

Two-day Solar Workshop for Agriculture Educators and Farmers

Two-day solar workshop for Agriculture Educators and Farmers
Little USA Demonstration and Training Site
Union Springs, Ala

Taught by Ruth Page Nelson
Smart North America, Inc.
Ruth@smarthnorthamerica.com
678-591-0774

DAY ONE – Solar PV Fundamentals

- Introduction to solar electricity and system operation
- Safety procedures, PPE, and rural solar installation hazards
- Understanding hybrid, on-grid, and off-grid configurations
- Review of solar panels, batteries, inverters, disconnects, and grounding
- Basics of electricity: volts, amps, watts, and power flow
- Hands-on walkthrough of demonstration 2.4 kW system

DAY TWO – Hands-On System Disassembly, Testing & Reassembly

- Identifying and labeling all PV components
- Safely disconnecting and reconnecting wiring
- Component-by-component testing: PV voltage, battery voltage, inverter outputs, grounding continuity
- Troubleshooting rural solar issues (dust, moisture, animals, corrosion)
- System reassembly and supervised startup
- Final commissioning and verification