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SOLUTION BRIEF

AI Compliance for Power & Utilities

From nuclear to renewables — continuous standards review.

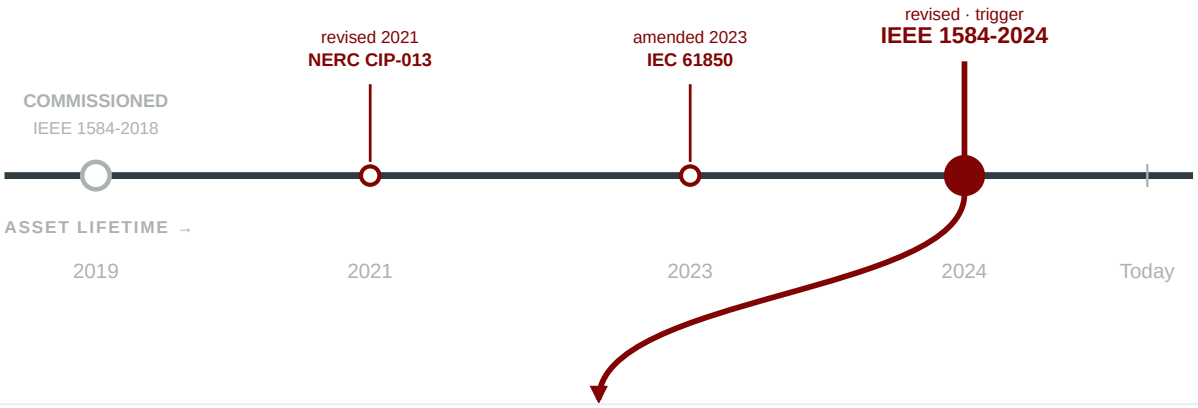
IEEE, IEC, NERC, and regulator standards across decades-long asset lifecycles. The Platform makes standards review a **continuous capability** — not a project-end scramble.

WHAT THE PLATFORM WATCHES · STANDARDS REVISING OVER TIME

Asset record · Substation A-204 · Transformer T3

In service since 2019 · monitored continuously since then

STANDARDS REVISIONS · TRIGGERED BY THE BODIES YOU CITE



12 ASSET RECORDS RE-SCOPED · AUTOMATICALLY — NO AUDIT CYCLE WAIT

FINDING · MAJOR · A-204 / T3 — Severity: Major · Confidence: 93%

Specified arc-flash protection on the 2019 commissioning record no longer meets the revised standard.

Cited · **IEEE 1584-2024 § 9.3.2** (supersedes 2018 edition referenced in commissioning record)

Every revision tracked. Every asset re-scoped. The platform watches IEEE, IEC, NERC, FERC, and NRC — and re-reviews affected asset records the moment a standard changes. Defensible at any audit point.

● ALWAYS CURRENT

Decades-long assets. Standards that revise every quarter.

An asset placed in service today will run for **30–60 years**. The standards governing it will revise dozens of times. Reviewing only at **project gates and audits misses the cumulative drift in between** — and renewables, IBR integration, and NERC CIP have made the cadence faster than reviewers can keep up with manually.

THE CONTINUOUS COMPLIANCE LOOP · ACROSS THE ASSET LIFETIME

Commission

YEAR 0

Asset enters service. Baseline standards captured. Cited evidence stored against every clause that governs the design.

→

Operate

YEARS 1–60

Decades in service. Standards revise on faster cycles. IEEE, IEC, NERC bodies publish amendments, addenda, errata continuously.

→

Re-scope

ON EVERY REVISION

Asset records auto-flagged. Affected records re-reviewed against the new clause — without waiting for the next audit cycle.

→

Audit

NERC · NRC · PUC

Defensible at any point. Continuous trail with clause-level cites — not a point-in-time snapshot.

— compliance maintained continuously

drift accumulates if review is project-end only →

Why continuous compliance is hard.

01

The standards stack is deep and live

IEEE for equipment, IEC for international interoperability, NERC for reliability, FERC for market structure, plus owner specs and regulator orders — all revising with effective dates and addenda.

02

Renewables changed the cadence

IBRs, grid-forming storage, and DER integration are pushing **IEEE 1547, IEC 61400, and NERC standards to revise on faster cycles**. Compliance evidence from two years ago may not hold today.

03

NERC CIP is unforgiving

NERC CIP penalties run into **millions per violation per day**. The audit trail must be defensible and continuous — not point-in-time.

04

Nuclear adds a layer

10 CFR 50 Appendix B, NQA-1, ASME Section III, and licensing-basis specs layer onto everything else. Configuration control demands traceability from licensing commitment to procurement spec.

05

Asset records span generations

The engineer who specified a substation transformer in 1992 has retired. The standard they cited has revised eleven times. What applies to today's refurbishment is archaeology.

06

Regulator audit volume keeps rising

State PUCs, FERC, NRC, regional reliability coordinators — the regulator surface area keeps expanding. Each one expects **cited evidence, not narrative**.

WHY THIS MATTERS NOW

Renewables and NERC CIP have pushed the cadence past human capacity — standards revise faster than reviewers can keep up. Reasoning-grade citation now produces continuous traceability that holds up to regulator audit, not point-in-time snapshots that age out the moment the next amendment publishes.

Built for continuous review, not point-in-time.

P&U compliance lives in the **standards that keep revising**, not just the standards that were current at commissioning. The platform monitors every standards body relevant to your portfolio — IEEE, IEC, NERC, FERC, NRC — and indexes their clauses against every asset record you've cited them in. When a standard revises, **the affected records re-scope automatically** — ready to defend to a regulator audit at any point, not just at the next scheduled review.

Standards revise. The platform catches what's affected.

An IEEE C57 amendment, a NERC CIP revision, an IEC 61850 erratum — each one touches a specific subset of your assets. The platform parses the revision against every record citing the prior version, **identifies which assets are affected, and re-runs the review on only those records**. You get a scoped change set, not a full re-audit. The continuous trail stays current without burning the team.

REVISION CHAIN · HOW THE PLATFORM STAYS CURRENT

ORIGINAL BASELINE
~~At commissioning~~

→

STANDARD REVISED
~~Amendment published~~

→

RE-SCOPED FINDING
Applied to affected records

FROM STANDARD REVISION TO RE-SCOPED FINDING · SIX STEPS

1 **Ingest** — Standards, amendments, asset records, owner specs

→ 2 **Index** — Clause-level, hierarchy preserved

→ 3 **Retrieve** — Revision-aware, affected records identified

→ 4 **Reason** — Clause-by-clause obligation parsing

→ 5 **Classify** — Severity + confidence scoring

→ 6 **Report** — Cited Excel and PDF, audit-ready

From IEEE to NERC. From substation to grid edge.

P&U compliance spans generation, transmission, distribution, and grid modernization — with different standards bodies governing each. **IEEE C57 for transformers, NERC CIP for cybersecurity, IEC 61850 for substation automation, 10 CFR 50 for nuclear quality.** The platform reads the canon and reasons across the addenda, errata, and owner specs that change clause-level applicability — across every asset type in your portfolio.

FINDING STATES ACROSS REVISIONS

NEW	RECURRING	RESOLVED	REGRESSED
First flagged by this revision.	Carried forward from prior amendment.	Cleared in the current cycle.	Re-introduced by a recent revision.

Defensible to NERC. Defensible to your PUC.

The platform's output is engineered to survive a **NERC CIP audit, NRC inspection, PUC docket, or regional reliability coordinator review**. Every finding carries a severity classification (Critical / Major / Minor / Observation), the source clause and source quote it references, and a confidence score reported *separately* from the verdict. Reviewers can approve, escalate, or override — every decision is logged, and the audit trail moves with the asset record across every standards revision in its lifetime.

AUDIT TRAIL · CONTINUOUS, NOT POINT-IN-TIME

Detected	Reviewed	Decided	Logged	Defensible
Clause + quote + confidence	Discipline reviewer	Approve · escalate · override	With rationale + timestamp	NERC, NRC, PUC, regulator

Continuous compliance. Cited every time.

340+

Utility standards loaded

IEEE, IEC, NERC, FERC, NRC.

70–80%

Reduction in review cycle time

Utility engineering teams.

10×

Throughput per reviewer

Same team, more asset records.

Built for continuous compliance

ALWAYS CURRENT · ACROSS THE LIFECYCLE

- **Standards Change Monitor.** Watches IEEE, IEC, NERC, FERC, NRC for amendments, addenda, errata.
- **NERC CIP audit-ready.** Continuous trail with clause-level cites — defensible at any audit point.
- **Auto re-scoping.** Affected asset records flagged automatically when cited standards revise.
- **Multi-tenant for utilities.** RBAC isolation for IOUs, munis, and co-ops sharing infrastructure.

Prove it on your asset portfolio. *A 2-week scoped pilot.*

We configure the platform for one standards bundle and run continuous review against your real asset records — no platform commitment.

We bring

The platform configured for one standards body, a compliance AI lead, and a solution architect.

You bring

One standard from your portfolio (IEEE C57, NERC CIP, IEC 61850, or 10 CFR 50), 8–10 asset records, and an engineering lead.

You get

Findings benchmarked against your manual review, a continuous-audit-trail sample, and a production roadmap.

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