Forward Thinking
ENERGY INFRASTRUCTURE CONSULTING

ENTERPRISE RISK MANAGEMENT · DECISION SUPPORT TOOLS

Enterprise Risk Register and Executive Risk Dashboard

Building a single, defensible view of enterprise risk for a utility's leadership and board

CLIENT Large investor-owned electric utility, western U.S.	SERVICE LINES Enterprise Risk Management, Decision Support Tools
SCOPE Risk taxonomy, register, scoring model, controls library, executive dashboard	DURATION 6 months, plus ongoing quarterly refresh support

140+	1	< 2 wks	100%
risks captured across 9 categories	common scoring scale replacing 4 legacy scales	board-pack turnaround, down from ~6 weeks	of top-tier risks with named owner and control plan

THE CHALLENGE

The utility's risk information lived in disconnected places: spreadsheets held by individual departments, a safety incident system, a wildfire mitigation plan, and slide decks assembled by hand before every board meeting. Each group scored likelihood and consequence on its own scale, so a “high” risk in operations could not be compared with a “high” risk in cybersecurity or regulatory affairs.

Leadership wanted one register that could answer three questions quickly: what are our top risks, how effective are the controls we are paying for, and where should the next dollar of mitigation go. Regulators and the board also expected the answer to be traceable back to evidence rather than to judgment alone.

WHAT WE DID

1. **Risk taxonomy and register design.** We built a nine-category taxonomy (safety, wildfire, asset reliability, cyber and physical security, regulatory and compliance, financial, supply chain, workforce, and reputation) and a register schema capturing cause, event, consequence, existing controls, control effectiveness, owner, and treatment plan for each risk.
2. **Consistent, calibrated scoring.** A single 5×5 likelihood–consequence model with quantitative anchors (frequency ranges, dollar bands, safety and reliability metrics) replaced the departmental scales. Consequence was scored on multiple dimensions so that safety, financial, and customer impacts were not collapsed into a single subjective number.
3. **Structured elicitation workshops.** Risk owners scored their risks in facilitated sessions using bow-tie logic: threats, preventive barriers, the top event, and mitigative barriers. This produced a controls library linked to each risk and exposed controls that were assumed to exist but were not being verified.
4. **Executive dashboard.** We designed and built an interactive dashboard on top of the register: enterprise heat map, ranked top-risk list, control-effectiveness view, risk-velocity and trend indicators, and drill-down from enterprise level to business unit to individual risk. The dashboard reads directly from the register, so the board view is always the current view.
5. **Governance and refresh cadence.** A quarterly review process, ownership rules, and a change log were established so the register stays a living tool rather than a one-time exercise.

RESULTS

More than 140 risks were captured on one comparable scale, of which 18 were identified as enterprise-tier and escalated to the executive risk committee. Every enterprise-tier risk now has a named owner, an assessed control set, and a treatment plan with a due date.

The controls review found that roughly one in five controls listed for top-tier risks had no evidence of effectiveness (no test, audit, or metric). Those gaps were converted into specific actions, several of which were resolved within the first quarter.

The board risk pack, previously assembled by hand over several weeks, is now generated from the dashboard in days, and directors can see quarter-over-quarter movement for each top risk rather than a static snapshot.

Enterprise heat map: number of registered risks by likelihood and consequence band

Enterprise-tier cells (escalated to executive risk committee)

LIKELIHOOD \ CONSEQUENCE	Minor	Moderate	Major	Severe	Catastrophic
Almost certain	2	4	2	3	2
Likely	4	8	9	5	3
Possible	6	12	14	10	3
Unlikely	5	10	12	8	4
Rare	3	6	7	5	3

Illustrative distribution of the register after calibration. Enterprise-tier risks sit in the upper-right cells.

IMPACT FOR THE CLIENT

Mitigation budget requests are now argued on a common scale, which lets leadership compare a wildfire hardening program with a cyber investment or a workforce initiative on the same footing.

The register and dashboard became the backbone for regulatory filings that require an enterprise view of risk, reducing duplicated effort across compliance, safety, and finance teams.

WHAT WE DELIVERED

- Enterprise risk taxonomy and register (structured database)
- Calibrated 5×5 scoring model with quantitative anchors and guidance
- Bow-tie diagrams and controls library for enterprise-tier risks
- Interactive executive risk dashboard with drill-down
- Governance procedure, ownership matrix, and quarterly refresh playbook

METHODS AND STANDARDS

ISO 31000 risk management principles · COSO ERM framework · Bow-tie analysis · Multi-attribute consequence scoring · Control effectiveness assessment