Lockheed martin clean energy plant

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Combining three separate operations into one, the GridStar Flow program recently moved to a cutting-edge facility in Andover, Massachusetts, where employees in labs, production and program management will collaborate to drive this new technology in long-duration energy storage.

The program is now completing initial product development by building an internal prototype of the first commercial system, known as Serial Number One (S/N01). This system will be built and tested in the coming months at the new Andover facility.

Sean Powers, a manufacturing engineer, and Sanya Ramjattan, a test engineer lead, know firsthand how a consolidated location benefits the team while developing advanced energy storage solutions. Below, they share what it"s like settling into the new Andover facility ahead of the launch of the first operational GridStar Flow system.

SP: "We"ll be able to improve communication across departments. Now a team member from manufacturing or operations can interact with someone from another department face-to-face - for now, of course, with social distancing precautions like wearing masks and meeting in open areas. This makes our business processes more efficient and enhances our cross-functional dynamics. This will truly benefit the program and I"m excited to be a part of it."

SP: "I"m in the manufacturing space, which is adjacent to the new office and lab. We call that [space] the New Product Introduction area, or the NPI. This is where we"ve been manufacturing battery stacks and where we are integrating them into the power module. Right now, we"re working hard, preparing and setting up our manufacturing line."

SR: "I work in the development labs. Previously we were at different sites; now we are consolidating into one integrated team that better serves the needs of the program. The idea here is really to leverage all our learnings and discoveries across the test fleet to drive and accelerate our product development."

For over 86 years, Lockheed Martin has invested in resilient, smart and safe energy technologies. As the clean energy evolution continues, the current dominant technologies cannot provide the durable, flexible and distributed energy storage required to sustain power for extended durations. That"s why we developed GridStar(R) Flow.

GridStar Flow is an innovative redox flow battery solution designed for long-duration, large-capacity energy storage applications. The patented technology is based on the principles of coordination chemistry, offering a new electrochemistry consisting of engineered electrolytes made from earth-abundant materials. These properties enable GridStar Flow to counter anticipated and unforeseen grid disruptions by a robust and flexible

long-duration, clean energy storage solution with a competitive total cost of ownership.

The positive and negative electrolytes in GridStar Flow use active materials dissolved in water. They are nonflammable, noncorrosive, and stable, making GridStar Flow a safe solution.

GridStar Flow is optimized to offer competitive TCO over the design life. GridStar Flow"s TCO includes all costs for initial installation, system replenishment, maintenance, and energy loss.

Your individual skills play a critical role in changing the way the world works and helping us develop products that make it a safer place to achieve your goals. Our teams are made up of diverse employees from a wide range of disciplines and backgrounds, working together to tackle complex challenges and push the boundaries of innovation.