

Energy Infrastructure R&D Test Laboratory



Laboratory R&D Goals

Direct-to-Surface Solar PV Goal: Develop low cost plug-and-play standard for mounting solar PV direct to plywood roof and wall, without shingles and without side clapboards, at a cost lower than traditional non-solar surfaces. [More...](#)

Next Generation Solar Farm Goal: Reduce cost of solar on land via plug-and-play PV standardization and automation. [More...](#)

Solar Thermal Energy Storage Goal: Develop standard for storing thermal energy in a tank of H₂O or block of cement, to provide heat or cold when the sun goes down.

Next Generation IOT and LED Lighting Goal: Develop standard for attaching windows, doors, lights, ceilings and walls to network: 99.999% reliable, < \$1 per node electronics, supports tree wiring, processor sleep when not in use. [More...](#)

Window Thermal Cover Goal: Develop low cost standard for covering windows with flat (e.g. 2" R12 XPS) or rolled motorized insulators. [More...](#)

Automated Drilling Goal: Reduce cost of drilling into soil via automation & advanced techniques. Water circulating between 55°F soil & building reduces HVAC energy significantly. [More...](#)

