Rapidly Deployable Floating Solar System (RDF Solar) for Coastal and Remote Areas

The project goal is to develop a 25kW floating solar system to withstand ocean wave height of 8m. The system can be expanded to multiple units for higher power demand.

The challenges for the existing offshore floating solar plants are overcome with our innovation. Deck structure supporting solar panels and floaters supporting the deck are fabricated with HDPE flexible pipes. This results in the deck and floaters being compliant to the waves, rather than resisting them. This reduces structural stresses and mooring loads resulting in a lighter and lower cost system.

All the components of the system are standard industry supply and can be transported to an assembly site in containers on truck, train and vessel. The system components are then assembled with available tools and deployed using a vessel of opportunity.

The innovative solution is the first American-made offshore floating solar plant. The system can be deployed to remote places at low cost, including in support of rapid military and humanitarian actions.

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