ENGINEERED POWER SOLUTIONS

72 SOUTH MAIN STREET, SUITE A
TEMPLETON, CA 93465

GENERIC APPROVAL MEMO – TAMARACK SIDE-OF-POLE MOUNT

Date:	February 3, 2021
Project:	Tamarack Side-of-Pole Mount Generic Approval Memo
EPS Job Number:	19-TAM003
To:	David Katz Tamarack Solar Products
From:	Matthew Gilliss Engineered Power Solutions, Inc. (EPS)

REGISTERED PROFESSIONAL ENGINEER
MATTHEW B. GILLISS
C 76738
EXP. 12/31/22
CIVIL
STATE OF CALIFORNIA

2/3/21

Engineered Power Solutions, Inc. (EPS) certifies that the Tamarack Solar Side-of-Pole Mount System, when constructed with the materials specified and supplied by Tamarack Solar and referenced in this approval memo, meets or exceeds the minimum design parameters specified in this memo and by the 2019 *California Building Code* (CBC – 2019 Edition) which is based on the 2018 *International Building Code* (IBC) and references the *Minimum Design Loads for Buildings and Other Structures* by the American Society of Civil Engineers (ASCE 7-16).

Parameters included in this Approval Memo are limited to:

- Tilt range from 30˚ to 60˚
- Max module sizes and wind speeds corresponding to the combinations listed below.
- Wind Exposure B or C
- Maximum allowed design ground snow load of 10 psf.
- Maximum top mount height of 20 ft. above grade.

Allowable ASCE 7-16[1] wind speeds based on module size (area in square inches):

- 2640 in^2: 100 MPH
- 1534 in^2: 130 MPH
- 984 in^2: 150 MPH
- 693 in^2: 180 MPH

1: Wind speeds are ASCE 7-16 (3) second gust wind speeds. EPS shall be consulted if a different code wind speed is used.
2: Multiple modules can be used on a single mount, but the total module area must not exceed the area limitations above.
3: For module areas between the area categories listed above, the next area size up shall be used.
4: Modules larger than 2640 in^2 (standard 60 cell module) are not included in this approval memo. EPS shall be consulted if a module size larger than those listed is required.

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Component configurations included in this Approval Memo are limited to:

- UNI-SP/01XX
- UNI-SP/02
- UNI-SP/02A
- UNI-SP/02X
- UNI-SP/03
- UNI-SP/03W

New poles will need to be fully embedded into a 12" diameter or larger concrete drilled pier embedded:

- 6ft. for 4" SCH40 at pole heights less than 10ft. above grade
- 7ft. for 4" SCH40 at pole heights between 10ft. and 15ft. above grade
- 9ft. for 6" SCH40 at pole heights between 15ft. and 20ft. above grade

EPS confirms that the concrete shall consist of Type II cement and have a minimum compressive strength (f'c) of 3500 psi (at 28 days). Aggregates shall be per ASTM C33 (Max size 1-1/2") and all concrete work shall conform to ACI standards and specifications. Based on the expected design forces, no additional rebar is required as the steel pipe will provide adequate bending capacity assuming it is embedded into the concrete pier to within 12" of the bottom of the pier.

EPS certifies that the Side-of-Pole Mounts listed above will be structurally adequate when installed in accordance with Tamarack Solar Products Installation Manual (UNI-SP02-MAN 2019 Edition v1.0) that is provided with the product.

EPS's scope of work is limited to the items listed above. The structure or other existing surface to which the Mounting System is connected, shall be evaluated on a case-by-case basis to ensure the adequacy of the supporting structure to support the newly applied loading per the CBC. All other structural items and all non-structural issues including but not limited to waterproofing, corrosion protection, construction means/methods, electrical, and mechanical issues are not the responsibility of EPS and shall be addressed by others.

Please feel free to contact me with any questions. Thank you.

Sincerely,

Matthew B. Gilliss, P.E., LEED AP
Engineered Power Solutions, Inc.