

SPECULATIVE BUY

(previously HOLD)

Current price:	A\$0.24
Target price:	A\$0.29
Previous target:	A\$0.25
Up/downside:	25.4%
Reuters:	GNX.AX
Bloomberg:	GNX AU
Market cap:	US\$50.89m
	A\$73.42m
Average daily turnover:	US\$0.05m
	A\$0.07m
Current shares o/s	303.9m
Free float:	69.3%

Key changes in this note

Risking factor on K2-H reduced
Assumptions updated for K2-S & K3W



Price performance	1M	3M	12M
Absolute (%)	2.2	-4.1	-19
Relative (%)	0.6	-9.2	-27

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Analyst(s) own shares in the following stock(s) mentioned in this report:

- Genex Power

Genex Power

Funding clearer but don't take it for granted

- We upgrade our price target to 29cps (+5cps) on the basis that we're more comfortable that ARENA funding for K2-Hydro (K2-H) will be available.
- We update our assumptions for the K2-Solar (K2-S) and the K3-Wind (K3-W) projects with lower PPA prices but higher MLFs given that K2-H will reduce transmission losses (-1cps) on those projects.
- We're confident the K2-H project will go ahead but investors need to be aware that we see the bulk of GNX's value coming from just K2-H which increases the risk of an investment in GNX.
- We upgrade our rating to SPECULATIVE BUY from HOLD and forecast a potential 12-month TSR of 25%.

ARENA to potentially bridge the funding gap

In our last note, it was clear that GNX would need a large grant (\$50m) or a larger equity capital raise than we'd allowed for previously. We have reviewed ARENA's funding guidelines in more detail and we note that according to Section 11 of the Australian Renewable Energy Agency Act 2011, it is possible for a grant of up to \$50m without ministerial approval. Given this, and ARENA's previous support of GNX, we have more confidence that a grant will be available to bridge the funding gap until enough cash is being generated by K2-H and the grant can be repaid.

What comes after K2-H?

GNX has plans for a 170MW second stage solar project at Kidston (K2-S) and a 150MW wind project (K3-W). There is no doubt that the resources (solar and wind) are there but the prices of Power Purchase Agreements (PPAs), which will be necessary for project finance, have fallen. We lower our price assumptions for K2-S to \$55/MWh and K3-W to \$60/MWh. Consideration also needs to be given to the effect of transmission losses given where Kidston is located relative to demand. Marginal Loss Factors (MLFs) account for the electrical energy that is lost over transmission lines. It's difficult to forecast what the MLF will be for K2-S and K3-W but we have changed our assumption to 0.93. We note that the existing solar project (KS-1) has an MLF for FY20 of ~0.87 while the Sun Metals Solar Farm, adjacent to the Sun Metals zinc processing facility near Townsville, has an MLF of ~1. We assume that K2-H's pumping cycle will reduce the net amount of energy transmitted over long distances which is why we've upgraded our MLF assumption.

Upside comes with risks

We still believe that K2-H is more likely than not to proceed. If it does go ahead, it also lays the foundation to realise the value of K2-S and K3-W. K2-H is the keystone that supports most of the value we see in GNX so it's crucial that the company delivers it or a large amount of value will be lost. Management have been targeting June 2019 for financial close on both K2-H and Jemalong. Recent comments in the press by Energy Australia suggest a positive outlook for K2-H but gave a less firm timeline (sometime in CY19) than GNX has been targeting. Commitment to the project is the key catalyst we see in the next six months along with final details on engineering and costing details. We upgrade our rating to SPECULATIVE BUY with a potential 12-month TSR of 25%.

Jun-21F
25.80
21.26
3.99
0.013
26.9%
18.18
-
0%
12.92
51.95
265%
1.60
9.1%
625%
-3.23

SOURCE: MORGANS, COMPANY REPORTS

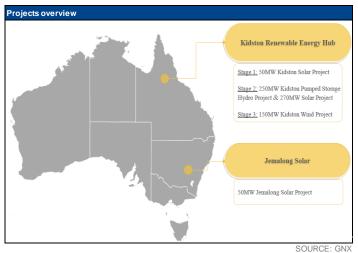


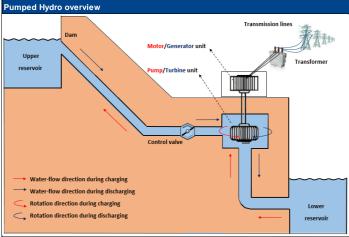
Figure 1	1:	Business	snaps	hot
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Genex Power (as at 29-05-19)		GNX AU / GNX.AX	Utilities
Market cap (A\$m):	71.4	Rating:	SPECULATIVE BUY
Shares outstanding (m):	303.9	Price (A\$):	0.235
Free float (%):	69%	Target price (A\$):	0.295
Company website:	https://www.genexpower.com.au/	Upside/downside to target price (%):	25.4%

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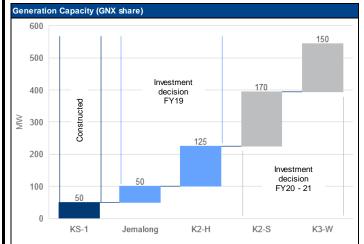
GNX is redeveloping an old gold mine in North Queensland into an energy storage project and has developed a 50MW solar farm adjacent to the mine. GNX also has plans to expand its energy generation with a second stage solar farm up to 270MW and a potential 150MW wind farm, on or near the same site, and a 50MW solar farm in central NSW. The output of the 50MW solar farm is contracted to the Qld government for 20 years and the company is in discussions with Energy Australia to develop and sell the output of the energy storage (pumped hydro) project for a term of at least 25 years. GNX has also obtained conditional approval for up to \$516m of low cost debt finance from the Northern Australia Infrastructure Facility. GNX was founded in 2011 and was listed on the ASX in 2015. The CEO, James Harding, was appointed on the 7th of May 2018 and the Chairman, Dr Ralph Craven, has held his position since the company listed.





SOURCE: Journal of Power Technologies (2017)

SOURCE: MORGANS



Risks and Drivers

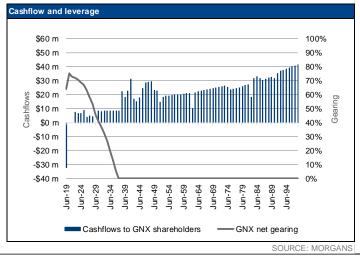
- Solar output of Stage 1 as price is contracted and locked in.
- Price of the pumped hydro offtake agreement not yet finalised.
- If carbon reduction targets increase, the value $\,$ of future $\,$ renewables $\,$ projects $\,$ will also increase.

Risks:

- Securing the final offtake agreement for the pumped hydro project at an attractive price.
- Price of engineering contract to build pumped hydro project. Cost to access new transmission line for pumped hydro projet.
- Construction risk during construction of the pumped hydro project.
- Access to concessional funding (e.g. NAIF, ARENA) to fund projects at low costs of capital.

 Electricity network congestion if too many other renewables projects nearby get
- constructed.
- Marginal Loss Factors (MLF) on all projects other than KS-1.
- Technological changes driving energy efficiency and alternative generation.
- Interest rates
- Changes to tax regimes

Project capex and funding sources 400 Potential ARENA 350 grant, 50 Jemalong, 90 300 Jemalong PF, 65 250 € 200 150 K2-hydro (GNX share), 275 NAIF (GNX 100 share), 220 50 0 Capital Required Funding Source



SOURCE: MORGANS, GNX

SOURCES: MORGANS, GNX



Figure 2: Financial summary				=\(\c\)					=\(\(\)		
Key multiples & gearing										FY27E	
EV/EBITDA (x)	N/A	31.6	17.2	12.9	12.8	12.5	13.0	11.4	11.8	10.1	10.3
Price-to-earnings (x)	N/A	N/A	N/A	N/A	3	2.5	2.7	2.2	2.4	2.0	2.1
Dividend yield (%)	-	-	-	-	7.3	6.5	6.3	8.6	3.8	4.4	3.9
Net Debt / ND+E (%)	85.6	63.7	74.8	72.6	72.0	70.3	68.6	66.9	63.0	58.3	53.4
Profit and loss (\$m)	FY18A			FY21E						FY27E	FY28E
Revenue	8.3	12.5	20.3	25.8	25.5	25.5	24.3	26.4	24.7	27.0	25.4
Other inc (K2H cost recovery)	1.7	2.7	5.4	5.5	5.7	5.8	5.9	6.1	6.2	6.3	6.4
Expenses	(11.7)	(9.2)	(9.2)	(10.1)	(10.3)	(10.5)	(10.8)	(11.0)	(11.2)	(11.5)	(11.7)
EBITDA	(1.7)	6.0	16.5	21.3	20.8	20.8	19.4	21.5	19.7	21.8	20.1
D&A	(3.0)	(6.0)	(6.8)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0)	(8.0
Operating EBIT	(4.7)	(0.1)	9.7	13.3	12.9	12.8	11.5	13.5	11.7	13.9	12.2
Net Interest Expense	(2.7)	(4.2)	(4.0)	(5.0)	(4.7)	(4.5)	(4.2)	(4.0)	(3.7)	(3.3)	(2.9)
K2H equity accounted profit	-	20.0	(1.2)	(2.6)	1.5	4.9	5.3	5.6	6.0	6.3	6.7
Profit Before Tax	(7.5)	15.7	4.5	5.7	9.7	13.3	12.6	15.2	14.0	16.9	16.0
Tax	-	(5.2)	(1.3)	(1.7)	(2.9)	(4.0)	(3.8)	(4.6)	(4.2)	(5.1)	(4.8)
Statutory Net Profit	(7.5)	10.5	3.1	4.0	6.8	9.3	8.8	10.6	9.8	11.8	11.2
Exceptional items (post tax)	-	(14.0)	-	-	-	-	-	-	-	-	-
Underlying Net Profit	(7.5)	(3.5)	3.1	4.0	6.8	9.3	8.8	10.6	9.8	11.8	11.2
Cashflows (\$m)	FY18A	FY19E	FY20E	FY21E	FY22E	FY23E	FY24E	FY25E	FY26E	FY27E	FY28E
EBITDA	(1.7)	6.0	16.5	21.3	20.8	20.8	19.4	21.5	19.7	21.8	20.1
K2H SPV distributions	-	-	-	-	-	-	2.0	3.1	3.3	3.4	3.5
Working capital	(9.7)	5.5	(0.7)	(6.0)	0.0	0.0	(0.4)	(0.1)	0.2	(0.2)	0.1
Gross operating cashflow	(11.4)	11.5	15.8	15.2	20.9	20.8	21.0	24.4	23.1	25.1	23.8
Net interest paid	(2.7)	(4.2)	(4.0)	(5.0)	(4.7)	(4.5)	(4.2)	(4.0)	(3.7)	(3.3)	(2.9
Cash paid for Tax	-	-	(0.6)	(1.7)	(1.8)	(2.5)	(2.8)	(3.8)	(3.4)	(4.2)	(3.8)
Operating cashflow	(14.1)	7.3	11.3	8.5	14.4	13.8	14.0	16.7	16.0	17.6	17.1
Capex (GNX not K2H SPV)	(74.0)	(49.3)	(90.0)	_	_	_	_	_	_	_	_
Investing cashflow	(74.0)	(49.3)	(90.0)	-	-	-	-	-	-	-	-
Equity issuance/(returns)	_	32.1	_	_	_	_	_	_	_	_	_
Debt drawdown/(repaid)	_	116.4	(6.2)	(6.5)	(6.8)	(7.1)	(7.5)	(7.8)	(8.2)	(8.5)	(8.9
Dividends paid	_	-	-	-	(7.6)	(6.7)	(6.6)	(8.9)	(3.9)	(4.5)	(4.1)
Financing cashflow	-	148.5	(6.2)	(6.5)						(13.1)	
Net cashflow	(88.2)		(84.9)	2.0	` -	/	` -	` -	3.9	4.5	4.1
Balance sheet (\$m)			` '		EV22E	EV23E	EV24E	EV25E		FY27E	
Cash	11	118	33	35	35	35	35	35	39	43	47
Receivables	1	1	1	1	1	1	3	3	3	3	3
Fixed Assets	118	114	197	189	181	173	165	157	149	141	133
SPV equity	-	65	64	61	63	68	71	74	76	79	82
Tax assets	<u>-</u>	1	-	-	-	-	, ,		70	13	-
Other	-	8	- 8	- 8	- 8	- 8	- 8	- 8	- 8	- 8	- 8
Total Assets	6 136	306	303	294	288	285	282	276	275	275	274
Debt	102	218	3 03 212	2 94 206	200	263 192	2 62 184	27 6 176	27 3 168	160	151
Deferred Tax from SPV)	102				7		104	176	11	100	13
,		6	6	6		9					
Other liabilities	18 120	24	24	18	18	18	19	19 206	19 100	19 101	19
Total Liabilities Net Assets	120 15	249 57	243 61	230 65	224 64	219 66	213 69	206 70	199 76	191 83	183 91
IACI WOOGIO	15					441	441	70 441	76 441	63 441	441
Ave shares on issue (m)	299	372	441	441	441						



Valuation

Base case

We increase our **base case valuation** to **29cps** (+4cps) on the basis that we are assuming a lower risking factor (10% down from 30%) on the K2-H, K2-S and K3-W projects. We assume lower prices for K2-S (\$55/MWh) and K3-W (\$60/MWh) PPAs as well as a lower spot price for KS1 for the last ten years of its life. The lower prices for K2-S and K3-W are offset by an increase in our assumed MLF to 0.93 from 0.85.

Our other key assumptions are:

- KS1 project debt is refinanced at 4.5% pa.
- GNX share of K2-H capex \$275m.
- GNX share of NAIF funding \$220m.
- ARENA grant of \$50m.
- Jemalong capex \$90m (\$1.8 / W).
- Jemalong project finance \$65m at 4.5% pa.
- Equity raise of \$30m.
- GNX cost of equity of 8% pa.
- Inflation at 2.1%.

Component	Unrisked Value (\$m)	Unrisked Value (cps)	Risking factor	Risked Value (\$m)	Risked Value (cps)
KS1 & Jemalong	34.6	11	0%	34.6	11
GNX share of K2-H	46.2	15	10%	41.5	14
K2-S & K3-W	14.4	5	10%	12.9	4
Total	95.2	31	6%	89.1	29

We also include a sensitivity to the base case showing the impact of changes to the assumed PPA price as well as the MLFs for K2-S and K3-W. When the value of these projects is less than zero we exclude them from the base case as it wouldn't be rational for GNX to pursue them.

	Marginal Loss Factors (MLFs)												
	\$/shr	0.88	0.89	0.90	0.91	0.92	0.93	0.94	0.95	0.96	0.97	0.98	
	-7.5%	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.27	
E C	-5.0%	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.26	0.27	0.28	0.29	
adjustme inclusive)	-2.5%	0.25	0.25	0.25	0.25	0.25	0.27	0.28	0.29	0.30	0.31	0.32	
adjustment inclusive)	-1.3%	0.25	0.25	0.25	0.26	0.27	0.28	0.29	0.30	0.31	0.33	0.34	
	0.0%	0.25	0.25	0.26	0.27	0.28	0.29	0.30	0.32	0.33	0.34	0.35	
price	1.3%	0.25	0.26	0.27	0.28	0.29	0.31	0.32	0.33	0.34	0.35	0.37	
	2.5%	0.26	0.27	0.28	0.30	0.31	0.32	0.33	0.34	0.36	0.37	0.38	
۲۲۸ (وع	5.0%	0.29	0.30	0.31	0.32	0.34	0.35	0.36	0.37	0.38	0.40	0.41	
	7.5%	0.31	0.32	0.34	0.35	0.36	0.38	0.39	0.40	0.41	0.43	0.44	

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Bull case

We increase our **bull case valuation** to **62 cps.** We now assume that all projects, including K2-S and K3-W will be completed by our assumed takeover date of FY22 and we've also updated our assumptions and methodology. We use an EV / MW multiple for each project and deduct the cost of debt to derive equity value. We also factor in some assumed capital raises to derive an estimated equity value per share and then discount at our assumed GNX cost of equity of 8% to FY19.

We're now using two different EV / MW multiples: one for the renewable energy projects and one for K2-H. The reason for this is that renewable energy generation assets do not have a cost of fuel whereas pumped hydro assets have to pay for the cost of energy to pump water uphill. We therefore treat K2-H like a gas peaker (but with cheaper fuel) and use gas transactions to derive a multiple. Figure 6 and Figure 7 show the comparable transactions we've used. As this is an optimistic bull case scenario we're using the top quartile of EV / MW multiples rather than the mean or median.

Figure 5: Bull case summary					
Asset	MW	Multiple (\$ / W)	EV (\$m)	Debt (\$m)	Equity (\$m)
Jemalong + KS1	100	3.1	310.0	(165.0)	145.0
K2-H	125	2.1	262.5	(220.0)	42.5
K2-S + K3-W	320	3.1	992.0	(440.0)	552.0
Total	545	2.9	1,564.5	(825.0)	739.5
Estimated future number of shares (m)					946.9
Discounted equity value (cps)					62
			SOURCES: MC	RGANS, COMP	ANY REPORTS

Figure 6: Comparable renewable energy transactions												
Transaction	Country	Date	Fuel	Consideration (m)	EV / MW							
Manildra	Australia	Jun-18	Solar	A\$ 113	2.4							
Bald Hills	Australia	Feb-17	Wind	N/A	3.0							
Cullerin range wind farm	Australia	Jun-16	Wind	A\$ 72	2.4							
Pacific Hydro	Australia	Dec-15	Hydro / Wind	A\$ 3,000	3.3							
CHORUS Clean Energy	Europe	May-16	Solar / Wind	€ 296	3.2							
Enel Green Power	Europe	Nov-15	Solar / Wind / Hydro	€ 9,620	1.8							
Finerge-Gestao	Europe	Sep-15	Wind	N/A	1.5							
				Top quartile	3.1							
SOURCES: MORGANS, DUET AND TILT INDEPENDENT EXPERT REPORTS, COMPAN REPORTS												

Figure 7: Compara	ble fast start ene	ergy transac	ctions		
Transaction	Country	Date	Fuel Co	onsideration (m)	EV / MW
Smithfield	Australia	May-19	Gas	A\$ 74	0.6
Landfill gas and power	Australia	Apr-16	Landfill gas	N/A	2.1
Energy Developments	Australia	Jul-15	Gas	A\$ 1,369	2.1
Colongra Power Station	Australia	Dec-14	Gas	A\$ 234	0.4
Clarke Energy	Australia	Jun-14	LNG	A\$ 23	0.8
Envirogen	Australia	Apr-14	Gas	A\$ 25	0.6
Clarke Energy	Australia	Feb-14	LNG	A\$ 21	1.0
Infinis plc	UK	Oct-16	Landfill gas	£185	2.6
Infinis Energy	UK	Oct-15	Landfill gas	£555	4.1
				Top quartile	2.1
S	OURCES: MORGANS, [DUET AND TILT	NDEPENDENT EXPE	ERT REPORTS, COMPA	NY REPORTS



Bear case

We again include a bear case that assumes that neither K2-H, or the later projects (K2-S and K3-W) go ahead. We estimate the value for the **bear case** is **11cps**. We think it's unlikely that GNX will be unable to find any value for shareholders in the K2-H project but it is a possible outcome that investors should be aware of.

Figure 8: GNX valuation bear case

Component Unrisked Value (\$m) Value (cps)

KS1 & Jemalong 34.6 11

SOURCE: MORGANS



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Brisbane: Tynan	+61 7 3152 0600	Place		Camberwell	+61 3 9813 2945		
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Caloundra	+61 7 5491 5422	Armidale	+61 2 6770 3300	Southbank	+61 3 9037 9444	Unley	+61 8 8155 4300
Gladstone	+61 7 4972 8000	Ballina	+61 2 6686 4144	Traralgon	+61 3 5176 6055		
Gold Coast	+61 7 5581 5777	Balmain	+61 2 8755 3333	Warrnambool	+61 3 5559 1500		
Holland Park	+61 7 3151 8300	Bowral	+61 2 4851 5555				
Ipswich/Springfield	+61 7 3202 3995	Chatswood	+61 2 8116 1700	Australian Capital	Territory		
Kedron	+61 7 3350 9000	Coffs Harbour	+61 2 6651 5700	Canberra	+61 2 6232 4999		
Mackay	+61 7 4957 3033	Gosford	+61 2 4325 0884				
Milton	+61 7 3114 8600	Hurstville	+61 2 8215 5079	Northern Territory			
Noosa	+61 7 5449 9511	Merimbula	+61 2 6495 2869	Darwin	+61 8 8981 9555		
Redcliffe	+61 7 3897 3999	Mona Vale	+61 2 9998 4200				
Rockhampton	+61 7 4922 5855	Neutral Bay	+61 2 8969 7500	Tasmania			
Spring Hill	+61 7 3833 9333	Newcastle	+61 2 4926 4044	Hobart	+61 3 6236 9000		
Sunshine Coast	+61 7 5479 2757	Orange	+61 2 6361 9166				
Toowoomba	+61 7 4639 1277	Port Macquarie	+61 2 6583 1735				
Townsville	+61 7 4725 5787	Scone	+61 2 6544 3144				
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