COUNTY OF SAN LUIS OBISPO
DEPARTMENT OF PLANNING & BUILDING

PLAN REVIEW SUMMARY
RENW2023-01838, SUBMITTAL #1 (PLAN CHECK, RENEWABLE ENERGY)

PLAN REVIEW STATUS:	**Requires Re-submit**	**PRINT DATE:**	10/30/2023
APPLICANT:	2337 SAND ROAD LLC	**OCCUPANCY:**	
FIRE SPRINKLERS:	N/A	**CONSTRUCTION TYPE:**	N/A
SEISMIC DESIGN:	N/A	**FIRE SEVERITY ZONE:**	N/A
WASTE WATER:	N/A	**NUMBER OF STORIES:**	N/A

DESCRIPTION: Renewable Energy, Photovoltaic System

OFF GRID GROUND MOUNT 16.8KW PHOTOVOLTAIC SYSTEM W/ ESS & GENERATOR

Applicable Ordinances and Codes

County Building and Construction Ordinance - Title 19
County Land Use Ordinance - Title 22
2022 California Code of Regulations Title 24
County Coastal Zone Land Use Ordinance - Title 23
County Fire Code Ordinance - Title 16

Instructions

1. Please refer to the following plan review comments for items requiring changes or clarification. This list includes comments from all applicable reviewing agencies. This may not be a complete list of comments, depending on the level of completeness of the submitted plans - incomplete plans may generate additional comments upon resubmittal. All changes to the plans shall be "cloud and delta".

2. The initial building plan review fee covers the costs of Submittal #1 and Submittal #2. If further comments are required on Submittal #3 or further subsequent reviews, additional plan review fees will be charged at the current adopted fee for plan review per hour until the plans are ultimately approved.

3. Indicate if you have made any design changes to your original plans that are **NOT** a result of the following comments on this list (check one):

   _____ YES* ✓ NO

   ***If YES, complete a "Change Order to Permit Application" form.**

Building Reviewers

Building
For questions, please contact Matt Varvel at mvarvel@co.slo.ca.us or 805-781-1536

1. See comments.

1 43. Energy Storage System: Show layout in garage to ensure compliance with CRC section 328, specifically: is vehicle protection required (we'll need to see an actual layout, where batteries will be, where vehicles can drive & any wing walls) AND include information about required 120 vac Heat Detector that is interconnected to smoke detectors in the home.
1) Provide a floor plan of the house and the location of the ESS to show compliance with R328.
2) Clearly indicate on the plans how R328.7 is met for fire detection.
Procedure
- Install a smoke alarm in the garage
- Install a smoke alarm in a central room in the house (likely living room area)
- Interconnect the two alarms (either hardwired, or wirelessly. Likely wirelessly)

Response: See Sheet ESS PROTECTION / SMOKE.

2 Load the structural calculations as a supporting document named Structural calcs RENW2023-01838.
Response: Done

3 A registered design professional shall complete the enclosed County of San Luis Obispo Statement of Required Special Inspections Certificate (Form BLD-1032). Identify the type of work requiring special inspections as indicated in the soils report and elsewhere in the plans and the Individuals or firms responsible for the Special Inspection element(s). Further instructions are identified in the attached Statement of Special Inspection Agreement (Form BLD-1031). The completed Statement of Required Special Inspections certificate shall be imprinted in the plan set, shall be unique to the specific project and shall identify only the required inspections. Provide a note on the cover sheet of plans stating that special inspection(s) are required see sheet S-?, and direct the reader to the location of the Statement of Required Special Inspections in the plan set. A copy of San Luis Obispo County's Special Inspection Program and all Special Inspection forms can be found and downloaded at http://www.slocounty.ca.gov/Departments/Planning-Building/Building/Services/Special-Inspection-Program.aspx
CBC §1705
Response:
Per the Engineer of Record: "The PV structure is both construction of a minor nature and a Group U structure that is an accessory to a residential occupancy building, so special inspection of the welds and pole embedment is not required. (2022 CBC Section 1704.2, Exceptions 1 and 2). These are not Driven Deep Foundations, so inspections per 2022 CBC 1705.7 are also not required."

We will be uploading a form BLD-1031 and BLD-1032 but there will be no categories checked, therefore no Special Inspection is required.

4 Provide foundation plans for the array.
Response:
Foundation plans were included. See sheet "Racking Plan" and Structural Calcs RENW2023-01838.

5 Follow industry standards for your single lien diagram. Clearly indicate all conduits, conductor size, type and quantity in all portions of the system. Clearly indicate all OCPD in all locations in the system.
Response:
There is no published requirement to conform to any particular drawing standard. Our drawings are clear, concise and complete. We included all OCPD, conduit sizes and types and conductor sizes and types in our original drawings. We did omit one reference to an 8X8 gutter on Sheet AC 1-line.

6 Remove the note that all breakers are 50 amp UNO.
Response:
This would be a bad idea and needlessly clutter the drawing. I suggest the plan reviewer reconsider.

7 justify sending one conductor to one panel and another conductor to another panel from each inverter. Correct the SLD and provide information to support the inverters feeding 2 locations.
Response:
It is apparent the reviewer does not understand how these systems are wired. Please refer to Example 1-line in Sheet set 14Z-HUFFMAN DATA SHEETS V2 and refer to directional arrows in original AC-1 line drawing. See manual uploaded.

8 Correct the grounding on the SLD. A ground shall be at each structure (each array, generator, residence etc)
Response:

See PV 2-LINE-1, note 7 for PV auxiliary GEC. An EGC was specified at the generator in the original plan.

9 Provide a complete cut sheet for the inverters. What is the maximum dc input current?
Response:
Complete data sheet was included. The value requested is not relevant and not provided by manufacturers. It appears the reviewer is confusing battery inverters with non-battery inverters.

10 Provide a foundation and anchoring design for the generator.
Response: Please see sheet GENERATOR GAS AND SLAB.

11 Provide a gas line sizing design for the generator.
Response: Please see sheet GENERATOR GAS AND SLAB.

12 Justify taking an equipment ground to one panel but a feeder to another panel from the generator.
Response:

The routing of the generator bond is the shortest connection to the sole N-G bond point and is best practice.

13 Provide the manufacturer's suggested wiring diagram for an off-grid system.
Response:

This should not be necessary if plan checker understood how these systems work. As a courtesy an example is included in set, 14Z-HUFFMAN DATA SHEETS V2, Sheet Title: EXAMPLE AC POWER FLOW.

14 Where is the brain to the system? Inverter as a Master that the generator is tied into. The balance of the inverters are typically "slaves" to the "master" inverter.

Pleases clarify this request as it makes no sense. The generator must be connected to all inverters. Master/Slave is outdated vernacular, instead use Primary/Secondary. Allocation of Inverter comm assignments is not relevant to electrical safety or code compliance.

Since the submittal is not complete there may be additional comments once the design is submitted.

Conditions of Approval

Legend - Description of Letter Code in Condition Title
C = Due at or before the plan correction return **I** = Due at or before permit issuance **S** = Required at or before foundation inspection
R = Required at or before framing inspection **F** = Required before final inspection

Prior to Final	Status
BLD-Signed Permit Uploaded-F Upload signed copy of permit to the case via Citizen Self Service (CSS) Portal. Staff to verify during inspection.	**NOT MET**