

Mechanical Checklist

TO BE COMPLETED BY THE MECHANICAL INSTALLATION CONTRACTOR

Project Name: MKAT GREEN 100 MW _____ Tracker Row Number: _____

Project Location: ALGA VILLAGE-SHU CITY _____ Date: 25/11/2019

Pre-Commissioning Agent: TSENGOULAS ILIAS

Piers	Initial	Comments
Confirm pier types (size, length, coating, function) are installed per engineered foundation specifications.	OK	
Confirm array piers are installed within specified tolerance for N-S, E-W, and elevation relative to motor pier.	OK	
Confirm pier elevations are installed per engineering-approved foundation drawings and within the design tolerances for slope of grade.	OK	
Confirm piers are installed within plumb tolerance per Construction Set .	OK	

Slew Gear	Initial	Comments
Confirm M12 bobtail collars are fully swaged at slew drive bracket motor pier connection.	OK	
Confirm that M20 slew drive mounting bolt/nut fasteners are torque marked and torqued per torque table.	OK	

Torque Tubes	Initial	Comments
Confirm blind oversize mechanicals (BOM) fasteners are properly installed. Inspect pin break to confirm correct grip sizes are used at each location per installation manual.	OK	
Confirm that correct tube thicknesses are installed as specified in Construction Set .	OK	
Confirm that installed BOM pins are treated with cold galvanizing compound.	OK	
Confirm that end caps are installed.	OK	

Bearing Housing Assembly (BHA)	Initial	Comments
Confirm BHA has been installed per installation manual temperature guidelines.	OK	
Confirm that exterior row BHAs are installed with M12 washers.	OK	
Confirm all M12 bobtail collars are properly swaged.	OK	
Confirm the BHAs are positioned so that the array has full range of tracking without mechanical interference (inspect elevation, position, twist, and location relative to pier tolerances, etc.).	OK	
Confirm that BHAs are positioned so tracker row is horizontally coplanar and aligned E–W.	OK	
Confirm that BHA is installed parallel to torque tube as seen from elevation view.	OK	

Module Rails	Initial	Comments
Confirm BHA rails are properly installed (seated and aligned, hardware torqued, BHA pin notch is flush with the rail).	OK	
Confirm first-rails are properly installed (seated and aligned, hardware torqued).	OK	
Visually inspect module rails for coplanar alignment.	OK	
Confirm module (bay) rails are properly installed (seated and aligned, hardware torqued).	OK	
Confirm module rail strap bolt is torque marked and securely fastened. Check straps for irregularities.	OK	

Controller, Motor, and Wiring	Initial	Comments
Confirm controller mount is properly installed in correct orientation as specified in Construction Set .	OK	
Ensure motor mounting M12 SCHS are torque marked and torqued to specified torque range.	OK	
Confirm SPC antenna is correctly mounted and secure.	OK	
Confirm SPC module is securely fastened per installation manual specifications.	OK	
Confirm that all electrical and antenna connections are properly terminated, that the cables are properly dressed/secured, and that the cable harness allows the array to track with full range of tracking without binding.	OK	

Modules	Initial	Comments
Confirm fasteners connecting modules to mounting rails are secure and fastened as specified.	OK	
Confirm module rail strap bolts are torque marked and secure.	OK	
Visually inspect modules for coplanar alignment and call out deflections greater than 1 degree across single module.	OK	
Confirm that the module installation of the array field in no way interferes with the tracking of the arrays.	OK	
Confirm that the wire management of the array field in no way interferes with the tracking of the arrays.	OK	

Dampers	Initial	Comments
Confirm dampers are installed and oriented correctly.	OK	
Confirm that lower damper assembly is installed at correct height upon pier per Construction Set .	OK	
Check that torque marks at lower damper assembly beam clamp bolts are aligned.	OK	
Confirm the damper orientation is shaft correct as shown in Task G, and that no evidence of oil leaks is present.	OK	

Notes:

Corroded piers-cracked pins at BHA-Defected BHA rails(deviations)-Missing
grease plugs from BHA-Corrosion at metallic parts of BHA-Module rail type of
corrosion at welded spots

ApprovedSignature: Tsergoulas Ilias

