Drone Technology and Environmental Monitoring

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Commercial sUAS FAA Requirements

**FAA 333 Exemption**
- Required to fly drones commercially prior to 8/16
- Exelon received the 333 exemption 2/16 – 16 month process
- Licensed airplane pilot required to fly drones
- FAA registered drone

**FAA Part 107**
- Requirements to fly drones commercially after 8/16
- Allows more flexibility for commercial operations of drones
- Qualified remote pilot in command to fly drones
- Online FAA registered drone

Future?
Wind Inspections

- Blade inspections
- Tile field inspections
- Improved safety
- Reduced outage times
- Reduced O&M costs
Wildlife / Habitat Surveys

- Osprey & Falcon nesting sites
- Threatened & Endangered species
- Stressed vegetation
- Impacted habitats
Transmission Rights of Way

- Vegetation approaching power lines
- Illegal dump sites
- Property encroachments
- Wetlands
- Inspections without disturbance of T&E species
Spill Response Management

- Aerial view of incident
- Real time data w/ FPV
- Command & control support
- Closer view
- Enhanced safety
Solar Farms

- Inspection of panels w/ IR
- Improved output from facility
- Reduced emissions at fossil plants
- Annual re-vegetation progress
Hydro Inspections

- Spill gate, tail race & concrete inspections
- Enhanced safety
- Reduced O&M costs
General Site Inspections / Surveys

- Planning
- Construction progress
- Establish baseline for comparison to current conditions
- Mapping (wetlands, landfill sites, etc.)
- Equipment condition (emission controls, expansion joint leaks)
- Security

- Tank inspections
- SPCC inspections
- Enhanced Environmental compliance
- O&M savings
Questions?