Energy Forms Pty Ltd
8/91 William Street
Melbourne VIC 3000

PO Box 16164
Collins St West VIC 8007

29 September 2021

Dear Landholder,

RE: Proposed Battery Energy Storage System(BESS) for approved Maryvale Solar Farm

We hope this letter finds you well and you are staying safe during this unprecedented time.

We write to advise you Photon Energy Australia Pty Ltd(Photon) is proposing to add a Battery Energy Storage System (BESS) to the approved Maryvale Solar Farm project. The proposed BESS is anticipated to have peak capacity of approximately 125MW and storage capacity of 3 hours (or 375MWh). The existing Development Consent was granted in December 2019 by the Department of Planning, Industry and Environment (DPIE). Photon is proposing to apply to DPIE for modification to the Development Consent to allow for the proposed BESS. The proposed BESS will be contained within the approved infrastructure/impact areas defined in the Development Consent and the General Layout Plan for the Maryvale Solar Farm.

The site includes land at 121 Maryvale Road and 801 Cobbora Road, formally identified as part of Lot 2 DP 573426, Lot 1 DP 1006557, part of Lot 182 and Lot 122 DP754318, Lot 1 in Deposited Plan 1031281, Lot 130 in Deposited Plan 754318, Lot 2 in Deposited Plan 252522, Lot 1 in Deposited Plan 252522, Lot 11 in Deposited Plan 1260757, Lot 12 in Deposited Plan 1260757.

Photon is a solar power company with substantial Australian ownership and a global presence. Photon Energy has engaged Energy Forms, a planning, environmental and engagement consultancy, to support them with lodging a Development Consent modification application with DPIE.

The modification application will seek approval for two different formats of BESS. Please find enclosed the following information in relation to the proposed BESS:

1. Project factsheet
2. Project plans
3. Indicative illustrations of the two different options for the proposed BESS project.

You can also find further information on the Maryvale Solar Farm online at www.photonenergy.com/de/photon-energy/maryvale-solar-farm.html.

As a landholder within project area, we understand you may have further questions about the project. We would welcome the opportunity to talk with you and answer any questions you may have regarding this proposal. You can contact Shane Melotte from Energy Forms by phone on **0429 778 080** or by email at **projectofficer@energyforms.com.au** The outcomes of this consultation will be captured and submitted to DPIE with the modification application.

Under normal circumstances, our preference would be to meet interested community members and stakeholders in person, under current restrictions we are happy to offer video calls as an interim measure and will be able to meet in person when restrictions are formally lifted. Please do get in touch if you would like more information about the proposed battery energy storage system to be shared with you as this project progresses.

Yours Sincerely,

Shane Melotte - Director

Energy Forms Pty Ltd

MARYVALE SOLAR FARM BATTERY ENERGY STORAGE SYSTEM (BESS)

FACTSHEET / FAQS

Q What is proposed?

A Photon Energy Australia Pty Ltd is proposing to add a Battery Energy Storage System (BESS) to the approved Maryvale Solar Farm at 121 Maryvale Road, Maryvale. An application to modify the Development Consent for the approved Maryvale Solar Farm is proposed to be lodged in October 2021.

Development Consent SSD 8777 for construction and operation of the Maryvale Solar Farm was granted by the NSW Minister for Planning and Public Spaces on 4th December 2019. You can find more information on the project at www.photonenergy.com/de/photon-energy/maryvale-solar-farm.html or at the DPIE State Significant Projects Website www.planningportal.nsw.gov.au/major-projects/project/9531.

The proposed BESS is anticipated to have peak capacity of approximately 125MW and storage capacity of 3 hours (or 375MWh). For comparison this is the equivalent to enough power to supply electricity to approximately 2230 average homes for a week. The BESS technology being proposed is utility scale lithium-based batteries providing short term energy storage services where they are charged and discharged on a regular basis to provide both load shifting (storage of energy for discharge at a later time) and potentially grid support services. Two alternative battery storage formats are being considered through the ongoing technical analysis. As such both options are being put forward for approval and are described as follows:

Format 1 – Centralised Battery Energy Storage Option: a large central "battery" will be positioned between the central inverter and the grid, adjacent to the proposed substation on site. This battery will occupy approximately 10 acres of land and comprise multiple (approx. 180) shipping container style buildings grouped together that will house the batteries and the ancillary connection and management equipment enabling the batteries to interface with the solar farm substation and the grid.

Format 2 – Distributed Battery Energy Storage Option: this option comprises the same number (approx. 180) of shipping container style buildings housing batteries but distributed across the site co-located with each of the inverter stations located throughout the development which are adjacent to the PV arrays (as described in the development application for the project).

Both BESS formats being proposed will be contained within the approved infrastructure/impact areas defined in the Development Consent and the General Layout Plan for the Maryvale Solar Farm. **Proposed Layout Plans for each battery format and illustrative images of existing example BESS systems are attached for reference.**

Q What is a BESS?

A A Battery Energy Storage System (BESS) is a large-scale system used to store energy generated by another source. An example of this is where batteries are coupled with a renewable energy generation facility to allow energy to be stored during times of low demand and released at times of peak demand. Batteries most commonly use lithium to store the electricity until it is ready to be used.

Q Why is the BESS being proposed in this area?

A Co-locating BESS's with a renewable energy generation project such as the Maryvale Solar Farm allows an integrated self-sufficient (energy generation plus storage) system which can have significant value-adding opportunities for supporting the national energy system and for commercial proponents. It helps to reduce the power loss in the transmission network and reduce the cost of energy for local residents.

Q Who is Photon Energy Australia Pty Ltd?

A Photon Energy Australia Pty Ltd is a solar power company with substantial Australian ownership and is a global business specialising in the delivery and maintenance of commercial scale solar power and battery storage systems. The company has significant experience in the development, construction and operation of renewable energy projects.

Q When will construction commence and how long will construction take?

A The construction start date of the Maryvale Solar Farm and BESS is dependent on a variety of factors, including receiving planning and grid connection approvals, negotiation of a Power Purchase Agreement and completion of the financing process. Once construction contractors are appointed, works on site are expected to take approximately 14 months.

Q What effects will the BESS have on the environment?

A BESS projects are generally low impact given their small footprint, however key environmental impacts may include loss of visual amenity, noise impacts, ecological impacts and impacts on bushfire safety. Each of these areas of potential impact will be assessed by a specialist consultant as part of the Development Consent modification application to demonstrate no unreasonable impact to the Department of Planning, Industry and Environment (DPIE). In addition, a Preliminary Hazards Analysis will be prepared for the BESS in accordance with State Environment Protection Policy and will be submitted with the modification application, as required by DPIE. The Preliminary Hazards Analysis will assess the risk of fire, spills, electromagnetic fields, staff safety and community safety. Once submitted, the modification application will be referred to key relevant departments and authorities for assessment and assurance that the addition of the proposed BESS will not have any unreasonable environmental impacts.

Q What does the proposed BESS look like?

A As noted above the BESS will be comprised of approximately 180 battery units and these units will be deployed either in the centralised format or distributed format. Each of the units will have approximately the same scale, dimensions as a “forty foot” container (i.e., length 12.2m, width 2.4m and height 2.6m). The maximum height of the battery units will be approximately 3 metres above ground level, which is 1 metre lower than the maximum height of the approved solar field.

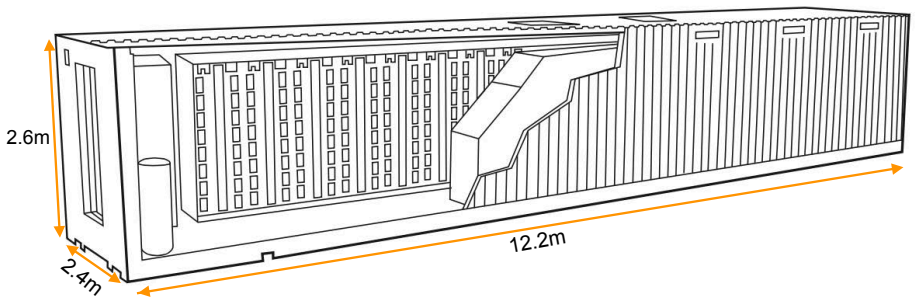


Image 1: Approximate dimensions of an individual battery unit

Proposed Layout Plans for each battery format and illustrative images of existing example BESS systems are attached for reference. Proposed layout plans for each of the formats have also been provided for reference. As shown on the layout plans, the centralised BESS will be set back from the western boundary and will also be screened by the supplementary vegetation screening required along this boundary under the Maryvale Solar Farm Development Consent. This screening will assist in mitigating the visual impacts of the BESS along this boundary. The remainder of the BESS will be partially obscured/screened by the solar farm.

Q Does the BESS generate noise?

A BESS's do not typically generate significant noise and noise emissions from the Maryvale BESS are likely to be negligible, however some noise will be generated by system components, particularly at times of charging and discharging.

As part of the Development Consent modification application, the noise impacts of the proposed BESS will be assessed in accordance with the NSW Environment Protection Authority (EPA) Noise Policy for Industry (NPI) 2017 and NSW Department of Environment and Climate Change (DECC) Interim Construction Noise Guideline (ICNG) 2009.

Q Does the BESS create a fire risk?

A The lithium-based BESS technology to be deployed will be required to meet all the relevant national and international safety standards and codes and therefore will present a low fire risk. As noted above, a Preliminary Hazards Assessment will be undertaken to assess the risk of fire and will propose suitable mitigation measures to ensure there are no unreasonable risks for staff or the community. These assessments and recommendations will be reviewed by the relevant authorities as part of the modification application process and where deemed necessary will be required as conditions of any approval given. Consultation with the Rural Fire Services will be undertaken as part of the modification application process.

Q What is the operational life of the BESS?

A The operational life of the BESS is similar to the solar farm, which is expected to be 30 years. After this time, the site will either be rehabilitated and returned to its original purpose as freehold land or depending on future energy requirements the project may be reutilised, subject to landowner agreements and planning approvals.

Q What type of batteries will be used?

A It is proposed to use lithium-based batteries. The final battery supplier has not been selected at this stage however the technology will be approved under Australian Standards and be required to meet a comprehensive set of safety standards that will be imposed through the Development Approval modification process.

Q What benefits will the community receive?

A Energy storage systems, whether household batteries or grid scale facilities, improve grid reliability and lower energy prices by allowing low-cost power to be stored for times of high cost and high demand usage. This increases energy supply and puts downward pressure on prices. Batteries, pumped hydro and other storage technologies can provide instantaneous energy during critical peak times, as well as helping to integrate renewable energy generation. When combined with renewable energy, storage helps maintain reliable and affordance energy supply, especially in times of peak demand.

Locally, the BESS will result in the capacity to dispatch energy to the grid to provide grid stability support services. The project will generate employment predominantly through the construction, but also through operation and maintenance phases. Through the construction phase the project will also result in increased demand for local goods, accommodation and materials. Other local benefits include potential road or intersection upgrades and the delivery of clean, zero emissions electricity to meet the region's needs.

Q What are the next steps?

If have any questions or would like to learn more about the project we encourage you to contact us at the details below. We are aiming to submit the application for modification after mid-October 2021. Once the application is submitted, DPIE will complete their assessment of the application and may seek further comment from the community through this process. DPIE will also refer the application to the relevant government departments and other authorities such as the Rural Fire Service and Dubbo Regional Council for comment.

Q Who can I contact for more information?

A

Shane Melotte
Director, Energy Forms
Email: projectofficer@energyforms.com.au
Phone: 0429 778 080

Illustrative images - Centralised BESS Format

The images below are indicative of the general appearance of a solar farm coupled with centralised Battery Energy Storage System (BESS) when coupled with a solar farm, where all of battery units and ancillary buildings are located together. The BESS proposed for the Maryvale Solar Farm will be approximately five times the size of this system shown in Image 1, containing approximately 180 battery units over 10 acres. Each battery unit has approximately the same dimensions as a "40 Foot" container (Length = 12.2m, Width = 2.4m, Height = 2.6m). The maximum height of the units above ground level will be approximately 3.0 metres. Image 2 shows a close up of an example of the battery units. These images are of existing constructed projects for illustration purposes.

Image 1: Illustration of a battery energy storage system unit coupled with a solar farm

Image 2: Close up of example of battery units

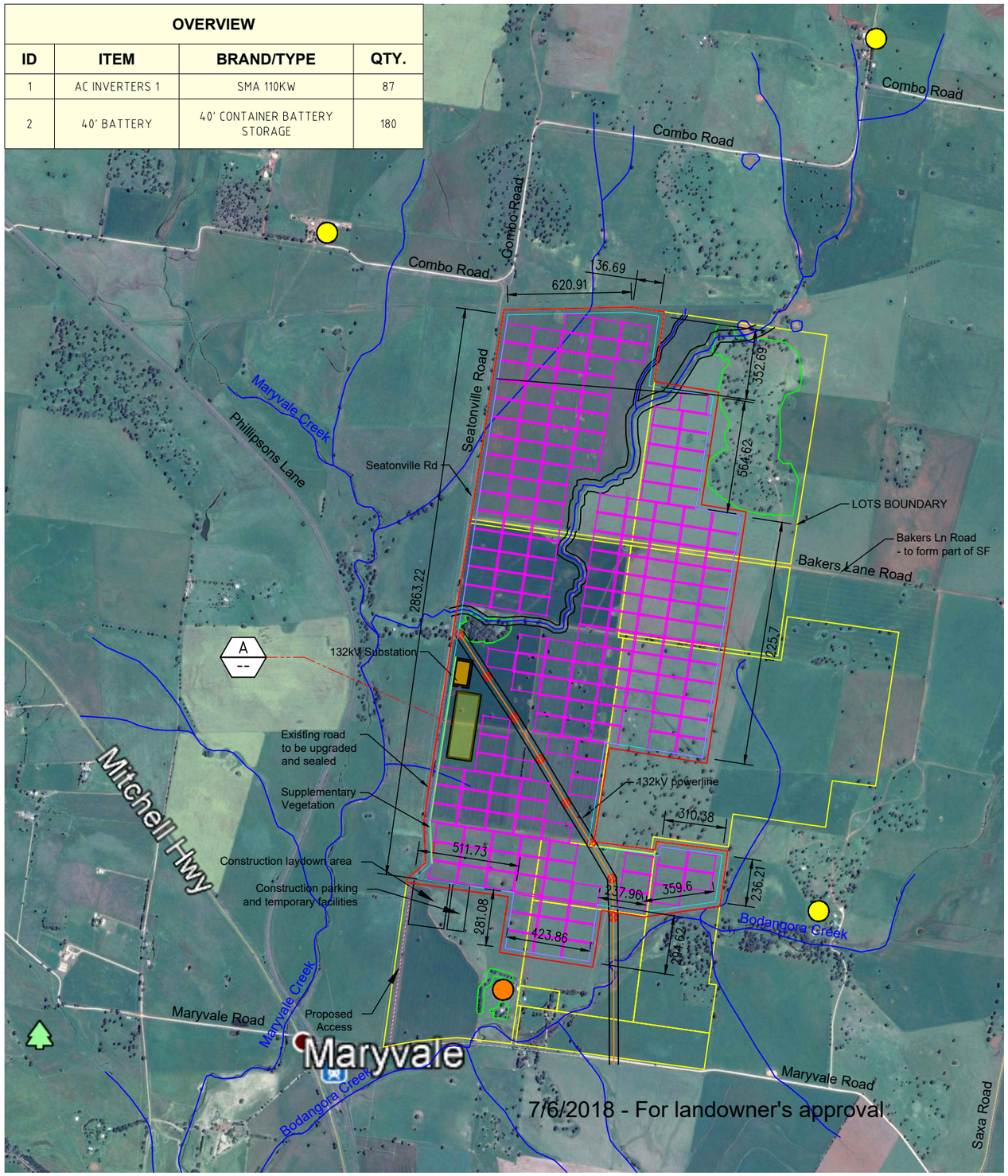
Illustrative Images - Distributed BESS Format

The images below are indicative of the general appearance of a solar farm with a distributed Battery Energy Storage System(BESS), where the battery units (approx. 180 units) are distributed throughout the solar farm. Each battery has approximately the same dimensions as a "40 Foot" container (Length = 12.2m, Width = 2.4m, Height = 2.6m). The maximum height of the battery units will be approximately 3.0 metres above ground level when installed. These images are of existing constructed projects for illustration purposes.

Image 1: Illustrative of battery units distributed throughout a solar farm

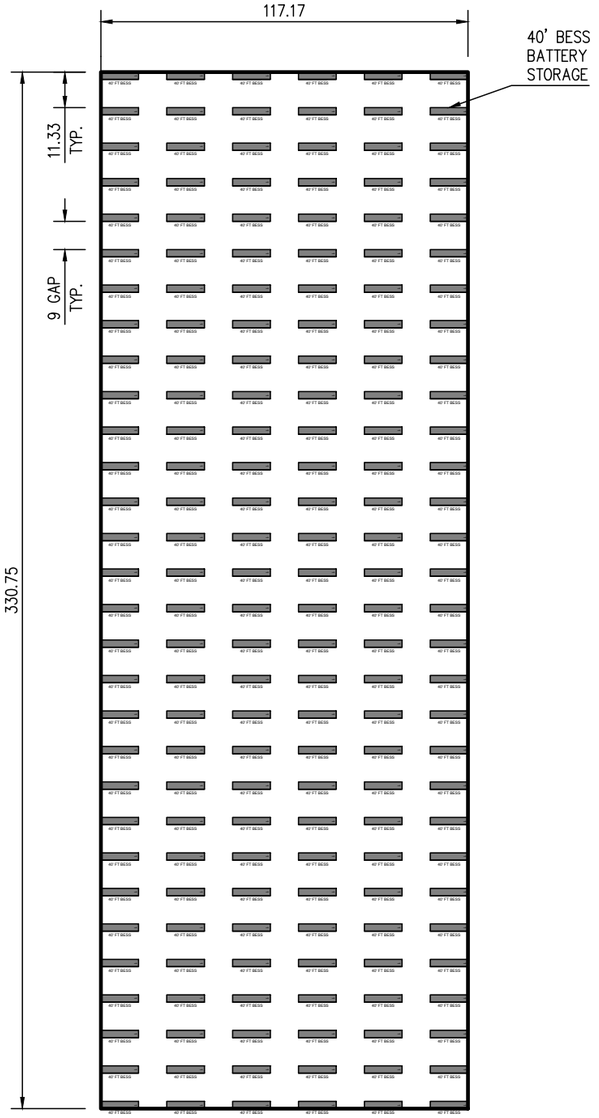
Image 2: Close up of example of battery unit with inverter adjacent to solar panels

OVERVIEW			
ID	ITEM	BRAND/TYPE	QTY.
1	AC INVERTERS 1	SMA 110KW	87
2	40' BATTERY	40' CONTAINER BATTERY STORAGE	180



LEGEND

- Road/Rail
- Proposed access
- Existing vegetation
- Dams and creeks
- Transmission powerline
- Proposed Substation
- Solar farm boundary (Approved)
- Lots farm boundary
- Sensitive receiver
- Solar Field
- Associated Receiver
- Development Footprint (375ha)
- Supplementary Vegetation Screeni



ALL DIMENSIONS ARE IN METER

SITE PLAN
SCALE: 1:25000

CENTRALISED BATTERY ENERGY STORAGE SYSTEM(BESS) FORMAT

DETAIL A
SCALE: N.T.C

REV	REVISION DESCRIPTION	DATE	DRAW	DESN	CHKD	APPR
A	PRELIMINARY DESIGN	22/09/2021	K.T	M.C	R.B	E.N

Photon Energy
Photon Energy Engineering Australia Pty Ltd
ABN : 71 159 386 295
Address: 204/55 Grafton Street, Bondi Junction NSW 2022
Phone : 02 8021 3383
Email : info.aus@photonenergy.com, **Website:** www.photonenergy.com.au

CLEAN ENERGY COUNCIL APPROVED SOLAR RETAILER

CLIENT	MARYVALE SOLAR FARM PTY LTD
PROJECT	132/33kV SOLAR AND BATTERY STORAGE 121 MARYVALE ROAD, MARYVALE NSW, 2820
TITLE	40' CONTAINER BATTERYS STORAGE GENERAL ARRANGEMENT

DRAWING No.				REV
PEA-17-187-C-DWG-101				A
DRAWN : K.TAING	DESIGNER: M.CILIA	CHECKED : R.IBRAHIM	APPROVED : E.NEMME	
ISSUE DATE: 08/04/2021	SCALE: A3 1:250			

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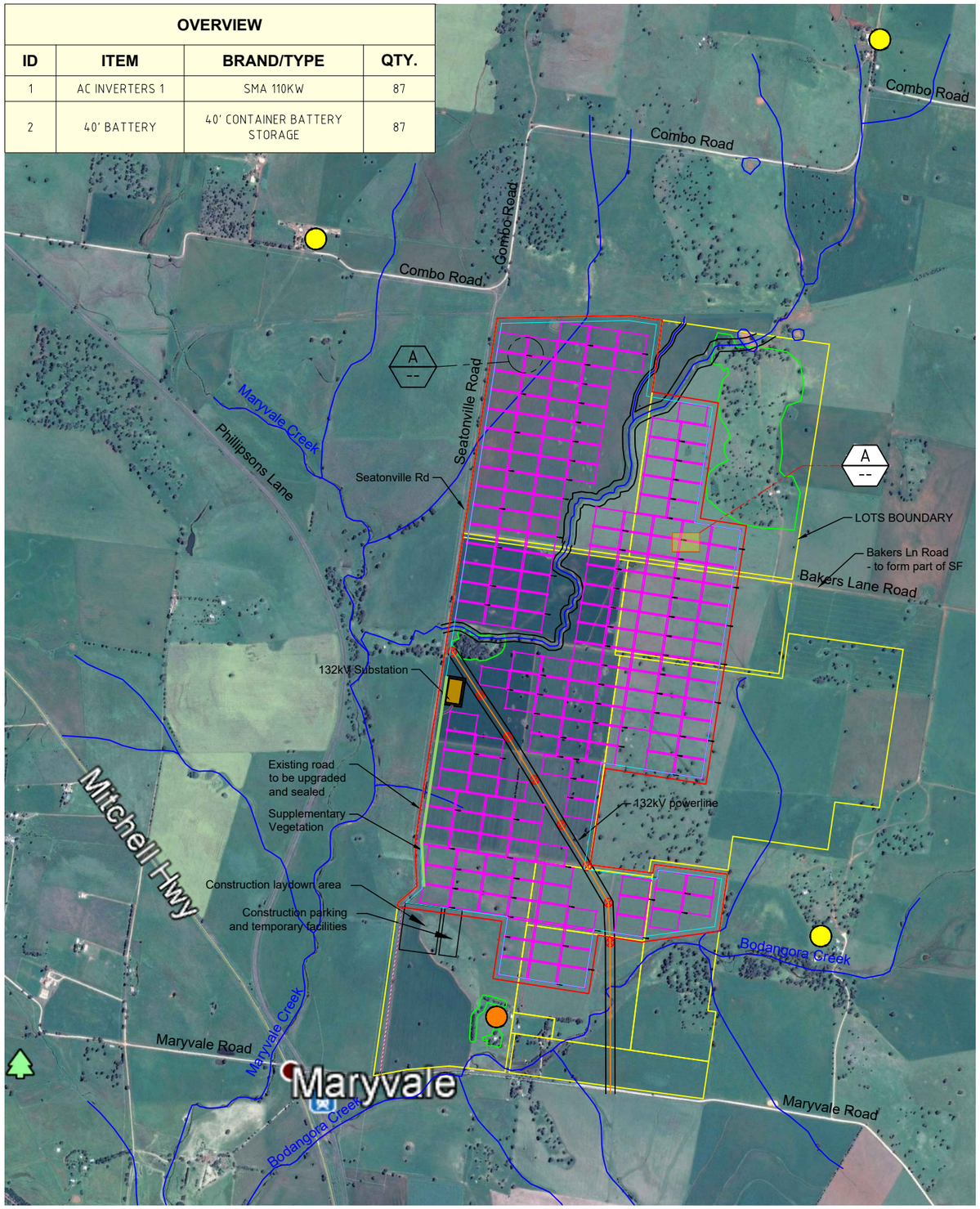
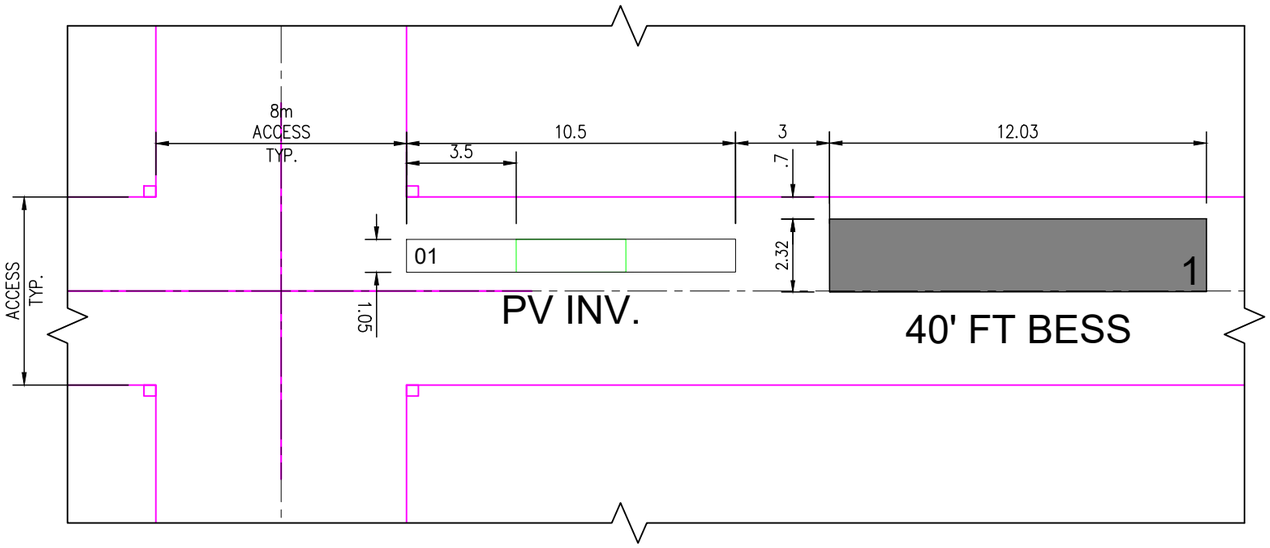
OVERVIEW			
ID	ITEM	BRAND/TYPE	QTY.
1	AC INVERTERS 1	SMA 110KW	87
2	40' BATTERY	40' CONTAINER BATTERY STORAGE	87



SITE PLAN
SCALE: 1: 25000

LEGEND:
- Area assessed under the PEA
- Road/Rail
- Proposed access
- Existing vegetation
- Dams and creeks
- Transmission powerline
- Proposed Substation
- Solar farm boundary (Approved)
- Lots farm boundary
- Sensitive Receiver
- Solar Field
- Associated Receiver
- Development Footprint (375ha)
- Supplementary Vegetation Screening



TYPICAL DETAIL A
SCALE: 1:5
INVERTER & BESS

DISTRIBUTED BATTERY ENERGY STORAGE SYSTEM (BESS)FORMAT

ALL DIMENSIONS ARE IN METER

REV	REVISION DESCRIPTION	DATE	DRAW	DESN	CHKD	APPR
A	PRELIMINARY DESIGN	12/08/2021	K.T	P.G	R.I	R.I
B	DETAILS REVISED - ROAD AND CREEK NAME ADDED	22/09/2021	K.T	P.G	R.I	R.I

Photon Energy
Photon Energy Engineering Australia Pty Ltd
ABN : 71 159 386 295
Address: 204/55 Grafton Street, Bondi Junction NSW 2022
Phone : 02 8021 3383
Email : info.aus@photonenergy.com, **Website:** www.photonenergy.com.au

CLEAN ENERGY COUNCIL APPROVED SOLAR RETAILER

CLIENT	MARYVALE SOLAR FARM PTY LTD			DRAWING No.	PEA-17-187-C-DWG-001	REV B
PROJECT	132/33kV SOLAR AND BATTERY STORAGE 121 MARYVALE ROAD, MARYVALE NSW, 2820			DRAWN : K.TAING	DESIGNER: P.GREEN	CHECKED : R.IBRAHIM	APPROVED : R.IBRAHIM
TITLE	40' CONTAINER BATTERYS STORAGE - DC COUPLED OPTION GENERAL ARRANGEMENT			ISSUE DATE: 12/08/2021	SCALE: A3 1:25, 1:5	

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Energy Forms Pty Ltd
8/91 William Street
Melbourne VIC 3000

PO Box 16164
Collins St West VIC 8007

26 October 2021

Dear Landholder,

RE: Plan correction for proposed Battery Energy Storage System (BESS) for approved Maryvale Solar Farm

Following on from our recent correspondence dated 29 September 2021 in which we notified you of the proposed modification to the approved Maryvale Solar Farm to add a Battery Energy Storage System, we wish to correct an error in the layout plans that were provided at that time.

The plans we provided inadvertently omitted an area of already approved solar infrastructure on the eastern side of the project. This has been corrected in the attached plans. We have also corrected the layout of temporary construction areas (laydown and parking) that are shown in the southwest of the project so that they now align with the existing approval.

The plans now show the layout of solar infrastructure as approved under the original Development Consent by DPIE. Some minor formatting changes have also been made in response to the feedback we have received to date to improve clarity of the plan. As previously noted more information about the existing Development Consent for the Maryvale Solar Farm can be found at the Department of Planning, Industry and Environment Major Projects Portal www.planningportal.nsw.gov.au/major-projects/project/9531.

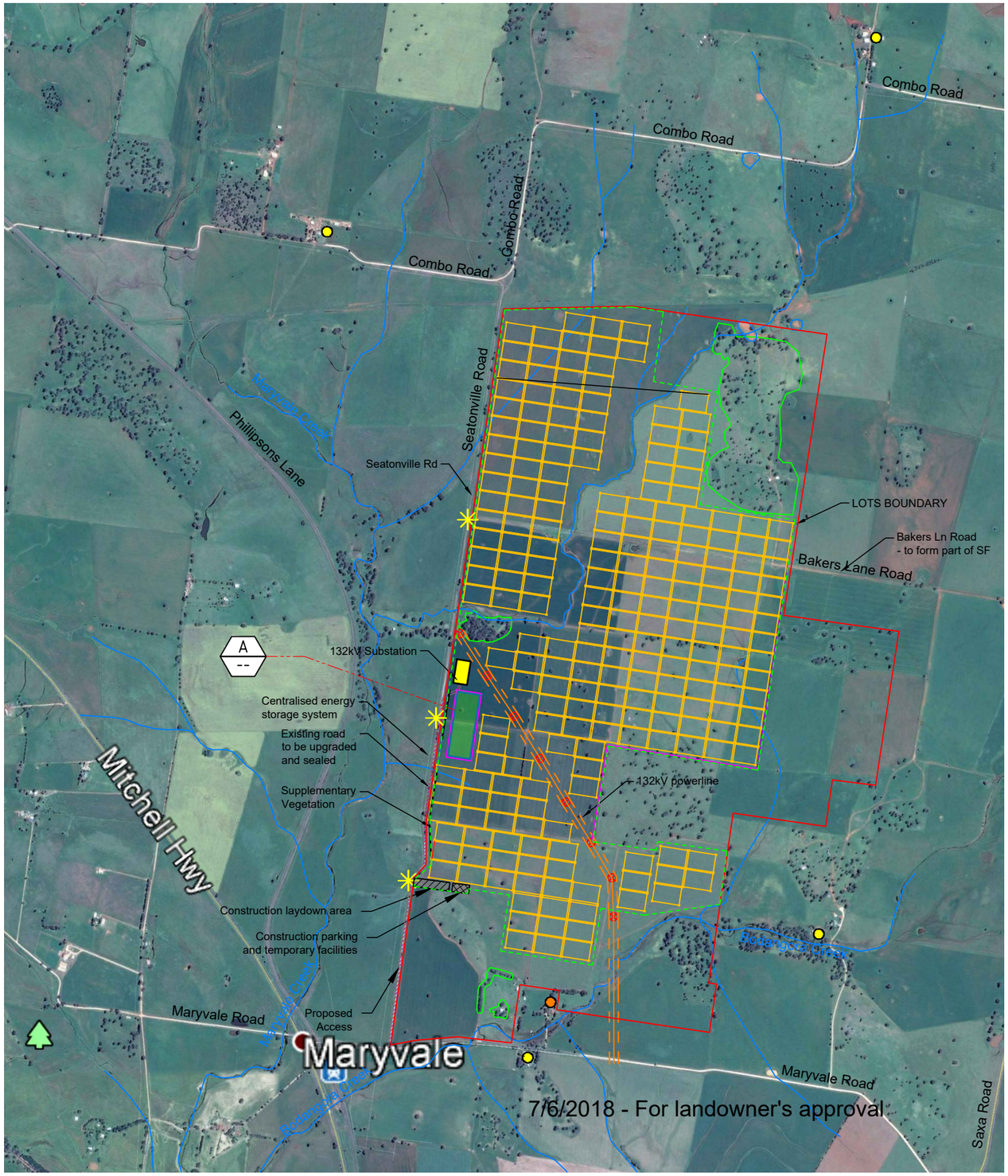
This correction does not increase any impacts of the two proposed BESS formats that we outlined in our initial correspondence, however for purposes of transparency we felt it was important to notify you of this error and provide you with the correct plans.

To further assist, we have also included a copy of the General Layout Plan that was approved as part of the Development Consent granted in 2019 for your reference.

We apologise for any confusion this may have caused, please feel contact us to discuss any questions you may have. You can contact Shane Melotte from Energy Forms by phone on **0429 778 080** or by email at **projectofficer@energyforms.com.au.**

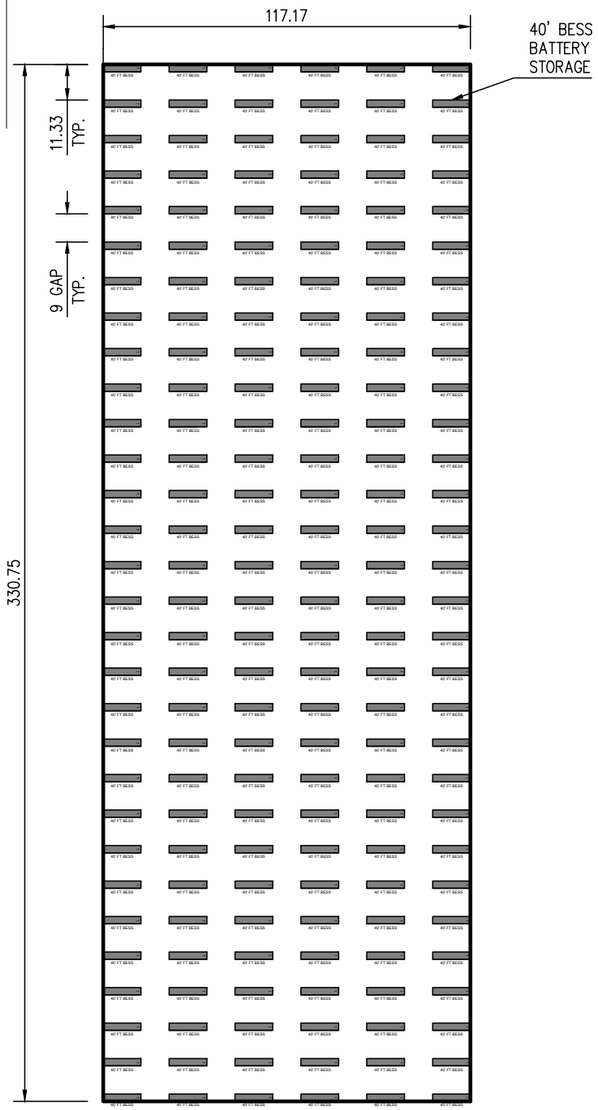
Yours Sincerely,

Shane Melotte - Director



LEGEND:

- Area assessed under the PEA
- Road/Rail
- Proposed access
- Existing vegetation
- Dams and creeks
- Transmission powerline
- Access point
- Proposed Substation
- Solar farm boundary (Approved)
- Lots boundary
- Sensitive Receiver
- Solar Field
- Associated Receiver
- Development Footprint
- Centralised energy storage system
- Supplementary Vegetation Screening
- Intermittent Vegetation Screening
- Construction Lay down area. 1.6ha
- Construction parking and storage ficilities
- APZ



ALL DIMENSIONS ARE IN METER

SITE PLAN
SCALE: 1:25000

CENTRALISED BATTERY ENERGY STORAGE SYSTEM(BESS) FORMAT

DETAIL A
SCALE: N.T.C

REV	REVISION DESCRIPTION	DATE	DRAW	DESN	CHKD	APPR
A	PRELIMINARY DESIGN	22/09/2021	K.T	M.C	R.B	E.N
B	DRAWING UPDATED	25/10/2021	K.T	P.G	P.H	E.N

Photon Energy
Photon Energy Engineering Australia Pty Ltd
ABN : 71 159 386 295
Address: 204/55 Grafton Street, Bondi Junction NSW 2022
Phone : 02 8021 3383
Email : info.aus@photonenergy.com, **Website:** www.photonenergy.com.au

CLEAN ENERGY COUNCIL APPROVED SOLAR RETAILER

CLIENT	MARYVALE SOLAR FARM PTY LTD
PROJECT	150MVA 132/33kV SOLAR AND BATTERY STORAGE 121 MARYVALE ROAD, MARYVALE NSW, 2820
TITLE	40' CONTAINER BATTERYS STORAGE GENERAL ARRANGEMENT

DRAWING No.				REV
PEA-17-187-C-DWG-101				B
DRAWN : K.TAING	DESIGNER: M.CILIA	CHECKED : R.IBRAHIM	APPROVED : E.NEMME	
ISSUE DATE: 08/04/2021	SCALE: A3 1:250			

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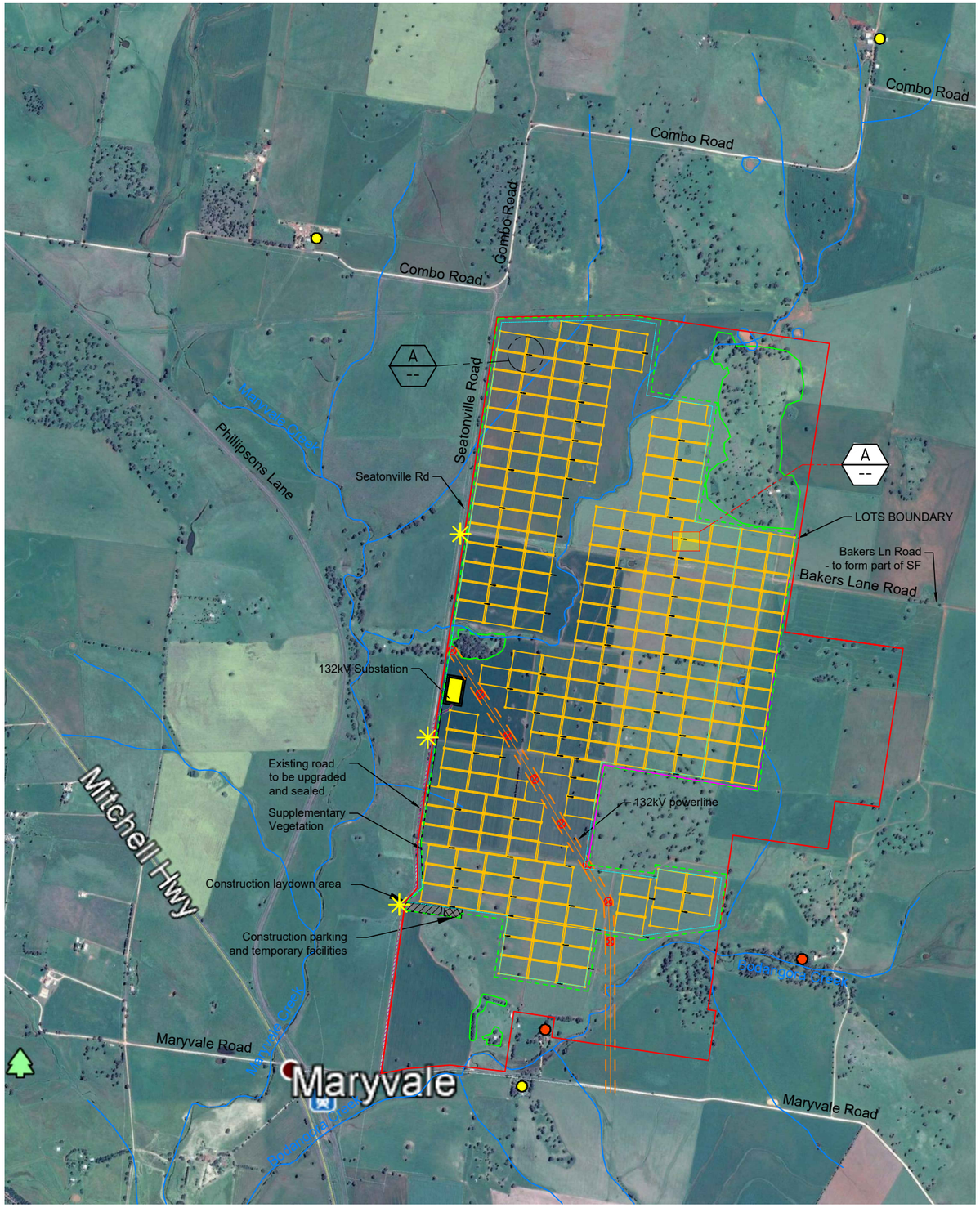

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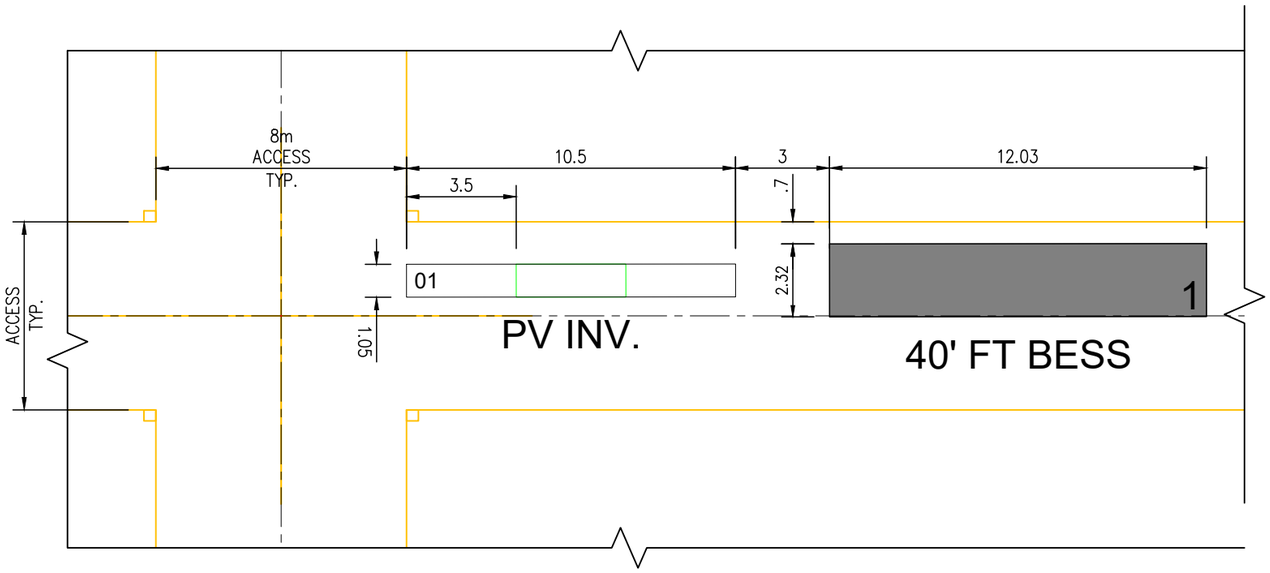
- Solar Field
- Associated Receiver
- Development Footprint

- Supplementary Vegetation Screening
- Intermittent Vegetation Screening
- Construction Lay down area.
- Construction parking and storage facilities
- APZ



TYPICAL DETAIL A
SCALE: 1:5

INVERTER & BESS

SITE PLAN
SCALE: 1: 25000

ALL DIMENSIONS ARE IN METER

DISTRIBUTED BATTERY ENERGY STORAGE SYSTEM(BESS) FORMAT

REV	REVISION DESCRIPTION	DATE	DRAW	DESN	CHKD	APPR
A	PRELIMINARY DESIGN	12/08/2021	K.T	P.G	R.I	R.I
B	DETAILS REVISED - ROAD AND CREEK NAME ADDED	22/09/2021	K.T	P.G	R.I	R.I
C	DRAWING UPDATED	25/10/2021	K.T	P.G	R.I	R.I

Photon Energy

Photon Energy Engineering Australia Pty Ltd
ABN : 71 159 386 295
Address: 204/55 Grafton Street, Bondi Junction NSW 2022
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Email : info.aus@photonenergy.com, **Website:** www.photonenergy.com.au

CLEAN ENERGY COUNCIL APPROVED SOLAR RETAILER

CLIENT	MARYVALE SOLAR FARM PTY LTD			DRAWING No.	PEA-17-187-C-DWG-001	REV C
PROJECT	150MVA 132/33kV SOLAR AND BATTERY STORAGE 121 MARYVALE ROAD, MARYVALE NSW, 2820	DRAWN : K.TAING	DESIGNER: P.GREEN	CHECKED : R.IBRAHIM	APPROVED : R.IBRAHIM	
TITLE	40' CONTAINER BATTERYS STORAGE - DC COUPLED OPTION GENERAL ARRANGEMENT	ISSUE DATE: 12/08/2021	SCALE: A3 1:25, 1:5			

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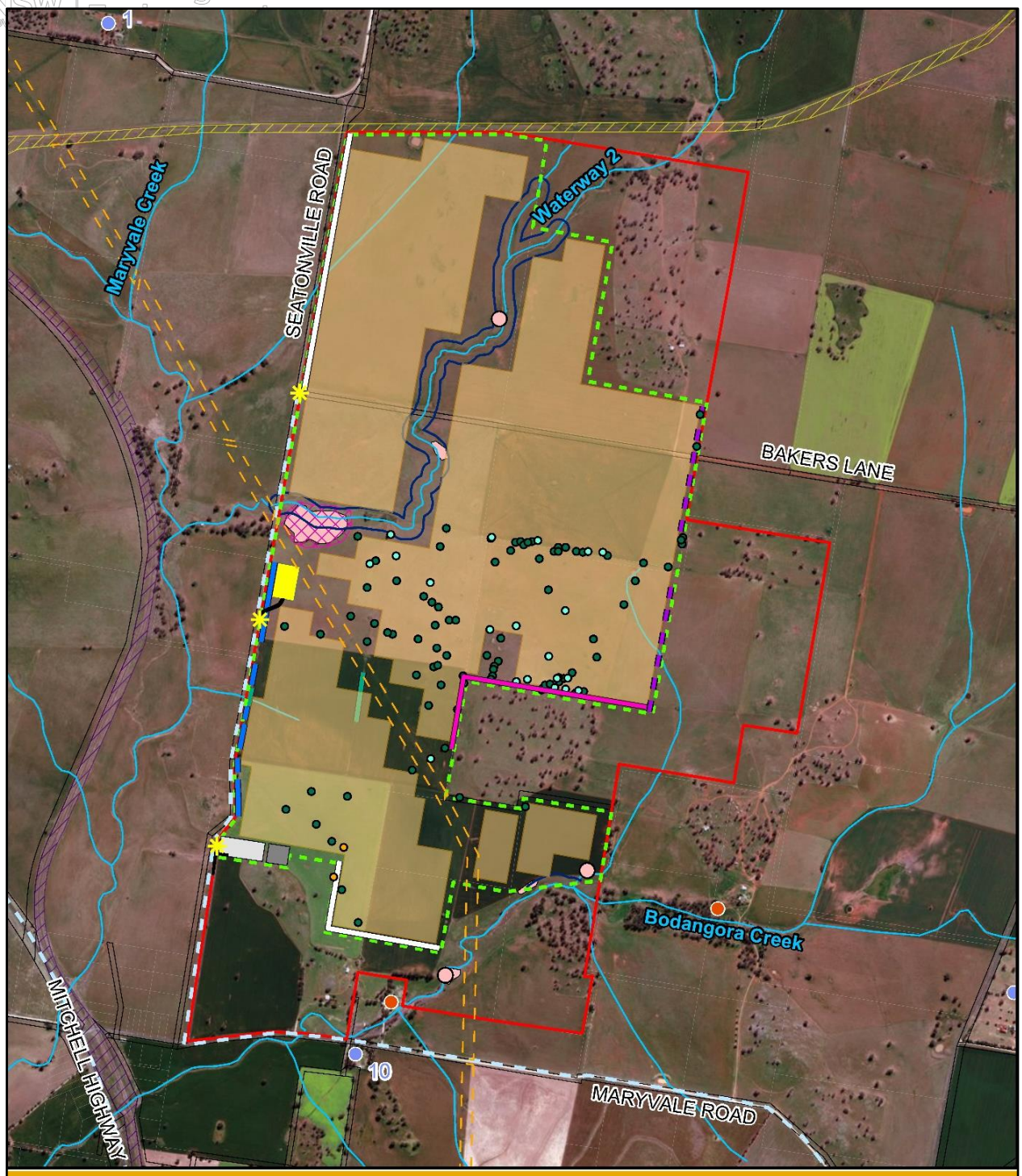
APPENDIX 1:
GENERAL LAYOUT OF DEVELOPMENT



pitt&sherry

Photon Energy
Maryvale Solar Farm

Site Plan

N

Coordinate System: GDA 1994 MGA Zone 55
1:22,000 When Printed at A4
0 0.15 0.3 0.45 0.6 Kilometres

Data sources: Dubbo LGA

Map ref	SY17238 Site Plan
Revision	A
Author	eparry
Date	18/10/2019

Legend

- Site Boundary (630ha)
- Development Footprint (375ha) [inside 15m APZ buffer]
- Construction laydown area (1.6ha)
- Construction parking and storage facilities (0.4ha)
- Proposed 132kV Substation [inside 20m APZ buffer]
- Photovoltaic solar arrays
- Access point
- Transmission line & easement (45m width)
- Haulage route
- Access Road
- 20m APZ
- Continuous Vegetation Screening
- Supplementary Vegetation Screening
- Intermittent vegetation screening
- Paddock trees - no hollows
- Paddock trees - with hollows
- Stag- with hollows
- Existing plantings
- Archaeological Site
- Waterway Buffer (40 m)
- Sandy Hollow to Maryvale Railway line
- Retained vegetation
- Archaeological Area
- Associated receivers
- Non-associated receivers
- Waterways
- Railway Corridor