

MODERNIZED GRIDS CAN INCREASE CYBERSECURITY RISKS



Energy regulators manage risk, ensure prudence of investment, and promote grid resilience.

As cybersecurity threats evolve and increase in their sophistication, USAID is supporting regulators to meet these challenges.

CRITICAL INFRASTRUCTURE RISKS:

INFORMATION TECHNOLOGY (IT)

OBJECTIVE: **Confidentiality**

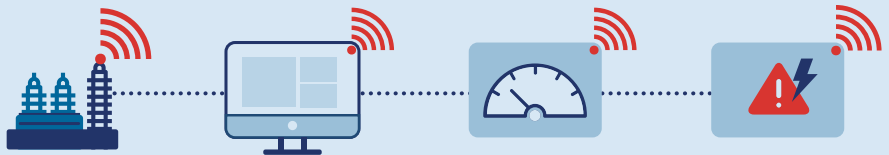
(Protection of Sensitive and Private Information)



OPERATIONS TECHNOLOGY (OT)

OBJECTIVE: **Availability**

(Safe and Reliable Operations)



✓ Regulators Should:

- Engage with utilities and other stakeholders on response and recovery
- Ensure utilities are implementing sufficient and cost-effective OT and IT controls
- Encourage information sharing for better preparedness
- Enforce security of supply standards
- Evolve as best practices continually change

✗ Regulators Should Not:

- Require utilities to perform duplicative work/reporting
- Conduct cybersecurity maturity audits of utilities
- Store confidential utility critical energy infrastructure information (CEII)
- Do nothing because it is assumed the utilities have it covered

TOOLS AND RESOURCES:



Cybersecurity Strategies

Regulators develop strategies to ensure system reliability and preparedness for attacks.

The regulator's mission is to ensure that transportation and utility services are safe, available, reliable, and fairly priced. When considering cybersecurity, the objectives of a strategy are to facilitate risk-based decision-making that weighs trade-offs and supports action that:

- **Reduces** vulnerability to cyber-attacks;
- **Prevents** cyber-attacks against critical infrastructures, and
- **Minimizes** damage and recovery time from cyber-attacks that do occur.



Risk and Maturity Assessments

The utility measures its preparedness, and the regulator evaluates that assessment.

- Standards (mandatory or voluntary)
- Performance metrics



Prudence of Investments

Regulators monitor investments in people, processes, and technology through tariff reviews.



Measurement and Verification of Assessment

Regulators, in cooperation with utilities, set targets and then evaluate performance.

