PITT STREET RESEARCH

Real Energy Corp Ltd

Unconventional play: The new normal

Share Price: A$0.036

Valuation range: A$0.15-0.25

ASX: RLE

Sector: Oil and gas exploration

26 November 2019

Real Energy (ASX:RLE) is a Sydney-based gas developer, currently focussed on the Windorah Trough project. RLE owns 100% stake in the project, which is located in the Cooper Basin – Australia's most prolific onshore unconventional resource play. The company has already discovered significant total mean gas in place of 13.76 TCF and a substantial 3C gas resource of 770BCF, through its four quasi-exploratory wells. RLE is currently in search of a farm-in partner to further develop this project and plans to begin production in 2020.

Infrastructure in place; production to start in 2020

RLE recently received the pipeline licence, which would help connect its Tamarama wells to the Santos operated gas gathering facility at Mt. Howitt. As gas processing agreements with Santos and Beach Energy are already in place, RLE is well placed to begin production in late 2020. Moreover, the Cooper Basin is favourably located to serve the Australian East Coast market, which faces a looming gas supply crunch. The current high gas prices in this market provide significant growth potential for RLE.

Valuation range of A$0.15–0.25 per share

We value RLE at A$0.15 per share base case and at A$0.25 optimistic case using a DCF approach for the Windorah Trough project. Our model is based on the estimation of gas supplied from the three Tamarama wells. We assume that RLE will begin production in late 2020, following the construction of the gas pipeline. For the sake of conservatism, we have not incorporated the potential funding from farm-in partners or gas sales agreements into our model. However, the funding from these sources presents a potential source for re-rating, in our opinion.

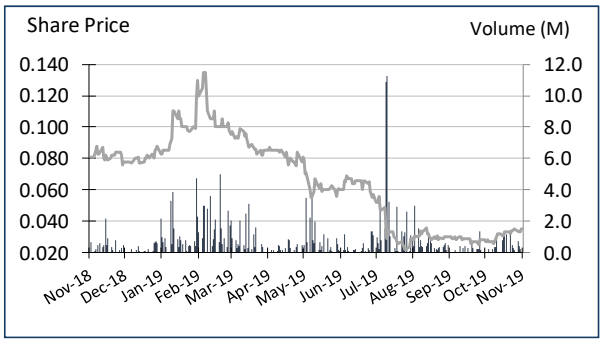
Year to Dec (AUD)	2018A	2019A	2020f	2021f	2022f
Sales (m)	0.2	-0.8	0.1	20.0	23.9
Adjusted EBITDA (m)	-1.3	-2.2	-1.3	13.1	15.6
Adj. Net Profit (m)	-1.3	-2.2	-0.9	9.2	10.9
EBITDA Margin	NM	NM	NM	65.5%	65.3%
RoA	-4.5%	-6.7%	-2.5%	21.5%	21.1%
EPS	-0.56c	-0.73c	-0.73c	1.53c	1.89c
EV/Sales	119.4x	NM	139.5x	0.2x	NM
EV/EBITDA	NM	NM	NM	0.3x	NM
P/E	-17.5x	-5.0x	-13.6x	1.4x	1.2x

Source: Company, Pitt Street Research

Market Cap. (A$ m)	12.6
# shares outstanding (m)	349.4
# shares fully diluted	414.8
Market Cap Ful. Dil. (A$ m)	14.9
Free Float	100%
52-week high/low (A$)	$0.135 - $0.022
Avg. 12M daily volume ('1000)	792
Website	realenergy.com.au

Source: Company, Pitt Street Research

Share price (A$) and avg. daily volume (k, r.h.s.)



Source: Thomson, Pitt Street Research

Valuation metrics	
Fair valuation (A$)	0.15-0.25
WACC	8.4%
Assumed terminal growth rate	0.5%

Source: Pitt Street Research

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Real Energy: A worthy unconventional player

Real Energy (ASX:RLE) is a Sydney-based oil and gas explorer and developer focussed on the Windorah Trough project. The project, located in the Cooper Basin, targets unconventional resource plays, particularly basin-centred gas (BCG) plays in the Permian strata of the region. The company exercises 100% ownership of the two permits in Queensland – ATP 927P and ATP 1194PA, an important feat for a relatively junior player in the region. Moreover, the seismic interpretation and mapping of the two permit areas has demonstrated opportunity for conventional plays by identifying structural traps within the sedimentary sections of the Cooper and Eromanga Basins. Consequently, RLE has the potential to target both the conventional as well as unconventional oil and gas plays.

Cooper Basin – An unconventional gas play

Poor permeability and porosity of reservoirs call for use of unconventional extraction technologies in the Cooper Basin

Unconventional oil and gas plays are resources that are difficult to extract, on account of poor permeability and porosity of reservoirs. They require the use of unconventional exploration and production technologies, adding up the cost of production. Examples include shale gas, tight gas and coal seam gas. The Cooper Basin is a known unconventional resource region, a prolific producer ever since the first discovery was made in 1963. Over 6 TCF (trillion cubic feet) of gas and 300 mboe (million barrel of oil) have been produced since then.

RLE has long argued that BCG gas can be discovered in the Cooper Basin — that gas is concentrated in tight sandstones at low points in sedimentary basins without the usual structural or stratigraphic traps. The Windorah Gas project was the result of RLE's thesis that the Permian Toolachee and Patchawarra formations in the Cooper Basin were likely to host BCG gas.

What is the current development state of Windorah Gas project?

Post confirmation of significant reserves, RLE is currently focussed on improving flow rates via advancements in extraction technologies

The company has completed two rounds of drilling at the ATP 927P site. The latest round, which includes trials at Tamarama-2 and 3 wells, demonstrated considerable improvement in gas flow rates. The gas flow rates of 2mmscfd (million standard cubic feet per day) and 2.5mmscfd received from Tamarama-2 and 3 wells, respectively, were markedly higher than the >1mmscfd flow rates achieved in the previous round of drilling (Tamaram-1 and Queenscliff-1 wells). This improvement was driven by a change in the design of the deviated wellbore. The company plans to continue to make changes to its fracture stimulation process in order to further improve flow rates in the next round of drilling. As the company continues to gain insight into the Windorah Trough through exploration and makes the required adjustments to its extraction technique, we expect it to unlock the substantial potential of this acreage.

RLE has proved the presence of significant BCG play in the trough through the drilling of four wells in the ATP 927P permit. Combined with its ability to successfully execute its extraction strategy (showcased by the new Tamarama wells), we believe RLE is on track to develop considerable value for its acreage in the Windorah Trough.

Additionally, with the recent grant of pipeline licence by the Queensland government, RLE is now a step closer to commence production at its existing wells. In our view, this is a crucial milestone for RLE's commercialisation strategy, as it fast-tracks the company's ability to reach the market and eventually start recording sales.

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Ten reasons to look at Real Energy

1. **Real Energy holds considerable exploration acreage in the Cooper Basin**, with its two permit areas covering 2,750 sq km of ground. Moreover, the company was recently awarded acreage in the Surat Basin for CSG play in a JV with Strata X Energy.
2. **All of Real Energy's wells at Windorah have been successful**, with particularly encouraging flow rates at the Tamarama-2 (2mmcf/d) and Tamarama-3 (2.5mmcf/d) wells.
3. **Real Energy has identified considerable gas resources at Windorah.** After four wells at Windorah, the 3C gas resource is now 770 BCF[1] and estimated total mean gas in place is now 13.76 TCF. We believe this large gas resource could attract a good farm-in partner to further develop the project.
4. **Windorah is near to established infrastructure**, with Mt Howitt, a Santos gas gathering facility, only 14 km from Tamarama. Notably, RLE was recently issued a licence by the Queensland government for a pipeline connecting the Tamarama wells with the Mt. Howitt facility.

In October 2018, the company signed gas processing agreements with Beach Energy and Santos.

5. **Agreements are in place to move Windorah gas**. In October 2018, the company signed gas processing agreements with Beach Energy and Santos. The gas would be processed at their Moomba facility, which is well connected to the Australian East Coast market.
6. **The potential for good pricing is strong in the medium term**, with a looming shortage of gas on the Australian East Coast boding well for new fields such as those at Windorah.
7. **Cooper Basin acreage has yet to attract the kind of valuation obtained in other basins**, despite the high levels of prospectivity for unconventional gas of the kind that Real Energy is pursuing. We see this low sentiment towards the Cooper Basin changing in the medium term as new discoveries are made.
8. **There is potential for oil discovery in ATP1194P**, given the proximity to the producing Kenmore and Bodalla South oilfields of New Hope Group.
9. **Real Energy has a solid leadership team**, with the current MD, Scott Brown, was CFO of Mosaic Oil (ASX:MOS) prior to its sale to AGL in 2010. Backing Brown is a management team and board with considerable knowledge of the oil and gas industry.
10. **Real Energy is undervalued compared with our valuation range**. We value Real Energy at 21 cents per share base case and 35 cents optimistic case. We see Real Energy being re-rated by the market once a farm-in partner becomes involved in the Windorah Gas Project.

[1] See Real Energy's 23 August 2019 market release headlined '*Material upgrade to Windorah Gas Resources*'. In the oil and gas industry, Contingent Resources are referred to as 1C, 2C and 3C estimates depending on whether they are Proved (1C), Proved and Probable (2C) or Proved, Probable and Possible (3C).

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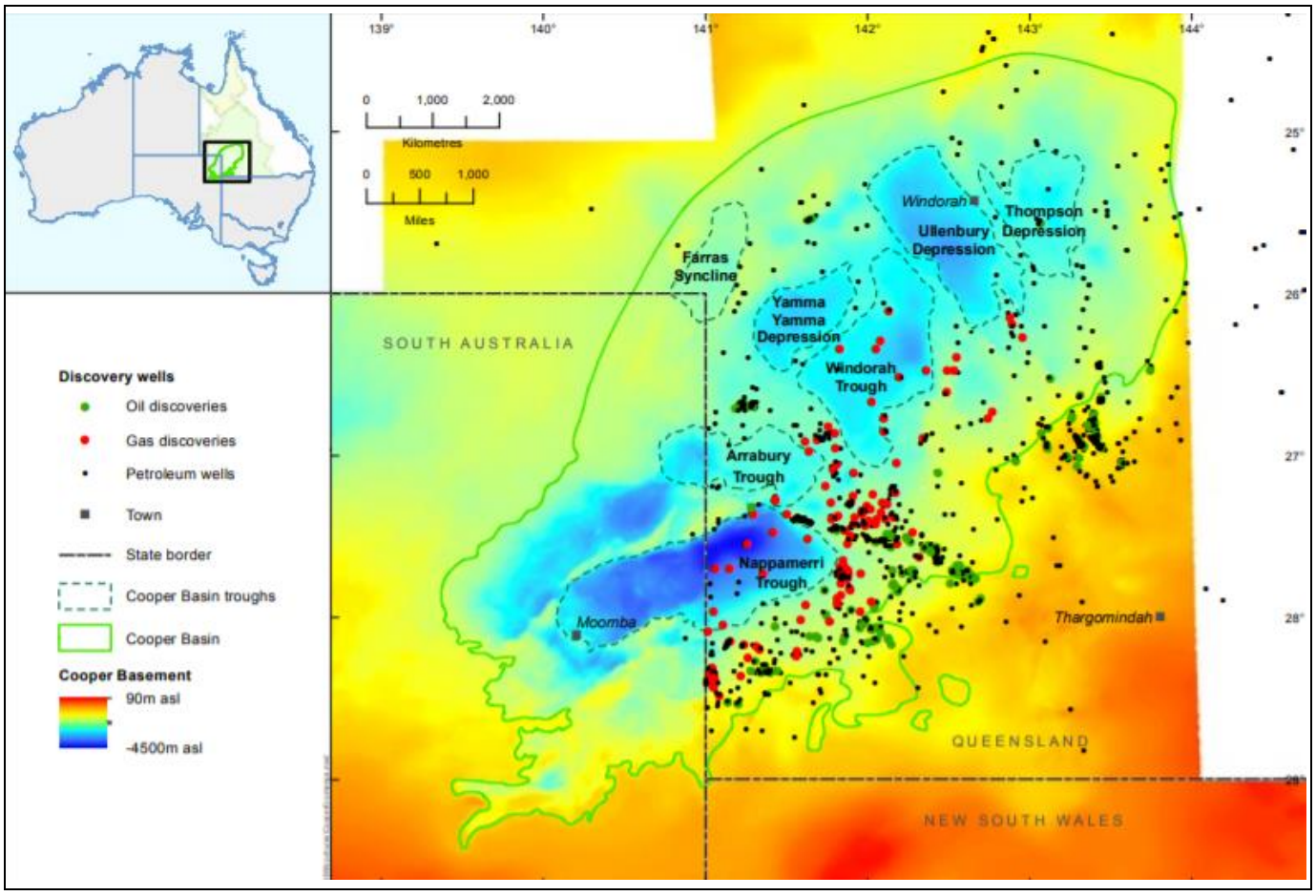
Windorah Gas Project: A crucial resource play in the making

Located in the northern part of the Cooper Basin (Figure 1), the Windorah Trough is characterised by Patchawarra and Toolachee formations. These are known to hold and produce unconventional gas plays. Seismic interpretations have identified that these formations are present across a substantial part of RLE's permitted acreage. The company currently targets Windorah Trough through two permits, ATP 927P and ATP 1194P, which span a total area of 2,761 sq km (or 682.3k acres). The company is currently focussed on developing this acreage by targeting unconventional gas plays, particularly BCG.

Figure 1: Location of Windorah Trough within the Cooper Basin



Source: 'Petroleum in Queensland's outback' – Department of Natural Resources and Mines

What is basin-centred gas (BCG)?

Also known as tight gas, BCG is the natural gas trapped in deep sandstone formations with low permeability. The accumulations for this gas can be found either in a single, isolated reservoir (which is a few feet thick) or in multiple, stacked reservoirs several thousand feet thick. These accumulations are different from conventionally trapped accumulations as they are abnormally pressured. Moreover, due to the greater depths of burial of these

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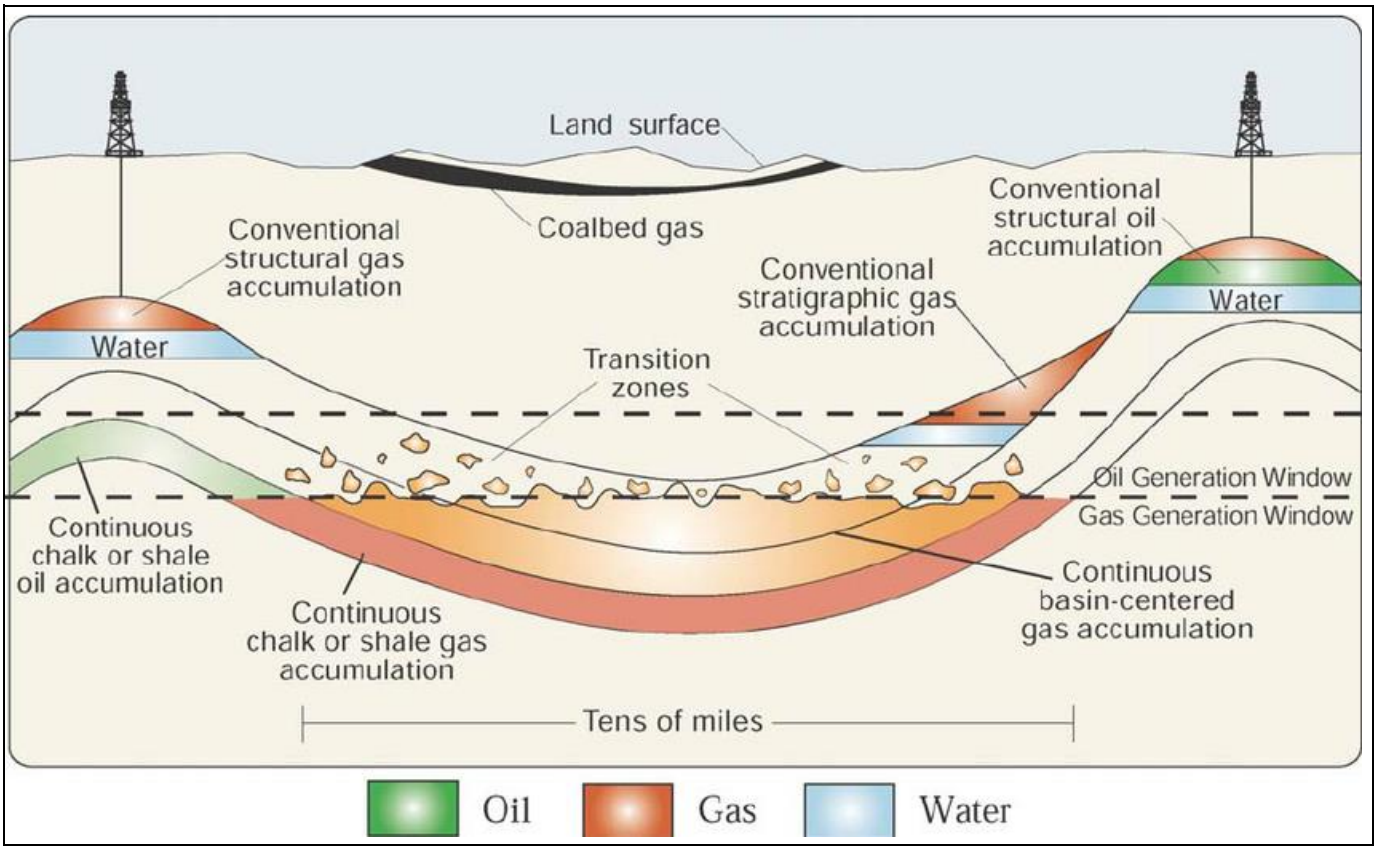
sandstones, compared with conventional gas (Figure 2), these reservoirs require fracture stimulation to extract the gas at commercial flow rates.

Figure 2: Conventional and continuous oil and gas accumulations



Source: Schenk and Pollastro (2001)

Hydraulic fracturing is required to access these resources. Due to the low permeability of reservoirs, an unconventional well-stimulation technique is needed for extraction of oil and gas from tight geological formations. This is where hydraulic fracturing comes into play. Hydraulic fracturing, or fracking, refers to the process of high-pressure injection of water, sand and chemicals into a bedrock formation. The aim could be either to create new fractures in the rock or to improve connectivity of existing fractures, in order to allow greater gas or oil flow into a well. This process involves two types of drilling, first vertical and then horizontal. The direction and angle of the drilling operation also depends on the depth and location of the targeted rock formations.

RLE is currently using a deviated wellbore design to target the Patchawarra and Toolachee formations in the Windorah Trough. Notably, the new Tamarama wells were drilled as deviated wells, with a slope of 30 degrees. Going forward, the company plans to drill wells horizontally, as part of a multi-staged fracturing operation.

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Windorah Trough is a proven BCG resource play

There is plentiful gas in the Patchawarra and Toolachee formations of the Windorah Trough

The crux of RLE's strategy so far had been to target the BCG play it hypothesised existed in abundance in the Patchawarra and Toolachee formations of the Windorah Trough. Previous drilling in the region by the major oil and gas companies Santos[2] and Beach Energy[3] supported this thesis. Drilling by Santos in the Whanto-1 and Cocos-1 wells, which are adjacent to RLE's ATP 927P permit, had demonstrated promising results, with peak flow rates of 3.8mmscfd and 3.5mmscfd, respectively.

To test its theory, in 2014, the company drilled two exploratory wells (Tamarama-1 and Queenscliff-1) targeting the Permian section of the ATP 927P permit area. Remarkably, both the wells came across gas-charged sandstones, thereby proving RLE's theory to be true. This theory was further supported by a seismic study conducted by independent geologist DeGolyer MacNaughton in 2015, which estimated an OGIP (Original Gas in Place) of 13.7 TCF4 within the ATP 927P permit (Figure 3).

Figure 3: Contingent gas resources

	Estimates (MMCf)		
Prospect	**1C**	**2C**	**3C**
Queenscliff[1]	48,154	173,960	425,608
Tamarama[2]	69,821	156,349	344,578
Total	**117,975**	**330,309**	**770,186**

Note: 1. Estimate prepared by DeGolyer and MacNaughton, a leading international petroleum industry consulting firm, in June 2015; 2. Estimate prepared by Aeon Petroleum Consultants in August 2019

Source: Company

The Tamarama 2 and 3 wells were successes for Real Energy

Latest rounds of drilling provide further proof of substantial resource as well as improvement in flow rates. In 2018, RLE began round 2 of testing by drilling two more wells in the APT 927P area – Tamarama-2 and Tamarama-3. Results from these drills led to a considerable upgrade to the certified prospective resources expected to exist at the ATP 927P permit areas. Notably, the estimated 3C contingent gas resources[5] grew 14.6% to 770 BCF[6], from 672 BCF estimated at the time of maiden exploration in 2015.

In addition to gas discovery, these two wells also demonstrated an improvement in gas flow rates. While gas flow rates at both the initial wells were >1mmscfd, the rates at the new Tamarama wells came in at 2mmscfd and 2.5mmscfd, respectively.

In our view, these improved flow rates, though sub commercial, provide evidence of RLE's capability to successfully update its extraction technology and strategy. We believe, going further, this ability could underpin RLE's progression towards commercialisation of its BCG plays as it continues to make improvements in its drilling operations. Notably, in order to further

[2] Adelaide, SA, ASX: STO, santos.com.
[3] Adelaide, SA, ASX: BPT, beachenergy.com.
[4] Trillion cubic feet.
[5] In the oil and gas industry, Contingent Resources are referred to as 1C, 2C and 3C estimates depending on whether they are Proved (1C), Proved and Probable (2C) or Proved, Probable and Possible (3C).
[6] Independently certified by Aeon Petroleum Consultants in August 2019.

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improve the flow rates, the company plans on using different proppant sizes as well as update its stimulation process.

Expert aid conscripted for Tamarama wells

For the development of its latest wells – Tamarama 2 & 3 – Real Energy had enlisted the help of Halliburton Australia, the Australian arm of international oilfield services major. In August 2018, RLE signed on Halliburton in order to take advantage of its expertise in the drilling and evaluation processes. In particular, the company outsourced the multistage fracture stimulation process at the new Tamarama wells to Halliburton.

Markedly, this is not the first time RLE has conscripted help from the oilfield service provider. Previously, in 2016, the company had signed on Halliburton for well stimulation at its Tamarama-1 well for a five-stage fracking program.

RLE's substantial acreage in the Windorah Trough

Two other Real Energy permits are, as yet, undrilled

- **ATP 927P**. The current focus of RLE's efforts in the Windorah Trough, this permit area is located in southwest Queensland, 100kms north-west of Eromanga, spanning over an acreage of 1,718 sq km. RLE acquired the permit in 2014 from Drillsearch Energy Ltd. The permit area is characterised by both the Jurassic- to Cretaceous-aged rocks of the Eromanga Basin and the Permian- to Triassic-aged rocks of the Cooper Basin. While the Eromanga section provides potential for oil plays, the Cooper Basin offers the prospective for gas plays. Though this permit area was largely unexplored till 2014, the neighbouring permit areas owned by Santos offered evidence of BCG plays in the region.
- **ATP 1194PA**. This permit area was obtained from the tendering of gazettal block 2014-1-4. It comprises 340 sub-blocks, spanning over an area of 1,043 sq km. The company has identified a number of oil leads in the Cretaceous Cadna-owie Formation but has yet to drill a well on the permit area. This is primarily because it is yet to receive the authority to prospect. To this end, RLE is currently negotiating with the traditional owners of the land to sign the Native Title agreement, following which the permit would be called ATP 1194P. Notably, the permit area is in close proximity to two oil producing fields of New Hope Group, Kenmore and Bodala South[7]. We believe this provides potential for oil discovery.

Markedly, none of the four wells are currently in production, as the company is waiting for the construction of requisite infrastructure to process the raw gas into saleable gas. To fast-track this process, RLE has signed agreements with Santos and Beach Energy.

Agreements with Santos and Beach Energy to unlock significant upside potential

As with any resource company, obtaining confirmation of abundant reserves is not enough unless it can be taken to the end market. In this regard, RLE achieved a crucial milestone in October 2018, when it signed gas processing agreements with Santos and Beach Energy. Under these agreements, the company would supply raw gas from its Windorah gas project to Santos and Beach Energy's gas processing facilities in Moomba, South Australia.

Moomba is a gas supply hub, which was established in 2016 by AEMO (Australian Energy Market Operator). It is located geographically

[7] Brookwater, Qld, ASX: NHC, newhopegroup.com.au.

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By allowing access to the existing processing and transportation infrastructure, the agreements provide RLE speed to market

advantageously at the intersection of pipelines to NSW, South Australia and Queensland. Santos' processing facility at Moomba has capabilities for both oil and gas processing, including crude stabilisation and storage, seven Benfield CO_2 removal trains, a natural gas liquids recovery plant, an ethane treatment plant that includes amine absorption, and pipeline compression. We believe that this unlocks substantial potential for RLE, by allowing it to commercialise its gas resources without having to incur the expenditure of building a gas processing plant. This also offers the company speed to market since the infrastructure for resource processing and transportation to end customer is already in place.

Additionally, both Santos and Beach Energy are seasoned players in the Australian oil and gas industry. In our view, the signing of these gas processing agreements provides evidence of the faith that these two veterans have in RLE's resource reserves and extraction capabilities.

Grant of pipeline licence a critical stepping-stone to commercialisation

Pipeline licence facilitates the mobilisation of gas from Tamarama wells to the Mt. Howitt facility

In June 2019, Real Energy was granted a pipeline licence by the Government of Queensland, which would allow the company to connect its Tamarama wells to the Mt. Howitt facility (Figure 4). The facility, located ~14kms from the Tamarama wells, is a gas gathering facility operated by Santos – an independent producer of oil and gas and a major player in the Australian energy market – with a market capitalisation of A$16bn[8].

In our view, the grant of this licence is a major step forward for RLE towards the commercialisation of its Tamarama wells. The licence, which has a term of 30 years and an option for renewal upon expiration, allows RLE to leverage its partnerships with Santos and Beach Energy, paving the way for the company to start booking revenue in 2020. Through this pipeline, RLE would be able to transport the raw gas produced at the three Tamarama wells to the Mt. Howitt facility, from where it would flow to the processing and transport infrastructure owned by Santos and Beach Energy in Moomba.

Notably, Santos' Moomba facility, which receives production from 24 oil and gas facilities, is well connected to the Southern and Eastern Australian markets. The facility transports sales gas to Adelaide via a 790km pipeline and to Sydney via an 1160km pipeline.

[8] Market cap as of 15 Oct 2019; sourced from S&P Capital IQ.

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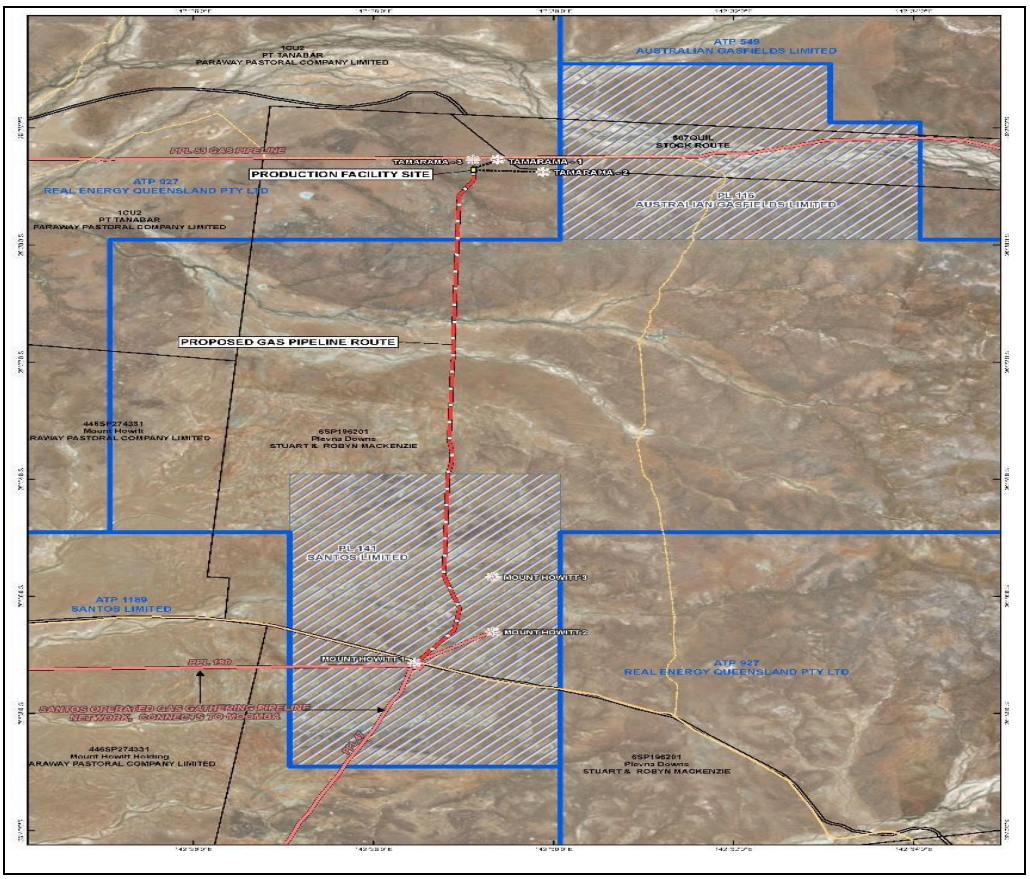
Figure 4: Proposed pipeline route connecting Tamarama wells to Mt. Howitt



Source: Company

Cooper Basin: A prolific onshore unconventional resource play

Proven resource plays and proximity to the markets of Queensland, South Australia and NSW position the Cooper Basin as an important onshore basin in Australia

Although Australia plays host to numerous hydrocarbon producing provinces, most of them are located offshore. Among the onshore plays, the Cooper-Eromanga Basin is a major producer of oil and gas resources. While the Cooper Basin spans across an area of c.127,000 sq km, the Eromanga Basin covers an area of c.1,000,000 sq km. Moreover, as per the US Energy Information Administration (EIA), the entire Cooper Basin has a risk recoverable shale gas resource of 85 TCF. Additionally, extending across the northeast of South Australia and southwest of Queensland, the Cooper Basin is advantageously located to serve the markets of Queensland, NSW and South Australia (Figure 5).

As per Geoscience Australia's Onshore Basin Inventory conducted in 2016, the Cooper Basin ranks high in terms of prospectivity of resources as well as confidence among the industry (Figure 6). This is driven by a healthy understanding of the source rocks within the region as both domestic and international players continue to target the basin.

Notably, the first commercial discovery of the hydrocarbon resource (natural gas) and oil in the basin was made by Santos in 1963 and 1970, respectively. Santos is also the largest producer in the basin, with estimated 139mmboe[9] of 2P reserves in 2018. Moreover, many small listed companies are also

[9] Million barrels of oil equivalent

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exploring the basin for additional deposits, including Austin Exploration Limited, Cooper Energy, Beach Petroleum Limited, Senex Energy and Strike Energy.

Figure 5: Cooper Basin is favourably located to serve the eastern Australian markets

Source: Cooper Basin Australia

Figure 6: Cooper's rank in Prospectivity-Confidence matrix for onshore Australian basins

Increasing prospectivity \ Decreasing Confidence	High	Moderate	Low
High	Cooper Basin Amadeus Basin		
Moderate	McArthur Basin Georgina Basin	South Nicholson Basin Galilee Basin	
Low		Warburton Basin	Wiso Basin (?)

Source: Australia's onshore basin inventory Volume 1, Geoscience Australia

Unconventional exploration plays at Cooper Basin

While the Cooper basin has prospective resources for both conventional and unconventional plays, RLE is currently focussed on the extraction and production of unconventional resources.

Currently, five unconventional plays are being actively explored in the Cooper Basin, including BCG, Roseneath-Epsilon-Murteree (REM), Permian coal play, Patchawarra coaly shale play and deep coal seam gas (CSG) play (Figure 7). RLE's current exploration and production efforts in the Windorah trough are focussed on the BCG play.

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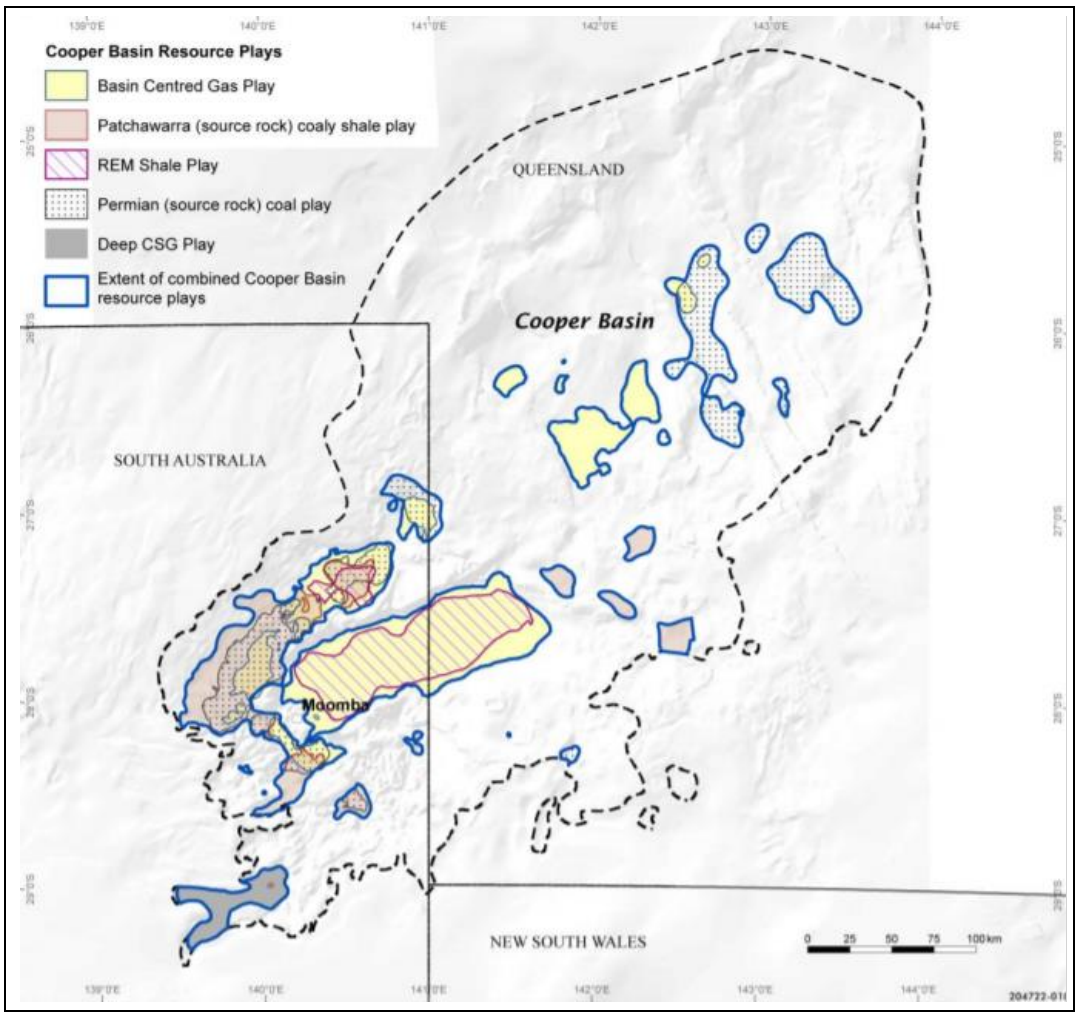
Figure 7: Cooper Basin resource plays



Source: Core Energy Group, Cooper-Eromanga Basin Outlook | 2035

Cooper Basin plays host to a number of BCG plays

In addition to RLE, there are several other players targeting the basin for BCG resources, including Santos-operated Cooper Basin JVs, Senex Energy and Origin Energy's JV in the Patchawarra, Nappamerri and Allunga Troughs, and Beach Energy's Western Flank oil and gas operations.

- **Santos-operated JVs**: Santos operates in three regions in the Cooper Basin for the exploration of unconventional plays – Patchawarra Trough, Nappamerri Trough and Moomba/Big Lake. For BCG plays, the company is currently assessing the Nappamerri Trough and has already drilled 3 wells in the Gaschnitz area.
- **Beach Energy**: Similar to Santos, Beach is also focussing on the Nappamerri Trough for exploration of BCG accumulations. The company is already an active player in the basin, having drilled 95 wells in the Cooper Basin in 2018 alone, with a success rate of 82%.
- **Senex and Origin**: In 2014, Senex and Origin formed a US$252m JV for the exploration of unconventional gas in the Cooper Basin – Silver Star 1 (PEL 632). Currently, the company owns substantial acreage in the Cooper

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Basin for unconventional gas in source rocks, including, coals, shales and tight sand. Notably, Senex has postponed the development of the unconventional gas play, for which it had entered into a free-carry agreement with Beach.

Figure 8: Factors influencing the development of unconventional resources [10]

Country	Argentina	China	Australia	Poland	Russia	UK	Mexico	South Africa	Saudi Arbia
Basin assessed	Neuquén Basin	Sichuan Basin	Cooper Basin	Baltic Basin	West Siberian Basin	Bowland Basin	Burgos Basin	Karoo Basin	South Ghawar Basin
# of unconventional wells*	> 200 wells	> 200 wells	~ 40 wells	> 60 wells	< 10 wells	< 10 wells	< 20 wells	No wells	> 80 wells
Size of potential resources	• 583 tcf shale gas and 20bn bbl of shale oil	• 287 tcf of shale gas reserves (TRR**)	• 93 tcf shale gas (TRR)	• 105 tcf shale gas and 1.2bn bbl of shale oil (TRR)	• 75bn bbl shale oil and 285 tcf of shale gas (TRR)	• 26-130 tcf (TRR) of shale gas	• 343 tcf of gas and 6.3bn bbl of oil	• Estimated recoverable shale resources of 390 tcf gas	• Estimated reserve of >600 tcf of unconventional gas
Enabling fiscal regime	◎	●	●	◎	◎	●	●	●	●
Geology	●	◎	●	●	●	●	●	●	●
Land access and operability	●	●	●	●	●	◎	●	●	◎
Unconventional services sector	●	●	●	●	●	●	●	●	●
Oil and gas distribution	●	●	●	●	●	●	●	●	●
Conventional and other competition	●	●	◎	●	●	●	◎	●	●
Skilled workforce	●	●	●	●	●	●	●	●	●

● Line of sight on how this factor will be overcome but continued investment required.
● Factor widely acknowledged as an issue and a variety of actions being taken to address. However, unclear if the actions are enough and how long it will take for this factor to be overcome.
● Still a lot of uncertainty whether this factor can be overcome at all.
◎ Pacer for speed of market development

Source: Accenture

Unconventional plays are gaining momentum across the world

Following the success of shale gas in the US, many countries are turning to unconventional resources to meet their growing demand for energy. As per a recent report by McKinsey[11], the global demand for LNG is expected to grow at 3.6% p.a. till 2035. This translates to an additional requirement of 250bcf of LNG capacity to meet the growing demand.

To this extent, various countries have started exploring and developing unconventional plays in their geographies. However, as per a recent report by Accenture[12], the Cooper Basin is competitively placed when compared with other international unconventional play basins. This is driven by favourable

[10] * The number of wells applies to the country and not the specific basin
** TTR: Technically recoverable reserves
[11] Global Gas and LNG Outlook to 2035 – September 2019.
[12] International Development of Unconventional Resources

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factors such as substantial resource discovery and existing logistics infrastructure.

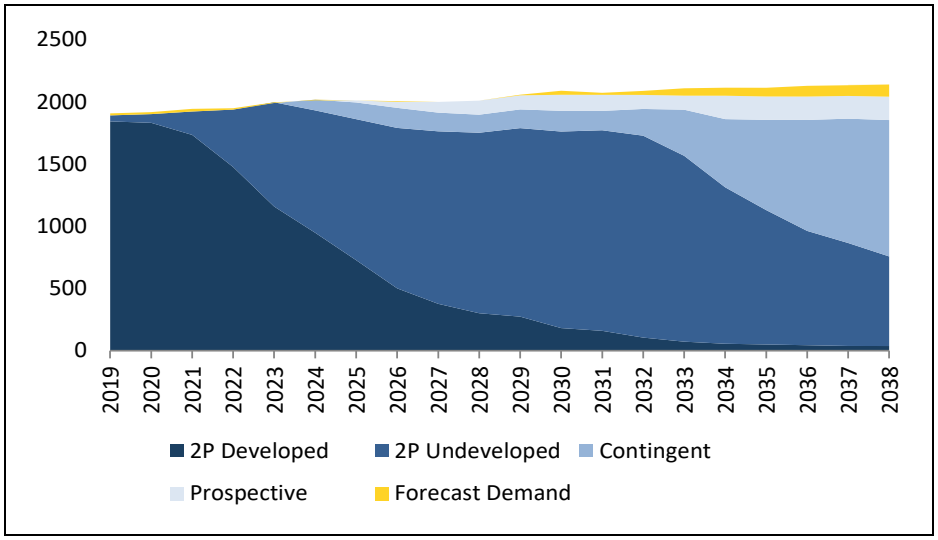
Unconventional resources are gaining attention as countries follow in US' footsteps to secure additional gas supply

Additionally, strong conventional and CBM[13] service sectors provide further support for developing shale and tight gas resources. These factors position Cooper ahead of basins of countries such as China, Russia and the UK.

Conversely, as per Accenture, the competition posed by conventional resources is the pacer for unlocking the potential of the Cooper Basin. Due to lower costs of production, conventional resources continue to command producers' attention.

However, driven by increasing pressure from the government to ease the burden on the East Coast market, industry focus is shifting towards unconventional resources. Consequently, gas producers and retailers are seeking fresh supplies to meet rising demand on the East Coast. We believe RLE is well positioned to benefit from this opportunity by leveraging its substantial contingent resources of tight gas.

Figure 9: Production and supply forecasts to eastern and south-eastern markets



Source: AEMO 2019 Gas Statement of Opportunities

Unconventional play at Cooper Basin is currently undervalued

Postponement of unconventional resource development for low-risk existing conventional plays has impacted the value of Cooper's acreage

Even though the Cooper Basin is one of the most prolific onshore resource plays, its unconventional resource acreage is still undervalued. This is primarily because most of tXhe investment and skilled labour in Australia is tied up in existing conventional plays. Hence, the development of unconventional resources has taken a backseat.

For instance, in April 2018, Beach Energy transferred A$43m of its free-carry commitment under the unconventional gas JV with Senex in the Cooper Basin. The amount will now be used by Senex to develop its western flank oil assets in the Cooper Basin. This decision was driven by Senex's strategy to postpone the development of unconventional gas for the higher returns it expects to generate from its oil assets.

[13] Coal Bed Methane – It is an unconventional form of natural gas extracted from coal beds.

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However, we believe that in the medium–to–long term, unconventional plays will attract greater industry attention. This will be driven by the run-off of existing reserves, pushing producers to start tapping contingent resources 2024 onwards (Figure 9).

Federal government's assessment funding underpins the importance of Cooper Basin to the Eastern Australian market

In 2017, the federal government announced the grant of US$30.4m for the assessment of potential gas play in the Cooper Basin. The aim for this grant was to provide a boost to the domestic gas supply, particularly in the eastern states' gas markets. Under the Geological and Bioregional Assessments Program, the government plans to assess certain priority areas that are prospective for shale and tight gas.

In our view, such government support would help draw the attention of oil and gas players to unconventional gas resources available in the Cooper Basin, thereby increasing its value. Additionally, the added attention to the work in the basin would also help RLE secure a gas sales agreement, a critical requirement for the commercialisation of its gas plays.

Eastern Australian market is parched for LNG

In 2018, at 91.8bcm[14], Australia was the second-largest exporter of LNG in the world, behind only Qatar – which supplied 104.8bcm. On the back of heavy investment in the past decade, Australia's LNG exports have witnessed tremendous growth. Remarkably, Australia surpassed Qatar as the world's largest LNG exporter for two months in a row – November and December 2018 (Figure 10).

This increase in Australia's LNG exports is driven by substantial investments made into the sector in the past decade. Notably, during 2009–12, Australia witnessed the commissioning of seven new LNG projects that cost c.US$200bn.

Unconventional resources also gained traction during this period. Earlier in the decade, three major LNG projects, all located in Queensland, came online to supply gas to the Asian markets. These included Shell-operated QCLNG, Origin-operated APLNG and Santos-operated GLNG. Notably, all three are CSG-play-based LNG exporters serving the highly lucrative markets of Japan, China and Korea.

The Australian East Coast gas market is facing the threat of a supply crunch

As these operators are more focussed on serving international markets, the domestic East Coast market is facing the threat of a supply crunch. According to ACCC's interim Gas Inquiry report, the East Coast gas market is expected to witness a tight demand–supply balance in the short term (Figure 11). However, in the medium term, the market is expected to experience a gap in supply and demand. As per EnergyQuest[15], gas production in NSW, Victoria, South Australia and Tasmania is forecasted to be less than demand by 2022. In our view, this represents a substantial opportunity for RLE to monetise its considerable unconventional resource play.

[14] Billion cubic meter; source – NS Energy article "Qatar leads global LNG exports but who else make the top 5?" (August 2019).
[15] 'East Coast Gas Outlook to 2036' report; source – Australian Energy Council's article dated 28 February 2019

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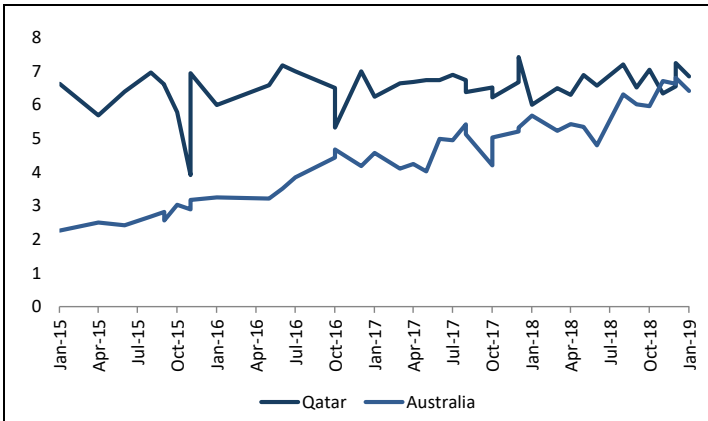
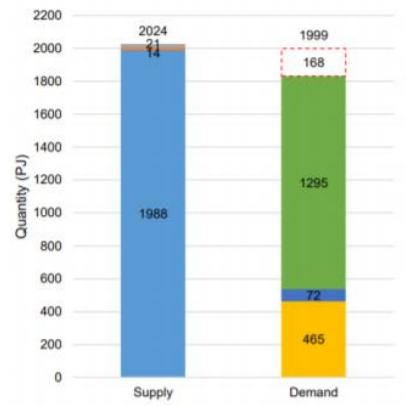
Figure 10: Monthly LNG exports of key producers



Source: Dept. of Industry, Innovation and Science (March 2019)

Figure 11: Forecast supply-demand balance in the East Coast gas market in 2020



Source: ACCC Gas Inquiry interim report (July 2019)

The current LNG projects are also expected to reach full capacity in the short term. For instance, as per EnergyQuest's estimates, annual gas production by offshore Victoria is expected to halve by 2025. Add to this the long lead times needed for new projects to take off, the LNG market is expected to witness tightening in the short–medium term.

Consequently, both the government and the industry are in search of fresh reserves of natural gas to mitigate the looming supply crisis. We believe RLE is well positioned to take advantage of this opportunity. This would be driven by production from its new and existing wells, which is expected to coincide with the timeline for the supply crunch.

Australian East Coast market is characterised by high gas prices

Higher exports are leading to higher netback prices

Ever since the three Queensland projects started exporting LNG in 2015, the domestic gas prices have soared dramatically along the East Coast (Figure 12). This is driven, in part, by gas providers keeping prices in line with Asian spot prices, which elevated substantially following the meltdown at the Fukushima Dai-Ichi plant in Japan in 2011. As a result, LNG netback prices[16] soared in the first half of the decade. Even though global gas prices have declined in the past 12 months, the ACCC forecasts a trend reversal in the making. This is evidenced by the latest LNG netback price forecast released by the ACCC in October 2019 (Figure 13).

Moreover, over the years, the Australian East Coast gas market has witnessed a divergence in the netback and domestic LNG prices. Notably, while the netback prices dropped significantly to A$5.19/GJ in October 2019 (from A$13.2/GJ a year ago), the prices charged to Australian consumers remained high. As per ACCC's July 2019 Interim Gas Inquiry report, prices charged by retailers to domestic commercial and industrial (C&I) users remained in the range of A$10–12/GJ. This is primarily due to low competition, tight supply–demand situation and high production costs that characterise the East Coast gas market.

[16] A measure of export parity price, it is calculated by subtracting the conversion and transportation costs from the sales price of LNG. In the East Coast market, the sales price is based on the Asian spot prices; source – ACCC Gas Inquiry 2017–2020.

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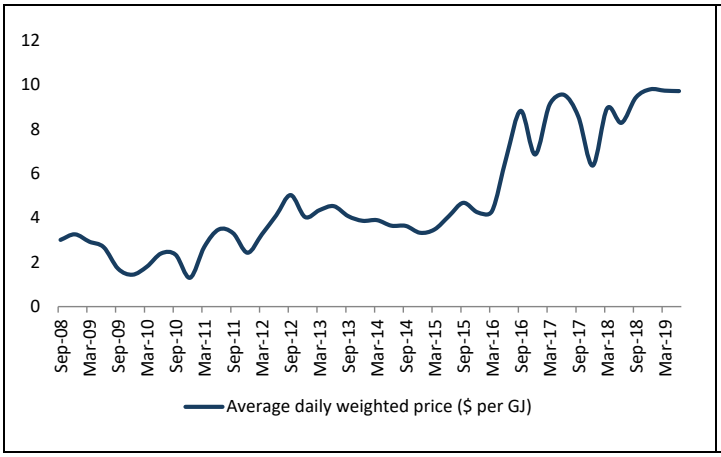
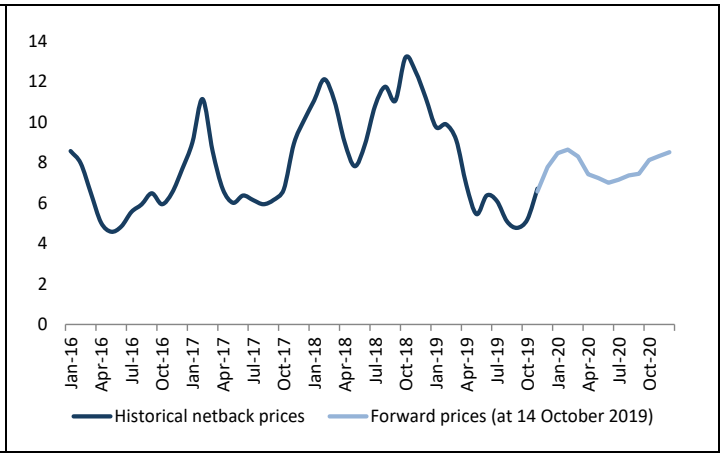
Figure 12: Victorian gas market avg. daily weighted prices



Source: Australian Energy Regulator

Figure 13: LNG netback prices (A$/GJ)



Source: ACCC Gas Inquiry 2017-2020 (October 2019)

High prices spell good news for RLE

High retail prices is a boon for unconventional resource players, including RLE

This high-price environment, which is expected to continue in the medium term driven by the tight supply–demand situation, spells good news for unconventional players such as RLE. This is primarily because of high production costs that are incurred for the development of unconventional resources. As per a report by Core Energy and Resources[17], a majority of unconventional gas resources are produced at A$3.65–6.40/GJ, compared with A$2.95–3.90/GJ of costs incurred for the production of conventional gas resources. In our view, with the netback prices expected to return to the A$8/GJ levels by 2020, RLE is well positioned to get a high price for its GSAs. With RLE looking to start production next year, we believe the revenue will provide further boost to the development of new wells.

RLE has been raising equity to meet funding requirements

The company has so far been relying on private placements to meet its funding requirements. In 2019 alone, RLE raised A$8.7m by way of private placements of c.93m ordinary shares. In our view, this ability to successfully raise funds from the market (Figure 14) reflects the confidence professional investors have in RLE's growth potential. Notably, given that the company is yet to begin production, it has been issuing equity to raise funds to meets its capex requirements. However, once production starts (expected in 2020) RLE will be able to tap into its revenues to fund future growth.

[17] Core Energy and Resources, Gas Production Cost Estimates, Eastern Australia - ACCC Gas Market Inquiry (November 2018)

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Figure 14: Past capital issuances

Timeline	Funds raised (in AUD m)	Source of funds
2019	$3.7	Placement of 46.25m new fully paid ordinary shares in August 2019 raising A$3.7m.
2019	$5.0	Placement of 47.6m new fully paid ordinary shares in March 2019 which raised A$5m before costs.
2018	$3.7	The Company had completed a fund raising in early August 2018. A$3.7m has been raised through a Placement of 46.25m fully paid ordinary shares.
2017	$2.3	Placement of 26m new fully paid ordinary shares @ A$0.09 per share.
2017	$2.0	Raied A$2m through private placement to investment funds, professional and sophisticated investors. RLE issued 25m ordinary shares @ A$0.08 per share.
2016	$2.6	Raised A$2.6m through a private placement, issuing 20.8m ordinary shares.
2015	$5.0	Raised A$5m through a private placement, issuing 16.13m ordinary shares.
Total	**$24.34**	

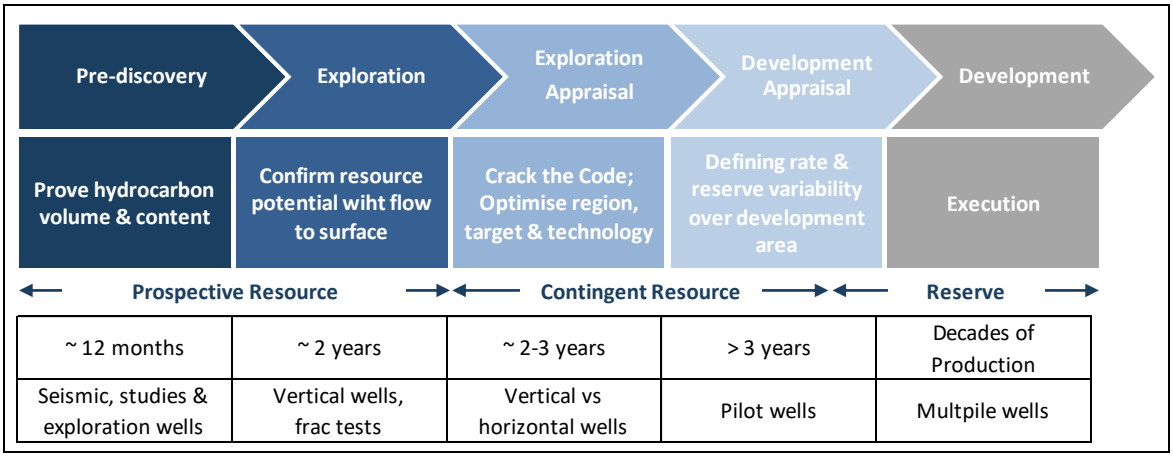
Source: Company, Pitt Street Research

What's next for RLE?

Most oil and gas companies follow more or less a similar work programme, starting from conducting studies for resource discovery to production (Figure 15). RLE is currently placed at the third stage – Exploration Appraisal. The company has already confirmed the existence of significant 3C resources at its ATP 927P permit area and is currently engaged in improving technology to optimise flow rates. Moreover, with the decision already made for the drilling of horizontal wells, RLE is set to move to the next phase. To this end, the company is currently in search of a farm-in partner.

We also believe that by having secured the pipeline license and gas processing arrangements, RLE is well placed to fast-track its way into the fifth stage.

Figure 15: Illustrative timeline for oil and gas companies



Source: Santos Limited Investor Presentation (2015)

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Leveraging the rich acreage

Having proved the existence of substantial unconventional gas play in its permit areas, RLE's next move is to expand its operations. To this extent, the company plans on drilling six new wells in the region, targeting the upper and middle Patchawarra sandstones. Unlike their predecessors, these wells would be horizontal or nearly horizontal in design. However, the company will continue to deploy the multistage fracking stimulation process.

Need of the hour: A farm-in partner

Following the success of previous wells, in order to fully unlock the value of its acreage, RLE plans to dig more wells in the permit areas. Since the company plans to undertake horizontal digging for the new wells, it is likely to incur a higher capex. Combine this with its plans to commercialise the existing wells and the company is in dire need of funding.

Farm-in partners bring in both financial and technical assistance

This is where farm-in partners come into play. Oil and gas companies often enlist the help of farm-in partners in order to gain both financial assistance and technical expertise. This becomes more vital for a junior player like RLE. In this regard, one thing in RLE's favour is that it has 100% ownership of its acreage in the basin. This makes the company an attractive investment option for potential buyers.

Gas sales agreements needed to put the show on the road

Another source of immediate funding for RLE would be to sign gas sales agreements (GSAs) with prospective clients. This would allow the company to secure funds in the form of prepayments made by the customer for future gas delivery. Currently, the company has Weston Energy as its foundation customer, which it acquired through an MoU signed in 2017. This MoU forms the building block for a future GSA, granted certain conditions are met, including Weston finalising gas transport arrangements.

However, if the GSA is executed, RLE would be eligible to receive A$6m as prepayment from Weston. This payment would help the company fund its future exploration and development expenses. In our view, this is a crucial step for the company, which it needs to execute concurrently with the development of the pipeline to Mt. Howitt. Notably, the grant of this pipeline license should also stimulate interest for potential GSAs, as the company now has a path to move its gas produced at the Tamarama wells.

RLE is expanding operations across East Coast

In October 2019, the company was awarded a permit in the Surat Basin for developing CSG acreage, following a competitive bidding process. RLE had submitted the bid in a 50:50 joint venture (JV) with Strata X Energy (TSX.V:SXE) (ASX:SXA). SXA is a US-based independent oil and gas exploration company focussed on developing CSG resources in Botswana. The company also has two oil assets in the US – the Illinois Basin project and the Eagle Oil project.

The government of Queensland awarded the permit (PLR2019-1-11) to the JV for a non-cash consideration. The acreage, which spans over an area of 154 sq km, has been termed Project Venus and will be operated by RLE. It is located 9km west of Miles, Queensland, and is in close proximity to the existing gas infrastructure (Figure 16). In our view, this will help the company fast-track its speed to market once the resources are converted to reserves.

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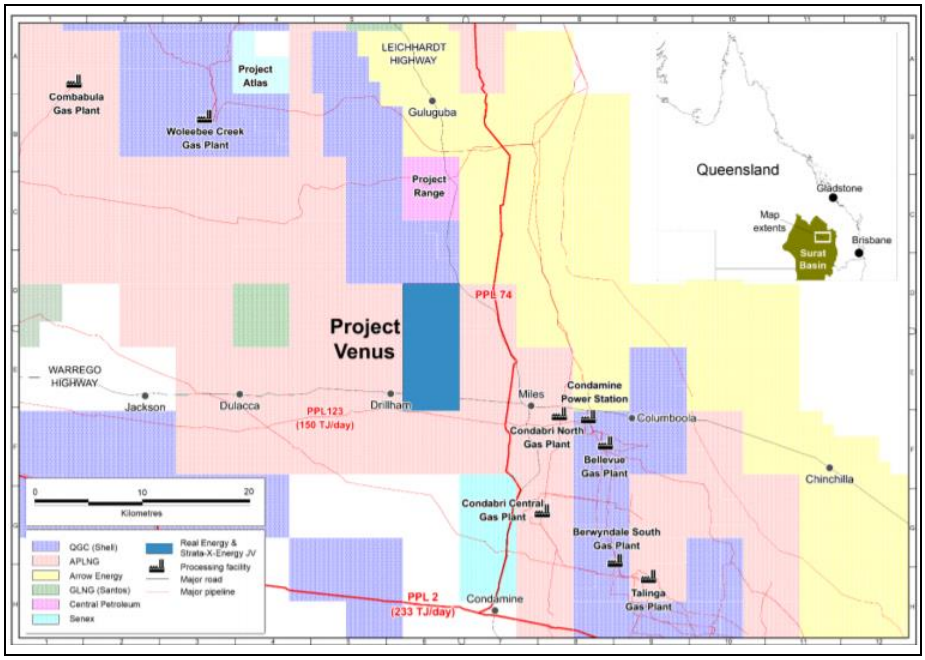
As with the Windorah project, RLE plans to develop unconventional play at Project Venus, targeting the gas-parched East Coast market. The plan is to begin field work in H1 2020 with exploratory wells to prove the existence of resources and commercial gas flow rates.

SXA is led by Ron Prefontaine, who is a veteran in the oil and gas exploration industry, with substantial knowledge of the Walloon fairway. Prior to joining SXA, Mr. Prefontaine served as the Executive Director at Arrow Energy and was the founding MD of Bow Energy Limited. We believe that the significant expertise that Mr. Prefontaine brings to the JV will greatly benefit the project in the conversion of resources to reserves. Moreover, SXA already operates a substantial CSG play in Botswana, with 6.08TCF of the total prospective resources. In our view, the technical know-how gained from this project would help the JV in developing the value of the Surat Basin acreage.

The Surat Basin in itself is a well-researched and proven CSG play area

The Surat Basin in itself is a well-researched and proven CSG play area, with numerous industry players already operating in the region. Interestingly, in this same round of tender release, Santos was also awarded two blocks (PLR2019-1-10 and PLR2019-1-09) in the basin. The permit was awarded to the GLNG JV, which includes Santos, Petronas, Total and KOGAS. This seems evidential of RLE's ability to successfully compete with industry giants such as Santos in bidding for acreage. Finally, in our view, the fact that numerous players showed interest in gaining acreage is indicative of the significance of the basin.

Figure 16: Location of Project Venus



Source: Company

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Surat Basin: Another substantial unconventional play

Located in proximity to major East Coast cities, such as Sydney and Brisbane, the Surat Basin is an important onshore unconventional gas play. The basin spans an area of 300,000 sq km and covers central-southern Queensland and central-northern NSW (Figure 16). The basin is also located near the three major LNG export projects in Queensland – QCLNG, GLNG and APLNG. Notably, the establishment of these three projects, which came online earlier in the decade, vastly contributed to the development of Surat Basin's value. All three projects are CSG based and require vast supplies of LNG to meet contractual obligations towards Asian clients. These projects make the Surat Basin a crucial onshore CSG resource play.

Valuing Real Energy

We value RLE at A$0.15 per share base case and A$0.25 per share optimistic (bull) case. Our basic valuation approach is as follows:

- Our DCF model for the Windorah Trough project is based on conservative forecasts of gas supply from the project over a 10-year period. We have assumed a WACC of 8.4%[18] and a terminal growth rate of 0.5%.
- We assumed the company will start production at its three Tamarama wells in FY21.
- We have assumed the selling prices to be A$8.26/GJ for the base case and A$9.91/GJ for the optimistic case.
- A 30% corporate tax rate has been factored in.

Our base case valuation assumes gas prices >A$8/Gj

BCG pricing. We have been conservative in our assumption of gas prices and used the wholesale gas price rather than retail gas price. For our base case calculation, we have assumed a gas price of A$8.26/GJ[19], in line with wholesale gas prices in the Victorian market. For the optimistic case, we have applied a 20% premium to the base case price, thereby arriving at a gas sale price of A$9.91/GJ

Exploration costs. We have estimated the exploration costs to be 36% of the sales in the base case scenario and 30% in optimistic case. This calculation is based on an assumed production cost of A$3 per GJ.

Funding of the project. The company has so far been funding the Windorah project entirely through equity. As of 30 June 2019, RLE had raised a total of A$40m by issuing fully paid ordinary shares. Going forward, the company plans on funding the drilling of future wells by signing a farm-in partner. The signing of a GSA also often entails a prepayment to fast-track the production process of the resource.

We assume that a farm-in partner is secured during FY20 that earns 20% of the project by funding the wells that establish the size of the Windorah reserve and allows the project to commence production in FY21. The next expenditure by the farm-in partner under this scenario we have modelled at ~A$6m.

The resulting DCF valuations have been summarised in Figure 17 below, with our base and optimistic cases yielding a value of A$0.15 and A$0.25 per share, respectively.

[18] RFR 1.2%, MRP 6.0% and beta 1.20.
[19] Source – AEMO

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Figure 17: Discounted cash flow valuation for Real Energy

Valuation (AUD)	Base Case	Bull Case
Value of Windorah to RLE	**43,708**	**76,090**
Net debt (cash)	(3,279)	(3,279)
Equity value (A$)	**46,987**	**79,369**
Share outstanding (FY20E)	312,873	312,873
Implied price (A$ cents)	**0.15**	**0.25**
Current price (A$ cents)	0.036	0.036
Upside (%)	*417%*	*705%*

Source: Pitt Street Research

Comparable companies operating in the Cooper Basin

- **Senex Energy** (ASX:SXY). An oil and gas explorer and producer in Australia, SXY holds both conventional and unconventional acreage in the Cooper-Eromanga Basin. It also holds 2000 sq km of CSG acreage in the Surat Basin.
- **Strike Energy** (ASX:STX). Primarily focussed on the commercialisation of the South Cooper Basin Gas Project, it holds a total acreage of 9,232 sq km in the Cooper-Eromanga Basin as well as certain gas assets in the Perth Basin.
- **Central Petroleum** (ASX:CTP). CTP holds oil and gas assets in various basins, including the Amadeus, Southern Georgina, Wiso and Surat Basins. The company has a total exploration area of 228,740 sq km.
- **Armour Energy** (ASX:AJQ). AJQ is engaged in the production of gas, LPG, condensate and oil. It holds acreage in various basins, including the Bowen-Surat, Isa Super, South Nicholson, Georgina and McArthur Basins. It also has exploration interests in the onshore Gippsland Basin in Victoria.

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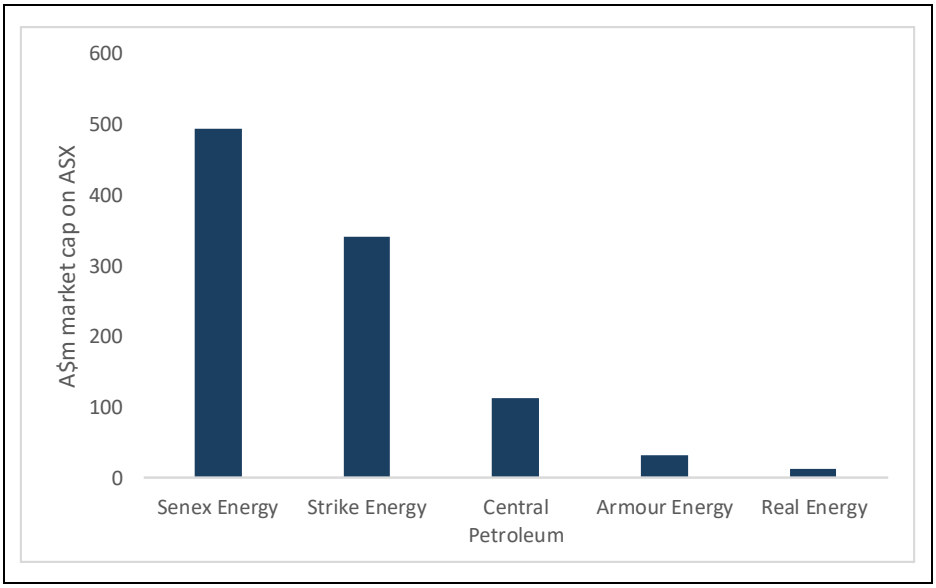
Figure 18: Market capitalisation of comparable companies (in AUDm)[20]



Source: S&P Capital IQ, Pitt Street Research

Re-rating RLE

We see a number of factors contributing to the re-rating of Real Energy towards our valuation range:

- Signing of gas sales agreements given that the company has already received the pipeline licence and has the gas processing agreement in place.
- The potential to attract a farm-in partner, driven by the considerable BCG resource play already established at the acreage. The farm-in partner is expected to help conduct horizontal fracking at the new wells.
- Potential for seismic work at ATP1194P to yield targets worth exploring.
- Other exploration activity in the vicinity of ATP927P, such as the Whanto wells of Santos, to further help drive value of the acreage.
- Tightening demand–supply situation in the Australian East Coast market driving up gas prices.

We look for a tightening demand–supply situation in the Australian East Coast market

Risks

We see four main risks related to Real Energy's investment thesis:

- Exploration risk: RLE is yet to begin exploration at its ATP 1194PA permit area in the Cooper Basin, and the PLR2019-1-11 permit area in the Surat Basin. Hence, there is a risk that the company may not discover substantial gas reserves at these acreages.
- Execution risk: Though RLE has discovered gas at its four quasi-exploratory wells in the ATP 927P permit area, there is still risk associated with establishing commercial flow rates at the future wells. RLE will also need to secure gas sales agreements to start production at its Tamarama wells.

[20] Market capitalisation on ASX as at 21 November 2019.

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- Funding risk: As RLE continues with the development of its Windorah Trough project, it will require substantial finances to fund its operations. Both the exploration of new wells and production at current wells would require additional funds, which RLE will have to secure through either a farm-in arrangement or by raising debt.
- Price risk: LNG prices may come under pressure as the proposed gas import terminals come online on the Australian East Coast. Driven by the looming gas shortage in the East Coast market, the government approved the construction of five import terminals, which will have a total capacity of 500PJ[21] .

A robust board and management

Scott Brown, the current CEO and Co-Founder, has considerable experience in the management of public companies. Before joining RLE, he was the CFO at Mosaic Oil NL (ASX:MOS), before it was acquired by AGL Energy for A$142m in 2010. Prior to this, Brown had largely been involved in investment banking and corporate finance.

Dang Lan Nguyen, RLE's Non-Executive Chairman and Co-Founder, is a petroleum geologist, with c.20 of experience in the petroleum exploration and development industry. Nguyen has been recognised for his work in the development of several oil and gas fields in the Surat and Bowen Basins. He is also a member of PESA, AAPG and SPE[22].

John Wardman, a Non-Executive Director, is a veteran in the Australian stockbroking and wealth management industry, with specialisation in the small resources and energy sectors. He previously worked with Macquarie Private Wealth for 13 years and Hartleys Ltd. Wardman has extensive contacts in the industry, and this could further help RLE raise funds.

Peter Mangano, a Non-Executive Director, is a fund manager with c.30 years of experience in the resources and energy sectors. He currently serves as the director at Contango Capital and was with Colonial First State before that. Prior to this, Peter also worked with Citigroup for 12 years.

[21] The five projects include Energy Projects & Infrastructure Korea's (EPIK) Newcastle project, Australian Industrial Energy's Woolongong project, AGL's Cribb project, ExxonMobil's Victoria project and Venice Energy's Pelican Point project; source – IEEFA's report 'Towards a Domestic Gas Reserve' (July 2019)

[22] PESA - Petroleum Exploration Society of Australia; AAPG - American Association of Petroleum Geologists; SPE - Society of Petroleum Engineers

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Appendix I – Glossary

Coal Seam Gas – A form of unconventional natural gas, primarily methane, found in coal deposits formed over millions of years from fallen trees.

Farm-in – An arrangement whereby an operator acquires a stake in another operator's gas or oil producing asset, where the resource has either already been discovered or is being produced.

Gas flow rate – A measure of the volume of gas that passes through a particular point at a particular point in time. It can be expressed in various units, including actual cubic meters per hour (acm/h), linear feet per minute (lfm) and million standard cubic feet per day (mscfd).

Multistage fracking – A hydraulic fracturing process wherein fracking begins at the toe or end of a horizontal leg and works back to the vertical part of the well. The aim is to maximise coverage of the reservoir in order to ensure maximum recovery of oil and gas in the area.

Permeability – The ability of a rock formation to transmit fluids. It is generally measured in darcies or millidarcies.

Proppant – A solid material, usually sand grain, which is used to keep a hydraulic fracture open during production. Companies need to carefully select the proppant as it impacts the flow rate of a well.

Roseneath-Epsilon-Murteree – Sandstone formations containing shale gas, an unconventional gas play. These sandstones form the principal source of shale gas in the Cooper Basin.

Seismic interpretation – The determination of geological significance of seismic data. The data is gathered through a survey wherein geologists use soundwaves to map geological structures.

Shale gas – An unconventional form of natural gas, located in the tight formations of shale rocks. These are fine-grained sedimentary rocks that are good reservoirs of petroleum and natural gas.

Structural traps – A geological trap that forms as a result of changes in the structure of the subsurface. Changes in the subsurface are driven by tectonic and gravitational processes, which block the upward movement of hydrocarbons. As a result, petroleum and gas reservoirs are formed within the subsurface.

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Appendix II – Capital Structure

Class		% of fully diluted	Note
Ordinary shares, ASX Code RLE (million)	349.4	84.2%	
Unlisted options (million)	65.4	15.8%	Exercise price 13.8 cents, average expiry date 13-Nov-2020
Fully diluted shares	414.8		
Current market cap:	A$12.6 million (US$8.6 million)		
Current share price	$0.036		
Share price range (last twelve months)	$0.135 - $0.022		
Average turnover per day (last twelve months)	791,500		

Appendix III – Major Shareholders

The two major shareholders in Real Energy are as:

- Scott Brown, executive director and CEO (8.15%)
- Dang Lan Nguyen, one of Real Energy's directors (5.90%)

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Appendix IV - Analyst qualifications

Stuart Roberts, lead analyst on this report, has been an equities analyst since 2002.

- Stuart obtained a Master of Applied Finance and Investment from the Securities Institute of Australia in 2002. Previously, from the Securities Institute of Australia, he obtained a Certificate of Financial Markets (1994) and a Graduate Diploma in Finance and Investment (1999).
- Stuart joined Southern Cross Equities as an equities analyst in April 2001. From February 2002 to July 2013, his research specialty at Southern Cross Equities and its acquirer, Bell Potter Securities, was Healthcare and Biotechnology. During this time, he covered a variety of established healthcare companies such as CSL, Cochlear and Resmed, as well as numerous emerging companies. Stuart was a Healthcare and Biotechnology analyst at Baillieu Holst from October 2013 to January 2015.
- After 15 months in 2015 and 2016 doing Investor Relations for two ASX-listed cancer drug developers, Stuart founded NDF Research in May 2016 to provide issuer-sponsored equity research on ASX-listed Life Science companies.
- In July 2016, with Marc Kennis, Stuart co-founded Pitt Street Research Pty Ltd, which provides issuer-sponsored research on ASX-listed companies across the entire market, including Life Science companies.
- Since 2018 Stuart has led Pitt Street Research's Resources Sector franchise, spearheading research on both mining and energy companies.

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