

### **About Genex Power**

#### Renewable energy generation and energy storage

ASX code: GNX

Shares on issue: 303.9M

Market cap: \$88.1M

Cash (31.03.18): \$13.2M

Undrawn ARENA: \$6M

Favourable Tax Ruling: \$39.5M

Major Shareholders: Board & Management – 17%

Zhefu Hydropower – 11.7%

Institutional – 21%

Other -50.3%



### Corporate Performance









### Corporate Portfolio

### The Kidston Renewable Energy Hub:

- STAGE 1: 50MW Kidston Solar Project
  - 20-Year Government Revenue Guarantee
  - Generating into the National Electricity Market
- STAGE 2: 250MW Kidston Pumped Storage Hydro
  Project & 270MW Solar Project
  - 'Giant water battery' integrated with solar
  - Can store & generate energy for up to 8 hours (2,000MWh)
  - Targeting financial close 2018
- STAGE 3: 150MW Kidston Wind Project
  - Land option secured & feasibility commenced



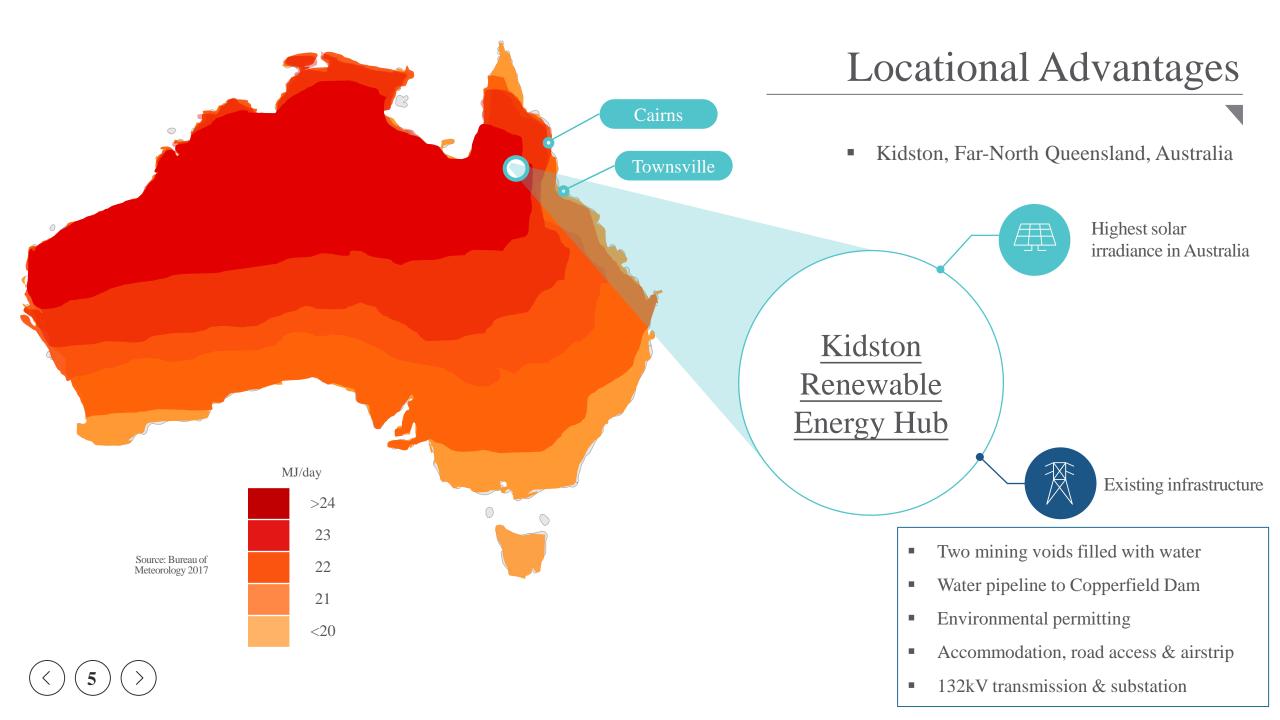












# Kidston Renewable Energy Hub











### Market Transitions: Renewables & Storage

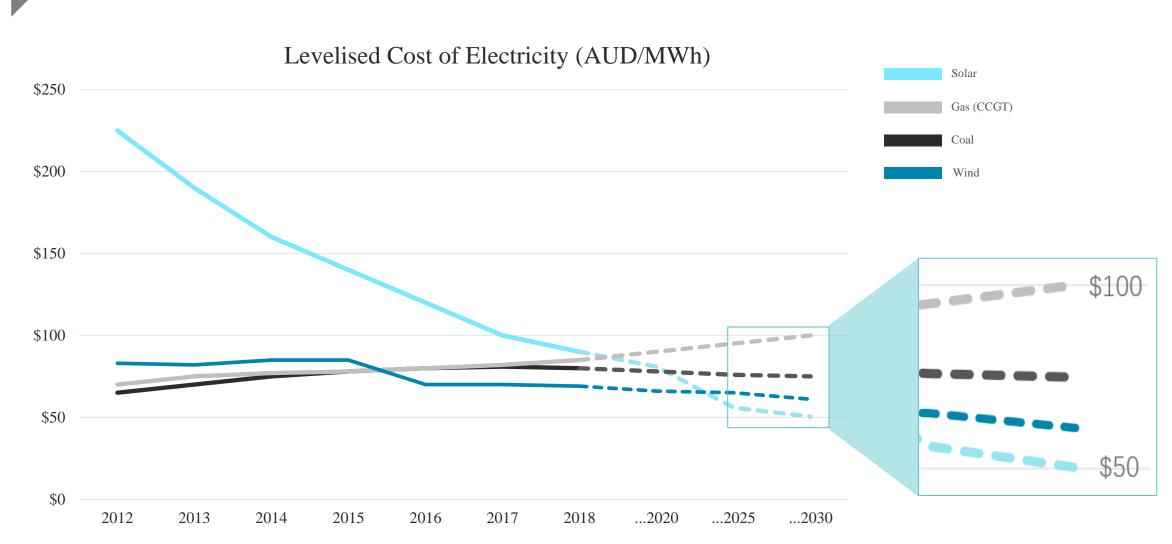
- Growth of intermittent wind & solar creating volatility in the market
- Need for low-cost, large-scale storage
- Pumped hydro storage is the most efficient and abundant form of energy storage available
- Adequate storage will allow high penetration of renewables & accomplishment of RETs/NEG







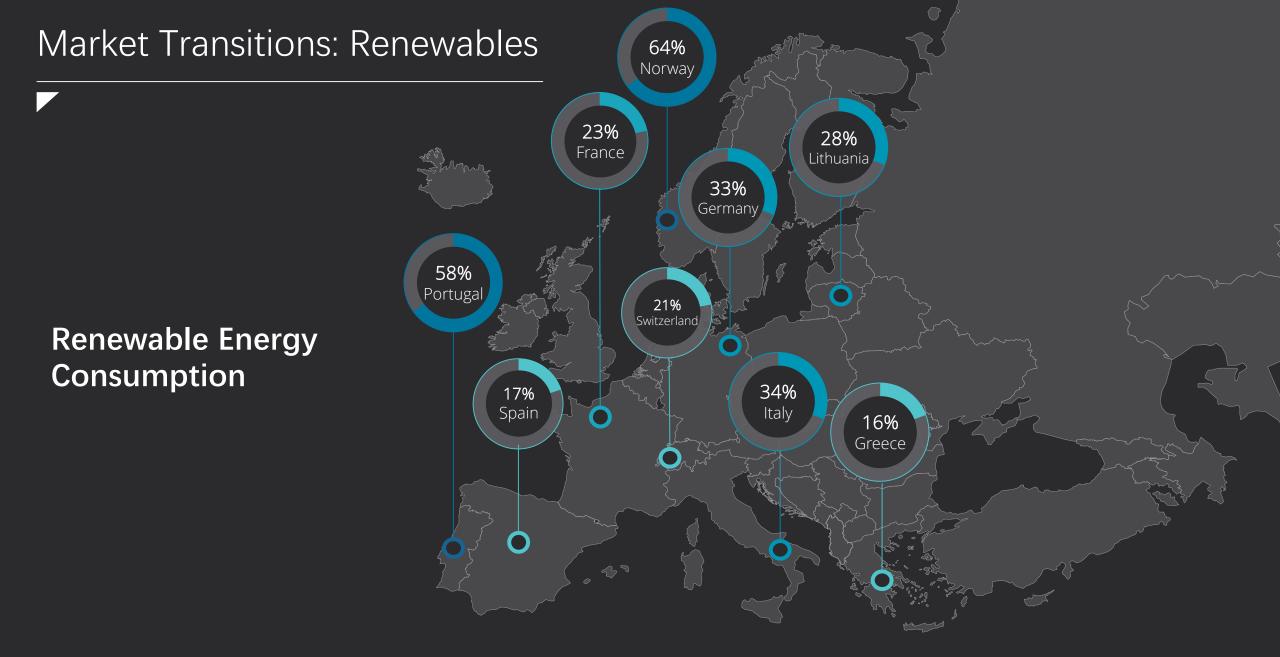
### Market Transitions: Renewables

















Market Transitions: Storage

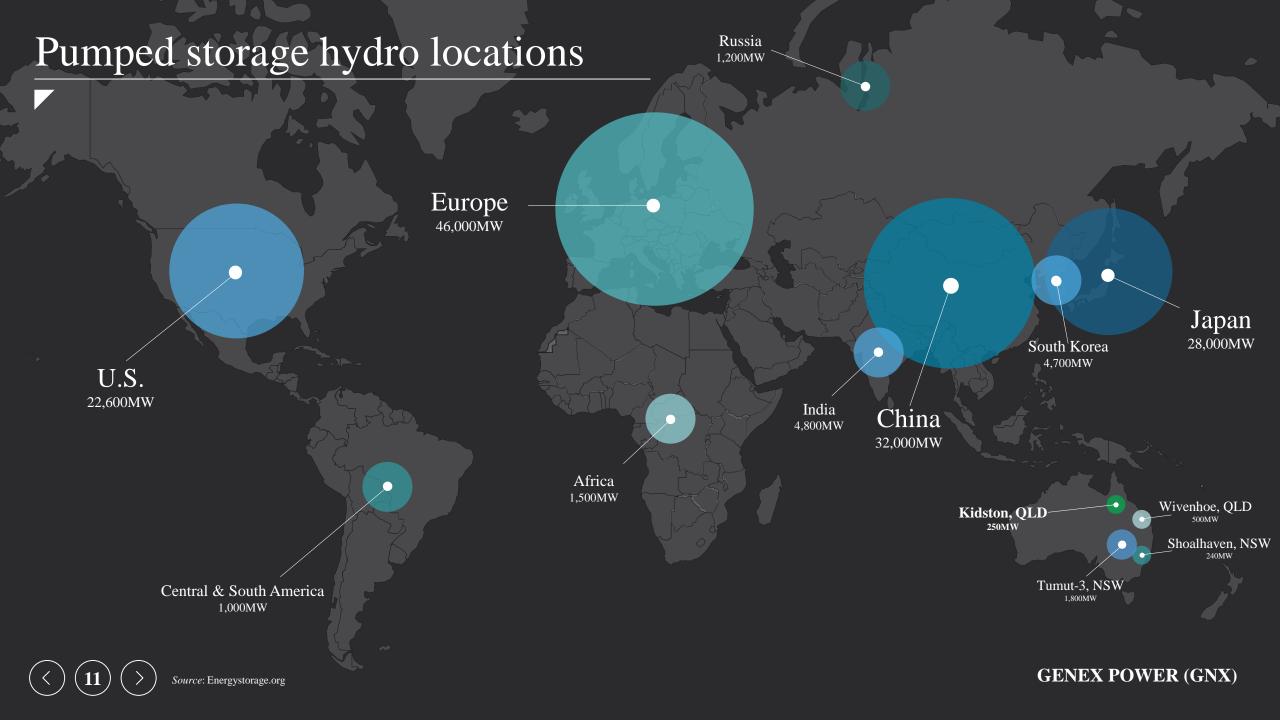
Pumped Storage Hydro Capacity



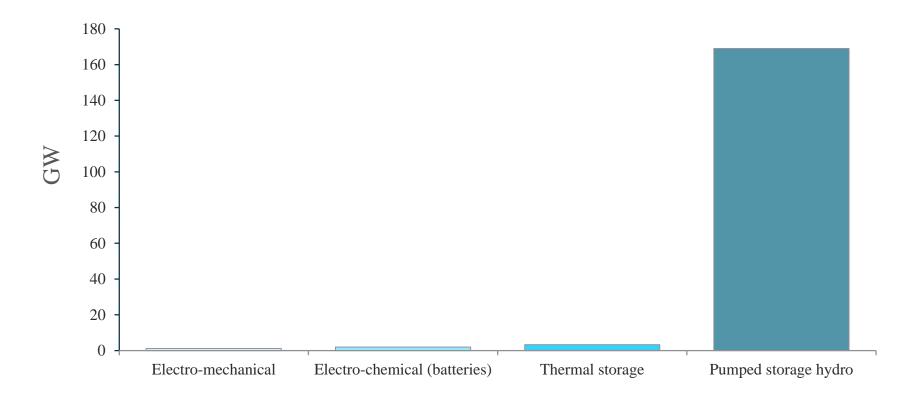








## Global operational energy storage capacity













50MW Kidston Solar Project

### 50MW Kidston Solar Project

- Currently producing electricity into the National Electricity Market
- 20-year Revenue Support Deed with Queensland Government
- 145,000MWh per annum at full capacity (equivalent to 26,500 homes)
- 30-year project lifespan
- Use of first-tier suppliers & contractors to mitigate risk (UGL, AECOM, First Solar, NEXTracker, SMA)

















### 50MW Kidston Solar Project

- 20-year Revenue Support Deed with Queensland State Government
- Federal Government funding through ARENA & CEFC







	December 2017	January 2018	February 2018	March 2018	April 2018
Generation (MWh)	3,126	4,919	7,513	9,644	11,288
<b>Cumulative Generation (MWh)</b>	3,126	8,045	15,558	25,203	36,491
Revenue	\$490,385	\$848,211	\$1,183,134	\$1,379,836	\$1,600,753
<b>Cumulative Revenue</b>	\$490,385	\$1,338,596	\$2,521,729	\$3,901,565	\$5,502,318

- 1. Unaudited financial information;
- 2. Revenue comprised of energy and LGC sales on an accrual basis;
- 3. Queensland Government Revenue Support Deed to commence on practical completion;
- 4. LGC revenue will revert to Govt. upon practical completion;
- 5. All energy during commissioning phase is derived from selling into the spot market; and
- 6. April 2018 revenue includes unrealised LGC revenue.









250MW Kidston Pumped Storage Hydro Project

# Pumped Storage Hydro

- Mature technology in use for over 130 years, with > 200 projects worldwide
- Lowest cost of energy storage available
  - 250MW Kidston Project is ~15x more affordable than the cost of equivalent lithium-ion battery storage
- Peak power generator able to dispatch into peak periods
- Can be integrated with renewables
  - o Perfect component to counteract intermittent & volatile renewable generation
- 80+ year project lifespan









# 250MW Kidston Pumped Storage Hydro Project

• Feasibilty complete, design optimised for up to 8 hours of peaking, dispatchable generation (2,000MWh)

 Utilising the two mining voids to significantly reduce capital expenditure

- O Mining voids are 52ha & 54ha
- o Substantial rehabilitation after mines closure in 2001
- Water license in place for external top-up if required
- Integrated with Kidston Solar 2 solar generated will result in low-cost intra-day pumping

# 250MW Kidston Pumped Storage Hydro Project

- Strong government support
  - Designated 'Critical Infrastructure' by Queensland State Government
  - Up to \$9M in funding already provided by ARENA
- Tier 1 contractors appointed:
  - Feasibility completed by Entura
  - JV McConnell Dowell & John Holland
  - Engineering consultant Mott MacDonald
  - International hydroelectric turbine supplier ANDRITZ
- Construction commencement anticipated for H2 2018



























# 270MW Kidston Solar Project



### 270MW Kidston Solar Project

- Potentially phased development up to 270MW to match energy off-take and energy transfer capabilities
- Ability to integrate with Hydro Project
  - o Produces low-cost solar power that can drive pumping cycle
- Co-financed and co-located with Hydro Project
- UGL selected as preferred EPC Contractor following success on Solar Stage One
- Development Approval by Council





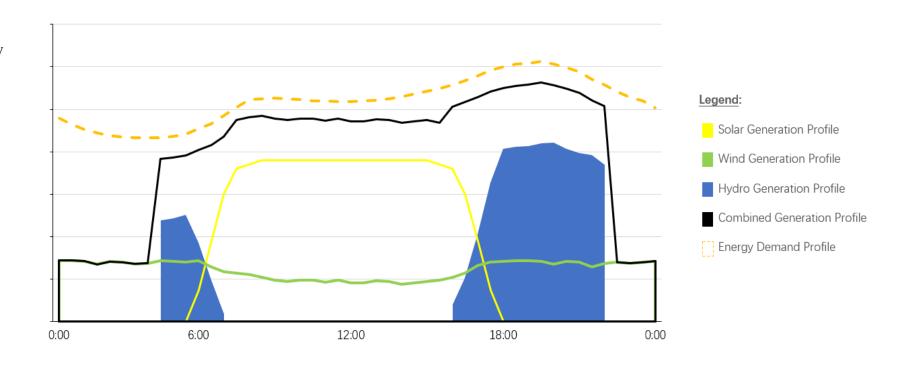
### 150MW Kidston Wind Project

- Stage 3 of the Kidston Renewable Energy Hub
- Globally unique integration of solar, wind and hydro
- Dispatchable renewable energy on demand 24/7
- Leverage existing infrastructure and co-location advantages
- Land option secured, feasibility studies commenced
- Project sizing of up to 150MW
- Pre-feasibility works indicate excellent wind resource, utilizing naturally elevated escarpment measuring ~21km in length



### 150MW Kidston Wind Project

- Wind generation profile inversely correlated with solar resource
- Integrated hydro generation compensates wind & solar intermittency
- Global first baseload renewable energy project

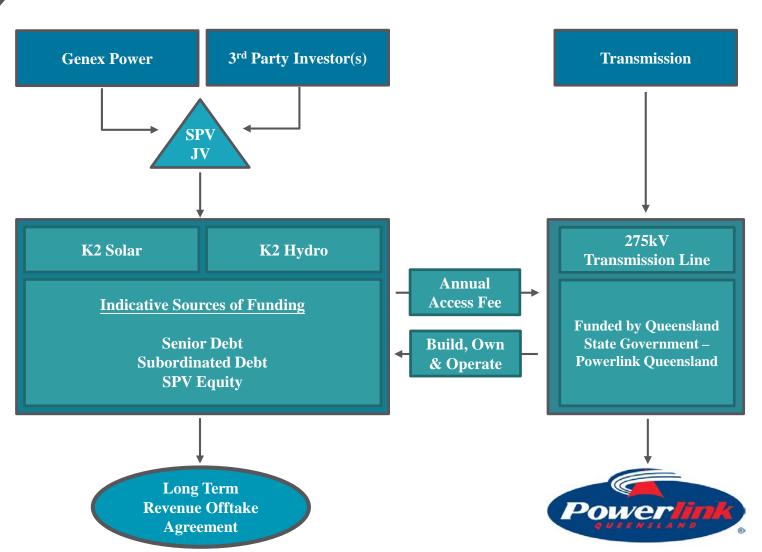








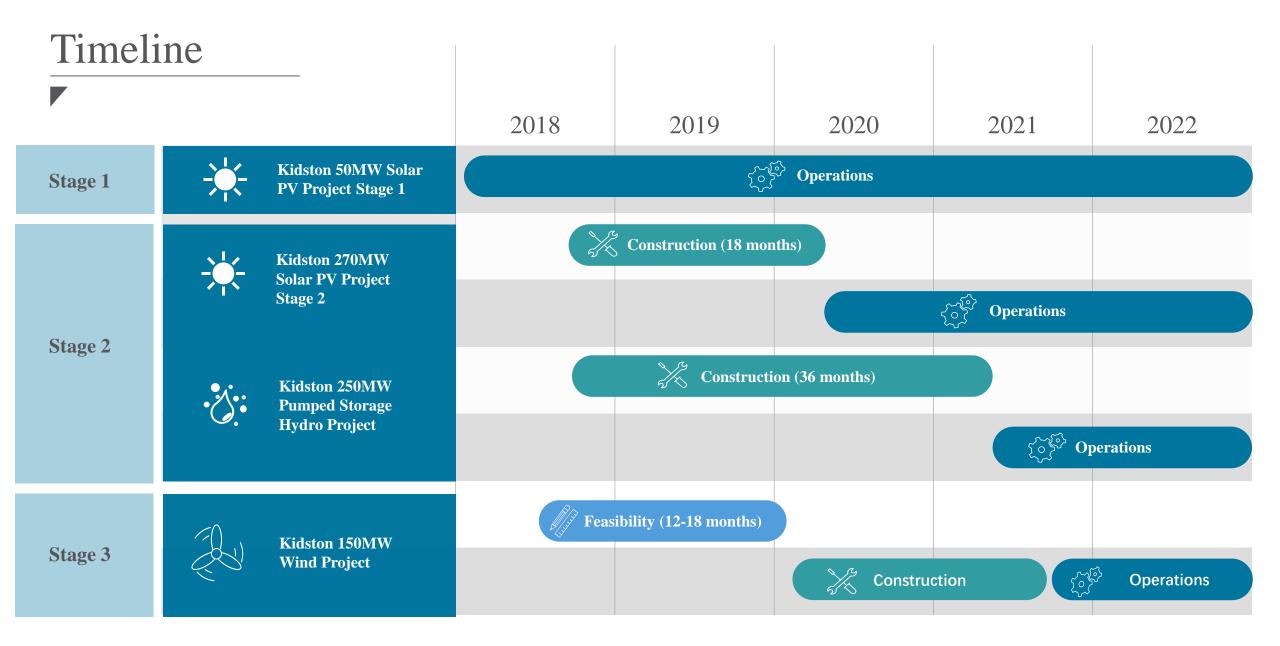
### Stage Two: Funding Structure



- Following successful Stage One funding strategy for Stage Two:
  - I. Long-term contracted revenue
  - II. Potential concessional Government funding
  - III. Bank funding/project finance
  - IV. Equity funding at project level













### Government Support

- Queensland State Government:
  - 20-Year Revenue Support Deed for 50MW Kidston Solar Project 'Solar 150 Program' (2016)
  - Designated the Kidston Renewable Energy Hub as 'Critical Infrastructure' to the State (2017)
  - \$150M towards development of 275kV transmission line 'Powering North Queensland Plan' (2017)



#### Commonwealth Government:

- o ARENA:
  - \$4M in funding to assist feasibility studies for 250MW Kidston Pumped Hydro Storage Project (2015)
  - \$8.9M in funding for 50MW Kidston Solar Project (2016)
  - Up to \$5M in funding for Kidston Stage Two Projects (2017)
- CEFC: debt financing for 50MW Kidston Solar Project (2017)
- o NAIF: First-stage board approval for concessional debt financing for Kidston Stage Two Projects (2017)













### Board & Management



#### **Dr. Ralph Craven (Chairman)**

- Chairman of Stanwell Corporation
- Director of Senex and AusNet Services
- Former CEO and Chairman of Ergon Energy
- Former CEO of Transpower New Zealand



#### **Michael Addison (Director)**

- Founder of EndoCoal and Carabella
- Water Engineer with extensive finance experience



#### **James Harding (Chief Executive Officer)**

- 30 years experience in international project business.
- Former head of Business Development in Abengoa Solar Power Australia & General Manager of Renewables with IPS Australia and MAN Ferrostaal.



#### **Simon Kidston (Executive Director)**

- Founder of EndoCoal and Carabella
- Former banker with HSBC, Macquarie, Helmsec



#### **Ben Guo (Finance Director)**

• 10 years finance and accounting experience with PWC, E&Y, Helmsec and more recently with Carabella Resources



#### **Teresa Dyson (Non-Executive Director)**

- Director of Energy Queensland, Seven West Media & Energy Super, Power & Water Corporation
- Former Partner of Ashurst & Deloitte
- Member of FIRB and Takeovers Panel



#### Alan du Mée (Non-Executive Director)

- Former CEO of Tarong Energy
- Former Chairman of the Australian National Generators Forum



#### **Yongqing Yu (Non-Executive Director)**

- Engineering background with extensive global hydro experience
- Vice Chairman of Zhefu



#### **Arrran McGhie (Chief Operations Officer)**

• 20 years experience in senior project management roles for underground excavation and civil construction projects



#### **Craig Francis (Commercial Finance Manager)**

• Over 10 years investment banking and finance experience in Australia and the UK focusing on the energy and natural resources sectors



#### **Justin Clyne (Company Secretary/Legal Counsel)**

• Experienced lawyer & company secretary





## Summary

- Strong and stable cash flows from 50MW Kidston Solar Project
  - o Cashflow positive
  - o 20-year Revenue Support Deed with Queensland Government
- Upside from strategic 250MW Kidston Pumped Storage Hydro Project + 270MW Kidston Solar Project
  - o Commonwealth & State Government focus on energy storage and renewable energy
  - o Most advanced energy storage and renewable project in Australia
  - o Revenue contracting and project finance discussions underway

#### Positive Outlook

- o Government focus on energy storage to mitigate rising electricity prices & intermittent renewables
- o National Energy Guarantee/Finkel Review places value on large-scale storage to compliment growth of renewables



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