

# Peninsula Energy (PEN)

Rating: Buy | Risk: High | Price Target: \$0.34

9 May 2023

## On track for first uranium production from Lance in mid-2023

### Key Information

Current Price (\$ps)	0.16
12m Target Price (\$ps)	0.34
52 Week Range (\$ps)	0.12 - 0.21
Target Price Upside (%)	117.2%
TSR (%)	117.2%
Reporting Currency	AUD
Market Cap (\$m)	195
Sector	Energy
Avg Daily Volume (m)	2.0
ASX 200 Weight (%)	0.01%

### Fundamentals

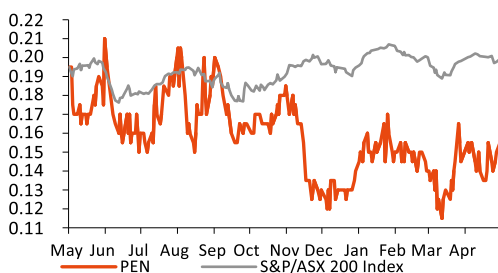
YE 30 Jun (AUD)	FY22A	FY23E	FY24E	FY25E
Sales (\$m)	18	40	38	63
NPAT (\$m)	(6)	(8)	(5)	8
EPS (cps)	(0.4)	(0.7)	(0.4)	0.5
EPS Growth (%)	(64.3%)	(68.2%)	42.7%	237.4%
DPS (cps) (AUD)	0.0	0.0	0.0	0.0
Franking (%)	0%	0%	0%	0%

### Ratios

YE 30 Jun	FY22A	FY23E	FY24E	FY25E
P/E (x)	(38.1)	(22.7)	(39.6)	28.8
EV/EBITDA (x)	(31.4)	(136.2)	(971.3)	12.1
Div Yield (%)	0.0%	0.0%	0.0%	0.0%
Payout Ratio (%)	0.0%	0.0%	0.0%	0.0%

### Price Performance

YE 30 Jun	1 Mth	2 Mth	3 Mth	1 Yr
Relative (%)	6.1%	11.1%	6.7%	(30.5%)
Absolute (%)	6.9%	10.7%	3.3%	(29.5%)
Benchmark (%)	0.8%	(0.4%)	(3.4%)	1.0%



Price performance indexed to 100

Source: FactSet

### Major Shareholders

Paradise Investment Management	8.8%
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### Event

Peninsula Energy has provided an update on its Lance Uranium Project in Wyoming, USA. After some delays on delivery of long lead-time items, Lance is now back on track and is expected to commence first production in mid-2023 with first sales in 4Q23. The capital cost estimates remain in line with the Definitive Feasibility Study (DFS) from August 2022. We have updated and refreshed our financial model but make no material changes to our forecasts.

### Highlights

- Construction of PEN's flagship Lance Projects in Wyoming, USA, has commenced and work streams are on schedule for a production restart in mid-2023. Peninsula is the only ASX company with direct exposure to US Government initiatives which are pro-domestic mine development. Peninsula delivered 300klbs to the US government in Mar-23.
- PEN has an existing contract book and product inventory, with a binding purchase agreement netting a cash margin of US\$7.8m in CY2021 (450klbs) and >US\$9m in CY22 (450klbs). The company has long-term sales contracts extending to 2033, up to 5.25Mlbs at US\$56-58/lb U<sub>3</sub>O<sub>8</sub> with major utilities across Europe and the US.
- The uranium market continues to return to life after the decade lost post Fukushima. Shaw and Partners recently hosted a uranium conference at which Treva Klingbiel, the Principal of TradeTech, a leading uranium consulting group, outlined the high level of utility buying in the term market. Volumes in 2022 reached ~120mlbs of uranium sold, which is the 3<sup>rd</sup> busiest year since 2001 and the highest since 2012. 2023 is set to exceed that level with 50mlb already contracted in the March quarter.
- Uranium pricing is trending upwards due to looming supply deficits, lengthy development timeframes, increased spot market activity and geopolitical uncertainties. We expect to see at least US\$80/lb this cycle.
- Peninsula is switching operations from high to low pH in order to increase product yields. The results of an 18-month field demonstration indicated that the targeted low-pH chemistry and field patterns are effective in dissolving and recovering uranium.
- After some initial delays in receiving some long lead-time items construction is now progressing well. The first of two large acid storage tanks have been installed and the second has been received on site and will be installed soon. Pre-production circulating flows have been established in MU-1 at a rate of approximately 500 gallons per minute. This flowrate will be increased through May and June in preparation for first production in mid-23. The well patterns are being pre-acidified but no flow is being directed to the process plant whilst it is being modified.
- Peninsula released a DFS in August 2022 and our modelling is based on that DFS. The DFS outlined a simple, two-stage, ramp-up to 2Mlbs/yr, with production sourced from the Ross and Kendrick areas of Lance Projects.
- Peninsula is well capitalised for the restart of Stage 1 with US\$26m of cash at 31-Mar-23. Stage 1 will lift production to 0.82 Mlb's of production per annum for a total cost of US\$24.7m which includes US\$8.4m up front and US\$16.3m on the well field over 2.5yrs.
- Stage 2 will take production to 2Mlb/yr and will require additional investment of US\$70m. Peninsula's peak funding requirement to cash flow positive is ~US\$60m.

### Recommendation

We maintain our Buy recommendation and price target of A\$0.34ps, set at 1.3x our fully diluted valuation of A\$0.26ps.

We like PEN for its operations being in the US, having an existing contract book, and its leverage to a uranium sector upcycle.

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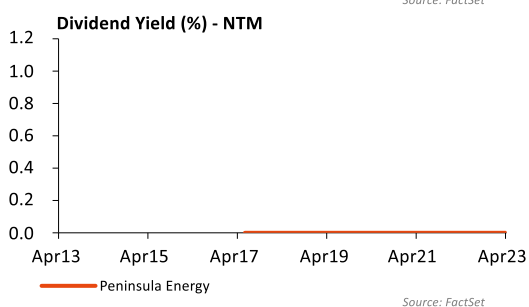
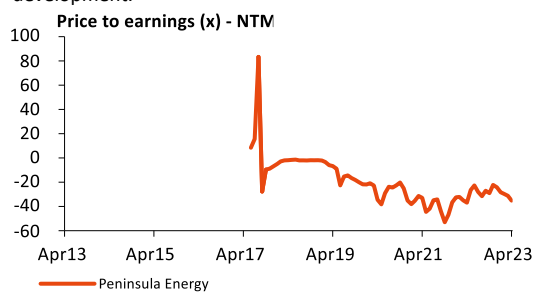
**Peninsula Energy**  
Energy  
Energy

FactSet: PEN-AU / Bloomberg: PEN AU

Key Items	Data
Recommendation	BUY
Risk	HIGH
Price (\$ps)	0.16
Target Price (\$ps)	0.34
52 Week Range (\$ps)	0.12 - 0.21
Shares on Issue (m)	1,257
Market Cap (\$m)	195
Enterprise Value (\$m)	184
TSR (%)	117.2%

Valuation NPV	Data
Valuation (\$m)	389
Valuation per share (cps) (AUD)	0.31

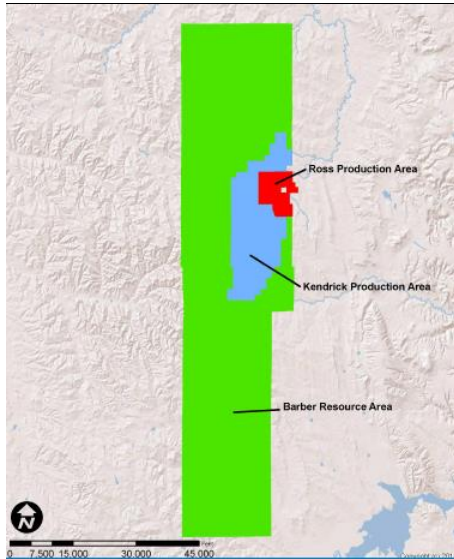
Peninsula Energy is an ASX listed company that owns the Lance Uranium Project in Wyoming, USA which are in transition from an alkaline to a low pH in-situ recovery operation. The Lance Project requires low upfront capital and can rapidly restart post a Final Investment Decision. PEN is the only ASX company with direct exposure to US Government initiatives which are pro-domestic mine development.



**Financial Year End: 30 June**

Investment Summary (AUD)	FY21A	FY22A	FY23E	FY24E	FY25E
EPS (Reported) (cps)	(0.2)	(0.4)	(0.7)	(0.4)	0.5
EPS (Underlying) (cps)	(0.2)	(0.4)	(0.7)	(0.4)	0.5
EPS (Underlying) Growth (%)	81.9%	(64.3%)	(68.2%)	42.7%	237.4%
PE (Underlying) (x)	(68.7)	(38.1)	(22.7)	(39.6)	28.8
EV / EBIT (x)	(208.5)	(31.4)	(23.4)	(31.2)	22.7
EV / EBITDA (x)	(208.5)	(31.4)	(136.2)	(971.3)	12.1
DPS (cps) (AUD)	0.0	0.0	0.0	0.0	0.0
Dividend Yield (%)	0.0%	0.0%	0.0%	0.0%	0.0%
Franking (%)	0%	0%	0%	0%	0%
Payout Ratio (%)	0.0%	0.0%	0.0%	0.0%	0.0%
Free Cash Flow Yield (%)	(10.9%)	0.7%	(2.8%)	(18.3%)	(16.5%)
Profit and Loss (AUD) (m)	FY21A	FY22A	FY23E	FY24E	FY25E
Sales	10	18	40	38	63
Sales Growth (%)	60.8%	87.2%	116.2%	(4.3%)	66.2%
Other Operating Income	1	1	1	1	1
EBITDA	(1)	(6)	(1)	(0)	15
EBITDA Margin (%)	(9.0%)	(31.9%)	(3.4%)	(0.5%)	24.2%
Depreciation & Amortisation	0	0	(6)	(6)	(7)
EBIT	(0.9)	(5.8)	(7.8)	(5.9)	8.1
EBIT Margin (%)	(9.0%)	(31.9%)	(19.8%)	(15.5%)	12.8%
Net Interest	0	0	0	0	0
Pretax Profit	(1)	(6)	(8)	(5)	8
Minorities	0	0	0	0	0
NPAT Underlying	(1)	(6)	(8)	(5)	8
Significant Items	1	(1)	0	0	0
NPAT Reported	(2)	(5)	(8)	(5)	8
Cashflow (AUD) (m)	FY21A	FY22A	FY23E	FY24E	FY25E
EBIT	(1)	(6)	(8)	(6)	8
Tax Paid	0	0	1	0	0
Net Interest	(0)	0	0	0	0
Change in Working Capital	(9)	0	5	5	0
Depreciation & Amortisation	0	0	6	6	7
Other	(7)	8	0	0	0
Operating Cashflow	(17)	2	5	5	15
Capex	(0)	(1)	(10)	(44)	(54)
Acquisitions and Investments	0	0	0	0	0
Disposal of Fixed Assets/Investments	0	0	0	0	0
Other	0	0	0	0	0
Investing Cashflow	(0)	(1)	(10)	(44)	(54)
Free Cashflow	(17)	1	(5)	(39)	(38)
Equity Raised / Bought Back	11	0	22	30	0
Dividends Paid	0	0	0	0	0
Change in Debt	1	0	0	10	25
Other	0	(0)	0	0	0
Financing Cashflow	12	(0)	22	40	25
Exchange Rate Effect	0	(0)	0	0	0
Net Change in Cash	(5)	1	17	1	(13)
Balance Sheet (AUD) (m)	FY21A	FY22A	FY23E	FY24E	FY25E
Cash	7	8	25	26	12
Accounts Receivable	11	1	0	0	0
Inventory	0	15	10	5	5
Other Current Assets	7	6	6	6	6
PPE	19	19	21	55	96
Total Assets	92	88	103	137	170
Accounts Payable	7	1	0	0	0
Short Term Debt	1	0	0	0	0
Long Term Debt	0	0	0	10	35
Total Liabilities	24	15	15	25	50
Total Shareholder Equity	78	73	88	112	121
Ratios	FY21A	FY22A	FY23E	FY24E	FY25E
ROE (%)	(3.2%)	(5.3%)	(9.4%)	(5.3%)	6.9%
Gearing (%)	(8.4%)	(11.3%)	(38.4%)	(15.9%)	15.8%
Net Debt / EBITDA (x)	6.9	1.3	18.3	82.5	1.5
Price to Book (x)	2.2	2.1	2.2	2.1	1.9

Figure 1: Lance Projects production areas



Source: Company reports, Shaw analysis

### Lance Projects overview

The Lance Projects, broken into the Ross, the Kendrick and the Barber deposits (Figure 1), are located on the north-east flank of the Powder River Basin in Wyoming. They are a series of in situ recovery (ISR) deposits.

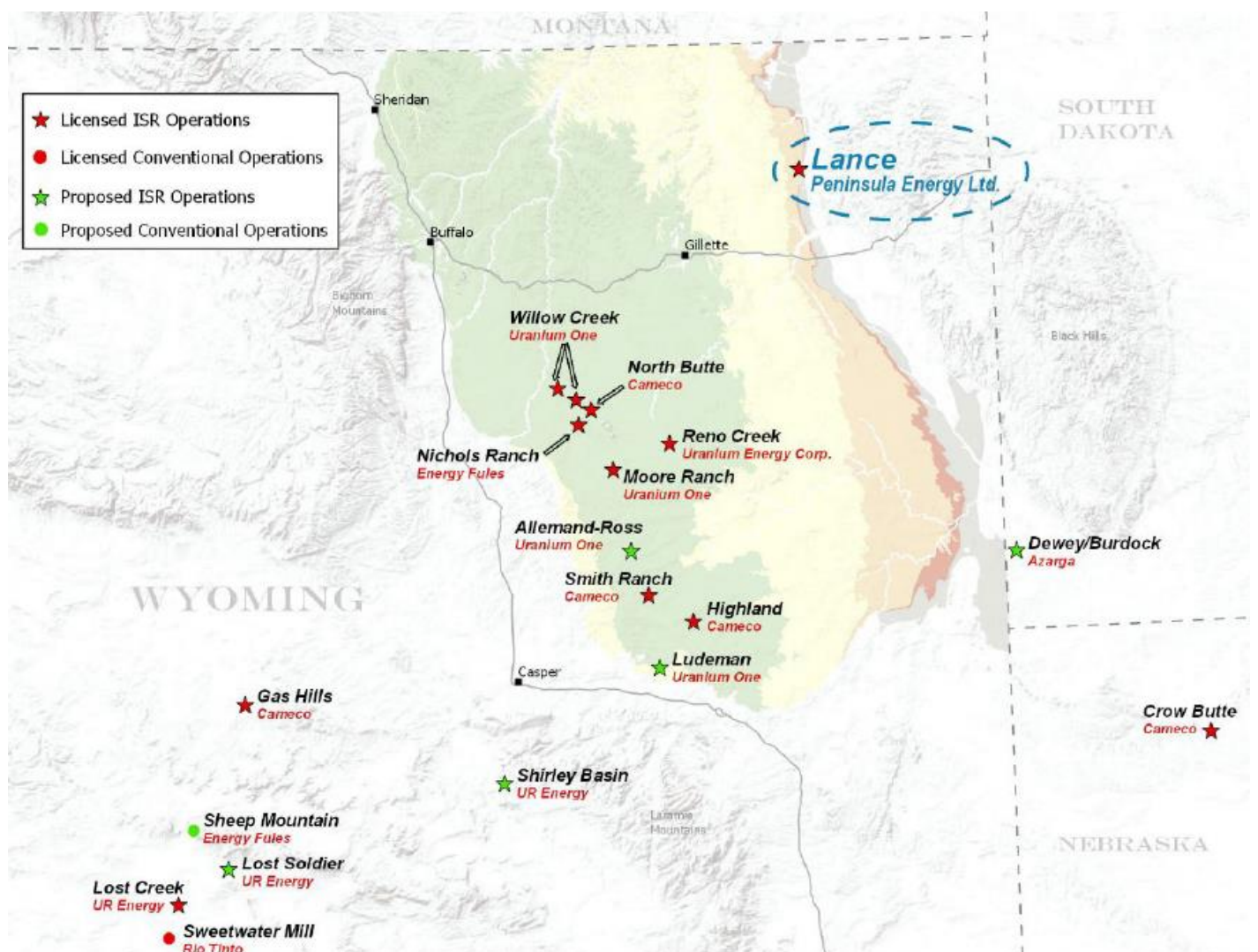
In-situ leach mining operations are for sandstone-hosted uranium deposits located below the water table in a confined aquifer. The uranium is dissolved in acid or alkali injected into and recovered from the aquifer by means of wells. In 2019 approximately 57% of global uranium production was via in-situ leach operations (vs 2000 15%). The increase over the past 20 years is largely due to the rise of Kazakh in-situ production (43% of 2019 production).

Lance started producing from the Ross unit in December 2015. Alkaline based operations were idled in July 2019 after ~350klbs U<sub>3</sub>O<sub>8</sub> had been mined - the company had ongoing difficulties in maximising recoveries.

Since then, PEN has focused its efforts on a transition to low pH operations, which have the potential to recover a higher percentage of uranium. Low pH recoveries are typically in the range of 70-90% vs 60-70% for alkali. The 2022 Ross and Kendrick DFS study conservatively assumes a 66% Resource recovery.

Figure 2: Powder River Basin, Wyoming, USA

The Powder River Basin in Wyoming, USA was discovered to host uranium in 1951. Deposits were found along a 60-mile trend, and a total of 190Mlbs of U<sub>3</sub>O<sub>8</sub> has been produced from this region since first production in 1953.



Source: Company reports

### Lance Projects Mineral Resource and technical updates

The 2022 DFS incorporates operational parameters observed in the MU1A Low-pH Field Demonstration, which took place between Sep-20q and Dec-21q. The DFS includes updated:

- Uranium grade and recovery curves (more conservative),
- ISR/well pattern design parameters (slightly narrower spacing), and
- process designs and reagent requirement models i.e.
  - Rates of acidification/ consumption - slightly less sulphuric acid consumption.
  - Strength of oxidants required - hydrogen peroxide used instead of gaseous oxygen.

**Figure 3: The Ross Process Plant at the Lance Projects, Wyoming USA**



Source: Company reports

**Figure 4: Lance Projects Mineral Resource, cut-off 200ppm U<sub>3</sub>O<sub>8</sub>**

The first 5 years of production of PEN's Ross and Kendrick DFS can be sourced almost entirely from Measured and Indicated Resources. We note there is an assumed overall resource recovery of 66% and a resource conversion of 61% to convert the Ross and Kendrick Area Inferred resources to Indicated or greater quality.

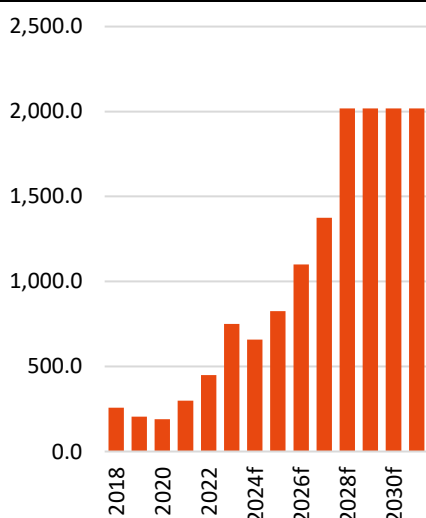
There is a low level of geological confidence associated with Inferred Mineral resources, which is mostly comprised of the Barber Resource (~70% of the resource base). The Barber Resource is not included in the 2022 DFS. We note Exploration upside in the area was previously assessed to be 50-150Mlbs (2015).

Classification	Tonnes (million)	U <sub>3</sub> O <sub>8</sub> (kg)	Grade (ppm U <sub>3</sub> O <sub>8</sub> )	U <sub>3</sub> O <sub>8</sub> (lbs)
Measured	3.4	1.7	489	3.7
Indicated	11.1	5.5	496	12.1
Inferred	36.2	17.2	474	37.8
<b>Total</b>	<b>50.7</b>	<b>24.4</b>	<b>480</b>	<b>53.6</b>

Project Area	Commence Production	Estimated Resources (lbs U <sub>3</sub> O <sub>8</sub> ) <sup>(1)</sup>	Estimated Production (lbs U <sub>3</sub> O <sub>8</sub> ) <sup>(2)</sup>
Ross	Year 0	5,882,000	4,104,000
Kendrick	Year 2	15,930,000	10,247,000
<b>DFS Area</b>	<b>Sub-Total</b>	<b>21,812,000</b>	<b>14,351,000</b>
Barber Resource <sup>(3)</sup>	N/A	31,859,000	N/A
<b>Lance Projects</b>	<b>Total</b>	<b>53,672,000</b>	<b>N/A</b>

Source: Company reports

Figure 5: Lance U<sub>3</sub>O<sub>8</sub> Sales (Mlbs)



Source: Company reports, Shaw analysis

### Lance Projects financial model updates

Our model of Lance Projects is broadly in line with the company's DFS assumptions. Key assumptions in our model include:

- An estimated LOM production of 16Mlbs over 14 years.
- Stage 1 production of 0.8Mlbs/yr (end CY23) and a second stage production at steady state from year 4 (FY28) of 2Mlbs.
- All-in Sustaining Cash Costs (AISC) of US\$39/lb and All-in-Costs (AIC) of US\$46/lb.
- Life-of-Mine Capex of US\$290m, comprised of:
  - Stage 1 Upfront Capex of US\$9m and Stage 2 Upfront Capex of US\$70m.
  - Stage 1 Sustaining Capex of US\$16m and Stage 2 Sustaining Capex of US\$195m.
- Restoration costs of US\$50m.
- Exploration/ Resource upside of US\$3/lb for the Barber Resource (~32Mlbs, not the full >150Mlbs resource potential). This is in line with the modelling methodology we use for PEN's peers.
- We assume a multi-year realised price spike at US\$70/lb for PEN (i.e. US\$70/lb realised includes the exiting contract book), before settling to our long-term U<sub>3</sub>O<sub>8</sub> realised price assumption of US\$65/lb (2022 Real) in 2028 (vs PEN realised pricing of US\$62/lb).

On our analysis the Lance Projects is NPV positive at an average weighted U<sub>3</sub>O<sub>8</sub> price of US\$53/lb. Using our base case U<sub>3</sub>O<sub>8</sub> deck, the project has a post-tax NPV<sub>10</sub> of US\$151m.

Figure 6: Lance financial model (US\$m)

Lance (US\$m)	2020	2021	2022	2023f	2024f	2025f	2026f	2027f	2028f	2029f	2030f	2031f	2032f
U3O8 (Mlb) - produced	31	0	0	0	459	825	1,100	1,376	2,017	2,017	2,017	2,017	1,651
U3O8 (Mlb) - sold	191	300	450	750	659	825	1,100	1,376	2,017	2,017	2,017	2,017	1,651
Revenue	7	12	24	40	38	63	88	110	161	161	161	175	147
Expenses	4	10	15	32	29	38	52	44	65	65	66	69	57
EBITDA	4	2	8	8	9	25	36	66	96	96	95	107	89
D&A	0	0	0	6	6	7	10	12	17	17	17	17	14
EBIT	4	2	8	1	3	18	26	54	79	79	78	89	75
Net Operating Assets	66	66	66	69	108	155	157	160	165	174	184	194	203
Capex	0	0	0	10	44	54	12	15	22	27	27	28	24
EBITDA Margin (%)	51%	19%	35%	20%	24%	39%	41%	60%	60%	59%	59%	61%	61%
EBIT / Assets (%)	6%	4%	13%	2%	3%	11%	17%	34%	48%	45%	42%	46%	37%
Spot U3O8 (US\$/lb)	28	31	46	53	63	81	85	85	85	85	85	87	89
AUD/USD	0.67	0.75	0.72	0.68	0.72	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Revenue (US\$/lb)	39	41	53	53	58	76	80	80	80	80	80	87	89
Expenses (US\$/lb)	19	33	34	42	44	46	47	32	32	32	33	34	35
EBITDA (US\$/lb)	20	8	19	10	14	30	33	48	48	48	47	53	54
D&A (US\$/lb)	0	0	0	9	9	9	9	9	9	9	9	9	9
EBIT (US\$/lb)	20	8	19	2	5	21	24	39	39	39	38	44	45
Nominal Tax @ 21%	0	0	0	0	0	0	0	0	0	-24	-23	-27	-22
Cash Flow	4	2	8	-2	-35	-29	24	51	74	46	45	52	43

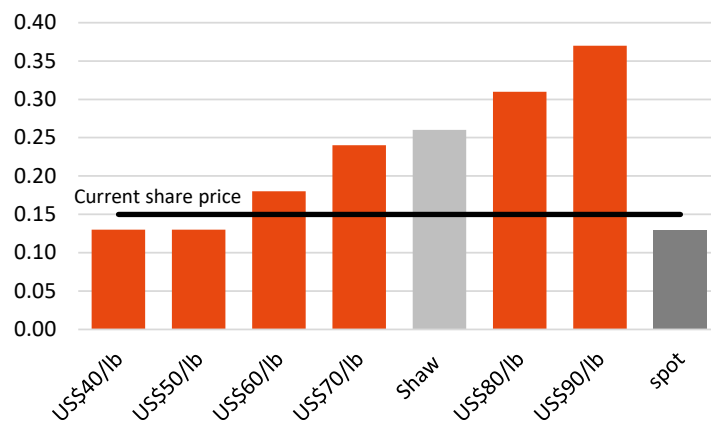
Source: Company reports, Shaw analysis

Figure 7: PEN valuation (fully diluted)

Peninsula Energy Valuation - diluted	US\$m	A\$m	A\$ps
Lance	151	201	0.13
Net cash / (debt)	26	35	0.02
Exploration upside	96	128	0.09
Cash from FY24 raising	30	40	0.03
Corporate costs	-11	-15	-0.01
<b>Total Valuation</b>	<b>291</b>	<b>389</b>	<b>0.26</b>
<b>Target price (1.3x diluted valuation)</b>			<b>0.34</b>

Source: Company reports, Shaw and Partners analysis

Figure 8: PEN valuation sensitivity (A\$ps)



Source: Company reports, Shaw and Partners analysis

Figure 9: PEN cash flow (US\$m)

CASH FLOW (US\$m)	2019	2020	2021	2022	2023f	2024f	2025f	2026f	2027f	2028f	2029f	2030f	2031f
<b>Operating activities</b>													
Receipts from customers	8	7	3	33	40	38	63	88	110	161	161	161	175
Payments to suppliers and employe	-15	-14	-11	-31	-41	-38	-48	-62	-54	-76	-76	-77	-80
Income taxes paid	0	0	0	0	1	0	0	0	0	0	0	-21	-21
Working capital movement	0	0	-9	0	5	5	0	0	0	0	0	0	5
Other	0	-1	0	0	0	0	0	-2	-1	0	1	3	4
<b>Net cash flow from operating activities</b>	<b>-7</b>	<b>-8</b>	<b>-17</b>	<b>2</b>	<b>5</b>	<b>5</b>	<b>15</b>	<b>25</b>	<b>54</b>	<b>85</b>	<b>87</b>	<b>66</b>	<b>83</b>
<b>Investing activities</b>													
Payments for PPE	0	0	0	-1	-10	-44	-54	-12	-15	-22	-27	-27	-28
Other	2	0	0	0	0	0	0	0	0	0	0	0	0
<b>Net cash flow from investing activities</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>-1</b>	<b>-10</b>	<b>-44</b>	<b>-54</b>	<b>-12</b>	<b>-15</b>	<b>-22</b>	<b>-27</b>	<b>-27</b>	<b>-28</b>
<b>Free cash flow</b>	<b>-8</b>	<b>-8</b>	<b>-17</b>	<b>1</b>	<b>-5</b>	<b>-39</b>	<b>-38</b>	<b>13</b>	<b>39</b>	<b>63</b>	<b>60</b>	<b>39</b>	<b>56</b>
<b>Financing activities</b>													
Net proceeds from issue of shares	0	31	11	0	22	30	0	0	0	0	0	0	0
Proceeds from borrowings	0	1	1	0	0	10	25	0	0	0	0	0	0
Repayments of borrowings	-1	-17	0	0	0	0	0	0	0	-10	-10	-10	-5
Dividends paid	0	0	0	0	0	0	0	0	0	0	0	-6	-15
Other	-1	0	0	0	0	0	0	0	0	0	0	0	0
<b>Net cash flow from financing activities</b>	<b>-1</b>	<b>15</b>	<b>12</b>	<b>0</b>	<b>22</b>	<b>40</b>	<b>25</b>	<b>0</b>	<b>0</b>	<b>-10</b>	<b>-10</b>	<b>-16</b>	<b>-20</b>
Net increase/(decrease) in cash	-7	7	-6	1	17	1	-13	13	39	53	50	23	36

Source: Company reports, Shaw analysis

Figure 10: PEN balance sheet (US\$m)

BALANCE SHEET (US\$m)	2019	2020	2021	2022	2023f	2024f	2025f	2026f	2027f	2028f	2029f	2030f	2031f
Cash and cash equivalents	5	12	7	8	25	26	12	25	65	118	168	191	227
Trade and other receivables	1	1	11	1	0	0	0	0	0	0	0	0	0
Other	4	4	8	21	16	11	11	11	11	11	11	11	6
<b>Total current assets</b>	<b>10</b>	<b>16</b>	<b>25</b>	<b>30</b>	<b>41</b>	<b>37</b>	<b>23</b>	<b>36</b>	<b>76</b>	<b>129</b>	<b>178</b>	<b>202</b>	<b>233</b>
Property, plant and equipment	19	19	19	19	21	55	96	97	99	102	108	115	123
Exploration and evaluation expendi	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	41	47	57	40	41	45	51	52	54	56	58	61	64
<b>Total non-current assets</b>	<b>60</b>	<b>66</b>	<b>76</b>	<b>59</b>	<b>62</b>	<b>101</b>	<b>147</b>	<b>149</b>	<b>152</b>	<b>157</b>	<b>167</b>	<b>176</b>	<b>187</b>
<b>TOTAL ASSETS</b>	<b>70</b>	<b>82</b>	<b>101</b>	<b>88</b>	<b>103</b>	<b>137</b>	<b>170</b>	<b>186</b>	<b>228</b>	<b>286</b>	<b>345</b>	<b>378</b>	<b>419</b>
Trade and other payables	2	1	7	1	0	0	0	0	0	0	0	0	0
Borrowings	16	1	1	0	0	0	0	0	10	10	10	5	0
Other	1	1	1	0	0	0	0	0	0	0	0	0	0
<b>Total current liabilities</b>	<b>19</b>	<b>2</b>	<b>9</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>5</b>	<b>0</b>
Deferred tax	0	2	2	1	2	2	2	2	2	2	23	23	27
Borrowings	0	0	0	0	0	10	35	35	25	15	5	0	0
Other	11	11	13	12	12	12	12	12	12	12	12	12	12
<b>Total non-current liabilities</b>	<b>11</b>	<b>13</b>	<b>15</b>	<b>13</b>	<b>15</b>	<b>25</b>	<b>50</b>	<b>50</b>	<b>40</b>	<b>30</b>	<b>40</b>	<b>35</b>	<b>39</b>
<b>TOTAL LIABILITIES</b>	<b>30</b>	<b>15</b>	<b>24</b>	<b>15</b>	<b>15</b>	<b>25</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>40</b>	<b>51</b>	<b>41</b>	<b>39</b>
<b>NET ASSETS</b>	<b>41</b>	<b>67</b>	<b>78</b>	<b>73</b>	<b>88</b>	<b>112</b>	<b>121</b>	<b>136</b>	<b>178</b>	<b>246</b>	<b>294</b>	<b>337</b>	<b>380</b>
Net debt	11	-11	-6	-8	-25	-16	23	10	-30	-93	-153	-186	-227
Gearing (ND/ND+E %)	21%	0%	0%	0%	0%	0%	16%	7%	0%	0%	0%	0%	0%

Source: Company reports, Shaw analysis

## Key risks

As a small mining company broadly exposed to a single commodity and a single asset we consider an investment in Peninsula Energy to be high risk. The key risks include;

- The U<sub>3</sub>O<sub>8</sub> market is relatively opaque and difficult to forecast. The actual uranium price may differ substantially from our forecasts.
- Operations for PEN have not yet started and there is a risk that they may be unable to bring Lance Projects to production in line with expectations. Costs may be higher and operations may not be as expected.
- Resource risks - PEN's 2022 Ross and Kendrick DFS assumes an overall resource recovery of 66% and a resource conversion of 61% to convert the Ross and Kendrick Area Inferred resources to Indicated or greater quality.
- PEN will need to recapitalise to fund the commencement of operations. There is a risk that capital markets are not willing to fund the project.
- Forecasting future operating costs has considerable uncertainty. Our forecasts may prove to be too optimistic. If each company's costs are higher than we expect then our cash flow forecasts will be too high.
- Smaller companies carry more significant 'key personnel' risk than larger organisations. If senior management depart it could delay projects or exacerbate operational risks.
- Safe and reliable production from operations once projects are operational. The inability to maintain safe and reliable operations may result in a sustained, unplanned interruption to production and impact the company's licence to operate and financial performance. Production facilities are subject to operating hazards associated with major accident events, cyber-attack, inclement weather and disruption to supply chain, that may result in a loss of uranium (radioactive material) containment, harm to personnel, environmental damage, diminished production, additional costs, and impacts to reputation or brand.

## Core drivers and catalyst

- PEN's flagship Lance Projects in Wyoming, USA, requires low upfront capital and can rapidly restart. PEN is the only ASX company with direct exposure to US Government initiatives which are pro-domestic mine development. We have a A\$0.34ps price target which is based on a 1.3x multiple of our base case valuation.
- PEN has an existing contract book and product inventory, with a binding purchase agreement netting a cash margin of US\$7.8m in CY2021 (450klbs) and >US\$9m in CY22 (450klbs). The company has long-term sales contracts extending to 2033, up to 5.25Mlbs at US\$56-58/lb U<sub>3</sub>O<sub>8</sub> with major utilities across Europe and the US.
- The company is switching operations from high to low pH in order to increase product yields. The results of an 18-month field demonstration indicated that the targeted low-pH chemistry and field patterns are effective in dissolving and recovering uranium.
- The company released a Definitive Feasibility Study in Aug22 which details a Lance Projects NPV<sub>8</sub> (pre-tax) of US\$125m and 43% IRR at an average U<sub>3</sub>O<sub>8</sub> price of US\$62/lb. Other components include:
  - a life of mine (LOM) of 14 years with a plateau production of 2.0Mlbs/yr,
  - upfront capital expenditure of ~US\$80m (US\$9m for Stage 1 and US\$70m for Stage 2), and
  - an estimated All-in Cost (AIC) of US\$46/lb U<sub>3</sub>O<sub>8</sub> over LOM.
- In our view there are two key advantages to PEN's project being located in Wyoming, USA:
  - The Powder River Basin in Wyoming is in an established uranium and mining jurisdiction (uranium mining for ~70 years and coal mining for ~150 years).
  - The company has direct exposure to the US Government uranium purchase program and the US Nuclear Fuel Working Group.

## Rating Classification

<b>Buy</b>	Expected to outperform the overall market
<b>Hold</b>	Expected to perform in line with the overall market
<b>Sell</b>	Expected to underperform the overall market
<b>Not Rated</b>	Shaw has issued a factual note on the company but does not have a recommendation

## Risk Rating

<b>High</b>	Higher risk than the overall market – investors should be aware this stock may be speculative
<b>Medium</b>	Risk broadly in line with the overall market
<b>Low</b>	Lower risk than the overall market

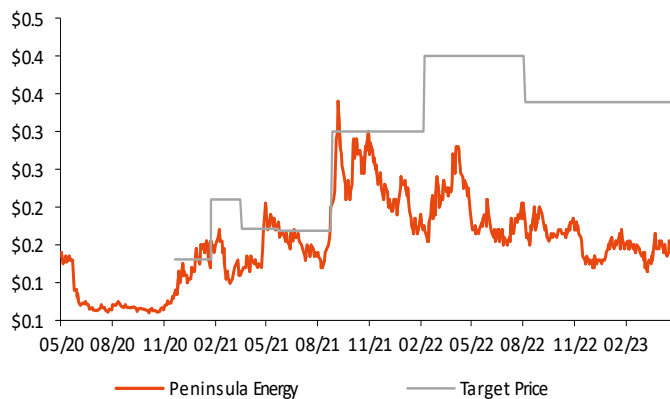
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### Distribution of Investment Ratings

Rating	Count	Recommendation Universe
Buy	101	91%
Hold	9	8%
Sell	1	1%

### History of Investment Rating and Target Price - Peninsula Energy

Date	Closing Price (\$)	Target Price (\$)	Rating
9-May-23	0.16	0.34	Buy
15-Aug-22	0.18	0.34	Buy
17-Feb-22	0.17	0.40	Buy
5-Sep-21	0.20	0.30	Buy
2-Jun-21	0.18	0.17	Buy
29-Mar-21	0.12	0.17	Buy
2-Feb-21	0.16	0.21	Buy
30-Nov-20	0.08	0.13	Buy



Buy



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