

Strike Energy Ltd

STX

MOVING FROM TECHNICAL SUCCESS TO COMMERCIAL GAS TESTING

Capital Structure

Shares	1,095 m.
Perf Rts	6.8 m.
Options	23.2 m
Price	\$0.069
Market Cap	\$ 76 m.
Net Cash (est Dec '18)	\$5 m

Valuation

	Value \$m	\$ per share
Net cash (est)	5	\$0.004
PEL-96	69	\$0.054
Options	3.4	\$0.003
Jaws-2 funding	10.0	\$0.008
Other	(8.0)	(\$0.006)
	80	\$0.063
Exploration upside	81	\$0.064
Total value	160	\$0.126

Source: Strachan Corporate

Board

John Poynton (AO)	Chairman
Stuart Nicholls	Managing Director
Jody Rowe	Non-Exec Director
Tim Goyder	Non-Exec Director
Andrew Seaton	Non-Exec Director

Opinion

Strike is well equipped to undertake work on a very large, onshore gas appraisal and development project in the Southern Cooper Basin.

A significant, targeted gas resource combines with favourable gas market pricing and technological advances for extracting tight gas to present an attractive speculative buy opportunity for Strike Energy.

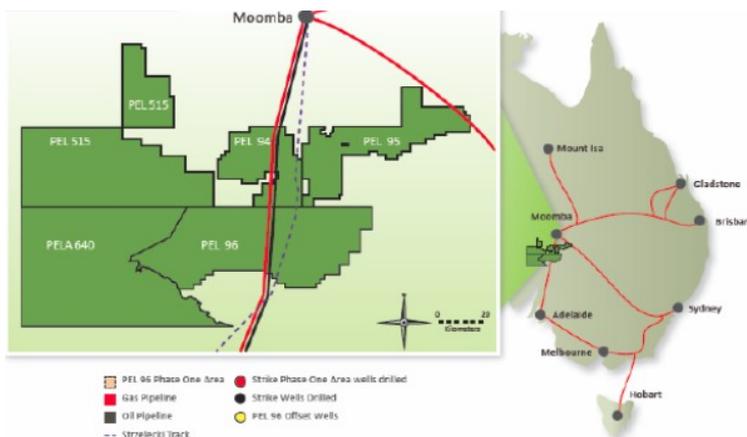
Peter Strachan



Investment Considerations

- **THE OPPORTUNITY:** Strike Energy has discovered a regionally continuous and unusually thick gas bearing coal seam below 1,900 metres in its 66.66% held southern Cooper Basin permit PEL-96. Drilling has identified an estimated net 2C Resource of 103 Bcf of gas and a Prospective Resource with seismic support, estimated at over 11 Tcf of gas net to Strike.
- **BOARD:** Strike has refreshed its Board and attracted a talented technical management team with a track record of success that is focused on delivering a commercial outcome for shareholders, as well as independent project validation from principal consultant Tony Cortis (ex-Shell Geologist) of Igesi Consulting.
- **OPERATIONS:** An extensive down-hole testing programme shows a high gas content of ~6.1m³ per tonne of coal in a low porosity host coal with good fracture permeability of 5-7 mD while confirming that associated water is paleo, and is not part of a connected artesian basin. In mid-February '18, Strike embarks on the Jaws programme appraisal work involving an 800 metre horizontal section on a well completed with seven stimulation zones linked to an initial vertical well. First gas flow to surface is expected by the September quarter '18, 3-5 months after dewatering commences.
- **MARKET:** Strike has three Gas Sales Agreements totalling 122PJ gas sales agreement in place. If commercial delivery is proven, a 50 TJ/day project is planned, piping raw gas to Moomba for processing and then into the eastern Australian market, which is expected to be paying A\$8-A\$10/GJ. Ramping up output to >100 TJ per day would support on-site gas processing and direct access to the nearby Moomba to Adelaide transport system, delivering operational flexibility and reducing operating costs.
- **FUNDING:** Strike is fully funded for an initial stage of production testing through 2018. Once proof of concept gas flow is demonstrated, multiple project funding options will be available including direct equity, joint venture or off-take partner funding.
- **RISKED VALUATION:** Strachan Corporate estimates a target project value of over \$1.6 billion for Strike's SCBGP. Ahead of confirmation of commercial parameters, a risked target value of 12.6 cps is assessed at this early stage of evaluation.

Strike Energy project areas



Source: STX

New team drives the company

A large Prospective target for over 11 Tcf of gas to Strike's account in a strong gas market

Technical proof

Large, contiguous project area

Summary

Strike has new management and a skilled Board, aiming to progress its Cooper Basin coal seam gas (CSG) project towards commercialisation in a market where the price of gas is now three times the price achievable just 5 years ago.

Strike Energy has discovered a regionally extensive series of three, thick gas rich coal seams with achievable desorption pressures and potentially commercial gas permeability, below about 1,900 metres in the southern Cooper Basin.

Drilling, coring and flow testing has provided significant geological data surrounding coal quality, gas content and likely gas deliverability, illustrating technical proof of Resource potential and commercial gas extraction.

STRIKE'S COOPER BASIN PERMIT INTEREST

Permit	Strike Equity	Operator	Net Area (km ²)	Comment
PEL 94	35%	Beach Energy	315	Davenport 1 drilled in 2012 encountered over 110 metres of net coal including one 45 metre thick seam. Testing of the well after fracture stimulation in Q3 '14 is yet to occur. Permit is currently in suspension.
PEL 95	50%	Beach Energy	649	Marsden 1 drilled in 2012 targeting coal and shale formations. Permit is currently in suspension. Aldinga 1 drilled in 2002, conventional oil production under PPL 210. Currently awaiting recompletion.
PEL 96	66.7%	Strike Energy	1,796	Le Chiffre 1 and Klebb 1 drilled in 2013, encountered net coal in excess of 110m and 145m respectively, including one 35m thick seam. Stimulation in 2014 was followed by extended production testing. Klebb 2, Klebb 3 and Klebb 4, drilled and stimulated in 2014-16 have also been production tested. Contingent Resource Assessment completed by DeGolyer and MacNaughton in 2015. Klebb 1, 2 and 3 are now undergoing extended production testing.
PELA 640	100%	Strike Energy	3,443	Strike has been offered PELA 640 by the Government of South Australia. Award of the permit will not be made until the requisite Native Title Agreements are in place.
PEL 515	100%	Strike Energy	3,029	Conventional potential. Permit is currently in suspension.

Exploration & production JV

Southern Cooper Basin Gas Project (SCBGP) 66.667%

Strike is in joint venture with Energy World Corporation (EWC) for exploration and production of gas in PEL-96.

Strachan Corporate calculates sustained flows of 3 mmscf per day from its production wells is more than enough for commerciality of for STX's SCBGP

CSG has typically been produced from coal seams at depths of between 300 and 1,000 metres from eastern Australian sedimentary basins. More recently, improved drilling and well completion techniques have extended commercial production to depths of >2,000 metres where high gas content and favourable fracture permeability combine with drilling and well completion technological advances and large tonnages of coal to produce a commercial outcome. Strike's technical advantages include massive coal thicknesses totalling 60 metres with 35 metres in one seam, compared with much thinner seams in analogous commercial fields. Moderate to good permeability should also assist gas deliverability while access to an underutilised gas processing plant at Moomba and the Moomba to Adelaide gas pipeline provides a clear path to market for gas.

Associated water in coal is finite

Technology advances include multiple horizontal well completions from a single vertical mother well, plus multi-staged fracture stimulation of coal sections.

Testing to date has involved drilling, logging and coring of three coal seams in the SCBGP area along with fracture stimulation of coals and flow testing of paleo-water to lower formation pressure to desorption levels, so as to achieve gas flow to the surface. Water flow and down-hole pressure testing confirms that water associated with coals in this location was deposited with the coal and is not connected to a live or recharging aquifer. This means that once the formation pressure at the coal level is reduced below ~895 PSI, gas will begin to flow at an increasing rate.

Poor well design hampered STX's early pilot work

Fracture permeability of 5-7 milli-Darcy should assist early gas flow rates. Dewatering flow rates have provided permeability data support. As gas is desorbed from matrix coal, permeability should increase over time.

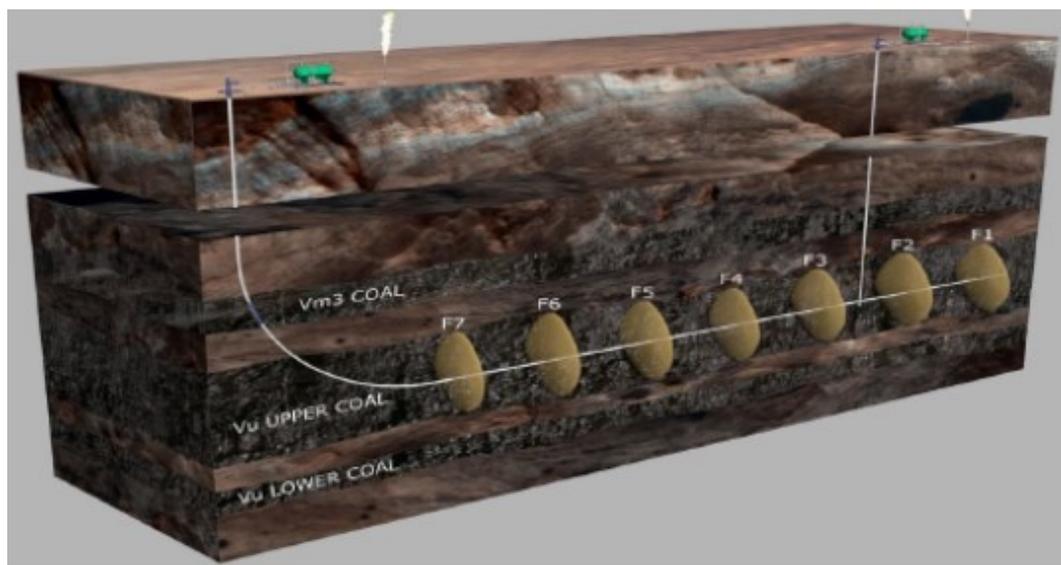
Previous pilot work on the project suffered from poor well design, resulting in mechanical failures. A better understanding of the down-hole issues has led to much smoother operations with gas desorption now seen at a bottom hole pressure of <800 PSI with gas flow of up to 60 Mcf per day achieved.

Jaws-1 aims to demonstrate commercial outcome through Q4 '18

The upcoming Jaws-1 programme on the Vu Upper coal is targeting as much as 4.7 PJ of gas at an initial capital cost of \$1.90/GJ. The programme is designed to core all three coal seams, including the overlying Vm3 and underlying Vu Lower coals so as to add data that should expand total Contingent resources. Critically, an 800 metre horizontal section in the Vu Upper coal is designed to demonstrate multi-Tcf potential at the project by improving induced permeability through seven fracc stages that will engage with the coal's natural, cleating and fractures. Success at the Jaws-1 well would move a quantity of gas from Contingent to the more valuable Proven and Probable Reserve category while expanding Contingent Resource targets.

Success at Jaws-1 would support immediate work on a Jaws-2 well, aiming for a 1,000 metre horizontal section and nine stimulation stages. Strike estimates that a multi-horizontal well Spectre programme completion, targeting >7 PJ of gas from horizontal sections in all three coal seams, should cost approximately \$13 million, driving initial capital cost down to \$1.75/GJ. Further cost efficiencies of up to 40% are estimated for a production stage drilling programme.

Jaws-1 well design



Source: Strike

In a success case, Strike plans work to fund a delivery pipeline that would transport raw gas to Moomba for merchant processing and onward sale into gas sales agreements, while ramping up deliverability to a gross 50 TJ per day from roughly 15 initial wells by H2 2020. Strachan Corporate estimates that such a gas delivery system might cost up to \$65 million while drilling and other field work could cost an additional \$120 million plus engineering management costs, leaving Strike with a funding task of ~\$130 million for its share of the project.

In production mode, Strachan Corporate estimates that Strike's SCBGP would need to spend about \$50 million pa on new drilling and completion to maintain gas deliverability.

Gas quality shows 22%-24% CO₂ content. Longer term, removal and sale of CO₂ could represent a valuable by-product that can be used amongst other applications for enhanced oil recovery from legacy Cooper Basin fields. In the meantime, CO₂ can be vented at a carbon cost of about \$1/GJ or safely sequestered at a cost of about \$0.50/GJ of sales gas.

Strike's external consultants estimate that PEL-96 has net Prospective Resources totalling over 6.7 Tcf of gas, of which 103 Bcf is classified as a 2C Contingent Resource, net to Strike's 66.667% interest. Of the three coal seams tested, the Vu Upper seam is estimated to contain ~6.1m³ of gas per tonne of coal, or ~8.6 Bcf of gas per square kilometre. In total, Strike's equity in Prospective gas Resources amounts to over 11 Tcf of target gas. Strachan Corporate estimates that confirmation of just 10% of that total Prospective gas Resource target as 2P Reserves should be worth over A\$500 million to Strike's account.

East Coast Gas Market

The Gladstone LNG production hub has demand for up to 1,300 PJ of gas per annum for LNG sales, plus about 250PJ pa for use in extraction, processing, transport and conversion. Additionally, East Coast domestic gas demand runs at between 550 and 600 PJ pa.

Various market studies predict a widening gas supply shortfall from existing and sanctioned projects, rising to over 150 PJ pa, post 2025. Some work has gone into developing new coal seam gas (CSG) supply from Queensland, but the effort is not

Stage 1 gas production at up to 33 TJ per day net to Strike is targeted by H2 2020 in best case with FID in early 2019

seen as being sufficient to meet demand, even as consumption declines in the face of higher pricing and increased use of energy from renewable sources.

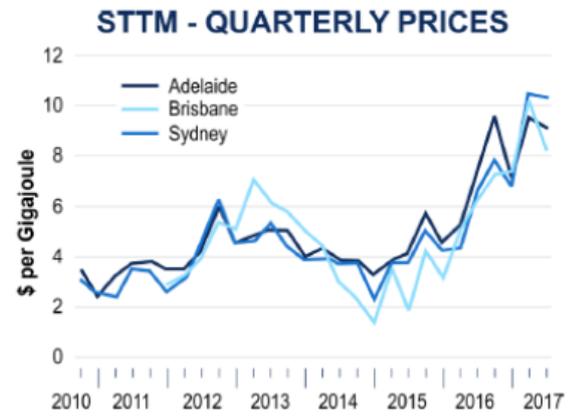
From 2011 to 2014, prior to LNG plant commissioning the east coast gas price was held artificially low by the LNG project developer's need to sell 'ramp-up' gas from Queensland's developing coal seam gas fields. However, since the three Gladstone LNG projects began to ramp up to a combined production capacity of ~24 mt pa, the east coast gas price has jumped from around \$4/GJ, to over \$10/GJ.

Under threats of government intervention to ensure more gas is available domestically, supply has been ramped up which has resulted in recent price action below \$8/GJ. Spot LNG pricing in Asia has jumped from below US\$5/GJ to over US\$10.40 in recent trades as seasonal demand for energy in the Northern winter boosts short term sales. Oil linked LNG pricing is also on the rise, lifting to the equivalent of ~A\$12.25/GJ, which indicates that a domestic price of around A\$9.30/GJ would be necessary to divert gas into the domestic market without prudential control.

Gas exploration and development restrictions applying in NSW, onshore Victoria and the Northern Territory will ensure that over coming years, declining gas production from legacy Bass, Cooper, Gippsland and Otway basin producers will result in a very tight gas market. Only partial supply relief is likely from Cooper Energy's 25 PJ pa Sole gas project from in 2019 along new field development by BHP/Exxon in the Gippsland Basin and possible new CSG developments in the Bowen Basin.

Strike has 3 Gas Sales Agreements with Orica, Orora and Brickworks totalling 122 PJ's or 50 TJ/d for 10 years. All agreements are contingent on an FID on the phase 1 project.

Recently Strike renegotiated terms for the Orica gas sales agreement, which provides funding and more time for Strike to achieve its goals.



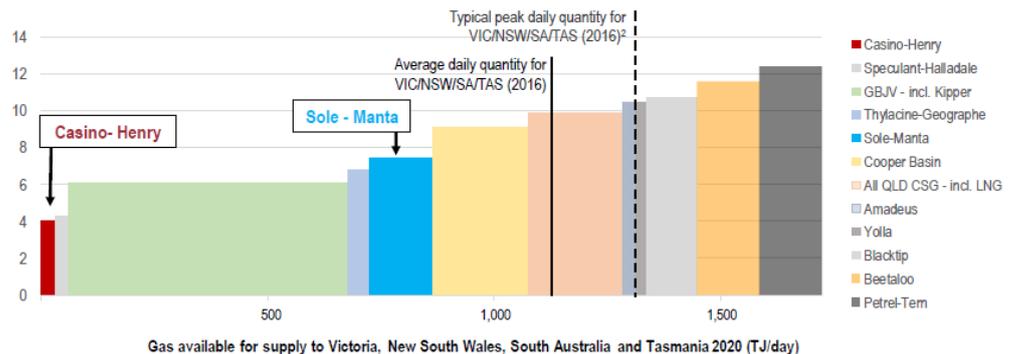
The Short Term Trading Market (STTM) is a market-based wholesale gas balancing mechanism and is operated by the Australian Energy Market Operator (AEMO). Above pricing data sourced from AEMO.

Export LNG now competes for domestic gas supply

South-east Australia¹ gas supply costs in 2020*

Cooper Energy projects are cost competitive for south-east Australia

Delivered Melbourne city gate cost for gas from eastern Australia available for delivery to domestic market in 2020* AUD / GJ



* Note: all estimates are as calculated by EnergyQuest and based on known capital expenditure to date, which may exceed cost to the current project owner(s).

Source: EnergyQuest
 • Delivered Melbourne city gate gas cost in 2017 AUD based on economic upstream cost (including acceptable return) and pipeline charge
 • Average daily volume determined by upstream reservoir & facilities capacity and taking account of pipeline capacities, from known gas reserves and resources with access to infrastructure and anticipated to be available in 2020/21
 • Excludes gas that may be available from storage

¹ South-east Australia comprises New South Wales, Victoria, South Australia and Tasmania
² Cooper Energy estimate. Represents 75% percentile of 2016 daily gas flows

Current delivered gas costs at Melbourne indicate that a wellhead price in excess of A\$10/GJ will be necessary to bring new product into the market post 2020, which aligns with Strachan Corporate's view that the east coast gas price will sit at around A\$9-A\$10/GJ in real terms over the longer term.

Gas pricing likely to range from A\$8 to A\$10/GJ

Blend of modelled value for commercial gas & Peer market valuations

Valuation

Strike can be valued on the basis of an NPV of estimated and projected cash flows from project development and by reference to the market value of its peers.

Estimating cash flows presents a challenge ahead of the upcoming proof of concept drilling and gas flow testing work at the Jaws-1 project during 2018. This work will provide parameters that can then be applied to a project in the Southern Cooper Basin with more accuracy than is possible based purely on current projections.

In the interim, Strachan Corporate has made initial estimates, based on:

- ◆ Estimated capital cost per well of \$9 million for a completed horizontal well and vertical collector well that delivers 5.9 PJ of sales gas.
- ◆ Operating costs of 55 cents per GJ plus \$30,000 pa per well.
- ◆ Peak gas delivery of 6 mmcft per day with year one sale of 1.29 PJ.
- ◆ A gas market price of \$8.5/GJ.
- ◆ Transport and processing charges of \$3/GJ.
- ◆ Royalties of 11% of sales value.
- ◆ PRRT of 40% of EBITDA after recovery of capital costs and operating costs.

Asset	Value \$m	\$ per share	Comment
Net cash (est)	5	\$0.004	Post Jaws-1
PEL-96	69	\$0.054	2 Tcf, 25% POS, 45 cts/GJ, \$80m expenditure
Options	3.4	\$0.003	All exercised
Jaws-2 funding	10.0	\$0.008	Assumed new equity
Other	(8.0)	(\$0.006)	Corporate
	80	\$0.063	
Exploration upside	81	\$0.064	15% retained in 16Tcf target with 10% POS
Total value	160	\$0.126	

Source: Strachan Corporate

At an 8% pa discount factor, this modelling delivers an estimated DCF NPV of \$0.55 per GJ while a gas sales price of A\$10/GJ lift NPV to 85 cents per GJ.

Peer project developers trade with market capitalisations of less than 10 cents per GJ of estimated 2P plus 2C Reserves and Resources, while producers and companies with funded developments trade with market capitalisations per GJ of 2P & 2C Reserves and Resources of between 31 cents (for Senex) and 94 cents per GJ for Cooper.

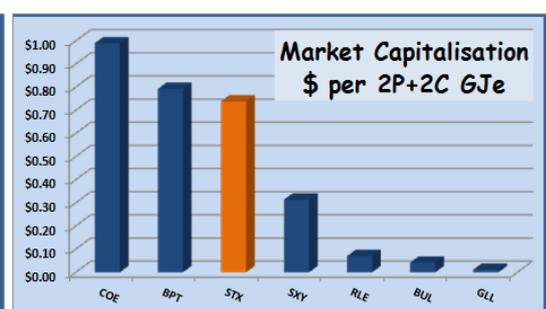
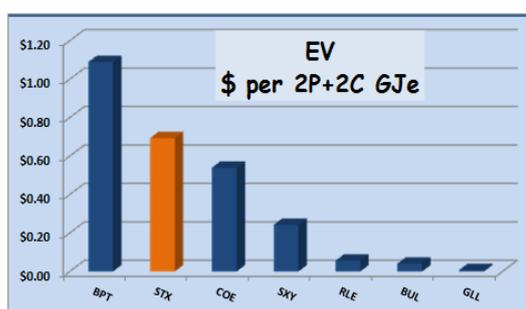
Valuation markers of between \$1/GJ and \$3/GJ for 2P Reserves represent a target that Strike might aspire to if it is able to demonstrate commercial gas flow during 2018. Given the company's current level of Basin knowledge, Strachan Corporate believes that once commercial proof of delivery has been established, spending ~\$1 million to acquire additional seismic survey data over PEL-96 stands a strong chance of bringing as much as 2,000 PJ of the current estimated net 4,592 PJ of Prospective Resources into the Contingent category.

Once designated, 2P Reserves should attract a valuation of over \$1/GJ

Existing & Potential East Coast Gas Suppliers

	Code	M Cap \$m.	EV \$m	East Coast Res		market cap/GJ		EV/GJ	
				2P	2P+2C	2P	2P+2C	2P	2P+2C
Beach	BPT	2,925	4,061	1392	3822	2.10	0.77	2.92	1.06
Blue	BUL	179	175	71	4013	2.52	0.04	2.46	0.04
Cooper	COE	504	264	325	534	1.55	0.94	0.81	0.49
Galilee	GLL	29	20		2508		0.01		0.01
Real	RLE	22	18	0	293		0.08		0.06
Senex	SXY	535	410	503	1751	1.06	0.31	0.82	0.23
Strike	STX	76	71	0	111		0.68		0.63
Median (ex STX)						\$ 1.83	\$ 0.19	\$ 1.64	\$ 0.15

Source: Company reports & Strachan Corporate



Large upside for success

Strike estimates Prospective Resources within its Southern Cooper Basin permits of over 11 Tcf of gas. Strachan Corporate reasons that converting 3.7 Tcf of this gas into a Contingent category should be worth over \$1,600 million to the company, which compares favourably with its current market capitalisation of \$76 million. The challenge for management is translating as much as possible of the prospective valuation upside as possible for shareholders.

Leadership

Chairman John Poynton (AO)

John is a highly experienced stock broker, funds manager and merchant banker. He is a Board Member of the Future Fund Board of Guardians and has served on several ASX listed companies as Chairman, Deputy Chair or Non-Executive Director and on several Federal government Boards.

Managing Director Stuart Nicholls

Stuart has a long history as an energy industry professional with Royal Dutch Shell where he gained knowledge of all aspects of the energy system. Previously he held senior leadership positions as a member of the Australian Army. He holds a Bachelor of Commerce (Finance and Accounting) and was appointed to the Board as Managing Director in 2017.

Non Executive Director Andrew Seaton

Andrew has over 30 years' experience in the resources sector encompassing a broad range of finance, strategy, commercial, investment banking, engineering and project management roles. He has a deep understanding of domestic Australian gas markets and global LNG industry dynamics having worked with Santos Ltd for 12 years, including 6 years as Chief Financial Officer.

Non Executive Director Ms Jody Rowe

Jody has broad experience with contracts and procurement in the oil & gas sector. She has been involved in the management of a number of large scale contracts and procurement and construction projects.

Non Executive Director Tim Goyder

Tim is an experienced investor and entrepreneur with a strong track record of successful investment and value creation in the Australian and international mining and energy sectors.

He is a major long term shareholder of Strike and is a major shareholder and founding director of a number of ASX listed and TSX listed emerging resource companies based in Perth, Western Australia.

Chief Finance Officer Justin Ferravant

Justin is a Certified Practising Accountant (Australia) with over 15 years' experience in Australia and Asia. He was previously Finance Manager at Santos Limited for the Cooper Basin and responsible for joint venture, financial reporting and controllership.

S. W. O. T. Analysis

STRENGTHS

Board & Management: Strike has attracted financial and technical management to its Board with the experience and a demonstrated ability to achieve a commercial outcome in the Southern Cooper Basin.

Infrastructure: The Cooper Basin permits are in a good place for petroleum development and exploration with nearby access to gas transport and processing infrastructure.

Markets: More than 1,300 PJ pa of gas is required to fuel the Gladstone LNG complex while legacy projects supply to meet domestic gas demand of around 600 PJ pa is declining.

WEAKNESSES

Funding: Full development of the project will require many hundreds of millions of dollars, which Strachan Corporate believes the current Board is capable of securing.

Market Sceptics: Deep CSG is a new field for commercial gas production.

OPPORTUNITIES

Take-over: If Strike can demonstrate commercial viability at the SCBGP, it will become a very attractive acquisition target for an existing industry player of utility.

Re-rating: Demonstration of commercial gas production would be a game-changer for Strike.

Project management: Strike's JV on PEL-96 extends to the well head and does not cover downstream development. Strike might be able to leverage additional value by working with its JV partner on downstream opportunities.

THREATS

Regulatory: Ongoing threats against the petroleum industry on the basis of potential impacts of production on climate change and potential environmental impacts.

Technical: Despite the best, high level of technical evaluation and financial modelling undertaken by the company there is still a risk that the coals in PEL-96 will not deliver sufficient gas volume to rate the project as commercial.

Disclaimer

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