








SUMMARY: Energy as a Service: Own and Operate Long Duration Power Assurance Hybrid Solar Microgrid Energy Service



<p>Key Partners </p> <p>NanoResearch Team: NanoResearch Inc and SmartEnergi Corp. Contact: Dr. David Noye (drdanoye@nanoresearchinc.us)</p> <p>Other Partners: National Renewable Energy Lab (NREL); Federal/State solar funding Agencies; Power Connectors; Solar panel, fuel cell, and flow battery manufacturers; Third party creditors</p>	<p>Key Activities </p> <p>Ready Goal: Economic justification for power resiliency; 3D model Set Goal: Working prototype plant Goal Goal! Working pilot plant</p>	<p>Value Propositions </p> <p>Core value: Clean energy, safety, longer duration power supply in days to weeks; Flexible energy storage systems Differentiator: Zero acquisition cost; Uninterrupted power supply; Long duration power; No worries for power outages; No pollution; Very low lifetime cost; Low maintenance cost; Millisecond change over</p>	<p>Customer Relationships </p> <p>Ready: Demonstrate 3Dsimulation/ and cost savings; Set: Demonstrate prototype plant; Go: Demonstrate pilot plant</p>	<p>Customer Segments </p> <p>Residential; Commercial; Industrial; Institutional; Security; Defense Police; Urban Rural; Disadvantaged Communities;</p> <p>Market size: \$255BN by 2028 at 20.1% Growth</p>
<p>Cost Structure </p> <p>The major drivers of costs: after Go Contest: Salaries, Raw materials, energy service equipment. Utilization of economies of scale in the USA: Procure solar panels, fuel cells, and hydrogen fuel cells from USA contractor manufacturers; Solar panel installers</p>	<p>Revenue Streams </p> <p>Power Purchase agreements: for corporate customers: Commitment deposit and balance monthly payment throughout the life of the plant Subscription fees for Residential customers: Monthly asset user fee payments for residential customers</p>			