

# Energy Resiliency for DoD Domestic Installations

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## Guest Lecturer Mr. Scott Van Broekhoven

Group Leader of the Energy Systems Group,  
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Mr. Scott Van Broekhoven

### Abstract:

The Department of Defense (DoD) increasingly supports critical time-sensitive national security capabilities from its domestic installations. For a majority of these installations, the primary power source to their critical missions is the domestic electric grid. It is therefore imperative that the critical facilities on these installations are resilient to power outages on the bulk power system. Current backup power solutions typically utilize individual diesel generators located at the building level or point of load, which leads to installations with hundreds of small to medium size diesel generators. This talk will present a methodology for assessing the cost and key performance attributes for alternative resilient power systems.

### Biography:

Mr. Scott Van Broekhoven is the Group Leader of the Energy Systems Group at MIT Lincoln Laboratory. In this role he oversees staff developing technology solutions that enhance the efficiency and resiliency of both tactical and domestic energy systems. This includes developing advanced architectures and system designs to improve the resiliency of power grids, developing new control techniques for microgrids and distributed energy resources, and the prototyping of advanced energy technologies to improve the endurance of soldiers and tactical vehicles. The Group provides impartial assessment of advanced energy technologies for senior defense leaders, and develops test assets to provide consistent evaluation of microgrid control strategies. He currently leads a DoD study investigating the business case for different energy resiliency solutions for critical loads on domestic installations. Prior to his work in Energy, he led development programs in both small satellites and a novel aircraft deployable micro-air vehicle. He earned a Bachelor's of Science degree in Mechanical Engineering from Northwestern University and a Master's in Science degree in Engineering Systems from MIT.

