

GameChange Solar Genius Tracker Featured in SolarPro

Array Tracking Systems for PV Power Plants: Page 2 of 5

By: Joe Schwartz (/Profile/JoeSchwartz)

GameChange Solar

GameChange Solar (formerly GameChange Racking) offers a broad product portfolio for commercial and utility-scale PV plants that includes penetrating and ballasted ground mounts, roof mounts and, most recently, array tracking systems. Andrew Barron Worden launched the privately held corporation in 2012 and serves as its CEO. Worden also serves as the chairman, CEO and majority investor of Barron Partners, a global investment firm with a clean tech focus.

GameChange introduced its inaugural array tracking system, the linked-row Power Tracker, at Solar Power International 2015 in Anaheim, California. In 2016, the manufacturer refocused its tracker development efforts on an independent-row, single-axis horizontal tracker design, and in March it launched its Genius Tracker. The same month, GameChange announced two early 20 MW-plus projects that will deploy its new solar tracking system.

The horizontal single-axis Genius Tracker is compatible with slopes of up to $\pm 6.5^\circ$ north-south and $\pm 9^\circ$ east-west. The tracker design uses a self-powered linear actuator coupled with a 24 Vdc or 12 Vdc motor to drive up to 90 72-cell c-Si modules per actuator. Each drive actuator has a dedicated PV module, battery and wireless field-replaceable hot-swappable controller. GameChange estimates that the battery will provide 5 days of backup power. The system uses the ZigBee wireless standard to network the individual controllers. Remote communication functionality allows secure system monitoring and control.

The Genius Tracker supports layouts of one-up in portrait orientation for large-format 72-cell c-Si modules, and three- or four-up in landscape orientation for thin-film modules. GameChange offers attachment hardware for framed and double-glass modules, as well as both top and bottom module-mounting options. The tracker's standard rotational range is $\pm 45^\circ$, and a $\pm 60^\circ$ range is available. The Genius Tracker uses a tracking algorithm based on time and location that provides backtracking functionality. GameChange specifies a 150 mph wind-load rating for its Genius Tracker, and has designed it to stow automatically when wind speeds reach 70 mph.

GameChange Solar offers in-house structural, mechanical, civil and geotechnical engineering services; on-site field training and site supervision services; and turnkey installation services. A 5-year control and drive system warranty and a 10-year structural component warranty back the Genius Tracker. An extended warranty, for 10 years on the control and drive system and 20 years on the structural components, is also available.