

Genex Power (GNX)

RECOMMENDATIONS

Rating	BUY ▲
Risk	Speculative
Price Target	\$0.37
Share Price	\$0.33

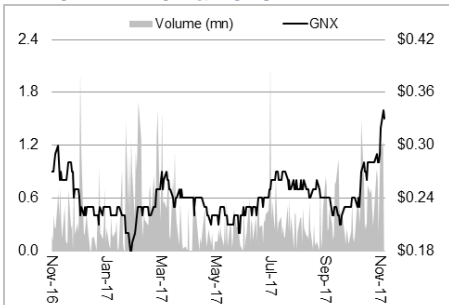
SNAPSHOT

Monthly Turnover	\$3.7mn
Market Cap	\$97mn
Shares Issued	289.1mn
52-Week High	\$0.35
52-Week Low	\$0.17
Sector	Utilities

BUSINESS DESCRIPTION

GNX is building a renewable energy hub at Kidston in North Queensland, on the site of a disused gold mine. It consists of two solar projects (50MW and 270MW) and a pumped storage hydro project (250MW), which will all benefit from the dual long-term trends towards higher electricity prices and lower carbon emissions.

12-MONTH PRICE & VOLUME



RESEARCH ANALYST

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Disclosure

The author owns no shares in GNX.

COMPANY REPORT

Site tour, Stage 2 upgraded

- Stage 1 construction on track:** We recently met with GNX management and subcontractors on a tour of the Kidston site in North Queensland. Stage 1 is on time and on budget for initial testing to begin mid-November. Completion of driving the 22,000 piles is imminent and 27,000 solar panels are being installed weekly. The major item on the critical path is the substation, forecast for a mid-November finish. GNX expects to beat the project completion date of 7 January 2018, ahead of six weeks of testing, before practical completion is signed off in February. GNX will be able to sell the electricity generated during the testing phase at merchant rates, which are at their highest during the summer months.
- Stage 2 faster, cheaper, bigger:** GNX has concluded the optimisation study for the Pumped Storage Hydro project. Key changes are: 1) Greater capacity – upper reservoir volume has been expanded from 6 to 8+ hours continuous generation capacity at 250MW, increasing the single-session maximum output from 1,500MWh to 2,000+ MWh; 2) Construction easier/cheaper/quicker – the new design uses Wise’s Pit for the upper reservoir, replacing the Turkey’s Nest layout. Construction time is now expected to be <3 years (previously 3.0-3.5 years); and 3) Greater flexibility – adoption of variable speed pump-generator turbines (previously fixed-speed) allows faster ramping of generation and better pumping efficiency. These optimisations will increase the project’s attractiveness to potential partners.
- Financing negotiations continue:** GNX continues to negotiate with a number of parties on an offtake/operational agreement. This is the key to reaching financial close on Stage 2, which is expected in CY18. We expect that GNX will do a raising at that point, with \$164-205m of equity required (assuming 75-80% gearing). A third party will be sought to invest alongside GNX, with their payment recognising value already created, reducing the dollar amount of GNX’s contribution and enhancing returns.
- Forecast changes:** We have reduced our beta from 0.9 to 0.8 to reflect Stage 1 moving from construction to operation in the next few months. We have also added a conservative \$25m (\$0.09 per share) for the option value of Stage 2, giving a total valuation of \$0.37 (from \$0.26).
- Investment view:** GNX is approaching some key risk milestones, namely the start of the commissioning and testing phases on Stage 1 (over the next 1-2 months) and financial close on Stage 2 (6-12 months), which we believe will be positive catalysts for the stock. BUY maintained.

INVESTMENT SUMMARY

Year End: 30 June		2016A	2017A	2018E	2019E	2020E
Revenue	\$mn	0.0	0.0	6.5	13.1	13.1
EBITDA	\$mn	-7.1	-6.3	-2.2	4.7	4.7
EBIT	\$mn	-7.1	-6.3	-6.5	0.4	0.4
Reported Profit	\$mn	-7.1	-6.5	-5.9	-1.9	-1.5
Adjusted Profit	\$mn	-7.1	-6.5	-5.9	-1.9	-1.5
EPS (Reported)	¢	-3.9	-2.5	-1.8	-0.6	-0.5
EPS (Adjusted)	¢	-3.9	-2.5	-1.8	-0.6	-0.5
EPS Growth	%	-	-	-	-	-
PER (Reported)	x	-	-	-	-	-
PER (Adjusted)	x	-	-	-	-	-
Dividend	¢	0.0	0.0	0.0	0.0	0.0
Yield	%	0.0	0.0	0.0	0.0	0.0
Franking	%	-	-	-	-	-

Financial summary

GENEX POWER

Code: GNX
Analyst: Luke Macnab
Date: 14 November, 2017
Share Price: \$0.330
Market Capitalisation: \$95m
Financial Year End: June

Rating: **BUY**
Price Target: **\$0.37**
Upside/downside: 12%
Valuation: \$0.37
Valuation method: DCF/Multiple
Risk: Speculative

PROFIT & LOSS (A\$m)	FY16A	FY17A	FY18E	FY19E	FY20E
Operating revenue	0.0	0.0	6.5	13.1	13.1
COGS	0.0	0.0	-0.8	-1.6	-1.6
Gross profit	0.0	0.0	5.7	11.5	11.5
Expenses	-7.1	-6.3	-7.9	-6.8	-6.8
EBITDA	-7.1	-6.3	-2.2	4.7	4.7
Depreciation	0.0	0.0	-4.3	-4.3	-4.3
EBITA	-7.1	-6.3	-6.5	0.4	0.4
Amortisation	0.0	0.0	0.0	0.0	0.0
EBIT	-7.1	-6.3	-6.5	0.4	0.4
Net Interest expense	0.0	-0.2	-1.9	-3.1	-2.5
Minorities	0.0	0.0	0.0	0.0	0.0
Underlying PBT	-7.1	-6.5	-8.4	-2.7	-2.1
Tax	0.0	0.0	2.5	0.8	0.6
Underlying NPAT	-7.1	-6.5	-5.9	-1.9	-1.5
Underlying NPATA	-7.1	-6.5	-5.9	-1.9	-1.5
Significant items (net of tax)	0.0	0.0	0.0	0.0	0.0
Reported profit	-7.1	-6.5	-5.9	-1.9	-1.5

BALANCE SHEET (A\$m)	FY16A	FY17A	FY18E	FY19E	FY20E
Assets					
Cash	4.2	11.1	0.0	3.3	7.1
Receivables	0.4	1.3	1.8	1.8	1.8
PPE	0.6	47.7	103.5	99.5	95.4
Goodwill & Intangibles	3.8	4.0	4.0	4.0	4.0
Investments	0.0	0.0	0.0	0.0	0.0
Other assets	6.5	0.3	0.3	0.3	0.3
Total Assets	15.5	64.4	109.6	108.9	108.6
Liabilities					
Payables	0.4	10.8	1.7	1.7	1.7
Debt	3.8	25.5	66.5	57.5	48.6
Provisions	3.6	0.2	0.2	0.2	0.2
Tax payable	0.0	0.0	-0.5	-0.4	-0.4
Deferred Revenue	3.6	0.2	0.2	0.2	0.2
Other liabilities	-3.3	7.1	26.8	36.9	45.8
Total Liabilities	8.0	43.8	95.0	96.1	96.1
Equity					
Share capital	15.8	35.3	35.3	35.3	35.3
Retained earnings	-10.5	-18.4	-24.3	-26.3	-27.7
Other equity	2.2	3.7	3.7	3.7	3.7
Total shareholders equity	7.5	20.6	14.7	12.8	11.3
BV per share (cps)	4.2	7.9	4.6	4.0	3.5
NTA per share (cps)	2.1	6.3	3.3	2.7	2.3

CASH FLOW (A\$m)	FY16A	FY17A	FY18E	FY19E	FY20E
Cash at Start	10.7	4.2	11.1	0.0	3.3
Cash from operations	-9.7	-2.7	-2.1	2.4	2.9
Capex	-0.2	-33.4	-0.1	-0.3	-0.3
Free cash flow	-9.9	-36.1	-2.3	2.2	2.6
Cash flow from investing	-4.2	8.9	-60.0	0.0	0.0
Cash flow from financing	7.7	34.1	51.2	1.2	1.2
Cash at end	4.2	11.1	0.0	3.3	7.1
Free cash flow per share (cps)	-5.5	-13.8	-0.7	0.7	0.8
GOCF / EBITDA	148%	43%	117%	105%	105%
FCF / Underlying cash NPAT	140%	557%	39%	-113%	-180%

EARNINGS	FY16A	FY17A	FY18E	FY19E	FY20E
EPS - Underlying (cps)	-3.9	-2.5	-1.8	-0.6	-0.5
EPS Growth - Underlying	374%	-37%	-25%	-68%	-24%
EPS - Reported (cps)	-3.9	-2.5	-1.8	-0.6	-0.5
Diluted shares (m)	179.9	262.3	321.0	321.0	321.0
DPS (cps)	0.0	0.0	0.0	0.0	0.0
Dividend Yield	0.0%	0.0%	0.0%	0.0%	0.0%
Payout Ratio	0%	0%	0%	0%	0%
Franking	100%	100%	100%	100%	100%

VALUATION	FY16A	FY17A	FY18E	FY19E	FY20E
P/E - Underlying (x)	-8.4	-13.4	-17.9	-55.5	-72.9
EV/EBIT (x)	-13.3	-17.4	-24.7	395.9	362.0
EV/EBITA (x)	-13.3	-17.4	-24.7	395.9	362.0
EV/EBITDA (x)	-13.3	-17.4	-73.3	31.7	29.0
Price/Book (x)	7.9	4.2	7.2	8.3	9.4
Price/NTA (x)	16.0	5.2	9.9	12.1	14.5
Price/FCF	-6.0	-2.4	-46.5	49.0	40.4

GROWTH	FY16A	FY17A	FY18E	FY19E	FY20E
Revenue growth	na	na	na	100%	0%
COGS growth	na	na	na	100%	0%
Expenses growth	132%	-11%	27%	-15%	0%
EBITDA growth	132%	-11%	-65%	-314%	0%
PBT growth	132%	-9%	30%	-68%	-24%
Underlying NPAT growth	132%	-9%	-9%	-68%	-24%
Reported NPAT growth	132%	-9%	-9%	-68%	-24%

MARGINS & RETURNS	FY16A	FY17A	FY18E	FY19E	FY20E
EBITDA Margin	na	na	-33.7%	36.1%	36.1%
EBITA Margin	na	na	-100.2%	2.9%	2.9%
NPBT Margin	na	na	-129.4%	-20.9%	-15.9%
ROIC	-71.5%	-19.2%	-7.8%	0.4%	0.4%
ROE	-79.7%	-46.1%	-33.5%	-13.9%	-12.1%
ROA	-41.7%	-15.7%	-7.5%	0.3%	0.3%
Effective Tax Rate	30.0%	30.0%	30.0%	30.0%	30.0%

GEARING	FY16A	FY17A	FY18E	FY19E	FY20E
Net Debt	-0.4	14.4	66.5	54.2	41.5
Enterprise value	94.6	109.4	161.5	149.2	136.4
Net Debt/EV (%)	-0.4%	13.2%	41.2%	36.3%	30.4%
Net Debt/EBITDA (x)	0.1	-2.3	-30.2	11.5	8.8
EBITDA/Net Interest (x)	#DIV/0!	-30.7	-1.2	1.5	1.9

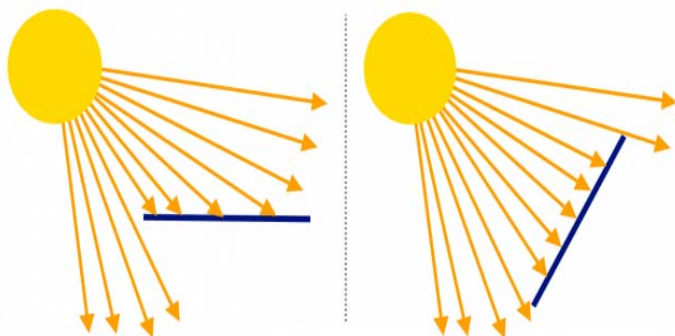
SEGMENT REVENUES (A\$m)	FY16A	FY17A	FY18E	FY19E	FY20E
Solar Phase One	0.0	0.0	6.5	13.1	13.1
Solar Phase Two	0.0	0.0	0.0	0.0	0.0

Site tour and Stage 2 upgraded

Site tour

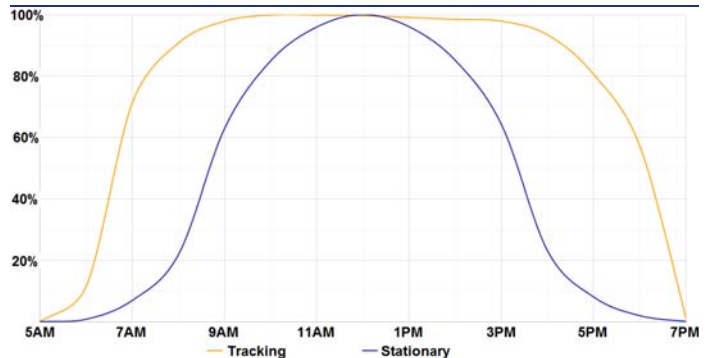
- **Construction progressing smoothly:** The construction of the 50MW Solar Plant for Stage 1 is on time and on budget. The installation of the 537,600 solar panels has almost been completed, whilst the critical path remains the on-site substation (which is almost complete as well). Commissioning and testing is expected to commence within weeks.
- **Solar panels performing as expected:** The solar panels on site will be single-axis tracking, after a cost-benefit analysis determined that was the most efficient setup. This is typical of most new solar installations as more sunlight can be absorbed.

FIG.1: STATIONARY VS TRACKING SOLAR PANELS



Source: Lauritzen Inc.

FIG.2: STATIONARY VS TRACKING POWER YIELD



Source: Lauritzen Inc.

- The solar panels will have a 30 year life, with degradation of about 0.5% pa on average, with an expected 82% capacity at end of life. GNX has a guarantee for the first seven years on panels' performance. There is also a backup inventory of around 500 panels for failures or breakages over the project life.
- We further understand that the contractor (UGL) has developed a proprietary installation process which has resulted in a faster-than-expected completion. UGL also has a 10-year Operations and Maintenance contract with GNX for Stage 1.
- **Early completion expected:** The technical completion date is 7 January 2018 (which GNX expects to beat comfortably), after which six weeks of testing is required before practical completion and handover. The plant will be run on a merchant basis until handover occurs and the PPA with the Queensland government kicks in.

FIG.3: STAGE 1 PROGRESS



Source: Baillieu Holst

FIG.4: INSTALLING SOLAR PANELS



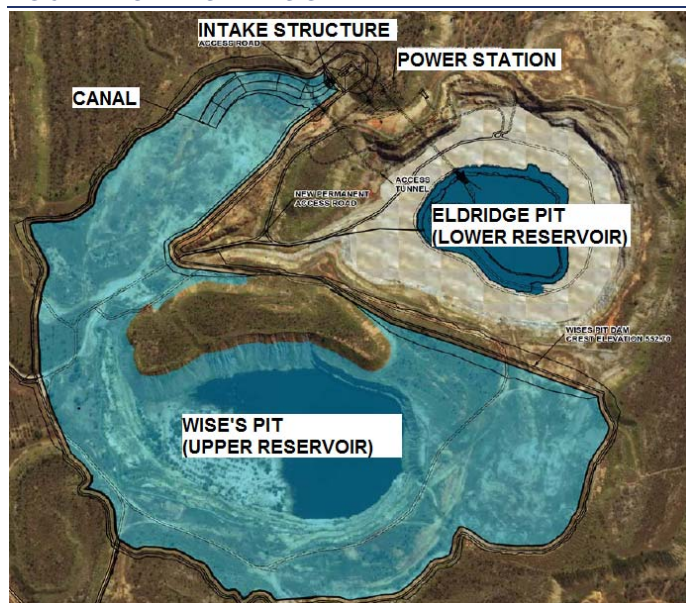
Source: Baillieu Holst

- **Merchant prices during testing period:** This means that GNX will be able to take advantage of higher summer electricity prices in the interim period, with pool prices usually around the \$100/MWh mark during the day. On top of this, the current price for large-scale generation certificates (LGCs) is around \$80/MWh, meaning GNX will earn around \$180/MWh during this period.
- We estimate that GNX will earn around \$90/MWh under the PPA (with GNX keeping any surplus if power prices are higher than that on a monthly average basis). GNX must also give up the LGCs earned under the PPA.
- On the financing side, GNX noted that neither the project contingency nor the corporate contingency facilities allowed for in the financing for Stage 1 have needed to be drawn down. Interest rates on the debt are 4.75% for a 10-year term, though they are unhedged.

Stage 2 upgraded

- **Optimisation complete:** GNX has concluded the Optimisation process for the Stage 2 Pumped Storage Hydro project, following on from the Technical Feasibility Study which was completed in November 2016. The enhanced flexibility and greater size of the project will increase its attractiveness to interested parties, ultimately resulting in greater value for GNX shareholders.
- Key changes are:
 - **Construction easier/cheaper/quicker:** The Turkey's Nest design has been scrapped, with the existing Wise's Pit to now solely be used for the upper reservoir. This will be connected to the power generation facility (which remains in the same location) via a constructed channel. This is cheaper and easier than the previous design and total construction time is expected to be <3 years (previously 3.0-3.5 years);
 - **Greater capacity:** Upper reservoir volume has been expanded from 6 hours to 8+ hours' continuous generation capacity at the same 250MW configuration. This expands the potential single-session output from 1,500MWh to 2,000+MWh; and
 - **Greater flexibility:** Adoption of variable speed pump-generator turbines (previously fixed-speed) allows faster ramping of generation, better pumping efficiency and ability to better match the pumping profile to the K2-Solar generation profile.

FIG.5: NEW OPTIMISED DESIGN



Source: GNX

FIG.6: OLD DESIGN



Source: GNX

- **Major subcontractor announced:** GNX has also recently announced the selection of a McConnell Dowell/Downer EDI Joint Venture ("the JV") as the preferred EPC contractor for the Pumped Storage Hydro project. Technical advisors also include Norconsult and GHD Australia.

- McConnell Dowell has significant global experience in hydro power plants, including the refurbishment of the 105MW Ambuklao and 140MW Binga plants in the Philippines, as well as design and construction of the 140MW Bogong plant in Victoria. Downer has significant experience in Australia with renewable energy projects, mechanical, electrical and civil engineering and grid connection.
- GNX will work with the JV to finalise design optimisation and undertake the full EPC and O&M contracting process. The competitive tender process for the electro-mechanical equipment package will commence this month.

FIG.7: ELDRIDGE PIT (LOWER RESERVOIR)



Source: Baillieu Holst

FIG.8: WISE'S PIT (UPPER RESERVOIR)



Source: Baillieu Holst

- **Negotiations on financing continue:** GNX continues to negotiate with a number of parties on a potential offtake/operational agreement, which will be the key to finalising the financing of Stage 2. We understand that the parties involved in financing Stage 1 are interested and that the Northern Australia Infrastructure Facility may be involved, which would charge lower interest rates and further enhance the economics of the project for equity holders.
- **Returns boosted:** Based on our previous indicative modelling (see "Stage 2 to provide a boost", 6 October 2017), we estimate that the project IRR of Stage 2 will be increased by 1.4% under the new operating parameters, with the equity IRR increased by 2.5%.
- **Valuation increased:** We have reduced our equity beta on Stage 1 from 0.9 to 0.8 to reflect its moving from construction to operation in the next few months and is in line with other power generation companies. This increases our Stage 1 value from \$0.26 to \$0.28.
- We have also added a conservative \$25m (\$0.09 per share) for the option value of Stage 2, giving a total valuation of \$0.37 (from \$0.26). This is based on a reduction in the discount rate to 20% in our indicative model of Stage 2. This reflects the value generated by GNX in arranging the project and progress made towards reaching financial close.

FIG.9: UPDATED INDICATIVE RETURNS FOR STAGE 2

Scenario	Average prices (\$/MWh)			No LGC ¹ scenario ²		With LGC ¹ scenario ²	
	6 hours Peak	8 hours Off Peak	10 hours Solar	Project IRR	Equity IRR	Project IRR	Equity IRR
Conservative	107	42	77	10.2% (+1.0%)	18.3% (+2.1%)	12.5% (+1.4%)	27.5% (+3.1%)
Base	126	40	83	12.5% (+1.4%)	23.0% (+2.5%)	14.9% (+1.8%)	31.6% (+3.3%)
Aggressive	168	58	113	16.8% (+1.5%)	31.8% (+2.5%)	19.5% (+2.0%)	39.9% (+3.1%)

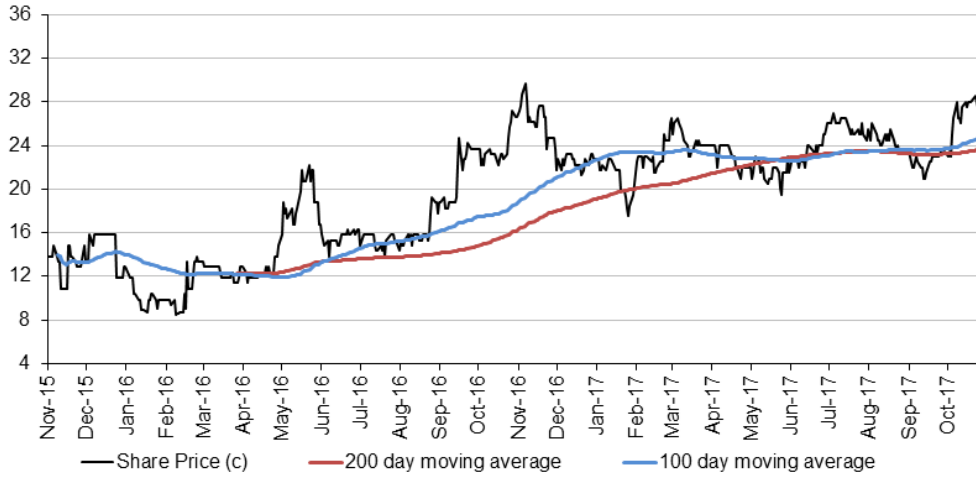
¹ LGC = Large Scale Generation certificates

² Number in brackets is increase over previous Stage2 design

Source: Baillieu Holst estimates

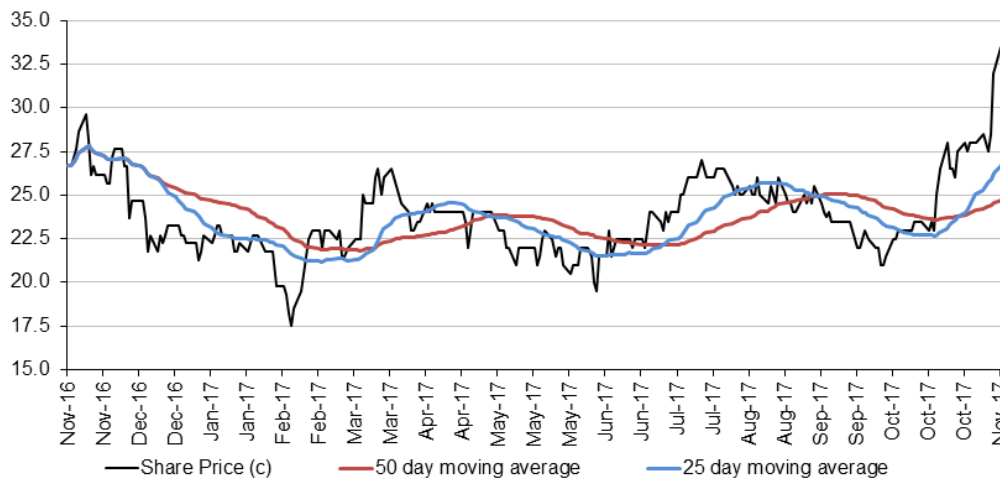
Appendix

FIG.10: LONG TERM MOMENTUM INDICATORS



Source: Iress

FIG.11: SHORT TERM MOMENTUM INDICATORS



Source: Iress

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Buy: The stock's total return is expected to increase by at least 10-15 percent from the current share price over the next 12 months.

Hold: The stock's total return is expected to trade within a range of $\pm 10-15$ percent from the current share price over the next 12 months.

Sell: The stock's total return is expected to decrease by at least 10-15 percent from the current share price over the next 12 months.

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Hold: 32%

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