

**ENTERPRISE SOLAR GP INC.
ENTERPRISE SOLAR PROJECT
PROCEEDING 26322
APPLICATIONS 26322-A001 AND 26322-A002**

ENTERPRISE SOLAR GP INC. RESPONSE TO AUC ABEYANCE LETTER

JUNE 2021

June 10, 2021

Meghan Anderson
Commission Counsel
Alberta Utilities Commission

RE: Project Updates as per AUC Request

Dear Meghan:

This letter is in response to the AUC's April 27, 2021 request for a Project update to remove applications 26322-A001 and A002 from abeyance. I am confirming that Enterprise Solar GP Inc. (the Applicant) is applying to the Commission for Permit and Licence for a 65 MWac solar facility and associated substation, as per the Applicant's Information Responses outlined in Exhibit No. 26322-X0028, dated April 5, 2021.

1.0 Introduction

The original Project layout assessed in the Environmental Evaluation (Exhibit No. 26322-X0006) was for a 100 MW capacity solar power project. As a result of ongoing discussions and studies with the Alberta Electric Operating System (AESO), the original Project layout has been modified to accommodate a reduction to 65 MW capacity (the final Project layout). Compared to the original Project layout, the final Project layout includes a reduction in the panel array area, temporary laydown area, number of inverters, length of roads, and length of underground collector line. The substation footprint and limit of disturbance area presented in the Environmental Evaluation have been maintained.

As the footprint of the 65 MW layout is a subset of the original 100 MW Project, in which all studies and stakeholder consultation were undertaken, the Applicant believes the change associated with this reduction in nameplate capacity will result in an overall lower impact than what was originally studied, consulted on, and submitted to the Commission for approval. An explanation and the works undertaken to achieve this conclusion are presented below.

2.0 Final Layout – Environmental Evaluation Updates

The original Project layout and final Project layout have been compared and changes to the potential effects of the Project on the valued criteria in the Environmental Evaluation (Exhibit No. 26322-X0006) are assessed. The valued components with potential to be affected by the changes associated with the final layout are glare, noise, wildlife, and wetlands, which are summarised below.

2.1 Glare

The Solar Glare Hazard Analysis Tool (SGHAT) computer model developed for the original Project glare assessment (Exhibit No. 26322-X0011) was updated to reflect the final Project layout. In particular, the size and location of solar panel arrays were updated in the SGHAT model

to match the final Project layout. All other modelling parameters were unchanged from the original Project layout glare assessment (Exhibit No. 26322-X0011; Table 1).

The updated SGHAT model was used to predict potential glare effects at the same 19 receptors (i.e., 12 occupied dwellings, two airstrips, four roadways, one railway) considered in the original Project glare assessment (Exhibit No. 26322-X0011; Table 2). The updated SGHAT model developed for the final Project layout predicts there will be no glare at any of the 19 receptors considered in the assessment. This result is consistent with the conclusion of the original Project glare assessment (Exhibit No. 26322-X0011).

2.2 Noise

The computer model developed for the original Project noise impact assessment (Exhibit No. 26322-X0010) was updated to reflect the final Project layout. The number and location of inverter-transformer units were updated in the computer noise model to match the final Project layout. Individual inverter-transformer units were modelled with the same sound power level used in the original noise impact assessment (90.8 dBA). All other modelling parameters were unchanged from the original Project noise impact assessment (Exhibit No. 26322-X0010; Section 4).

The updated computer model was used to predict cumulative noise levels at the same four dwelling receptors considered in the original Project noise impact assessment (Exhibit No. 26322-X0010; Section 2). Cumulative noise levels were compared to applicable permissible sound levels to assess compliance with Rule 012. Table 1 presents updated cumulative noise levels for the final Project layout and assesses compliance with Rule 012 permissible sound levels. The results presented in Table 1 indicate the final Project layout is predicted to be compliant with Rule 012. Table 2 compares cumulative noise levels associated with final Project layout to cumulative noise levels from the original noise impact assessment. For all receptors, cumulative noise levels are either unchanged or reduced as a result of changes incorporated into the final Project layout.

Table 1: Predicted Cumulative Noise Levels for the Final Project Layout

Receptor	Ambient Sound Level [dBA]		Noise Contribution from Third-Party Facility [dBA]	Noise Contribution from Final Project Layout [dBA]	Cumulative Noise Level [dBA]		Permissible Sound Level [dBA]	
	Daytime	Nighttime			Daytime	Nighttime	Daytime	Nighttime
R01	45	35	32.0	17.5	45.2	36.8	50	40
R02	45	35	30.4	16.7	45.2	36.3	50	40
R07	45	35	13.3	23.5	45.0	35.3	50	40
R24	45	35	10.2	19.7	45.0	35.1	50	40

Table 2: Change in Cumulative Noise Level from the Final Project Layout

Receptor	Cumulative Noise Level from Original Noise Impact Assessment [dBA]		Cumulative Noise Level from Final Project Layout [dBA]		Difference: Final Layout minus Original Noise Impact Assessment [dBA]	
	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime
R01	45.2	36.9	45.2	36.8	0.0	-0.1
R02	45.2	36.4	45.2	36.3	0.0	-0.1
R07	45.1	35.5	45.0	35.3	-0.1	-0.2
R24	45.0	35.2	45.0	35.1	0.0	-0.1

2.3 Wildlife

The potential effects of the Project on wildlife and wildlife habitat include injury or mortality, habitat loss and fragmentation, and habitat avoidance or reduced reproductive success during construction, operation, or decommissioning. The predicted residual effects to wildlife that were assessed for the original Project layout in the Environmental Evaluation (Exhibit No. 26322-X0006) have been compared against the final Project layout.

Appropriate siting of the Project is the most effective mitigation to prevent significant effects on wildlife. The Project remains sited predominantly on cultivation and no native grassland will be impacted by the Project. The original Project layout was designed to avoid raptor nests and their associated setbacks, and the final Project layout does not encroach on any raptor nest setback. Further, the original Project layout was designed to avoid coulee/valley breaks and their associated setbacks which are considered to have higher potential wildlife habitat value. The final Project layout avoids coulee/valley breaks and their associated setbacks. The final Project layout adheres to the 100m setback requirement from Class III and higher wetlands, which are considered potential habitat for wildlife species (e.g., amphibians).

No changes to the residual effects are predicted due to the final Project layout and therefore the conclusions reached in the Environmental Evaluation are valid for wildlife and wildlife habitat.

2.4 Wetlands and Water Bodies

The Project has the potential to alter wetland condition through direct temporary or permanent disturbances, or indirectly through changes in hydrology, or changes in plant communities within the Project Study Area. Water quality within wetlands could also be directly or indirectly affected by siltation or spills during Project construction or operation. The predicted effects to wetlands that were assessed for the original Project layout in the Environmental Evaluation (Exhibit No. 26322-X0006) have been compared against the final Project layout.

As in the original Project layout, permanent Project infrastructure in the final Project layout was sited to avoid wetlands and water bodies; where possible. Prior to construction, the Proponent will field verify mapped delineations of affected wetlands to confirm wetland area in accordance with *Water Act* requirements. If construction activities are required in the vicinity of wetlands or other natural water bodies, mitigation measures presented in the Environmental Evaluation will be implemented. The Proponent will follow permitting and compensation requirements under the Alberta *Water Act* and Alberta Wetland Policy where temporary or permanent disturbance to wetlands cannot be avoided.

No changes to the residual effects are predicted due to the final Project layout and therefore the conclusions reached in the Environmental Evaluation are valid for wetlands and waterbodies.

2.5 Stakeholder Consultation

The Applicant has reached resolutions with both mineral rights owners and there are no outstanding concerns.

Although there were no outstanding local concerns from adjacent residents in the original 100 MW application, the 65 MW layout considered all the consultation with local residents, and the final Project layout increases setbacks from the four closest receptors (R01, R02, R07 and R24), as outlined in Table 3. These increased setbacks will reduce visual impacts to these receptors.

2.6 Comparison of Changes

For ease of review Table 3 provides a comparison of the general characteristics of the original 100 MW Project with the final 65 MW Project to demonstrate the reduction in impact.

Table 3: Comparison of Original 100 MW Project and Final 65 MW Project

Item	100 MW Original Project	65 MW Final Project	Change in Impact
Nameplate capacity	100 MWac	65 MWac	Reduction of 35 MW
Project location	NW 26, 16, 15, W4M NE 26, 16, 25, W4M SE 26, 16, 25, W4M SW 26, 16, 25, W4M NW 27, 16, 25, W4M NE 27, 16, 25, W4M SW 27, 16, 25, W4M SE 27, 16, 25, W4M	SE 26, 16, 25, W4M SW 26, 16, 25, W4M NW 27, 16, 25, W4M NE 27, 16, 25, W4M SW 27, 16, 25, W4M SE 27, 16, 25, W4M	Reduction in impact – use of 2 quarter sections no longer required in the construction or operation phases of the Project

Item	100 MW Original Project	65 MW Final Project	Change in Impact
Footprint of solar facility	Approximately 620 acres on cultivated land	Approximately 450 acres within original footprint	Reduction in operational footprint of approximately 170 acres
Location of substation	SW 26, 16, 25, W4M	Same location and footprint	No change
Approximate number of 540W/545W solar modules	Approximately 242,000	Approximately 157,000	Use of approximately 85,000 less solar modules
Racking system	Single-axis tracker, with approximately 40,000 steel piles	Single-axis tracker, with approximately 26,000 steel piles	Same racking system, 14,000 less steel piles required
Number of inverters	33 SG3600UD string inverters	20-22 SG3600UD string inverters	Reduction in impact; use of 11-13 less inverters
Setback from 4 closest receptors: R01 R02 R07 R24	Approximate distances R01: 782m R02: 840m R07: 377m R24: 1025m	Approximate distances R01: 1275m R02: 1410m R07: 550m R24: 1075m	Lower Impact - Increased setbacks R01: +493m R02: +570m R07: +173m R24: +50m
Glare assessment	No glare	No glare	Reduced number of panels in same configuration; no change
Noise assessment	Compliant	Compliant	Reduced number of inverters; substation unchanged; slight reduction in noise
Wildlife assessment	Predicted residual effects considered not significant	Predicted residual effects considered not significant	No changes to the residual effects
Wetlands and water bodies assessment	Predicted residual effects considered not significant	Predicted residual effects considered not significant	No changes to the residual effects

Item	100 MW Original Project	65 MW Final Project	Change in Impact
Stakeholder consultation	No outstanding concerns	No outstanding concerns	Increased setbacks from the four closest receptors
Construction start date	Q3 2021	Q3 2021	No change
In-service date	Original August 31, 2021; revised to December 17, 2021 (as per Round 1 IRR responses)	July 31, 2022	No impact - Approved by the AESO; pushed out due to delays in the interconnection process
Commercial operations date	Q4 2022	Q4 2022	No change

Enclosed are Figure 1: Original Project Layout (100 MW) and Figure 2: Final Project Layout (65 MW) to illustrate the reduction in project size and provide the final Project layout.

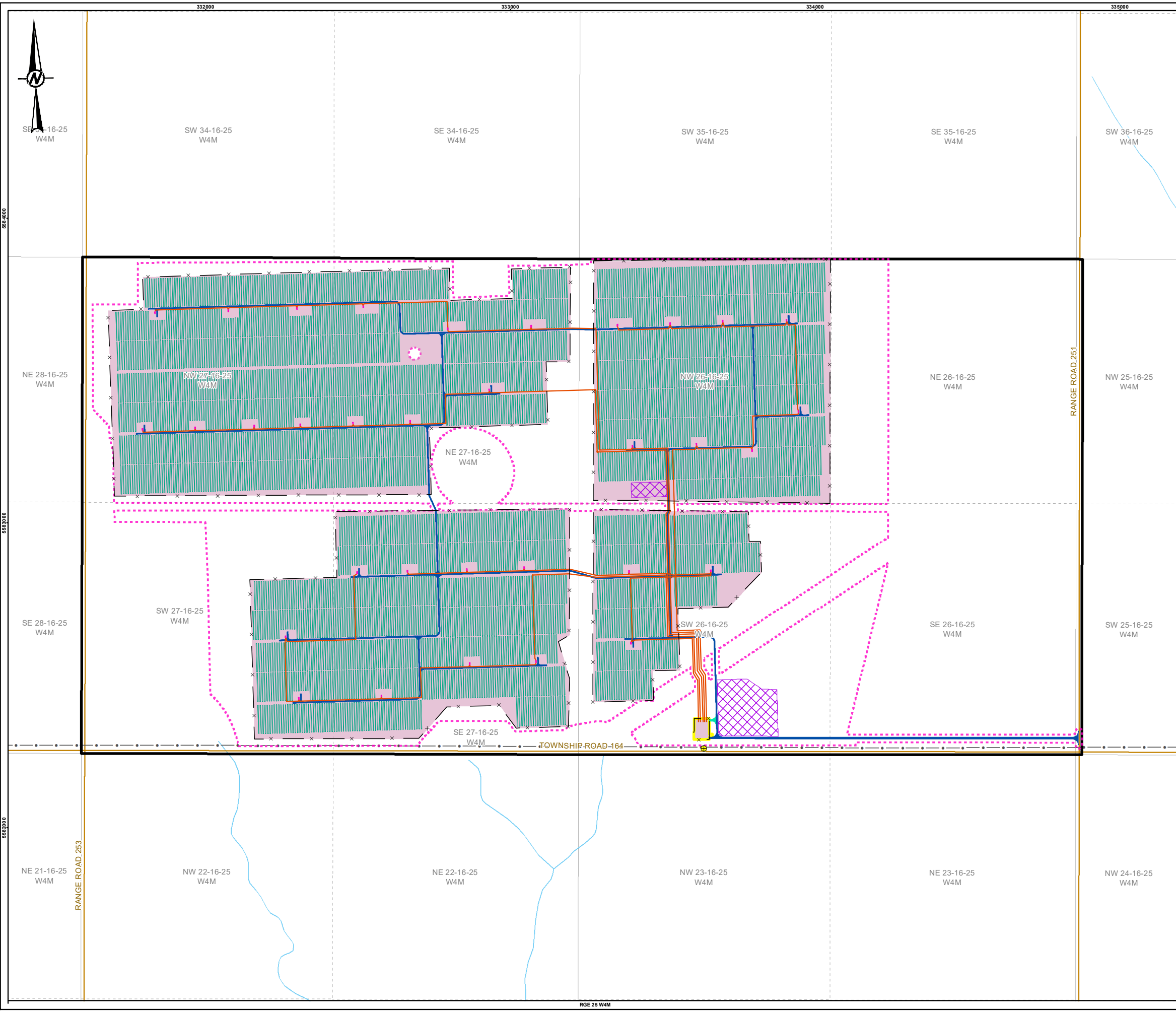
Based on the information above; the Applicant is confident that the overall change from 100 MW to 65 MW has a net lower impact compared to the original application to the Commission.

If there are any questions, please contact the undersigned at rebecca.crump@res-group.com or 647-880-7473.

Sincerely,

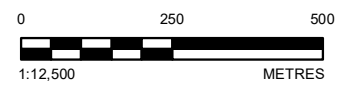


Rebecca Crump, MSc.PI., PMP
Senior Project Manager
Renewable Energy Systems Canada Inc.
as representative for Enterprise Solar G.P. Inc.



LEGEND

- PROJECT STUDY AREA
- LOCAL ROAD
- EXISTING TRANSMISSION LINE
- WATERCOURSE
- INTERCONNECTION LOCATION
- LIMIT OF DISTURBANCE
- OPERATIONS AREA
- PROJECT LAYOUT COMPONENTS**
- TEMPORARY CONSTRUCTION DISTURBANCE
- ELECTRICAL COLLECTION LINE
- LAYDOWN AREA
- TEMPORARY ROAD
- PERMANENT OPERATIONS FOOTPRINT
- FENCELINE
- INVERTER
- ROAD
- SOLAR PANEL LAYOUT
- SUBSTATION



REFERENCE(S)
 1. PROJECT COMPONENTS OBTAINED FROM RES CANADA, REVISED BY GOLDER ASSOCIATES LTD., JANUARY 2021.
 2. ALBERTA DIGITAL BASE DATA MAY BE OBTAINED FROM GEOGRATIS, © DEPARTMENT OF NATURAL RESOURCES CANADA. ALL RIGHTS RESERVED, OR ALTALIS LTD. © GOVERNMENT OF ALBERTA 2016. ALL RIGHTS RESERVED.
 PROJECTION: UTM ZONE 12 DATUM: NAD 83

CLIENT
ENTERPRISE SOLAR GP INC. ON BEHALF OF ENTERPRISE SOLAR LP

PROJECT
ENTERPRISE SOLAR

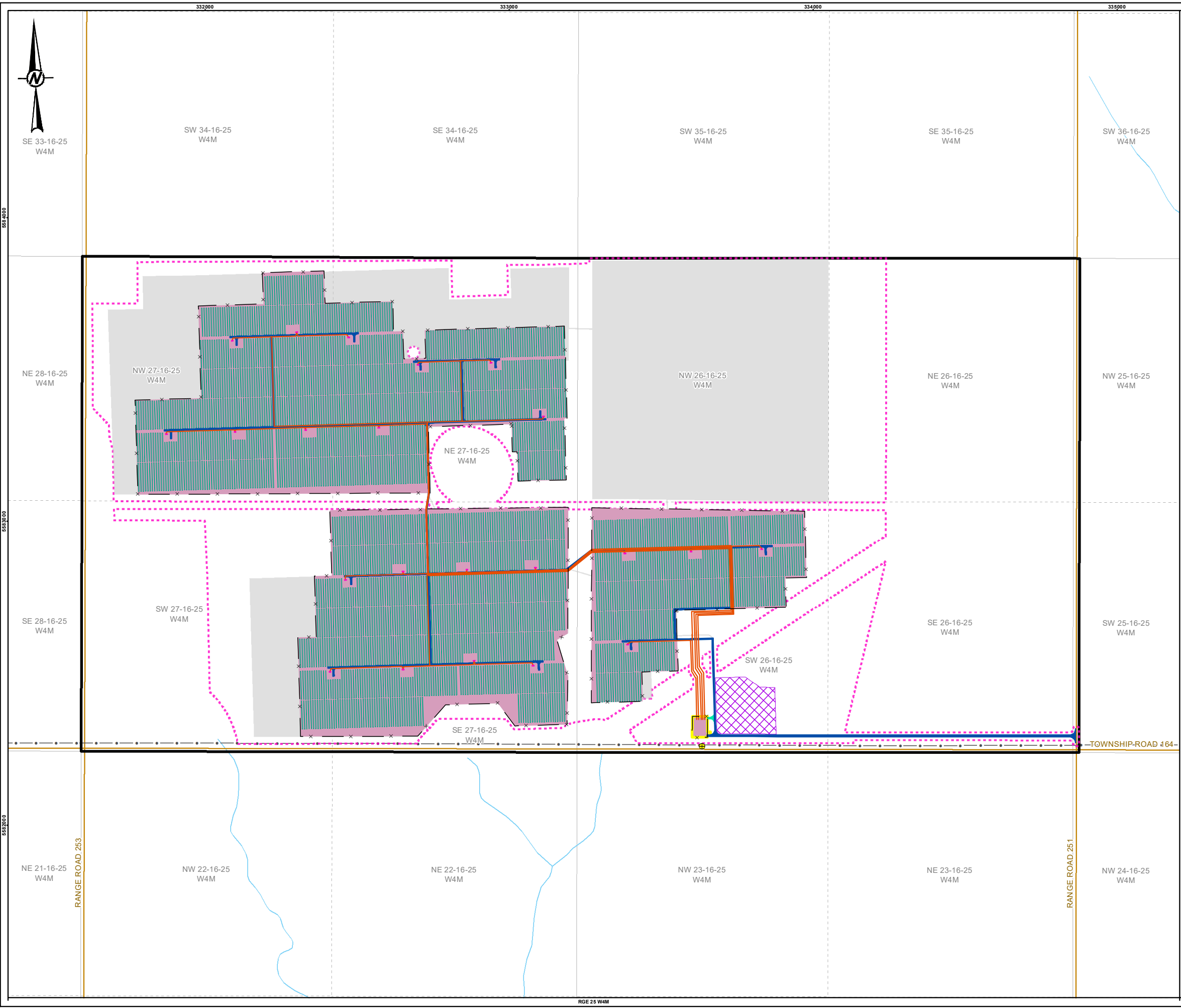
TITLE
ORIGINAL PROJECT LAYOUT (100 MW)

CONSULTANT	YYYY-MM-DD	2021-06-08
DESIGNED	BS	
PREPARED	LMS	
REVIEWED	BS	
APPROVED	TC	

PROJECT NO. 1895548 PHASE 3000A REV. 0 FIGURE 1

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LEGEND

- PROJECT STUDY AREA
- LOCAL ROAD
- EXISTING TRANSMISSION LINE
- WATERCOURSE
- INTERCONNECTION LOCATION
- LIMIT OF DISTURBANCE
- ORIGINAL PROJECT LAYOUT OPERATIONS AREA
- FINAL PROJECT LAYOUT OPERATIONS AREA

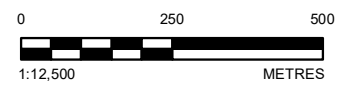
PROJECT LAYOUT COMPONENTS

TEMPORARY CONSTRUCTION DISTURBANCE

- ELECTRICAL COLLECTION LINE
- LAYDOWN AREA
- TEMPORARY ROAD

PERMANENT OPERATIONS FOOTPRINT

- FENCELINE
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ENTERPRISE SOLAR GP INC. ON BEHALF OF ENTERPRISE SOLAR LP

PROJECT
ENTERPRISE SOLAR

TITLE
FINAL PROJECT LAYOUT (65 MW)

CONSULTANT	DATE	REVISION
GOLDER MEMBER OF WSP	YYYY-MM-DD	2021-06-08
	DESIGNED	BS
	PREPARED	LMS
	REVIEWED	BS
	APPROVED	TC

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