

BGE UAV Initiative

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The Mission

Monitor a network whose linear assets can stretch more than **once around the Earth's equator** and is **dispersed over 1.1 million football fields**. In the event of an outage, locate the cause of the outage, dispatch a crew with the proper materials, and correct the defect in **84 minutes**.



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The Challenges

- Security

- Sensitive data for critical utility assets
- Secure management and storage of data



- Data Analysis

- Inspection over long distances will create large data sets of images
- Process needed to analyze data and recommend action



- Technology

- Flight time is limited by technology (battery or gas powered)
- Electromagnetic Interference in close proximity to multiple energized assets



- Regulatory

- Line of Sight Limitations
- Timing of authorizations for flying in restricted airspace



- Operational

- Personnel requirements (pilot certificate & experienced mechanic)
- Demonstrate improvement over current processes (safety, cost, timing, etc)
- Scalability of solutions

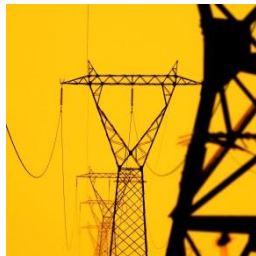


BGE UAV Initiative

- BGE is developing a Proof of Concept (POC) to determine the viability of UAVs for electric and gas utility operations
- The POC will provide BGE with a unique view into all aspects of the UAV inspection process including flying, imagery, data collection, and data analysis
- While UAV technology is an exciting new field, usage of such technology must be constrained to areas that will provide BGE with an acceptable return on investment and/or a more efficient and stream-lined means of inspection



Substation



Transmission



Distribution



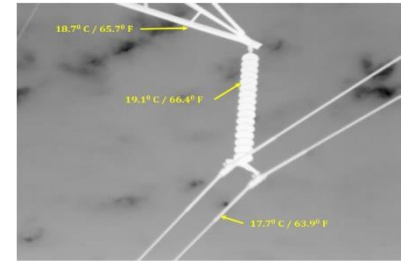
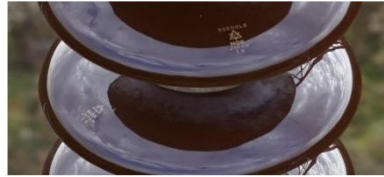
Gas



Emergency Response



Platform Versatility



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Where we are going

- Collaborate with Exelon Operating Company's to develop a fully functional UAV program at BGE
- Develop a training program for pilots to support each business function (transmission, distribution, substation, gas, etc).
- Explore the use of the technology in other business areas and determine viability of using UAV
- Communicate with customers to create awareness of UAVs for inspection of utility assets
- Stay engaged with external entities (e.g. FAA & EEI) to remain informed of UAS regulatory developments



Federal Aviation
Administration



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Thank you



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