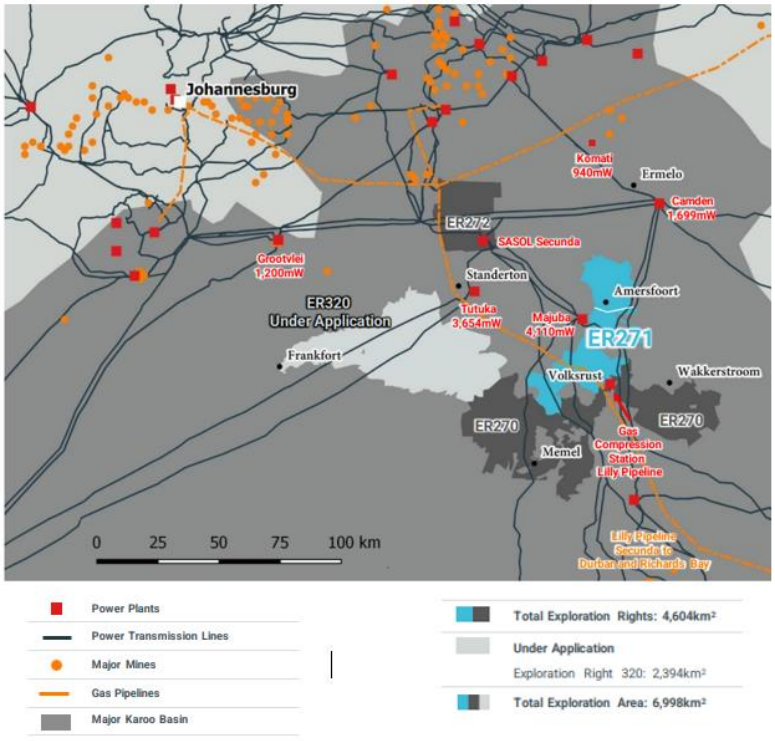
Location – Proximity to Infrastructure and Potential Customers

The Mpumalanga gas project is located some 200km southeast of South Africa's largest metropolitan area, Johannesburg (see Exhibit 2).

The project is adjacent to and surrounded by key infrastructure including power stations, gas pipelines, high-voltage transmission lines, road and rail.

Potential users of gas are located nearby, including Majuba Power Station (4kMW), which is capable of using gas to co-fire power generation and is only kilometres from planned drilling, and the Secunda refinery owned by Sasol (the largest gas consumer in South Africa), which is situated on the northern boundary of ER 272 where drilling is scheduled for 1QCY23.

Exhibit 2 – Location of KKO's Mpumalanga Project and surrounding infrastructure



Source: KKO.

Geology

Proven and highly prospective Permian age fields; gas in both sandstone and coal formations

The Permian age sediments of the Northern Karoo Basin are extensively intruded by Jurassic age dolerites. The conventional sandstone reservoirs, in which gas is generated from the interbedded coals and coaly mudstones, are unconventionally trapped by younger volcanic dolerite intrusions. These honeycombed volcanic compartments with gas-filled sandstones are present over an large area with similar geology, as demonstrated by decades of previous coal exploration.

Every one of the exploration holes Afro drilled to date has found gas trapped in this way, in an area over 70km wide. The gas is 96–98% methane with a small component of nitrogen.

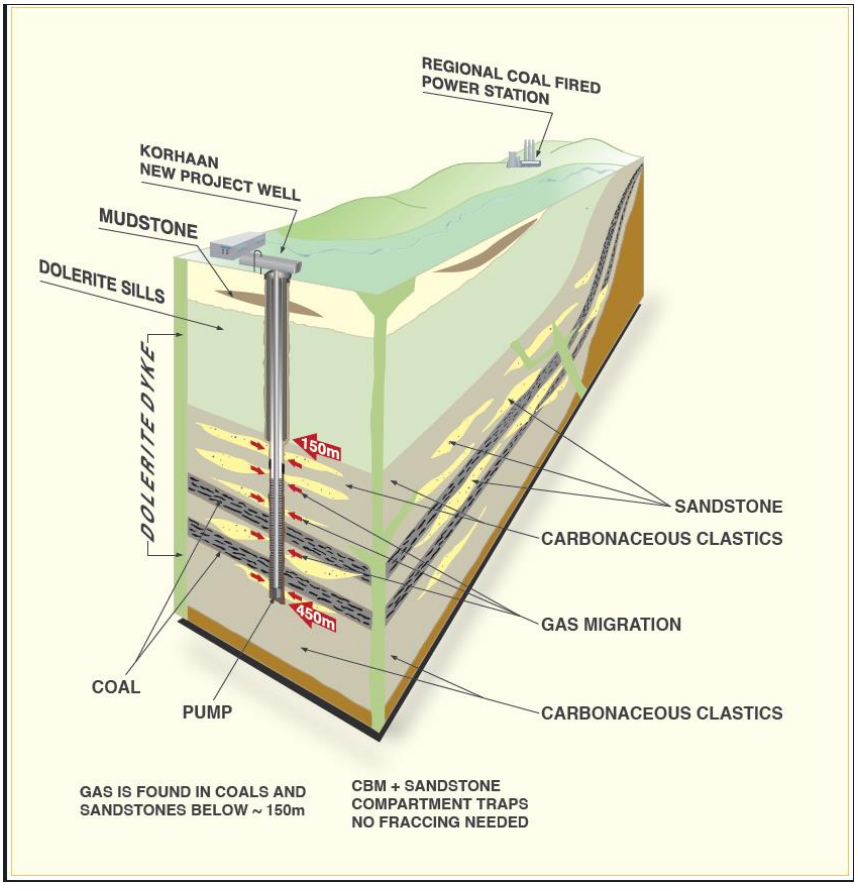
Potential for thousands of wells, with peak gas within days of dewatering

The gas zone depth ranges from 100m to 700m with simple vertical wells and no need for fraccing. There is potential for thousands of wells across over KKO's licences containing multiple TCFs of gas.

Unlike a CSG well which may require months of dewatering to reach peak production, these wells yield their peak gas rate within days of dewatering the sandstone layers, with much less water production than a CSG well. A handful of production test wells have proven the commercial nature of this play.

The next step is two-fold: to explore expanded areas for targeted markets and to add more producing wells to feed South Africa's transition away from coal and hydrocarbon imports.

Exhibit 3 – Mpumalanga project geology



Source: KKO.

Ability to Attract Partners Reflects the Quality of the Project

Attracting partners to an early-stage development is key to advancing the project and serves as an indicator of the quality of the underlying asset. The quality of Mpumalanga is reflected in the partners that KKO has attracted. In addition to its joint venture with Vutomi Energy, KKO has entered into a joint development agreement with the Industrial Development Corporation of South Africa (IDC) and has attracted a subscription of ZAR60m from South African energy investment group, Phefo Power.

Joint development agreement with Industrial Development Corporation of South Africa

KKO has entered into a joint development agreement (JDA) with the IDC to co-develop a gas production field to comprise up to 20 wells (45% IDC and 55% KKO). These wells are expected to be developed in the southern ER271 and ER270 Blocks where deeper well depths are expected due to southerly dipping basement structures.

The IDC is a wholly owned subsidiary of the South African government mandated to promote SA's economic growth and industrial development. Per the IDC's website, *the institution "works to identify and fund high-impact projects, both to create viable new industries and drive growth in high-priority sectors".*

This transaction represents the first investment in KKO by a substantial South African institution and will fast track the company's ambitions to rapidly develop numerous gas fields over the vast gassy geology identified.

The gas field development will be undertaken in two phases:

- Phase 1: Generator servicing and site installation; bring gas to engine and prove electro-mechanical operation
- Phase 2: Collect and condition gas from 3-4 wells, link the generator to the grid and produce circa 1MW of power
- Phase 3: Drill approximately 15 more wells, upgrade the conductors and distribution hardware, and produce 5MW to the grid.

The project is budgeted to cost approximately ZAR155m:

- 45% (ZAR70m) contributed by the IDC
- 55% (ZAR85m) by Afro Energy.

The contributions are to be made by shareholder loans repayable from the project's gas production revenues.

The IDC has the first right to participate for up to 45% equity relating to further gas production blocks up to a total of 80 wells.

ZAR60m subscription from Phefo Power – backed by long-term SA oil and gas executives

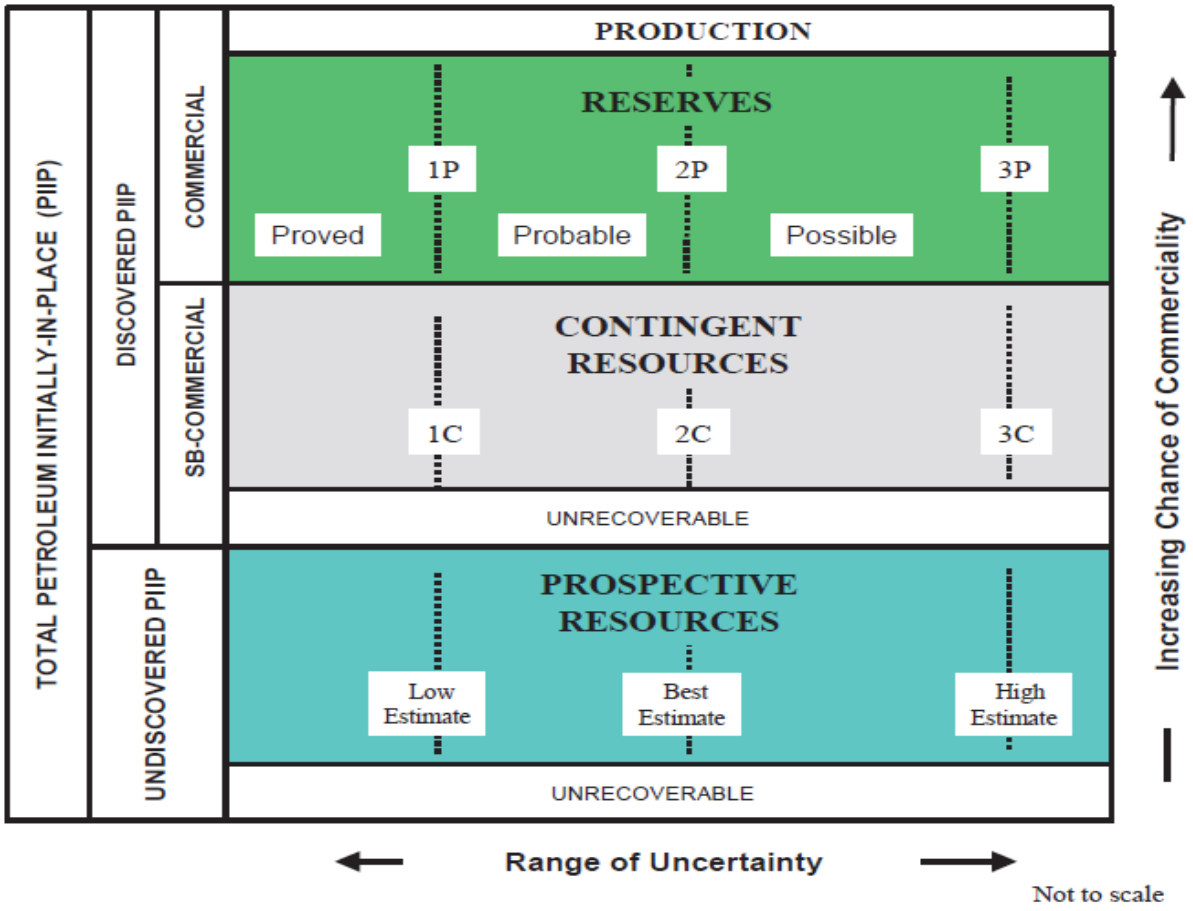
KKO secured a subscription of ZAR10m (A$0.9m) plus ZAR50m (A$4.3m) from South African energy investment group, Phefo Power. This bolsters KKO's Black Economic Empowerment (BEE) certification. Phefo Power is an investment group formed by Humprey Mathe, formerly the executive general manager for Corporate Services at Exxaro and later CEO of Scinta South Africa, and Sipho Nkosi, the Chairman of Sasol.

Reserves and Resources – Current Status and Future Exploration

Current Resources and Reserves

Reserves and resources are classified according to range of certainty and chance of commerciality. Exhibit 4 is a 'ready reckoner' that outlines the classification of reserves and resources. Exhibit 5 shows the current estimates for KKO's resources.

Exhibit 4 – Classifying resources and reserves



Source: Industry.

Contingent resource certified of 4.9 TCF

In July 2020, independent resource certifier Gustavson certified 2C contingent resource of 4.9 TCF. This followed the provision of new information from exploration activities undertaken in the last few years and considered granted exploration rights ER270, ER271 (into which ER38 and ER56 have been consolidated) and ER272. The current resource has been derived from approximately 65% of the total land package granted and pending.

Exhibit 5 –KKO's gross gas resources – estimates by blocks

	Unit = Billion Cubic Feet		
Gas in Place	**1C**	**2C**	**3C**
CBM	3,114	6,884	13,097
Gas in Sandstone	1,090	2,423	4,368
Total	**4,204**	**9,307**	**17,465**
	Unit = Billion Cubic Feet		
Prospective Resource	**1U**	**2U**	**3U**
Gas in Sandstone	361	903	1,767
	Unit = Billion Cubic Feet		
Contingent Resources	**1C**	**2C**	**3C**
CBM	2,047	4,492	8,621
Gas in Sandstone	190	370	629
Total	**2,237**	**4,862**	**9,251**

Source: KKO.

Resource verified with flow testing – very clean gas

The resource was verified by independent gas flow testing with 95% recovery of gas from produced groundwater and 96-98% methane content. The gas is considered so pure that processing may not be required – there is no hydrogen sulfide (H_2S) or CO_2.

There is evidence of strong gas reservoir recharge over time.

Isolated coal measures remain untested for coal bed methane potential, with only sandstones tested to date.

Maiden reserves certification imminent

KKO has engaged independent gas certification group Sproule to provide an independent evaluation of the gas reserves and/or resources of ER271, which has an area of 1,287km^2 (compared with KKO's total exploration rights and applications of 6,998km^2). KKO expects the Sproule report to be completed around the end of October 2022.

Estimation of reserves are what is considered to be commercial and are key to future developments as they can be utilised by lenders to assess funding for projects.

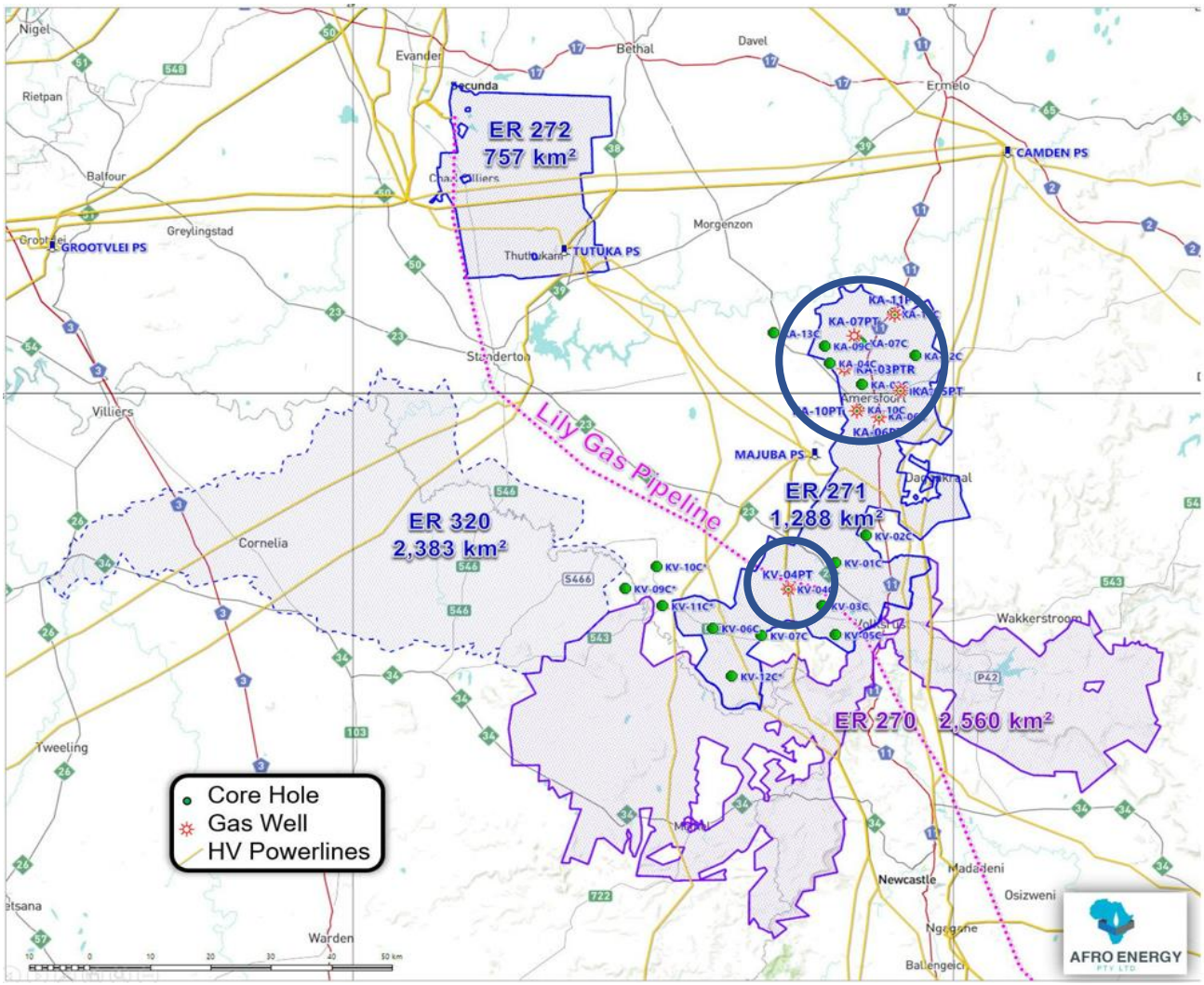
Exploration – Focus on Increasing Resources

Despite the significant resource base and imminent reserve certification, only 15% of the total land package has been explored. The size of the exploration tenements presents KKO with multiple exploration options and an opportunity to increase the resource significantly.

Significant exploration success to date

- 23 core holes drilled in ER271, each intersecting gas (Exhibit 6 Green dots)
- 7 perm test wells successfully drilled, logged, tested and suspended for production (see 2 circled areas Exhibit 6)
- First five-well cluster (Beast and Korhaan wells) set for production in 2023 (upper circled area Exhibit 6)
- Korhaan Project holes (3.4 and 5) were percussion drilled to intersect carbonaceous sandstone and coal geology at depths of 130–450m. The wells are conventional and have unsophisticated completions, as they are open holes that test the entire Lower Karoo section and have successfully flowed low-pressure gas. Gas exploration has focused on sandstones, coal and other carbonaceous structures at depths of 130–450m. The recent Korhaan three-well drilling program confirmed geological lithological correlations with adjacent existing wells. Logs showed an average of over 100m of pay per well (included in 5 well cluster in exhibit 6)

Exhibit 6 – KKO's exploration rights – details of pilot wells and core holes



Source: KKO.

Aeromag forms the base for exploration targets

High-resolution first aeromagnetic and gravimetry surveys were flown in April 2014 and revealed the geological and structural detail of the gas discovery on ER56. This allowed KKO to define the initial exploration, with 20 exploration core holes drilled initially. This culminated in significant gas shows in both downhole logging and laboratory canister desorption. Of the 7 permeability pilot test wells drilled, all wells spontaneously flowed gas to the wellhead.

In 2021, KKO completed its third aeromagnetic survey with 12,610 km flown over three areas in ER270 and ER272, increasing the total distance flown since 2014 by over 60% and more than doubling total prospective gas identified with a total area of 1,229 km^2. The identified areas represent only ~20% of the currently assessed prospective area.

Low-cost exploration method utilised

Exploration drilling and production wells are relatively inexpensive compared with other gas exploration scenarios, mostly due to the shallow depths for drilling of exploration and production wells. To date, drilling permeability test pilot wells at Mpumalanga have utilised cost-effective, simple, open-hole or 'barefoot' completion.

A production well based on this completion method will cost approximately A$600,000, including drilling, logging, testing, waste management, contract personnel and related costs. This cost is expected to decrease with the addition of volumetric scope-related economics.

Exploration continues at pace; core hole spudded within 5km of Majuba 20MW gas generator

Early Gassy Shows

Seven core holes will be drilled in 4QCY22 and 1QCY23, including new targets on ER270 and ER272. Exploration will be focused on deeper/thicker coal and sand geology, as well as on proximity to potential customers.

The first of these, representing the restart of the exploration program, is core hole 271-23C, which spudded on 21 September 2022 in the vicinity of Majuba power station to test the productivity potential of the surrounding gassy geology as a possible supply source to co-fire the plant or feed the gas generator within the power station complex.

The core hole is currently coring at below 320m meters having drilled through dolerite to 227m before breaking through to carbonaceous zones. Previous exploration has shown the dolerite sill undulates and that thicker sills can mean deeper sands. Gas shows became stronger below 270m. The entire stratigraphical profile from the surface will be cored, through the dolerite and lower gassy sediments, to an approximate terminal depth of up to 450m. When drilling is complete, KKO will log the borehole and perform onsite gas emission and desorption analysis.

Exhibit 7 – Core well 271-23C being drilled with the Majuba power station in the background

Source: KKO.

Production: Near-Term GTP Pilot; Long-Term Priorities Identified

Near-Term Production – Gas to Power (GTP): Pilot Production Field Development

KKO is working with highly experienced gas-to-power partner Vutomi Energy, a small South African power producer, to produce and sell electricity to offtakers. The program entails using existing wells at Mpumalanga to produce gas to an in-field, containerised generator linked to the existing grid running through the farmlands. Commissioning and testing will be undertaken leading to the 1MW of output. Further phases are planned for upgrading the conductors and transformers to enable scalable modular increased output to 5MW.

Three-phase GTP project planned

Phase 1: Proof of drive, involving gas from a single well to the generator and conduct commissioning of equipment for a few days to undertake load and compliance testing and prove the reliability of the equipment and machinery.

Historic pilot production wells KA-03PTR and KA-PT2 will join the new Korhaan wells 3 and 5 to produce gas to an in-field, containerised generator linked to the existing grid running through the adjacent farmlands.

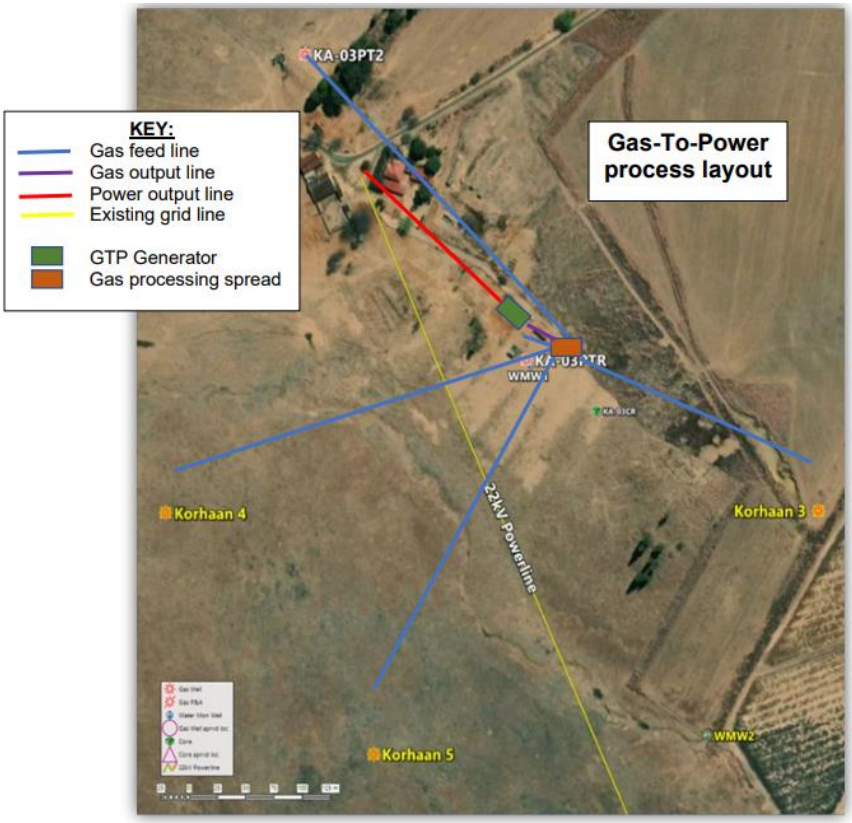
Phase 2: Connect and supply to the existing community electricity grid with an initial output of 1MW, which is already conceptually sold on a domestic spot price basis to an offtaker in nearby Mpumalanga.

Phase 3: Advance infrastructure and add machinery modules to enable a 500% increase in output (already approved by national power utility Eskom).

Status: project progressing

Eskom has issued electricity production licences and their design approvals for both levels of power output. The company expects final permits to proceed imminently. The Vutomi generator is undergoing a full service and function testing program and will be ready to move to the site in Q4CY2022. KKO is finalising negotiations to procure a gas collection separator, a dehydrator system and infield water treatment solution to enable controlled gas flow to the Vutomi infrastructure versus their engine intake specifications.

Exhibit 8 – Planned layout for the Mpumalanga gas-to-power project



Source: KKO.

Long-Term Production: KKO is Part of the Solution to SA's Energy Crisis

South Africa is in the midst of an energy crisis, which has had a devastating effect on the economy, with businesses closing, jobs lost and critical services such as healthcare and education affected. It has also discouraged much-needed investment in the country, which in turn has contributed to Eskom's lack of funding for new power stations to replace ageing infrastructure.

The problems caused by an ageing, carbon-intensive power generation system, declining offshore gas supply and only one licenced onshore gas producer (which has only just started production) require a solution. As the country's electricity infrastructure continues to degrade, scheduled and unscheduled power shortages have been on the increase since 2007, when load-shedding was first implemented. This has been on the cards for a long time – a 1998 government white paper warned about the country's poor energy planning and predicted that if South Africa did not start building new power plants, it would witness drastic shortages by 2007.

Only two sources of gas are currently available for supply to the market: synthetic gas from coal to liquids and imported gas from Mozambique. Both sources are controlled/operated by the vertically integrated gas company Sasol and are significantly constrained. Since the first commercial supply of gas was brought in from Mozambique 18 years ago, the availability of gas supply and related infrastructure has remained static.

Renewables are also being targeted in South Africa as they are globally, however progress to date has been slow and appear to only being making a minor contribution to South Africa's power needs.

KKO is positioned to be one of SA's largest on shore gas fields, and thus has huge potential to be part of the solution.

The crisis in South Africa's energy supply – huge amounts of nominal capacity are unavailable

SA's national power utility, Eskom, has a nominal generation capacity of just over 45,000 MW. Currently, 3,384 MW is on planned maintenance, while another 18,319 MW of capacity is unavailable due to breakdowns.

Often when demand for electricity exceeds supply, energy providers use load-shedding (turning off the lights) to ease the pressure and prevent the collapse of the entire power grid. Eskom started implementing load-shedding in late 2007, and it has continued constantly since then. Even in 2022, Eskom implemented 'Stage 6' load shedding, which essentially means Eskom will have to take almost 6,000 megawatts (MW) of capacity off the grid, leading to power cuts of 6–8 hours a day.

Drivers of the energy crisis – old and underinvested infrastructure, debt, skill shortage

The energy crisis can be traced to a number of factors within Eskom:

- **money** – lack of government funding has caused Eskom to cut back on maintenance and repairs, exacerbated by corruption and theft of equipment and fuel
- **lack of technical skills** – Eskom lacks key technical skills and the required competencies required to perform maintenance proficiently thanks to cadre deployment which has contributed to the exodus of institutional knowledge. This leads to further plant breakdowns and reduced electricity generation
- **no replacement of power stations** – power stations that currently contribute to almost 20% of the current generating capacity are set to be de-commissioned over the next decade without replacement generational capacity planned
- **debt** – Eskom has ZAR392 bn (US$26 bn) of debt. The utility has stated that the liabilities need to be cut to ZAR200 bn for it to be sustainable and that support pledged by rich nations should be accepted to help reduce South Africa's dependence on coal and cut carbon emissions
- **environmental issues** – the utility is facing pressure to reduce its emissions as it generates around 40% of South Africa's greenhouse gases. Such reductions would lead to further costs.

Fixing the crisis: what's next for South Africa's energy sector?

Eskom desperately needs 4,000–6,000MW of supply to be added to the grid by independent power producers (IPPs) so it has the headroom to get its coal fleet back to some semblance of stability. This is not an easy issue to fix, and the government is looking at alternatives, with gas a primary focus, to help curb the energy crisis.

The government has eased some regulations, including easing power production licensing requirements, to make it much easier for entities to set up power plants of up to 100 MW (see KKO's deal with Vutomi above). This has eased a bureaucratic bottleneck that has led to mines, municipalities and other private entities taking steps to establish their own power-generating capacity. This capacity is projected by the government to reach 4,000 MW for mines and 1,400 MW for municipalities.

Gas to help fill the gap

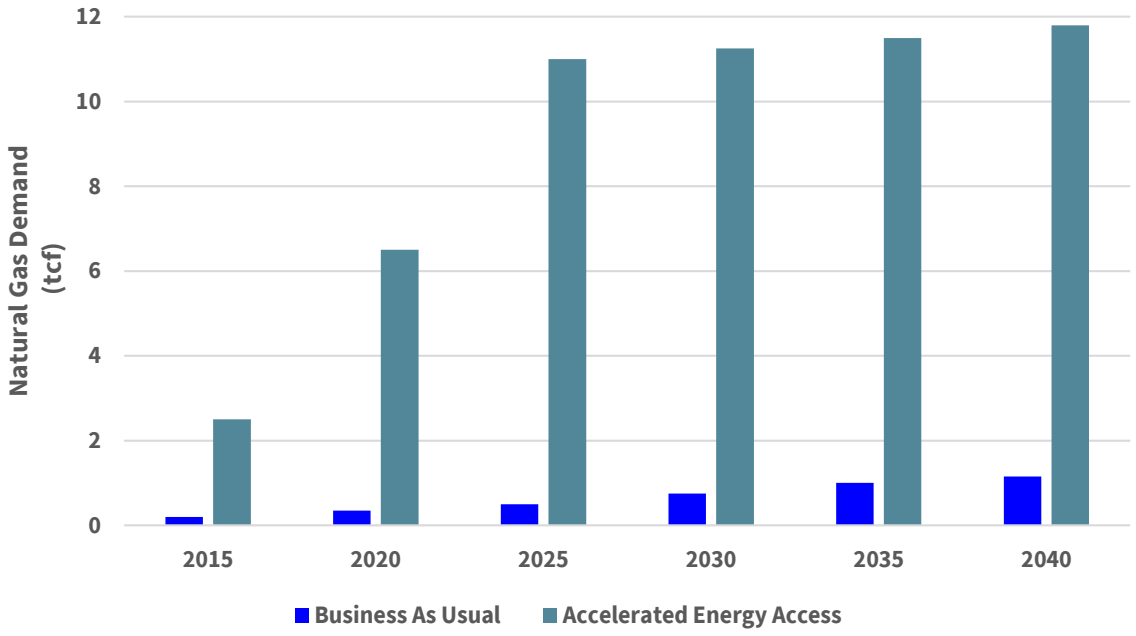
Per the South African Department of Mineral Resources and Energy (DMRE), the current gas market in SA makes up 2.6% of South Africa's primary energy needs. Current natural gas consumption in South Africa is 0.15 Tcf, with an average annual growth rate of just 1.6% over the past decade owing to limited gas supply. The existing demand is restricted by the availability of natural gas, and the gas economy's growth rate remains dependent on infrastructure and the development thereof.

Current natural gas consumption in South Africa is limited, with only a few key corporate consumers.Sasol Gas imports approximately 0.14 tcf of natural gas into South Africa annually via the ROMPCO pipeline, of which 0.10 tcf of natural gas is for internal use. PetroSA's GTL refinery in Mossel Bay consumes nearly 0.014 tcf of natural gas annually, supplied from their FA platform. Tetra4's existing CNG plant in Virginia can produce up to 0.0001 tcf annually from one well for its customer Megabus.

The DMRE outlined the key potential uses for increased gas supply in SA going forward. It sees future demand accelerating, coming from the power sector (with the replacement of coal-fired generation with gas while the power sector transitions to renewables); the petroleum sector (with the conversion of gas to fuel); transport (with the conversion from diesel to LNG for taxis, buses and trucks); and industry.

Given the above potential increase in uses for gas, the DMRE have forecast potential gas demand out to 2040, showing the significant growth in demand as compared to the continued current "business as usual" position. Exhibit 9 shows the DMRE's forecasts

Exhibit 9 – SA forecast accelerated gas demand



Source: DMRE Gas Master Plan.

KKO in a box seat to benefit from increased demand for gas – four pillars of production

KKO is in a strong position to take advantage of SA's urgent need for alternative energy sources. KKO has indicated that it sees four key focus pillars for its business: gas to power, LNG, direct to pipeline and chemical derivatives.

Gas to power (GTP): GTP is a key focus of the business. KKO's agreement with Vutomi Energy is a 'proof of concept' of GTP and has capacity to expand.

KKO's current core well program is adjacent to the Majuba power station, which includes a 20MW gas-fired unit that is currently static. KKO is the only potential supplier to that unit.

LNG – for transport converting from diesel and/or businesses converting from LPG: Enormous potential exists for supplying LNG into the transport business. SA has some 377,000 licensed heavy vehicles. Switching heavy truck and bus transport from diesel to LNG will realise increased efficiency, meaningful cost savings and reduce their carbon footprint. Renergen has recently begun production in its small-scale LNG plant at the Virginia gas project. The potential market for Renergen's heavy vehicle LNG product is 40,000–67,000 vehicles, showing the further potential for KKO to add to the supply in this market.

In addition, LNG can replace LPG. LPG in South Africa is generally of low quality, so customers would enjoy cost savings and increases in efficiency by converting to LNG.

Direct to pipeline: The Lilly 1 gas pipeline from Secunda to Durban is a 600km line and runs through KKO's tenements. The pipe has a maximum diameter of 16". It has a capacity limited to 23 mGJ/a. The present utilisation of Lilly 1 is 12mGJ/a. The provision of gas to this pipeline is a simple and low-cost option for KKO.

Chemical derivatives – urea and ammonia: The production of fertilisers requires natural gas. The Ukraine war has reduced the supply of urea and ammonia into the global market. The SA agriculture sector is desperately seeking lower-cost domestic supply.

Early road to production – GTP agreement and well development

As described above, KKO has an agreement with Vutomi Energy as a 'proof of concept' of GTP and has capacity to expand.

KKO has also signed an agreement with the IDC (discussed previously) to co-develop a gas production field estimated to comprise up to 20 wells and with options to go to 80 wells. This agreement could see delivery of gas into one or more of KKO's four production pillars.

Valuation: Base Case of A$0.24; Two Scenarios Show Upside Potential

Substantial Upside Under Any Scenario

Our base-case valuation of A$0.24 is derived by estimating the risked value of developing the Mpumalanga project. The valuation of this asset implies a KKO shareholder obtains this project at a significant discount and gains exposure to the remainder of KKO's substantial gas resources in South Africa and exploration potential for free.

Our unrisked DCF valuation is A$0.43 per share.

As a cross check, we look at the EV/Resource method, deriving a valuation of A$1.05 using average market EV/Resource multiples. This shows the potential upside to KKO as the project is developed, reserves are certified and production is increased.

The key risks relate to development risks, reserves conversion and funding.

Valuation Methodology – Looking at 2 Different Angles

KKO's assets have had a substantial amount of exploration and some appraisal performed on them over the last few years. The Mpumalanga project has independently assessed 2C resources, and KKO has entered a production JV with Tuomli Energy for gas to power and has an agreement signed with the IDC for 20 production wells.

The gas has a number of options for commercialisation:

- **gas to power (GTP)**
- **LNG – for transport converting from diesel and/or businesses converting from LPG**
- **direct to pipeline: the Lilly 1 gas pipeline from Secunda to Durban is a 600km line and runs through KKO's tenements**
- **chemical derivatives – urea and ammonia.**

Valuing exploration assets such as KKO's is quite a subjective process. A number of uncertainties are at play –significant test and appraisal works are yet to be completed, and financing is still uncertain.

We have looked at two different valuation methodologies in order to arrive at what we view as a conservative risk-based valuation for KKO.

Scenario 1 (base-case valuation):
Development of Mpumalanga Gas Project – valuation A$0.24 per share

This method, our base case, uses a simple development NPV estimate of the Mpumalanga project in South Africa.

Scenario 2 ('cross-check' valuation):
EV/2P+2C Resources – valuation A$1.05 per share

This method, a common valuation method in the equity market, assesses the value the market is attributing to combined 2P and 2C reserves and resources.

Scenario 1 (Base-Case Valuation):
Development of Asset – Mpumalanga Project – A$0.24/Share

We have modelled a simple development scenario to specifically focus on KKO's Mpumalanga Project.

We have valued a hypothetical, standalone Mpumalanga Project based on KKO's public filings, government data, internal estimates, industry benchmarks, and other CSG developments.

A preliminary, risked adjusted, post-tax, NPV (12) for a potential future Mpumalanga Project development is based on a conservative assumption that a small portion of currently booked substantial 2C Contingent Resource (~2.4 tcf) is monetised, i.e 50% of current 2C volumes of Gas in Sandstone resource (~200 PJ) under various gas price scenarios, is detailed in Exhibit 10.

Key assumptions

- We have used gas prices of the equivalent of A$7.50/GJ.
- We have taken into consideration the production of GTP as well as the 55% share of the IDC production well agreement and have rolled out an increasing production profile to FY2029 and then steadily declined production out until CY2044. Our peak production rate is 47mmcf/d. The mid-term profile is somewhat subjective, and contribution from CSG fields will also be a function of KKO successfully securing future offtake agreements.
- Our valuation is based on modelled cash flows using DCF analysis and is subject to future refinement once more public information comes to light as the project is gradually de-risked.
- Capex assumptions and valuation are subject to refinement; however, we base our well costs conservative assumption of ~A$800k per well. First gas is assumed in CY2023, being the GTP agreement.
- Our valuation is risked acknowledging the early stage of the appraisal and development. We have also used a higher discount rate to account for the perceived higher country risk (12%).

Exhibit 10 – Risked Valuation

NET ASSET VALUE (WACC 12.0%)	A$m	Risking	A$m	A$ps
Mpumalanga Gas Project (~200 PJ) - 100%	335	60%	201	0.15
Total Operations	**335**		**201**	**0.15**
Net Cash / (Debt)	11	100%	11	0.01
Admin / Corporate / Other	(23)	100%	(23)	(0.02)
Exploration (risk-adjusted)	15	50%	7	0.01
CBM unconventional, 2C risked (~330 bcf)	253	50%	127	0.09
TOTAL VALUATION	**591**		**323**	**0.24**

Source: MST Estimations

Exhibit 11 – Unrisked Valuation

NET ASSET VALUE (WACC 12.0%)	A$m	Risking	A$m	A$ps
Mpumalanga Gas Project (~200 PJ) - 100%	335	100%	335	0.24
Total Operations	**335**		**335**	**0.24**
Net Cash / (Debt)	11	100%	11	0.01
Admin / Corporate / Other	(23)	100%	(23)	(0.02)
Exploration (risk-adjusted)	15	100%	15	0.01
CBM unconventional, 2C risked (~330 bcf)	253	100%	253	0.18
TOTAL VALUATION	**591**		**591**	**0.43**

Source: MST Estimations

Scenario 2 ('Cross-Check' Valuation):
Valuation Scenario 2: EV / (2P+2C) - Reserves and Resources – Valuation of $1.05

A commonly utilised valuation methodology is to compare the value attributed by the market to the reserves and resources in the ground, most often by analysing EV/(2P+2C). This methodology is commonly practised by investors.

The simplest and most effective way to do this is to look across KKO's peer group. Most of the peer group report a 2C figure but some do not have 2P. KKO's 2C resource is 2382.3Bcf net to KKO (49% share before going to 100% of Afro).

We have selected a group of E&P companies at various life cycle stages, including producers. The average EV/(2P+2C) is $0.46/GJ as shown in Exhibit 12, but with a very wide range of $0.03–$1.43/GJ. KKO's A$0.03 EV/Resource is the lowest of the group.

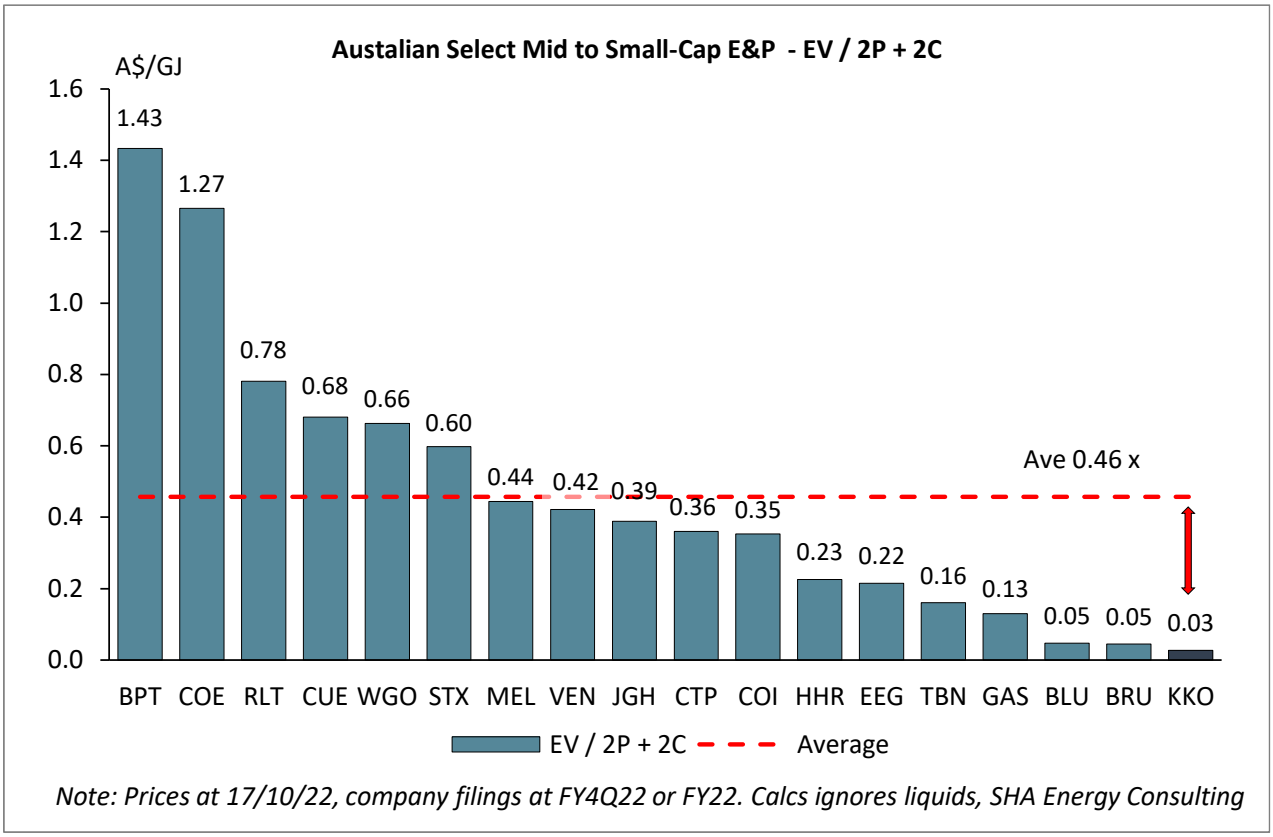
We see substantial opportunity for the equity market to rerate KKO's resources (including an imminent reserve certification), once investors get greater comfort on KKO's ability to execute on the GTP production agreement as well as the IDC agreement for an initial 20 production wells.

If we apply a peer group average of A$0.46/GJ to the entirety of KKO's 2C Contingent Resource boooking, we achieve an implied valuation of A$996m or A$1.45 per share.

If we remove the 2 major 'outliers' (Beach and Cooper, which are larger, more liquid and producers), the average EV/2C+2P reduces to A$0.34/GJ, valuing KKO at A$725m or $1.05 per share.

This is an unrisked number; however, it could also be considered that the market does apply a 'risk factor' to the multiples. We see the risk (discount) currently being applied to KKO as high given its early stage and position in South Africa. We believe that this is excessive and that over time the KKO share price will likely re rate as KKO executes on its plans.

Exhibit 12 – Average EV/2P+2C multiples – Australian-listed small energy companies



Source: SHA Energy Consulting, MST.

Financials –Development Funding Options and Potential Cash Flow

KKO Current Cash and Near-Term Commitments

Current Cash Situation

KKO's cash balance as at 30 June 2022 was A$1.35m.

During 3QCY22, KKO raised A$5m, with Phefo Power, a strategic South African investor, subscribing for A$4.3m of shares in KKO.

In addition to the placement, the company has granted Phefo an option to subscribe for a further ZAR30m (A$2.7m) of fully paid ordinary KKO shares at a price that is the greater of (1) the 14-day VWAP of KKO's shares at the time the option is exercised or (2) $0.09. The option expires on 28 February 2023.

Administrative costs are well controlled by KKO, with the spend for the last quarter being around A$0.33m and A$1.08m for the year. We would assume that these costs will increase as the company both increases exploration activity and goes into production.

Historically, KKO has been reliant on equity capital, with the majority of capital raised being spent on exploration and evaluation. KKO's focus is also on converting its large resource base across to reserves and in recent times on commercialisation of gas, demonstrated by the GTP deal and the IDC agreement.

Near-Term Commitments

KKO's key near-term commitments are:

- current core drilling program
- tie-in of wells for GTP
- funding KKO's 55% share of IDC agreement: ZAR85m (A$7.5m)

We assume that, at the end of 3QCY22, KKO has around A$1m in cash. Post-September, KKO received A$5.0m from the placement to the strategic investor and major shareholders. We also assume that Phefo Power will take up the option to invest further, generating A$2.7m in cash. Our adjusted forecast balance prior to commitments is $8.7m.

We have also assumed production commences in FY202, generating A$3m in operating cash flow.

Longer-Term Funding

In order to move into grow commercial production, KKO will need to look at various funding options:

- **Cash flow from operations:** We have assumed the commencement of the GTP operations in FY2023. We have also forecast cash flow from the IDC joint venture.
- **Sell-down of acreage:** A sale for cash or farm-out in order could fund the development of the project. KKO's 100% ownership of the project via Afro Energy offers potential strategic partners to invest directly in the project.
- **Joint venture agreements:** As with the IDC agreement, KKO can develop innovative JV agreements over selected parts of the project.
- **Equity capital:** KKO has relied on equity capital to fund the portfolio to date. Development of that portfolio would logically include equity capital in the mix.
- **Debt:** Gas sale agreements may open up the option for KKO to be able to acquire debt finance or for forward sale agreements to be put in place.

Positive Catalysts for the Share Price and Valuation

Further exploration success

KKO's current core program has delivered further gassy shows. Exploration success is a key catalyst to stock price performance.

Reserve certification

Reserves are key to commercialisation of gas and for the company's ability to raise finance, and certification will be a key near-term catalyst.

Resource upgrades

Further testing and appraisal of these fields will be conducted. Conversion of prospective resources to contingent resources and contingent resources to reserves could be positive for the share price.

Further customer agreements

Gas sales agreements are key to cash generation and growth of the project.

Project financing

Obtaining project financing is key to the development of the assets into commercialisation.

Selldown of assets

KKO's 100% ownership of assets is a key strategic advantage. Significant stakes in the assets can be sold down to JV partners/developers in order for KKO to fund and develop the project.

Early project delivery

The early commencement of any of the projects would mean cash flows were generated sooner and would reflect positively on management, which would likely boost the valuation.

Joint venture deals

Intelligent and innovative JV deals could add potential value to the portfolio of assets.

Gas price increases

Strong gas prices will be positive to commercialising the project. Once commercial, gas price increases would have a positive effect on the valuation and share price.

Government incentives

The South African Government has backed gas help solve a genuine energy crisis. Further Government incentives may accelerate and / or subsidise developments in the future and be a positive catalyst for KKO.

Risks to Share Price and Valuation

Lack of exploration success

A key to the growth and development of the project, lack of exploration success would be a negative for the stock.

Reserves and resources disappointment

The expectation of a strong reserves certification means any disappointing results would pose a risk to the share price.

Project financing

Obtaining project financing is key to the development of the assets into commercialisation; delay to this is a key risk.

Inability to sell down assets

KKO's 100% ownership of assets is a key strategic advantage. Sell down of assets could provide funding for KKO. The inability to sell down assets may delay the project.

Gas price decreases

Upon commercialisation, price decreases of the underlying commodity would be a negative for the valuation. Gas prices represent the key sensitivity for the valuation.

Reversal of government backing of gas

The SA Government has backed gas to solve an energy crisis. Any change in the political climate would risk this backing being removed.

Community opposition

Any failure to adequately manage and meet community expectations with respect to issues such as compensation for land access, exploration activity, employment opportunities, and impact on local business may lead to local dissatisfaction, disruptions in the exploration program and potential losses to the company.

Delays to project delivery

Delays to any project delivery would have a negative effect on the valuation and may reflect negatively on management.

Black Empowerment (BEE) risk

Black Empowerment is key to operating in SA. Any issues that arise with BEE can put projects at risk.

Management: The Right Experience

KKO's management team has a great depth of knowledge and diverse industry experience, positioning this small exploration company for success as it moves from the exploration stage into the development and production phase.

Adam Sierakowski – Executive Chairman: Mr Sierakowski, a lawyer with over 20 years of experience in legal practice, was appointed as Executive Chairman in January 2021. He is also the founding director of legal firm Price Sierakowski and the co-founder of corporate advisory firm Trident Capital. As co-founder of Trident Capital, Mr Sierakowski has vast experience in advising public and private clients on transaction structuring, mergers and acquisitions, restructuring and co-ordinating fundraising both domestically and internationally.

Mr Sierakowski is also a member of the Australian Institute of Company Directors and the Association of Mining and Exploration Companies. Prior to his role at KKO, he was appointed as Non-executive Chairman at Coziron Resources (2010-2020), Non-executive Director at Dragontail Systems Limited (2016–2021) and Rision Limited (2018–2020), and Non-executive Chairman at Connected IO Limited (2018).

Nick de Blocq – Chief Executive Officer, South Africa: Mr de Blocq was appointed as Chief Executive Officer in August 2021 and brings 34 years of experience as an engineer and manager in the upstream oil and gas industry. He has held various senior roles, including Multi-country Operations & Functions Management and Regional Business Development with Schlumberger, where he gained solid grounding in upstream technology services over 27 years and across more than 50 countries. Prior to joining KKO, Mr de Blocq was Africa VP at Frank's International NV and COO at Sepco Industries, a regional solutions supplier in West Africa.

Subsequently, Mr de Blocq has built extensive knowledge of the entire drilling industry and its support mechanisms, specialising in getting new wells into production. He has built a substantial network with global operators and technology suppliers as a result of working in over 60 countries and with multiple ministerial and regulatory bodies in Africa, including the Petroleum Agency of South Africa (PASA), the National Energy Regulator of South Africa (NERSA) and the Department of Energy.

In our view, Mr de Blocq's in-depth industry knowledge and experience, combined with his cross-border industry connections, is key to the success of KKO and its ability to commercialise its energy portfolio in South Africa.

Thomas Fontaine – Non-executive Director: Mr Fontaine was appointed as Non-executive Director in February 2021. He has over 25 years of professional engineering experience in the development and commercialisation of both conventional and unconventional petroleum assets, including in starting up, running and building resource companies. In 2006, Mr Fontaine founded Pure Energy Limited, a company that successfully secured a prospective coal bed methane acreage in Queensland, developed a resource, and drilled over 40 wells to prove over 1 trillion cubic feet of gas. This saw the company being sold to British Gas for over A$1 bn in 2009.

Mr Fontaine is currently Managing Director of Greatcell Solar and holds directorship positions in several early stage resource companies with assets based in Australia, Cuba, Africa and North America including Advent Energy, Petro Australis and Acumen Energy.

Agapitos Marcus Geoffrey Michael – Non-executive Director: Mr Michael was appointed as Non-executive Director in 2021. With over 25 years of experience as a company director and executive, including 10 years of experience as a director of ASX-listed companies, Mr Michael has practical experience of managing project teams and specialists required to bring a project or enterprise to its full potential. Additionally, he has extensive experience in investment, project delivery and enterprise development across a range of sectors and asset classes in Australia, Europe, Asia and Africa; resources and energy, engineering, property and technology.

Paul Doropoulos – Finance and Corporate Administration: Mr Doropoulos joined KKO in 2010 and has over 25 years of experience as an executive consultant to ASX-listed companies in the energy, minerals, mining services and media sectors. Mr Doropoulos was directly involved in the successful ASX listing of KKO in 2011, as well as those of junior gold explorer Metaliko Resources Ltd in 2010 and Swift Networks Limited in 2016.

In addition to his role at KKO, Mr Doropoulos is the Chief Financial Officer of Flying Foam and Executive Advisor to Boardroom Capital. Previously, he was Executive Director at Stanfield Fund Management and Non-executive Director at Swift Networks in 2014–2019.

Hendrick Burger Jnr. – Field Manager and Local Liaison South Africa: Mr Burger joined KKO in 2012. He is an integral member of the South African team responsible for the day-to-day maintenance and operations of the Mpumalanga Project, from fabrication to farmer relations.

Environmental, Social and Governance (ESG)

ESG factors play an integral role in many investors' decision-making. KKO operates in an industry which receives significant scrutiny given the impact of both its operations and its products (oil and gas). KKO has a responsibility to support national emissions reduction initiatives. The company is fully engaged with both government and communities with relation to operating safely, and management has a strong track record in this area.

Environmental

The assessment of KKO's environmental credentials falls into two categories:

- environmental assessment of the projects
- environmental assessment of KKO's key product, gas.

Environmental impact of the Mpumalanga Gas Project

All extractive industries have an impact on the environment. The project will involve the drilling and completion of production wells and the construction of gas-gathering equipment and pipeline infrastructure.

The major environmental impact from the project will be the well footprint. An average well could produce around 120,000 standard cubic feet (scf) of gas per day. Depending on success rates of drilling, the wells may be spread over a wide area and will have associated pipework to gas processing facilities. Each individual well's footprint is not large by oil and gas industry standards, and on abandonment will leave negligible damage.

Environmental impact of KKO's product – gas

KKO's gas will have potential environmental benefits, providing a less carbon-intensive substitute for SA's existing sources of transport fuel, thermal fuel and power.

- **Potential replacement for diesel in the heavy vehicle market.** The life cycle emissions from LNG are 30% less than diesel when heavy vehicles are run on dual fuel and 60% when they are run exclusively on gas. In addition, a truck running on LNG consumes 13% less fuel. Higher-energy-density LNG has less volume than diesel and trucks travel greater distances on LNG. The overall cost savings for operators have been shown to be more than 26%.
- **Potential to replace LPG or be used in power projects.** Natural gas has far fewer impurities than LPG, creates less emissions and is more efficient. Gas-fired power stations generate less emissions than coal-powered generators and convert energy more efficiently.
- **Gas does not have the toxic particulate output that is associated with the use of coal, diesel and heavy fuel oils.** The current solutions of burning coal and diesel also have significant particulate emissions (soot, smoke, and tiny particles formed in the atmosphere from sulphur dioxide (SO2), nitrogen oxides (NOx) and ammonia (NH3)) which are negated by replacing coal with gas.

Social

The social aspects of KKO's business are key to operating successfully in SA. The company has indicated it:

- is 100% compliant with its Black Economic Empowerment requirements
- promotes workplace diversity and develops inclusiveness
- where possible and practical, employs local personnel, businesses and contractors for its work
- adopts a zero-harm approach to safety
- supports local community groups and employs local Indigenous staff
- pays wages that are fair and reasonable.

The construction and continuing operations of the project will provide economic stimulation in an area in need of economic stimulus (52% unemployment), will reduce the country's reliance on fuel imports and increase the country's exports.

Major potential social issues in the gas industry

Fraccing – not required for this project: Negative Community attitudes to hydraulic fracture stimulation ('fraccing') were formed from the very early stages of the shale gas industry in the USA and the coal seam gas (CSG) industry in Australia. Objections stem from the view that there is a high risk of ground and surface water contamination resulting from fraccing, and that contamination can occur from well casing failure due to corrosion, faulty construction or repeated fracturing.

KKO's project geology is such that fraccing is not required.

Community opposition: Any failure to adequately manage community expectations with respect to compensation for land access, exploration activity, employment opportunities, impact on local business and any other expectations may lead to local dissatisfaction, disruptions in the exploration program and potential losses to the company.

Government regulation: Government regulation has a direct effect on KKO's business. However, given the desperate need for energy in SA, KKO expects the government to improve and streamline regulations so that gas can get to market more quickly. **KKO's project has now been registered with the Presidential Infrastructural Commission which leads to expediting issues like application processing by adding top-down pressure on Government Departments.**

Governance

KKO's governance is documented in its Corporate Governance Statement. Key elements are:

- The company is guided by the ASX Corporate Governance Council Principles and Recommendations, adopting the revised *Corporate Governance Principles and Recommendations, 3rd Edition.*
- While the company does not have a formal internal audit function, the Audit and Risk Committee oversees the overall effectiveness of risk management and internal control processes. As part of this function, the Audit and Risk Committee can implement audits of its systems and processes to assess compliance.
- KKO's Board of Directors consists of 4 members, two of whom are considered independent. This complies with ASX guidelines of 50% independence. The board has an Executive Chairman. This is a common practice with small energy companies, but we would expect the role would convert to non-executive as the company grows and becomes more complex.

Company History: Overview of Key Events

In 2010, Kinetiko Energy commenced as an Australian gas explorer with a conventional gas and coal bed methane focus in emerging markets. After approaching Badimo Gas and gaining joint ownership of the Mpumalanga Project, the company successfully listed on the ASX in July 2011. Key activities since listing are outlined below.

Year	Corporate activity	Capital raising activity
2011	September: PASA (Petroleum Agency of South Africa) approves the Drilling Environmental management plan November: Memorandum of Understanding signed with JV Partner Badimo Gas (7,086km^2)	
2012	June: Volksrust tenement renewal is granted August: 41% major resource upgrade at Mpumalanga project – GIP 2.4tcf (P_{50}). Wilson Investment group announced as a substantial holder	December: Completes $3m capital raising
2013	July: Badimo funds of $1.1m for project activities completed received and operations recommenced November: Executes corporate mandate with Argonaut to act as joint corporate adviser and exclusive financier	December: Completes $1.7m capital raising
2014	January: MOU to JV signed with White Rivers Exploration November: Botswana Gas Licenses granted	
2015	April: Kinetiko and Badimo execute agreement to resolve all disputes and pool assets into an incorporated joint venture (called "Afro Energy") in South Africa August: Afro Energy executes Memorandum of Cooperation with Gigajoule International Ltd.	January: Completes $550,000 capital raising by convertible note September: Completes $0.6m capital raising
2016		January: Completes $550,000 capital raising by convertible note September: Completes $0.85m capital raising
2017		June: Completes $0.3m capital raising
2018		December: 1 for 4 non-renounceable entitlement offer shortfall announced
2019		October: Additional loan funds of $200,000 received
2020	January: Three new exploration rights granted increasing KKO's total exploration rights by 378%	February: 1 for 4 non-renounceable entitlement offer shortfall
2022		June: Entitlement offer closes, raising A$1.7m July/October: Initial domestic investment attracts ZAR60m from Phefo Power

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