**Combiner Box Notes**

* The role of the combiner box is to bring the output of several solar strings together
* Each string conductor lands on a fuse terminal and the output of the fused inputs are combined onto a single conductor that connects the box to the inverter
* Solar combiner boxes are engineered to provide overcurrent and overvoltage protection to enhance inverter protection and reliability
* Required for larger projects, anywhere from four to 4,000 strings
* In residential applications, combiner boxes can bring a small number of strings to a central location for easy installation, disconnect and maintenance
* In commercial applications, differently sized combiner boxes are often used to capture power from unorthodox layouts of varying building types
* utility-scale projects, combiner boxes allow site designers to maximize power and reduce material and labor costs by distributing the combined connections
* The combiner box should reside between the solar modules and inverter
* Location is highly important because a combiner in a non-optimal location may potentially increase DC BOS costs from losses in voltage and power
* Little maintenance is required for combiner boxes
* Combiner boxes are not expensive compared to other equipment in a solar project
* All should be third-party certified to conform to UL1741, the relevant standard for this type of equipment