



## **APPENDIX B      CAPITAL INVESTMENT VALUE REPORT**

2 November 2020

Wind Energy Partners Pty Ltd  
Level 33, 525 Collins Street  
**MELBOURNE VIC 3000**

**ATTENTION: JAMIE CHIVERS**

Dear Jamie,

**RE: HILLS OF GOLD WIND FARM  
PROPOSED 70 No. 5.5MW WIND TURBINES  
CAPITAL INVESTMENT VALUE ESTIMATE (REV 1)**

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As per your updated request dated 2<sup>nd</sup> November 2020, Muller Partnership has prepared a Capital Investment Value Estimate for the above development totalling **\$770,000,000 excl GST**.

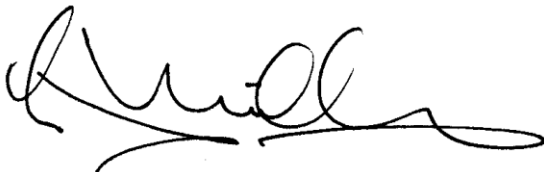
In addition, we have provided a provisional sum of **\$56,400,000 excl GST** for a battery energy storage system with 2023 forecast pricing as discussed (Total of **\$826,400,000 Excl GST**).

*Please note the attached Capital Investment Value Estimate has been prepared based on the currently available high level information and should be updated when additional information becomes available. Please take note of our Assumptions (Item 3.0) and Exclusions (Item 4.0).*

Should you have any queries or require any further information please do not hesitate to contact *Matthew Lochrin* or the undersigned.

Yours faithfully

**MULLER PARTNERSHIP**



**GRANT MULLER – Chief Executive**

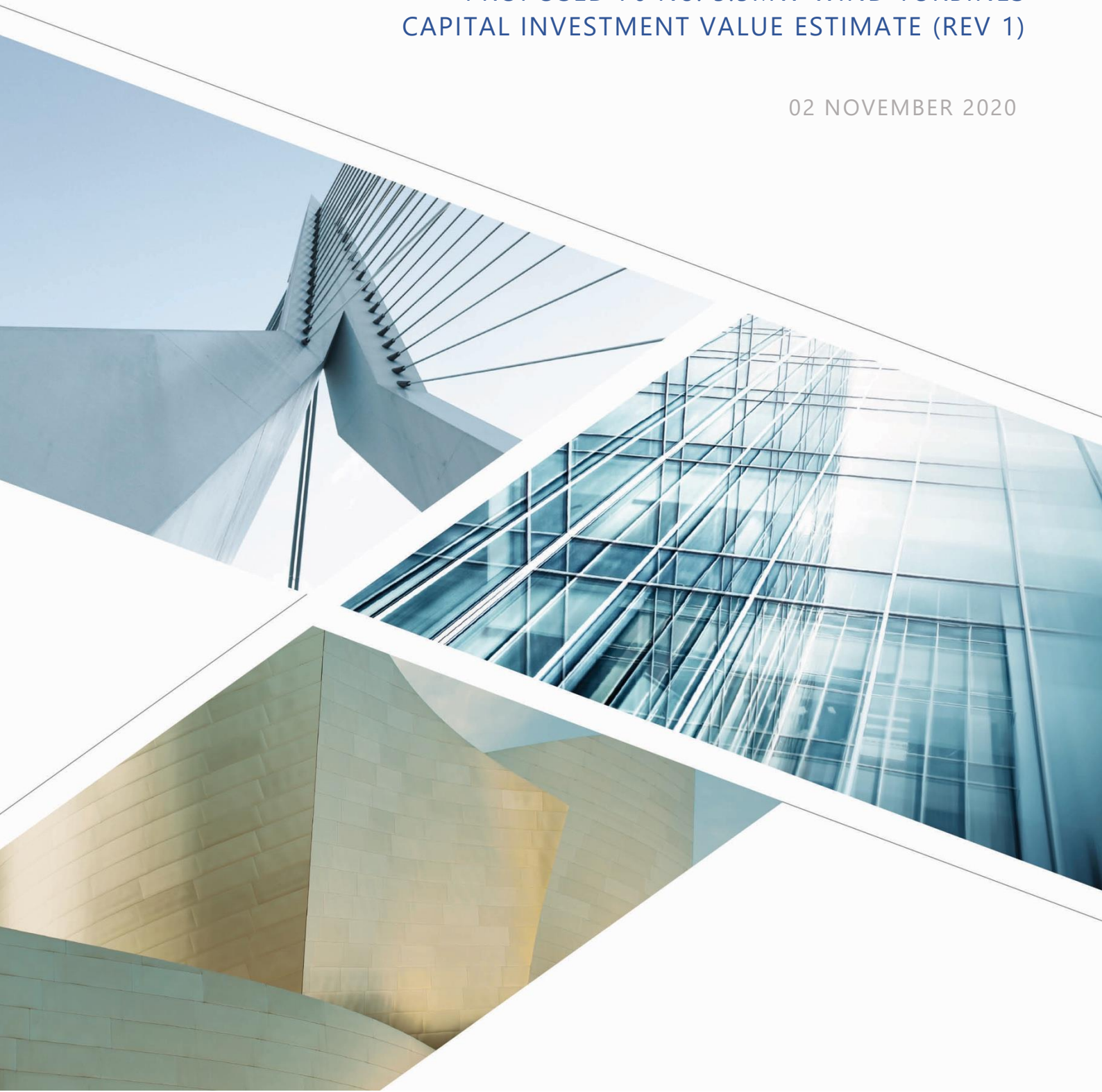
GM: ML/SD -20278 Hills of Gold Windfarm – CIV Estimate

# MULLER *partnership*

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## HILLS OF GOLD WIND FARM PROPOSED 70 No. 5.5MW WIND TURBINES CAPITAL INVESTMENT VALUE ESTIMATE (REV 1)

02 NOVEMBER 2020



### **Disclaimer**

Muller Partnership have prepared this report in part on the basis of information supplied to it in the ordinary course of business by Mr. Jamie Chivers of Someva Renewables Pty Ltd.

Whilst all reasonable professional care and skill have been exercised to validate its accuracy and authenticity, Muller Partnership is unable to provide any Guarantee in that regard, and will not be liable to any party for any loss arising as a result of any such information subsequently being found to be inaccurate, lacking authenticity or having been withheld.

This report is only intended for use of Someva Renewables Pty Ltd and Muller Partnership accepts no responsibility to other parties who use opinions or information contained herein. They do so at their own risk.

In acting as Quantity Surveyor for Someva Renewables Pty Ltd, Muller Partnership's liability is limited to the scope of services and value limit, as defined in their Professional indemnity insurance cover. A copy is available on request.

This report covers only the items as contained in this report. Should Someva Renewables Pty Ltd require additional items or areas of assessment, these should be specifically requested and will be actioned as agreed between the parties.

The construction costs are current as at the date of this assessment only. The values assessed herein may change significantly and unexpectedly over a relatively short period (including as a result of general market movements or factors specific to the particular property). We do not accept liability for losses arising from such subsequent changes in values.

### **Document history & status**

Revision	Date	Description	By	Review	Approved
0	30/10/2020	Capital Investment Value Estimate	ML	GM	GM
1	02/11/2020	Updated Capital Investment Value Estimate	SD	GM	GM

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### **Glossary of Key Terms**

<i>Construction Contingency</i>	The Construction Contingency is a contingency allowance made for unknowns that may occur during construction due to latent conditions or issues with the documentation.
<i>Design Development Allowance</i>	The Design Development Allowance is a contingency included within our estimate to allow for unknown costs associated with progressing the development from the initial concept through until the 'For Construction'. At the time of For Construction documentation this contingency should be 0% as the entire project will have been designed and costed accordingly.
<i>Preliminaries &amp; Margin</i>	The Preliminaries and Margin Allowance is an allowance for the builders' margin and their establishment and management of the site. This item will therefore include for items such as site fencing & amenities, site foreman, head office overheads, insurances, craneage, site cleaning, OH&S management, QA, etc.

### **Project Description**

**Muller Partnership** has been engaged by Wind Energy Partners Pty Limited to prepare a Capital Investment Value Estimate for the proposed construction of the Hills of Gold Wind Farm and associated infrastructure approximately 60 km to the south east of Tamworth within the New England region of NSW.

### **Scope**

Alteration works comprise of widening / upgrade to Morrisons Road, removal of 3 No. meteorological masts, intersection works, causeway works, bridge widenings, power pole relocations, intersection upgrades to 3 No. access points to the site and widening of intersections with hardstands at various locations along the route from Newcastle Port to the site entrance.

New works generally consist of site preparation, bulk / detail earthworks, gravel access roads / carparking, reinforced concrete footings, 70 No. 5.5MW wind turbine generators, 5 No. meteorological monitoring masts, electrical and fibre optic reticulation, electrical substation / switchyard building, electrical HV overhead transmission lines, maintenance & service building, workshop / warehouse, oil store, along with all temporary construction works including temporary site offices / storage and concrete batching plant and the potential for a 100MW/400MWh battery energy storage system in future.

## Cost Summary

Item	\$ (Excl GST)
Site Preparation	\$ 14,335,500
Wind Turbine Generators	\$ 605,500,000
Meteorological Monitoring Masts	\$ 860,000
Electrical Reticulation	\$ 55,685,400
Electrical Substation / Switchyard Building	\$ 24,266,000
High Voltage Overhead Transmission	\$ 28,000,000
Operations & Maintenance Compound	\$ 1,855,600
Carparking & Access Roads	\$ 16,602,950
Existing Road Network Infrastructure Upgrades	\$ 4,205,000
Temporary Works	\$ 3,406,520
Construction Management Supervision & Coordination	\$ 15,283,030
<b>GST EXCLUSIVE SUBTOTAL</b>	<b>\$ 770,000,000</b>
Battery Energy Storage System	\$56,400,000
<b>GST EXCLUSIVE TOTAL</b>	<b>\$826,400,000</b>

## 2.0 SCHEDULE OF INFORMATION

Muller Partnership has used the following information in compiling our Capital Investment Value Estimate:

1. 330 kV Concept Report prepared by AECOM dated 13 July 2020.
2. Draft Environmental Impact Statement Chapter 3 provided by Mr. Jamie Chivers of Someva Renewables Pty Ltd and received 10 October 2020.
3. Email & telephone correspondence with Mr. Jamie Chivers and Mr. Liam Edgeworth of Someva Renewables Pty Ltd regarding scope of works (September & October 2020).

All rates used within our Capital Investment Value Estimate have been gathered from our in-house databases as well as being constructed from first principles namely labour, materials and waste to reflect current market and project specific value.

### 3.0 ASSUMPTIONS / INCLUSIONS

We have made the following assumptions / inclusions in the preparation of our Capital Investment Value Estimate: -


#### Generally

1. The works will be competitively tendered to a number of suitable contractors under a fixed lump sum;
2. Works will be undertaken during normal trade hours;
3. Provisional allowances have been made using benchmarking where no detail has been provided;
4. Assumed works will be undertaken in a single stage;

#### Project Specific

1. We have excluded a construction contingency sum, which is generally between 10-20%. This should be allowed elsewhere within the budget;
2. Assumed excavation in material other than rock (NB: No Geotechnical Report provided);
3. Assumed existing ground levels for crane hardstand areas are level;
4. Allowed for 400 deep bulk excavation to new access road areas;
5. Allowed for 300 deep bulk excavation to crane hardstand areas;
6. Allowed for 115m wide x 60m long x 200 thick crushed rock hardstand crane pads;
7. Allowed for 20m wide x 20m long x 2m deep reinforced concrete pad footing to wind turbines;
8. Allowed for 70 No. x 5.5MW wind turbine generators;
9. Allowed for typical wind farm meteorological system setup;
10. Allowed for 31,800 m of 120 mm<sup>2</sup> AL electric cabling as advised in Preliminary Electrical Collector System Concept Letter prepared by DNV GL;
11. Allowed for 12,000 m of 240 mm<sup>2</sup> AL electric cabling as advised in Preliminary Electrical Collector System Concept Letter prepared by DNV GL;
12. Allowed for 7,700 m of 400 mm<sup>2</sup> AL electric cabling as advised in Preliminary Electrical Collector System Concept Letter prepared by DNV GL;




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13. Allowed for 48,650 m of typical wind farm fibre optic cabling between all turbines and electrical substation;
  14. Allowed for 77 No. x 33 kV switchgear to electrical substation;
  15. Allowed for 2 No. x 330 kV / 33 kV 225 MVA transformers to electrical substation;
  16. Allowed for 330 kV outdoor switchgear to electrical substation;
  17. Allowed for 33 kV switchroom building;
  18. Allowed for 330 kV switchyard;
  19. Allowed for 25 km's of 330 kV steel pole overhead transmission lines using Engie's budget pricing as provide by Mr. Jamie Chivers of Someva Renewables;
  20. Maintenance and Service building cost based on building footprint area (NB: No detail provided);
  21. Workshop / Warehouse building cost based on building footprint area (NB: No detail provided);
  22. Oil Store building cost based on building footprint area (NB: No detail provided);
  23. Allowed for 48.65 km long x 8.5 m wide x 400mm thick gravel access roads;
  24. Allowed for 500 wide x 200 deep open drain to one side of gravel access road;
  25. Allowed for 200 thick crushed gravel carpark including drainage;
  26. Road widening and strengthening to 3 km's of Morrisons Gap Road between Barry's Road and site entrance including 200 thick basecourse and 40 thick AC layer;
  27. Assumed that subgrade to Morrisons Gap Road is sufficient to allow for new basecourse over;
  28. Assumed existing road pavement on all other roads on the route from the port to site is in sufficient condition and does not require extensive upgrades;
  29. Allowed provisional sum of \$56,400,000 *Excl GST* for 400MW battery energy storage system using a forecasted 2023 price of \$141 AUD/KW. Prices for battery storage system. This forecast pricing has been provided by Jamie Chivers of Someva Renewables based on Bloomberg New Energy Finance forecasts.

## 4.0 EXCLUSIONS

Within the following Capital Investment Value Estimate the acronym 'EXCL' means work that has **not** been included in our estimate. We specifically note the following exclusions from the estimated cost:

### Generally

1. GST;
2. Escalation & changes in market conditions;
3. Authority's fees and charges & legal fees;
4. Client Side Project Management;
5. Construction contingency sum (Typically 5%);
6. Delay costs including latent conditions;
7. Design Consultant costs;
8. Works outside the specified site area;
9. Finance costs;
10. Works outside normal hours;
11. Land/ Property Acquisition;
12. Building / Inground contamination allowances;
13. Treatment / disposal of unsuitable or hazardous material;
14. Delays resulting from approvals such as Environmental/ Authorities;
15. Site allowances;
16. Repairs & Maintenance works;
17. Loose furniture and equipment including workstations, chairs, etc;
18. Staging;
19. Groundwater control;
20. Costing of ongoing maintenance requirements;



Project Specific

21. Property acquisition;
22. Land leases;
23. Excavation in rock;
24. De-watering;
25. Works to existing structures and houses on the site;
26. Roadwork to Morrisons Gap Road excludes any subsoil drainage, table drains or swale drains;
27. Roadwork to existing roads used for the route from the port to site;
28. New road signage associated with road upgrade works;
29. Tree removal other than allowance noted in foregoing estimate;
30. Easements/leases to private land other than noted in foregoing estimate;
31. Revegetation;
32. Farm fencing;
33. Disposal of surplus material (NB: Assumed to be retained on site).



**APPENDIX A – CAPITAL INVESTMENT VALUE ESTIMATE**

Hills of Gold Wind Farm  
 Capital Investment Value Estimate  
 Proposed 70 No. x 5.5MW Wind Turbines

MAIN COST SUMMARY

<i>Ref</i>	<i>Description</i>	<i>%</i>	<i>Cost/ m2</i>	<i>Sub Total</i>	<i>Total</i>
1.0	SITE PREPARATION	1.73		14,335,500	14,335,500
2.0	WIND TURBINE GENERATORS	73.27		605,500,000	605,500,000
3.0	METEOROLOGICAL MONITORING MASTS	0.10		860,000	860,000
4.0	ELECTRICAL RETICULATION	6.74		55,685,400	55,685,400
5.0	ELECTRICAL SUBSTATION / SWITCHYARD BUILDING	2.94		24,266,000	24,266,000
6.0	HIGH VOLTAGE OVERHEAD TRANSMISSION	3.39		28,000,000	28,000,000
7.0	OPERATIONS & MAINTENANCE COMPOUND	0.22		1,855,600	1,855,600
8.0	CARPARKING & ACCESS ROADS	2.01		16,602,950	16,602,950
9.0	EXISTING ROAD NETWORK INFRASTRUCTURE UPGRADES	0.51		4,205,000	4,205,000
10.0	TEMPORARY WORKS	0.41		3,406,520	3,406,520
11.0	CONSTRUCTION MANAGEMENT SUPERVISION & COORDINATION	1.85		15,283,029	15,283,030
12.0	GST EXCLUSIVE SUBTOTAL				<u>770,000,000</u>
13.0	BATTERY ENERGY STORAGE SYSTEM	6.82		56,400,000	<u>56,400,000</u>
14.0	GST EXCLUSIVE TOTAL				<u>826,400,000</u>
		100.00		826,399,999	826,400,000

Hills of Gold Wind Farm  
Capital Investment Value Estimate  
Proposed 70 No. x 5.5MW Wind Turbines

## ESTIMATE DETAILS

Ref	Description	Quantity	Unit	Rate	Amount
1.0	<b>SITE PREPARATION</b>				
	<a href="#">Site Clearance</a>				
1	Allow to clear work areas of vegetation as required	988,000.00	m2	1.25	1,235,000.00
	<a href="#">Bulk Earthworks</a>				
2	Allow for bulk earthworks as required to form levels	325,000.00	m3	6.50	2,112,500.00
	<a href="#">Detailed Excavation</a>				
3	Allow for detailed excavation for pad footings	56,000.00	m3	25.00	1,400,000.00
	<a href="#">Hardstands</a>				
4	Allow for 200 thick crushed rock hardstands	531,000.00	m2	18.00	9,558,000.00
	<a href="#">Removal of Monitoring Masts</a>				
5	Allow to decommission and remove existing monitoring masts	3.00	No	10,000.00	30,000.00
				<b>Total :</b>	<b>14,335,500.00</b>
2.0	<b>WIND TURBINE GENERATORS</b>				
	<a href="#">Concrete Footings</a>				
1	Allow for 20m wide x 20m long x 2m deep reinforced concrete pad footing : [Provisional]	70.00	No	400,000.00	28,000,000.00
	<a href="#">Wind Turbine Generators</a>				
2	5.5MW wind turbine with a maximum tip height of 230m including installation : [Provisional]	70.00	No	8,250,000.00	577,500,000.00
				<b>Total :</b>	<b>605,500,000.00</b>
3.0	<b>METEOROLOGICAL MONITORING MASTS</b>				
	<a href="#">Guyed Lattice Masts</a>				
1	108 m high 'GL55' guyed lattice tower mast including concrete footings, galvanised rigging hardware, 'Sala' fall arrest system and anchor kit	5.00	No	130,000.00	650,000.00
	<a href="#">Meteorological Monitoring System</a>				
2	Meteorological wind monitoring system including all connections as required : [Provisional]	5.00	No	42,000.00	210,000.00
				<b>Total :</b>	<b>860,000.00</b>
4.0	<b>ELECTRICAL RETICULATION</b>				
	<a href="#">33 kV Electric Cabling Including Trench Excavation and Backfill to:-</a>				
1	120 Al	31,800.00	m	900.00	28,620,000.00
2	240 Al	12,000.00	m	1,000.00	12,000,000.00

Hills of Gold Wind Farm  
Capital Investment Value Estimate  
Proposed 70 No. x 5.5MW Wind Turbines

## ESTIMATE DETAILS

Ref	Description	Quantity	Unit	Rate	Amount
4.0	ELECTRICAL RETICULATION				(Continued)
3	400 Al	7,700.00	m	1,350.00	10,395,000.00
	<a href="#">Fibre Optic Cabling Including Trench Excavation and Backfill to:-</a>				
4	Fibre optic cabling	48,650.00	m	96.00	4,670,400.00
				<b>Total :</b>	<b>55,685,400.00</b>
5.0	ELECTRICAL SUBSTATION / SWITCHYARD BUILDING				
	<a href="#">Electrical Substation</a>				
1	33 kV switchgear	77.00	No	48,000.00	3,696,000.00
2	330 kV / 33 kV 225 MVA transformer	2.00	No	4,000,000.00	8,000,000.00
3	330 kV outdoor switchgear	1.00	Item	1,500,000.00	1,500,000.00
4	Ancillary equipment	1.00	Item	400,000.00	400,000.00
5	Installation of items above	1.00	Item	4,070,000.00	4,070,000.00
	<a href="#">Electrical Switchyard</a>				
6	33 kV switchroom	1,000.00	m2	3,600.00	3,600,000.00
7	330 kV switchyard estimate	1.00	Item	3,000,000.00	3,000,000.00
				<b>Total :</b>	<b>24,266,000.00</b>
6.0	HIGH VOLTAGE OVERHEAD TRANSMISSION				
	<a href="#">Electrical HV Overhead Transmission</a>				
1	330kv steel pole overhead transmission lines	25.00	km	1,120,000.00	28,000,000.00
				<b>Total :</b>	<b>28,000,000.00</b>
7.0	OPERATIONS & MAINTENANCE COMPOUND				
	<a href="#">Maintenance and Service Building</a>				
1	Allowance for Colorbond clad steel framed maintenance and service building including base building fitout complete	500.00	m2	2,400.00	1,200,000.00
	<a href="#">Workshop / Warehouse</a>				
2	Allowance for precast concrete portal framed workshop / warehouse building including base building fitout complete	500.00	m2	1,100.00	550,000.00
	<a href="#">Oil Store</a>				
3	Allowance for oil store warehouse building	96.00	m2	1,100.00	105,600.00
				<b>Total :</b>	<b>1,855,600.00</b>
8.0	CARPARKING & ACCESS ROADS				
	<a href="#">Access Roads</a>				

Hills of Gold Wind Farm  
 Capital Investment Value Estimate  
 Proposed 70 No. x 5.5MW Wind Turbines

ESTIMATE DETAILS

Ref	Description	Quantity	Unit	Rate	Amount
8.0	<b>CARPARKING &amp; ACCESS ROADS</b>				
1	Allow for 400 thick gravel access roads to wind turbines : [NB: Allowed for 48.65 kms of access roads at 5.5m wide with 1.5m shoulders on either side]	413,525.00	m2	38.00	15,713,950.00
2	Allow to form 500 wide x 200 deep open drain to last <a href="#">Carparking</a>	48,650.00	m	8.00	389,200.00
3	Allow for 200 thick crushed gravel carparking including drainage	6,664.00	m2	75.00	499,800.00
				<b>Total :</b>	<b>16,602,950.00</b>

9.0 EXISTING ROAD NETWORK | INFRASTRUCTURE UPGRADES

[Road Upgrade & Widening](#)

1	Road upgrade and widening to Morrisons Gap Road between Barry's Road and site entrance <a href="#">Causeway Works</a>	3,000.00	m	760.00	2,280,000.00
2	Allow for causeway modification works <a href="#">Bridge Widening</a>	1.00	Item	100,000.00	100,000.00
3	Allow to widen Peel Road bridge	1.00	Item	500,000.00	500,000.00
4	Allow to widen Lindsay's Gap Road bridge over Goonoo Goonoo Creek at Garoo <a href="#">Intersection Upgrades</a>	1.00	Item	1,000,000.00	1,000,000.00
<a href="#">Access Points</a>					
5	Allowance to upgrade intersections to proposed site access points <a href="#">Utility Works</a>	3.00	No	75,000.00	225,000.00
6	Allow to relocate power pole and adjust overhead powerlines	2.00	No	50,000.00	100,000.00
				<b>Total :</b>	<b>4,205,000.00</b>

10.0 TEMPORARY WORKS

[Site Offices and Storage](#)

1	Allowance for site office building based on building footprint area <a href="#">Concrete Batching Plant</a>	200.00	m2	1,200.00	240,000.00
2	Allowance for temporary concrete batching plant including assembly and disassemble <a href="#">Water Supply</a>	1.00	Item	200,000.00	200,000.00
3	Allow for temporary 300,000 L water tank <a href="#">Intersection Widening</a> <a href="#">Path of Travel</a>	1.00	Item	98,000.00	98,000.00



Hills of Gold Wind Farm  
 Capital Investment Value Estimate  
 Proposed 70 No. x 5.5MW Wind Turbines

ESTIMATE DETAILS

Ref	Description	Quantity	Unit	Rate	Amount
10.0 TEMPORARY WORKS					<i>(Continued)</i>
4	Allow for 300 thick gravel hardstand to widen intersections	13,463.00	m2	40.00	538,520.00
5	Permission and temporary lease allowance from landowner to travel across private land <a href="#">Intersection Works</a>	4.00	No	15,000.00	60,000.00
6	Allow to demolish and reinstate portion of median strip	1.00	Item	10,000.00	10,000.00
7	Allow to remove trees and/or trim trees where required along route	1.00	Item	20,000.00	20,000.00
8	Allow to remove and reinstate traffic signage throughout route	1.00	Item	20,000.00	20,000.00
9	Allow to modify stormwater pipe	1.00	Item	20,000.00	20,000.00
10	Allow to remove and reinstate guardrails where required throughout route	1.00	Item	50,000.00	50,000.00
11	Allow to remove and reinstate traffic signal pole <a href="#">Causeway Works</a>	1.00	Item	100,000.00	100,000.00
12	Allow for causeway modification works <a href="#">Bridge Widening</a>	1.00	Item	200,000.00	200,000.00
13	Allow to widen Peel Road bridge	1.00	Item	250,000.00	250,000.00
14	Allow to widen Lindsay's Gap Road bridge over Goonoo Goonoo Creek at Garoo <a href="#">Utility Works</a>	1.00	Item	1,000,000.00	1,000,000.00
15	Allow to relocate power pole and adjust overhead powerlines <a href="#">Traffic Control</a>	2.00	No	50,000.00	100,000.00
16	Allow for traffic control throughout route	1.00	Item	500,000.00	500,000.00
<i>Total :</i>					<b>3,406,520.00</b>
11.0 CONSTRUCTION MANAGEMENT SUPERVISION & COORDINATION					
<i>Total :</i>					
12.0 GST EXCLUSIVE SUBTOTAL					
1					
<i>Total :</i>					
13.0 BATTERY ENERGY STORAGE SYSTEM					
<a href="#">Battery Energy Storage System</a>					
1	400MWh battery energy storage system [NB: Provisional Sum - Costs as advised by Someva Renewables]	1.00	Item	56,400,000.00	56,400,000.00

Hills of Gold Wind Farm  
Capital Investment Value Estimate  
Proposed 70 No. x 5.5MW Wind Turbines

ESTIMATE DETAILS

<i>Ref</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Amount</i>
				<i>Total :</i>	<i>56,400,000.00</i>

14.0 GST EXCLUSIVE TOTAL

				<i>Total :</i>	
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