RBI Solar, an industry-leading designer and manufacturer of solar panel mounting systems for commercial applications, needed a reliable coupling solution for its new single axis tracker product. The Sunflower™ mounting system rotates rows of photovoltaic (PV) modules on the East/West axis to follow the sun and maximize energy production. In large-scale commercial installations rows can be 400 ft. long, made up of approx. 35 ft. sections (approx. 12 modules). Breaking up the long rows into smaller sections allows the new system to accommodate various topographic conditions. The couplings connect the drive motor to the drivetrain at the end of each row of PV modules.

During the tracking system development process, RBI engineers determined that an L-Jaw coupling was the most economical choice that met the system requirements. They began searching for a coupling source that not only offered the right coupling type and quality level, but also convenient face-to-face support. Ultimately, they decided to work with TB Wood’s.

To meet the application specifications and torque requirements, modified LO95 L-Jaw couplings that utilize a Hytrel® “spider” element with a torque capacity of 401 in.lbs. were supplied. The couplings feature standard sintered steel hubs. TB Wood’s worked closely with RBI to revise the standard L-Jaw coupling bore design to accommodate the unique shaft geometry and provide a more secure hub-to-shaft connection.

Beyond superior coupling quality and performance, the interactions TB Wood’s had with RBI Solar provided an outstanding level of value. RBI was able to rely, with confidence, on TB Wood’s experienced and knowledgeable team as they provided engineering expertise and exceptional service and support, including fast responses, problem-solving skills and timely delivery.