# ODA3 Institute

# GAISSF Energy Sector Executive Brief

*Leadership decisions for secure, resilient and accountable energy-sector AI*

| Field | Value |
|---|---|
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## Methodology note

Source Verification rates the strength of evidence: T1 is direct authoritative evidence, T2 is strongly corroborated, T3 is limited or indirect, and T4 is unverified or insufficient. Assurance Maturity rates the organisation's implementation: A0 not established, A1 ad hoc, A2 defined, A3 implemented, A4 measured, and A5 independently assured and continuously improved. The two scales are separate.

## Executive assessment

Energy organisations should govern AI according to the operational authority it can exercise and the consequence of error, manipulation or dependency failure. The highest-priority boundary is between an AI output and a physical, market or customer-impacting action.

## Five decisions leaders must make

- Which AI systems can influence operational, safety, market or essential-customer outcomes?
- Which actions require positive human approval, dual authorisation or independent machine verification?
- What deterministic fallback and safe state remain available when the model, data, cloud or communications fail?
- What evidence is required before release and during operation to demonstrate control effectiveness?
- Which residual risks and open specialist reviews prevent deployment or require executive acceptance?

## Highest-priority actions

- Complete the AI inventory and classify authority, criticality, safety relevance and reversibility.
- Block unauthorised actuation and separate recommendations from approved commands.
- Preserve independent protection, manual override, fallback and trusted rollback.
- Validate representative and degraded scenarios; monitor drift, rejected actions, overrides and near misses.
- Require supplier provenance, secure updates, incident notification, continuity and exit evidence.

## 90-day sequence

| Window | Leadership outcome |
|---|---|
| Days 1-30 | Scope, inventory, accountable owners, authority classification, N/A rules and critical containment. |
| Days 31-60 | Priority controls, supplier review, release gates, evidence repository and fallback tests. |
| Days 61-90 | Exercises, degraded-mode tests, monitoring thresholds, residual-risk decisions and independent challenge. |

## Notably Absent

- No universal evidence that AI improves reliability or safety.
- No threshold, maturity level, profile or sequencing label establishes a universal energy-sector acceptance criterion.
- No claim of legal compliance, regulatory approval, nuclear approval or certification.
- No assumption that human presence alone constitutes effective oversight.
- Use-case mappings and scenario treatments remain subject to specialist validation.