THE RISK OF UNMANNED AIRCRAFT SYSTEMS ("DRONES")

Indicators of Abnormal Drone Activity

Behavior

- Multiple drones
- Drop in altitude near electric assets
- Lack of illumination at night

Location

- Flight over strategic sites, critical assets, or buildings

Operational Red Flags

- Concealed operator
- Flying beyond visual line-of-sight (BVLOS)
- Unauthorized payload drops

Physical and Technical

- Visible loose wires
- Lights removed or taped over
- Additional batteries attached

The E-ISAC recommends these indicators be assessed together, not individually when suspecting malicious activity.

Source: "Quick Reference Guide: Identifying Indicators of Suspicious Drone Activity Over Electric Assets" (E-ISAC 9/2025)

Drone Defense Strategies

- **Detect:** How are you going to know a drone is operating near your infrastructure, especially at remote, unstaffed sites?
- **Discern:** How will you know if a drone operating near your infrastructure intends to do harm – or poses a risk, regardless of intent?
- **Mitigate:** What, short of takedown, can you do to limit the impact a drone can have on your infrastructure?

U.S. DEPARTMENT of ENERGY | Office of Cybersecurity, Energy Security, and Emergency Response

Pacific Northwest NATIONAL LABORATORY

NASEO National Association of State Energy Officials

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Protective Measures

- Post "No Drone" signage around facility
- Train staff to report unusual UAS activity
- Coordinate with local law enforcement and local FAA Law Enforcement Assistance Program (LEAP) special agent
  - If no contact can be made email: 9-amc-700-leau@faa.gov for assistance
- Develop a UAS response and recovery plan

Source: "Protecting Against the Threat of Unmanned Aircraft Systems (UAS)" (DHS CISA 2020)

Legal and Regulatory Challenges

"Legal parameters and regulations associated with airspace over electric assets are significant factors in mitigation. Since airspace is generally considered public, intercepting or mitigating a drone is currently limited to four federal agencies."

Source: "Drone Detection Pilot Over U.S. Substations and Power Plants" (E-ISAC 2022).

Recommendations from E-ISAC's Drone Detection Pilot

- Document legitimate drone use cases (establish a normal baseline)
- Include drones in your risk mitigation planning
  - Share drone data with law enforcement to help their efforts and build relationships
  - Conduct annual training on drone sightings
  - Execute annual tabletop exercises to understand response times and capabilities
- Coordinate with law enforcement in detecting and responding to malicious drone activity

Embracing State Strengths

- Encourage general physical hardening on a risk-based, prioritized basis
- Improve coordination around takedown requests and authority delegation
- Relationship building with local governments and utilities, as well as the federal government stakeholders that delegate authority
- Developing plans, processes, and procedures for supporting utilities
- Testing and exercising those plans
- Aim for repeatable results that resonate with leadership, focusing on investments and measurable consequences.

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