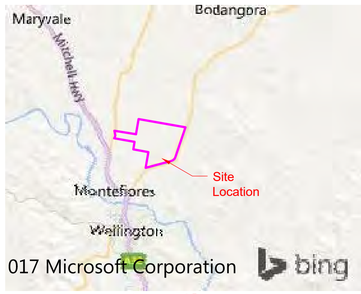
# APPENDIX B PROPOSAL LAYOUT

## Country Map

Scale NTS

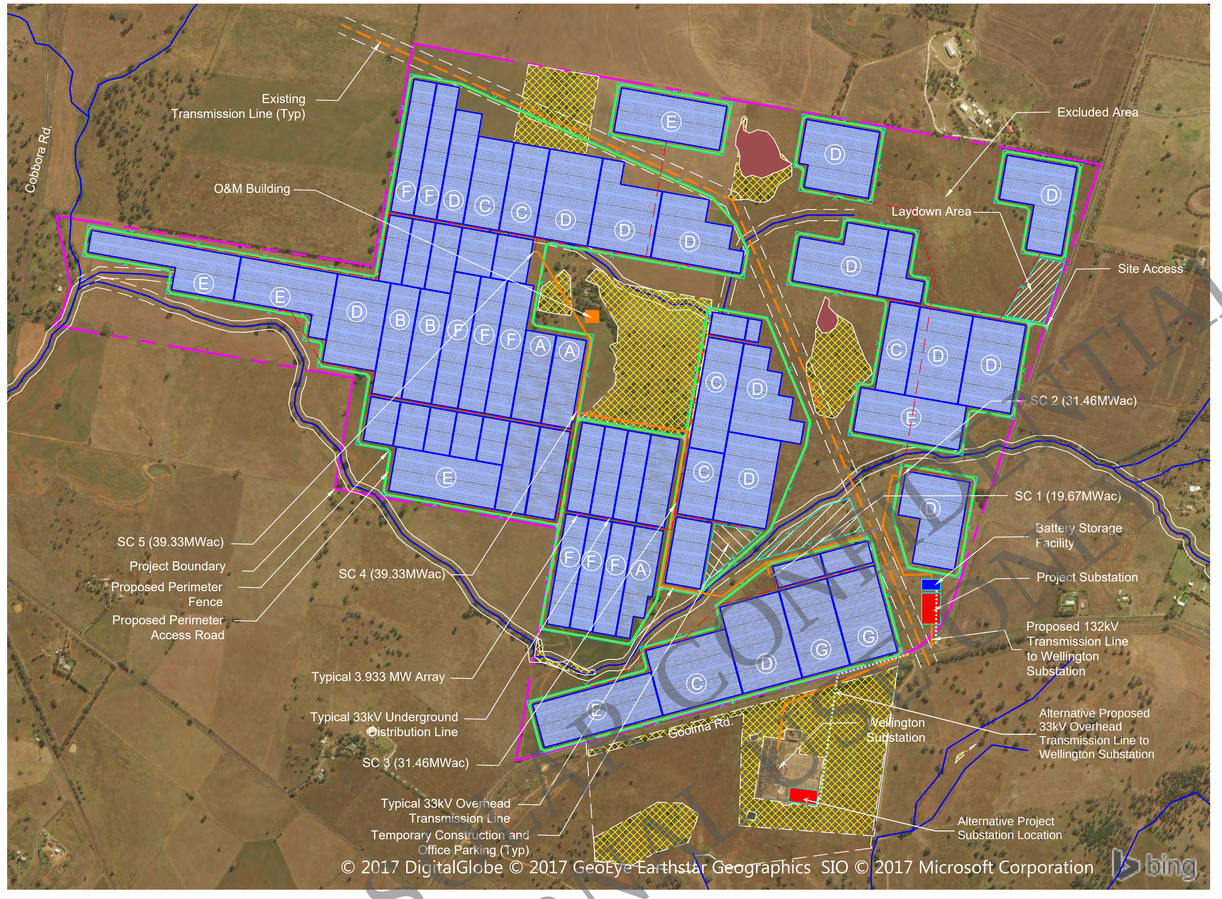



## Key Plan

Scale NTS

**Legend:**

- Project Boundary
- AC Elec. Collection Line (Underground)
- AC Elec. Collection Line (Overhead)
- AC Elec. Distribution / Transmission Line
- Existing Distribution / Transmission Line
- Perimeter Fence
- Proposed Access Road (Dirt)
- Stream
- Biodiversity Area
- Rock Constraint



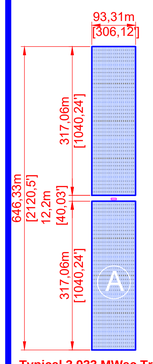

## Site Development Plan

Scale 1:10 000

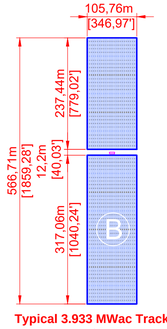
SCALE 1:10000 (METRIC)

150 0 150 300 450 600 750

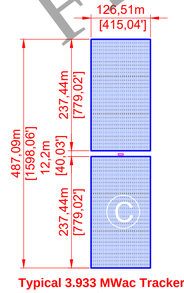
( SCALE IN METERS )



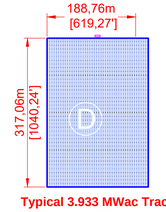

**Typical 3.933 MWac Tracker Array**
4747.2 kWdc / 3.933 MWac
1.2070 dc/ac Ratio
206.4 kWdc / Column
23 Columns, 4.75m (15'-6") Row Spacing
430.0 Watt Module - Series 6
6 Modules / String x 10 Strings / Table
8 Tables / Column @ 1 x 60
184 Tables / Array @ 25.8 kWdc / Table



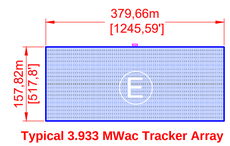

**Typical 3.933 MWac Tracker Array**
4695.6 kWdc / 3.933 MWac
1.1939 dc/ac Ratio
180.6 kWdc / Column
26 Columns, 4.15m (13'-6") Row Spacing
430.0 Watt Module - Series 6
6 Modules / String x 10 Strings / Table
7 Tables / Column @ 1 x 60
182 Tables / Array @ 25.8 kWdc / Table



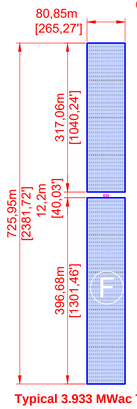

**Typical 3.933 MWac Tracker Array**
4798.8 kWdc / 3.933 MWac
1.2201 dc/ac Ratio
154.8 kWdc / Column
31 Columns, 4.15m & 4.75m Row Spacing
430.0 Watt Module - Series 6
6 Modules / String x 10 Strings / Table
6 Tables / Column @ 1 x 60
186 Tables / Array @ 25.8 kWdc / Table



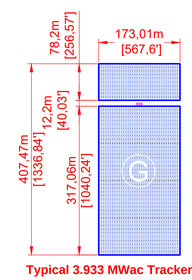

**Typical 3.933 MWac Tracker Array**
4747.2 kWdc / 3.933 MWac
1.2070 dc/ac Ratio
103.2 kWdc / Column
46 Columns, 4.15m & 4.75m Row Spacing
430.0 Watt Module - Series 6
6 Modules / String x 10 Strings / Table
4 Tables / Column @ 1 x 60
184 Tables / Array @ 25.8 kWdc / Table




**Typical 3.933 MWac Tracker Array**
4747.2 kWdc / 3.933 MWac
1.2070 dc/ac Ratio
51.6 kWdc / Column
92 Columns, 4.15m (13'-6") Row Spacing
430.0 Watt Module - Series 6
6 Modules / String x 10 Strings / Table
2 Tables / Column @ 1 x 60
184 Tables / Array @ 25.8 kWdc / Table




**Typical 3.933 MWac Tracker Array**
4644.0 kWdc / 3.933 MWac
1.1808 dc/ac Ratio
232.2 kWdc / Column
20 Columns, 4.15m (13'-6") Row Spacing
430.0 Watt Module - Series 6
6 Modules / String x 10 Strings / Table
9 Tables / Column @ 1 x 60
180 Tables / Array @ 25.8 kWdc / Table




**Typical 3.933 MWac Tracker Array**
4773.0 kWdc / 3.933 MWac
1.2136 dc/ac Ratio
129.0 kWdc / Column
37 Columns, 4.75m (15'-6") Row Spacing
430.0 Watt Module - Series 6
6 Modules / String x 10 Strings / Table
5 Tables / Column @ 1 x 60
185 Tables / Array @ 25.8 kWdc / Table

# Welington

Wellington, New South Wales, Australia

### Product Offering

TBD

### Project Developer/Owner Operator

TBD

### Project Site Description

| | |
|---|---|
| 491.88 | ± Hectare Site |
| 256.48 | ± Hectare Array |
| Latitude | 32° 30' 42" S |
| Longitude | 148° 57' 17" E |
| Elevation | 360 m |

### Project Climatic Conditions

ASHRAE Station No. 957190

| | |
|---|---|
| Extreme Max (50 year) Temp | 46.0°C |
| Extreme Min (50 year) Temp | -5.0 °C |
| Annual Cooling Design Temp | 37.7 °C |
| Annual Heating Design Temp | -0.6 °C |

(ASHRAE 2013)

### Project Design Data

| | |
|---|---|
| Snow Load | TBD |
| Wind Load | TBD |
| Seismic Load | TBD |

### Project Interconnection

132 kV Distribution / Transmission Line to Wellington Substation

### Photovoltaic System Parameters

161.25 - MWac System Capacity (Nominal Output)
194.07 - MWdc System Capacity (Nominal Output)
161 - 1311 kW / TBD kVA Inverters (1500 Vdc x 630 Vac)
Inverter Model - Ingecon 1640TL B630
41 - 4.0 MVA Transformers (630 V x 33 kV)
5 - 33 kV Sectionalizing Cabinets
1 - 33 kV x 132 kV Transformer

### Solar Production

NexTracker Mounting System
141.59 MWac @ 10° Azimuth
33 kV Collection System

1500 Volt dc PV System Design
19.67 MWac @ 345° Azimuth
132 kV Dist. or Trans. System

| SC | Module | Row Spacing (m) | kWdc / Table | # of Tables / Array | 3.933 MW Array | Sub Total of Tables | MWac | MWdc | dc/ac Ratio |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 430.0 | 4.75 | 25.80 | 184 | 2 | 368 | 7.87 | 9.49 | 1.2070 |
| | 430.0 | 4.75 | 25.80 | 185 | 2 | 370 | 7.87 | 9.55 | 1.2136 |
| | 430.0 | 4.75 | 25.80 | 186 | 1 | 186 | 3.93 | 4.80 | 1.2201 |
| SC 1 Subtotal | | | | | 5 | 924 | 19.67 | 23.84 | 1.2123 |
| 2 | 430.0 | 4.15 | 25.80 | 184 | 7 | 1288 | 27.53 | 33.23 | 1.2070 |
| | 430.0 | 4.15 | 25.80 | 186 | 1 | 186 | 3.93 | 4.80 | 1.2201 |
| SC 2 Subtotal | | | | | 8 | 1474 | 31.46 | 38.03 | 1.2087 |
| 3 | 430.0 | 4.15 | 25.80 | 180 | 3 | 540 | 11.80 | 13.93 | 1.1808 |
| | 430.0 | 4.15 | 25.80 | 184 | 2 | 368 | 7.87 | 9.49 | 1.2070 |
| | 430.0 | 4.75 | 25.80 | 184 | 1 | 184 | 3.93 | 4.75 | 1.2070 |
| | 430.0 | 4.15 | 25.80 | 186 | 2 | 372 | 7.87 | 9.60 | 1.2201 |
| SC 3 Subtotal | | | | | 8 | 1464 | 31.46 | 37.77 | 1.2005 |
| 4 | 430.0 | 4.15 | 25.80 | 180 | 3 | 540 | 11.80 | 13.93 | 1.1808 |
| | 430.0 | 4.15 | 25.80 | 182 | 2 | 364 | 7.87 | 9.39 | 1.1939 |
| | 430.0 | 4.15 | 25.80 | 184 | 3 | 552 | 11.80 | 14.24 | 1.2070 |
| | 430.0 | 4.75 | 25.80 | 184 | 2 | 368 | 7.87 | 9.49 | 1.2070 |
| SC 4 Subtotal | | | | | 10 | 1824 | 39.33 | 47.06 | 1.1965 |
| 5 | 430.0 | 4.15 | 25.80 | 180 | 2 | 360 | 7.87 | 9.29 | 1.1808 |
| | 430.0 | 4.15 | 25.80 | 184 | 6 | 1104 | 23.60 | 28.48 | 1.2070 |
| | 430.0 | 4.15 | 25.80 | 186 | 2 | 372 | 7.87 | 9.60 | 1.2201 |
| SC 5 Subtotal | | | | | 10 | 1836 | 39.33 | 47.37 | 1.2044 |
| Total System Capacity | | | | | 41 | 7522 | 161.25 | 194.07 | 1.2035 |
| Total Net Capacity | | | | | | | 160 | | |

## Site Plan Data Source

| Feature | Description |
|---|---|
| Boundary | Wellington Indicative Constraints KMZ |
| Coordinate System | Map Grid of Australia Zone 56, using GDA94 datum |
| Topography | |
| Hydrology | |
| Wetlands | |
| Geotechnical | |
| Environmental Constraint | |

THIS PRINT IS DESIGNED FOR 24" X 36" PLOTTING

THIS SITE DEVELOPMENT PLAN IS PRELIMINARY AND SUBJECT TO REVISION BASED ON, AMONG OTHER THINGS, CHANGES IN PROJECT SCHEDULE, TECHNOLOGY, AND/OR SITE SPECIFIC CONSTRAINTS.

THIS PRINT IS NOT TO BE USED FOR CONSTRUCTION UNLESS NOTED AND SIGNED OK FOR CONSTRUCTION ABOVE LAST REVISION.

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PROFESSIONAL ENGR.

**Welington**
Wellington
New South Wales
Australia
160MWac Net Capacity

| REV | DATE | REVISION DESCRIPTION | BY | CHK | APP |
|---|---|---|---|---|---|
| D | 10-27-17 | Added Battery Storage & Relocated Site Access | PS | BS | B |
| C | 9-12-17 | Revised Array Structure | VK | BS | B |
| B | 8-28-17 | Added New Constraints & Revised Arrays | VK | BS | B |
| A | 6-7-17 | Conceptual Design - Tracker Mounting System | VK | B | BC |

| | |
|---|---|
| FS JOB #: | 0000-0000-00 |
| PROJ. DSGR: | VK |
| PROJ. ENGR: | Beth Sorensen |
| PROJ. MGR: | |
| PROJ. DIR: | |
| SCALE: | AS NOTED |

SHEET TITLE

Site Development Plan

SD-100-T

SHEET 1 OF 1

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