DERISK UWA · ACTUARY · ACTUARIAL LOSS OUTPUT

Actuarial Loss Output

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Applicant: Aldermere Energy **Assessment date:** 2026-06-30 **Report generated:** 2026-11-05

Submission: Insurer questionnaire (116 items) plus three supporting audit documents

Classification: Sample report

Where the expected loss comes from, scenario by scenario, and how the indicated premium sits against it.

UNDERWRITING VERDICT

Quote with Conditions

18 conditions precedent · four void the policy ab initio if unmet

MODEL CONFIDENCE

0.78

High — IT and OT evidence weighed separately

MODELLED EXPECTED ANNUAL LOSS

USD 3.37M

Before conditions precedent credits

I · EXPOSURE ANCHORS

ATTRIBUTE	VALUE
Annual global revenue (USD)	$1,429,000,000
ICS/OT cyber assets discovered	14,000
Estimated equipment replacement value (USD)	$16,230,000,000
Revenue loss per hour of OT downtime (USD)	$13,059,360
Third-party IR hourly rate (USD)	$2,500 per person

Aldermere Energy operates a large and geographically distributed OT environment spanning wind turbine farms and natural gas-fired generation facilities. The scale of the asset base (14,000 discovered ICS/OT assets, $16.23B equipment replacement value) and the $13.06M/hour revenue exposure at risk from OT downtime place this submission in the highest tier of financial exposure for OT cyber insurance. The submission was evaluated fresh for this run against NIST SP 800-82 Rev.3 and IEC 62443 frameworks.

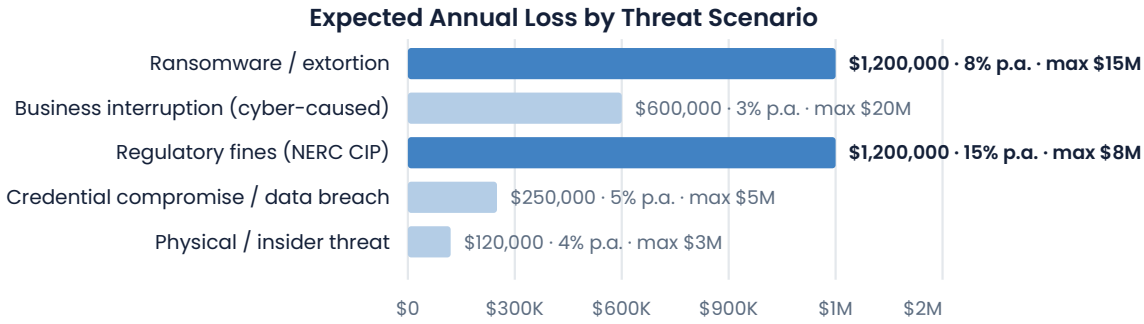
II · RISK TIER AND POSTURE INPUTS

TIER 3 — HIGH RISK. Overall OT risk score: 6.8 / 10. NIST CSF Protect maturity: 0.65. IEC 62443 SL2 compliance: 0.68. IEC 62443 SL3 compliance: 0.52.

The HIGH tier is driven by nine CRITICAL findings (credential management, default passwords, lateral movement containment, physical access documentation, patch delays, access revocation delays, DCS baseline management, shared account passwords, vendor remote access control) and nine HIGH findings. The $16.23B equipment replacement value and $13.06M/hour revenue exposure amplify the financial consequence of each gap. Foundational controls (segmentation, DMZ, Layer-7 filtering, MFA remote access, dedicated OT IR plan) prevent a CRITICAL tier classification and support binding with conditions rather than decline.

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III · PROBABILITY OF EXPOSURE



THREAT SCENARIO	ANNUAL PROBABILITY	MAX EXPOSURE (USD)	EXPECTED LOSS (USD)	PRIMARY DRIVER
Ransomware / extortion	8%	$15,000,000	$1,200,000	Unpatched vulnerabilities; default credentials; no OT zone firewall rules
Business interruption (cyber-caused)	3%	$20,000,000	$600,000	$13.06M/hour revenue exposure; DCS recovery untested since 2022
Regulatory fines (NERC CIP)	15%	$8,000,000	$1,200,000	3 active PNCs with High VRF; WECC audit scheduled Q1 2027
Credential compromise / data breach	5%	$5,000,000	$250,000	Default passwords not changed; shared accounts; <6-month log retention
Physical / insider threat	4%	$3,000,000	$120,000	Unlocked telemetry building; non-functional motion detection; no security guards

Probability and exposure estimates are indicative, derived from the OT risk assessment and supporting audit evidence. The highest expected loss drivers are ransomware/extortion and regulatory fines, each at USD 1.2M annually. The $13.06M/hour revenue exposure means even a 2-hour OT outage exceeds the recommended business interruption deductible. Total modelled expected annual loss is approximately USD 3.37M before conditions precedent credits.

IV · PREMIUM AGAINST EXPECTED LOSS

MEASURE	VALUE
Modelled expected annual loss (before credits)	USD 3,370,000
Indicative annual premium — low	USD 2,850,000
Indicative annual premium — midpoint	USD 3,500,000 (≈ 0.25% of revenue)
Indicative annual premium — high	USD 4,200,000
Premium factors	Base 2.1 × risk adjustment 1.35 × conditions credit 0.75
Mitigation credits available on full compliance	Up to 63% of premium
Estimated remediation cost vs annual premium reduction	USD 1.57M vs USD 2.21M

The actuarial set at this tier is the scenario-level expected-loss view above. The full actuarial set — EAL, VaR, OEP/AEP curves and MFL from 100,000 Monte Carlo simulations — is produced on the Professional tier, where the insurer's own actuarial model can also be substituted on Enterprise.

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V · CONCLUSION & RISK OPINION

Final professional judgment

Aldermere Energy presents an insurable risk profile at the HIGH tier, supported by mature foundational OT security controls that are partially offset by critical operational gaps in credential management, network segmentation, physical security, and regulatory compliance. The organization's scale ($16.23B equipment value, $13.06M/hour revenue exposure, 14,000 OT assets) and active NERC CIP violations create elevated but quantifiable risk. The recommended Quote with Conditions decision is appropriate provided the four policy-voiding conditions are met within 30–45 days and all 18 conditions precedent are satisfied within their respective deadlines.

Acceptability assessment

ACCEPTABLE WITH CONDITIONS. Risk is insurable at the recommended premium range of USD 2,850,000–4,200,000 annually (indicative) subject to 18 conditions precedent, quarterly compliance certification, and annual third-party security assessment. Policy void ab initio if any of the four CRITICAL conditions are not met by their deadlines. Senior underwriting review and written explanation of questionnaire-audit contradictions required before binding.

This evaluation was generated fresh for this run (both OT risk evaluation and UW policy evaluation). The confidence score of 0.78 reflects high confidence in findings with explicit questionnaire evidence and supporting audit documentation, partially offset by material contradictions between self-reported questionnaire responses and third-party audit evidence. Third-party validation of all material representations is recommended prior to binding. The next scheduled review point is the WECC NERC CIP audit (Q1 2027), which should trigger a mid-term policy review.

Attribution and review

This assessment was produced by DeRISK UWA from the submission as received — the questionnaire and three supporting audit documents — with no contact with the applicant. Every finding traces to its questionnaire item or document, pipeline step and model version. It is decision support for a licensed underwriter and actuary: underwriter review is mandatory before any quote is issued or bound. Submission data was processed session-only and purged after this report was generated.

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