

**Solar Energy Grid Integration Systems “SEGIS” Program
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The inevitable transformation of the electrical grid to a more distributed, intelligent generation and distribution configuration requires grid interconnect methodologies well beyond simple net-metered, grid-connected approaches. New technical requirements combine to necessitate more sophisticated PV system designs that integrate energy management and/or energy storage into intelligent PV systems. This report provides an overview of the “Solar Energy Grid Integration Systems” (SEGIS) program that supports development of new components, advanced innovative inverter/controllers, economical energy management systems, innovative energy storage and a suite of advanced control algorithms, technical methodologies, and protocols associated with communications. Twelve SEGIS contractors are focusing their R&D on solutions for all facets of system optimization and interconnection to intelligent grids of the future while still meeting the “levelized cost of energy” (LCOE) goals of the Solar America Initiative.