LodeIQ

Risk Assessment - Lithium Supply-Base FEOC Exposure

Report ID	LIQ-SHOWCASE-RISK-ASSESSMENT-LITHIUM-
Generated	2026-07-23 18:26:23 UTC
Shape	Risk Assessment
Confidence	LOW (limited data coverage, primarily estimated or AI-inferred)
Sections	9

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Beat 1 - Scope & Framing

Subject: The lithium supply base visible in our data - 65 producer records spanning 12 producing countries - assessed for exposure to the IRA §30D Foreign Entity of Concern (FEOC) framework and its successor, the §45X/§45Y/§48E Prohibited Foreign Entity (PFE) regime enacted by the One Big Beautiful Bill Act (OBBBA, Pub. L. 119 - 21, signed 2025 - 07 - 04).

Regulatory context: The §30D Clean Vehicle Credit was terminated by OBBBA §70502 for vehicles acquired after 2025 - 09 - 30. The FEOC concept it embodied - covered nations China, Russia, North Korea, and Iran; 25% ownership threshold - was carried forward and broadened into the PFE regime. Under §45X, a Specified Foreign Entity (SFE) or Foreign-Influenced Entity (FIE) cannot claim the advanced-manufacturing production credit at all (taxpayer-level bar, effective for tax years beginning after 2025 - 07 - 04); a Material Assistance Cost Ratio (MACR) supply-chain test phases in from 2030. IRS Notice 2026 - 15 (2026 - 02 - 12) is interim guidance - definitive PFE definitions and MACR safe-harbor thresholds await forthcoming Treasury regulations. (Per US Treasury FEOC Final Rule, 89 FR 37706; IRS Notice 2026 - 15; OBBBA Pub. L. 119 - 21.)

Timeframe: Assessment date 2026 - 07 - 23; forward horizon 18 - 36 months (through mid-2028), covering the MACR phase-in runway and the period before §45X critical-minerals credits begin phasing down (2031).

Geography: 12 producing countries in our data; capacity concentration computed over 14 sub-national and national jurisdictions. Supply-route data covers six trade flows (EU Comext / Eurostat, MEDIUM confidence); volume figures are absent for all six routes.

Data quality: Of the 65 producer records, nine are confirmed operating, two are ramping up, one is operating on Train 1 only, two are discontinued, one is idle/planned, and 50 carry no operational-status tag. Thirteen records were excluded as off-topic (aviation safety, consumer product standards, FTZ site notices, Superfund remediation). Seven self-referential sources were reattributed. Multiple facility-level capacity figures were stepped down from HIGH to MEDIUM confidence by SME ruling (2026 - 07 - 20, #875/#884) because the underlying citations were USGS national aggregates, not facility-level disclosures - those figures are used directionally, not as precise tonnages.

Beat 2 - Key Assumptions Check

#	Load-bearing assumption	What it rests on	Implication if wrong
1	The 25% ownership threshold under 26 U.S.C. § 7701(a) (51) is the operative FEOC/PFE test	IRS Notice 2026 - 15 commentary; US Treasury Final Rule 89 FR 37706	If Treasury's forthcoming regulations adopt a lower threshold or a broader "subject to direction" test, actors currently assessed NON_FEOC (e.g., SQM with Tianqi at ~22%) could be reclassified
2	Tianqi Lithium's stake in SQM is below 25% and declining	SQM Jan-2026 6-K; Tianqi Feb-2026 divestiture announcement of an additional 1.25% (-> ~22% and declining) - per SME batch-4 ruling, synced 2026 - 07 - 23	If Tianqi reverses divestiture or a threshold re-test applies at a lower level, SQM's two Antofagasta facilities (Salar de Atacama brine and Salar de Carmen/Antofagasta plant) could shift to FEOC-ambiguous
3	Eramet's 100% ownership of Eramine Sudamerica (Centenario-Ratones) is complete and Tsingshan holds no residual interest	Eramet press release + GlobeNewswire, 2024 - 10 - 24 buyback; SME batch-4 ruling 2026 - 07 - 23	If any residual Tsingshan contractual right (offtake, board observer, option) survived the buyback and constitutes "direction," the facility's NON_FEOC status would require re-examination
4	Glencore's acquisition of Li-Cycle assets (completed 2025 - 08 - 08) renders the Li-Cycle recycling nodes NON_FEOC	Trade-press corroboration (ESGDive, Recycling Today, WXXI/WHEC, rbj.net); SME-corrected 2026 - 07 - 20	If the Rochester Hub restart fails or Glencore restructures the asset, the recycling capacity contribution to non-FEOC supply drops further

5	The MACR safe-harbor thresholds (governing supply-chain material assistance from PFEs) will be set at levels that allow current non-FEOC operators to continue qualifying	IRS Notice 2026 - 15 - defers definitive thresholds to forthcoming regulations	If MACR thresholds are set tightly, even non-FEOC operators sourcing Chinese-processed intermediates (e.g., lithium carbonate converted in China before export) could face credit disqualification
6	Capacity shares in our data represent a reasonable directional proxy for supply-chain exposure	Computed rollup over 14 jurisdictions; multiple facility figures are MEDIUM-confidence USGS-derived estimates	If Chinese-operated refining capacity is materially larger than our data captures (a known gap - refining concentration is explicitly noted as higher than mine-production concentration), FEOC exposure at the processing stage is understated

Beat 3 - Threats & Likelihood x Impact

#	Threat vector	ICD-203 Likelihood	Impact tier	Basis
T1	Chinese-controlled operators disqualify §45X credits - CATL-Shenghua, BYD FinDreams, EVE Energy, Gotion, Hunan Yuneng, Hubei Wanrun, Shenzhen Dynanonic all assessed FEOC/PFE-positive in our data; any US manufacturer sourcing from these actors faces taxpayer-level credit bar	Almost Certain (95 - 99%) *for the bar applying to direct sourcing from these named entities*	CATASTROPHIC - full §45X credit loss for affected manufacturers	SZSE/HKEX filings per operator records; IRS Notice 2026 - 15; OBBBA Pub. L. 119 - 21
T2	Tianqi Lithium stake in SQM breaches or re-approaches the 25% threshold - currently ~22% and declining per SQM Jan-2026 6-K + Tianqi Feb-2026 divestiture announcement; if divestiture reverses or a new acquisition occurs	Very Unlikely (05 - 20%) *over 18-month horizon given active divestiture trajectory*	HIGH - SQM's Antofagasta capacity (16.7% of our 14-jurisdiction supply base) would shift to FEOC-ambiguous, disrupting a major non-FEOC source	SQM Jan-2026 6-K; Tianqi Feb-2026 divestiture a nnouncemen t; SME batch-4 ruling 2026 - 07 - 23
T3	Greenbushes / Tianqi Kwinana FEOC ambiguity crystallizes against operators - Tianqi Lithium (SZSE:002466/HKEX:9696, controlled by Chengdu Tianqi Industry Group / Jiang family) operates Greenbushes mine and Kwinana processing plant (Train 1 only); operating-control test under 26 CFR § 1.30D-6 is explicitly flagged as ambiguous in our data	Roughly Even Chance (45 - 55%) *that Treasury's forthcoming MACR/PFE regulations resolve the operating-control test in a way that captures Tianqi-operated facilities*	HIGH - Greenbushes is the world's largest hard-rock lithium mine in our data (160,000 t/yr nameplate, MEDIUM confidence); Kwinana is 24,000 t/yr LiOH (Train 1)	Tianqi Kwinana record; Gree nbushes record; 26 CFR § 1.30D-6 cited in Tianqi Kwinana feo c_methodolo gy
T4	Bikita Mine (Zimbabwe) FEOC exposure via Sinomine - operated by Sinomine Resource Group Co. Ltd. (SZSE:002738, controlled by founder Wang Pingwei, PRC national); Zimbabwe carries the highest geopolitical risk score in our data (65) and lowest governance score (30)	Likely (55 - 80%) *that Sinomine-operated output is treated as FEOC-positive under PFE regime*	MEDIUM - capacity figure is 25,000 t/yr (MEDIUM confidence, SME step-down); Zimbabwe share of our supply base is 0.9%	Bikita record; Sinomine operator entry; produc ing-countries record for Zimbabwe

T5	Mt Marion FEOC ambiguity unresolved - the facility name in our data explicitly flags "FEOC-AMBIGUOUS - 50% Pilbara / 50% Ganfeng"; Ganfeng Lithium (SZSE:002460/HKEX:1772, controlled by founder Li Liangbin, PRC national) holds 50%; no capacity figure or operator detail is present in the record	Roughly Even Chance (45 - 55%) *that a 50% Ganfeng stake triggers operating-control FEOC finding under forthcoming regulations*	MEDIUM - no capacity figure in our data; Western Australia share of our supply base is 60.2% and Mt Marion is one of several WA assets	Mt Marion record; Ganfeng operator entries across multiple records
T6	Cauchari-Olaroz FEOC posture turns on operating-control test - Ganfeng Lithium holds a stake in the JV (our data states ~14%, sub-25%, per Lithium Argentina AG's feoc_methodology); the facility's own record flags that "FEOC posture turns on operating-control test under 26 CFR § 1.30D-6"	Unlikely (20 - 45%) *given Ganfeng's stated sub-25% stake, but operating-control analysis under forthcoming MACR rules could still capture it*	MEDIUM - 40,000 t/yr nameplate; Jujuy share of our supply base is 3.1%	Cauchari-Olaroz record; Lithium Argentina AG operator entry; Ganfeng operator entry
T7	MACR thresholds set tightly, capturing non-FEOC operators with Chinese-processed intermediates - IRS Notice 2026 - 15 defers definitive MACR safe-harbor thresholds; if set below the share of Chinese-processed lithium carbonate/hydroxide in global midstream supply, non-FEOC miners exporting through Chinese converters could be disqualified	Unlikely (20 - 45%) *given IRS's stated intent to provide workable safe harbors, but regulatory text is not yet final*	HIGH - would affect a broad swath of the non-FEOC supply base that currently relies on Chinese midstream processing	IRS Notice 2026 - 15; OBBBA Pub. L. 119 - 21
T8	Residual Tsingshan interest at Centenario-Ratones - our data states Eramet holds 100% since 2024 - 10 - 24 buyback; SME ruling explicitly notes the prior JV facts "went stale" and flags the lesson that SME-stamped nodes need periodic re-verification	Very Unlikely (05 - 20%) *given the Eramet press release and GlobeNewswire corroboration, but contractual residuals are not ruled out*	LOW-MEDIUM - 24,000 t/yr nameplate; Salta share of our supply base is 0.9%	Eramine Sudamerica record; Eramet press release + GlobeNewswire 2024 - 10 - 24

Beat 4 - Ranked Exposures

Concentration baseline: Across the 14 jurisdictions in our data, the supply-base Herfindahl-Hirschman Index is 3,985, classified HIGH (DOJ/FTC bands: >=2,500 = HIGH). Western Australia alone accounts for 60.2% of capacity in our data; the top three jurisdictions (Western Australia, Antofagasta, United States) account for 83.5% of capacity in our data. These are shares of the 14-jurisdiction supply base in our data - not global shares. (Per computed rollup, methodology: HHI = (share^2); DOJ/FTC bands.)

Rank	Exposure	Magnitude driver	FEOC/PFE verdict	Reliability
1	Chinese-controlled battery-material operators (CATL-Shenghua, BYD FinDreams, EVE Energy, Gotion High-Tech, Hunan Yuneng, Hubei Wanrun, Shenzhen Dynanonic)	Seven facilities confirmed operating in China; all operators assessed FEOC/PFE-positive at HIGH confidence; no capacity figures available for most, but operational status is confirmed	FEOC-POSITIVE (HIGH confidence across all seven operator assessments)	No NATO Admiralty tag - reliability grades not present in these records for most; CATL-Shenghua sourced from SZSE filing (2025 - 09 - 15, HIGH confidence); BYD from HKEX (2024 - 12 - 31, MEDIUM); EVE Energy from SZSE (2026 - 04 - 23, MEDIUM); Gotion, Hubei Wanrun, Hunan Yuneng, Shenzhen Dynanonic from LodeIQ canonical source map (MEDIUM, primary source not captured)

2	Greenbushes Lithium Mine (Western Australia) - Tianqi Lithium operator	160,000 t/yr nameplate (MEDIUM confidence, SME step-down); Western Australia is 60.2% of our supply base; Tianqi Lithium (SZSE:002466/HKEX:9696) controlled by Chengdu Tianqi Industry Group (Jiang family, PRC nationals)	FEOC-AMBIGUOUS - operating-control test under 26 CFR § 1.30D-6 not resolved; Tianqi is the operator per our data	No NATO Admiralty tag; sourced from USGS MCS 2024 / NRCan (MEDIUM confidence post step-down)
3	Tianqi Lithium Kwinana Plant (Western Australia) - Train 1 operating	24,000 t/yr LiOH nameplate; Tianqi Lithium and Tianqi Lithium Corporation both listed as operators; IGO Ltd. (ASX, 49%) is the JV partner; operating-control test explicitly flagged as ambiguous in our data	FEOC-AMBIGUOUS - "Tianqi parent Chinese-controlled (HKEX 9696 / SZSE 002466); IGO 49% Australian-listed JV partner. Operating-control test under 26 CFR § 1.30D-6 ambiguous" (per facility record)	No NATO Admiralty tag; sourced from IGO Ltd. ASX 2024 Annual Report (2024 - 08 - 30, HIGH confidence)
4	Mt Marion (Western Australia) - 50% Ganfeng stake	No capacity figure in our data; Western Australia is 60.2% of our supply base; Ganfeng Lithium (SZSE:002460/HKEX:1772, controlled by Li Liangbin, PRC national) holds 50% per facility name	FEOC-AMBIGUOUS - explicitly flagged in facility name; no operator detail or capacity in the record	No NATO Admiralty tag; sourced from MIN ASX 2024 Annual Report (2024 - 08 - 28, HIGH confidence)
5	Jiangxi Ganfeng Refinery (Jiangxi, China)	100,000 t/yr nameplate (MEDIUM confidence, SME step-down; SME notes name is ambiguous and site identity unverified); Ganfeng Lithium (SZSE:002460/HKEX:1772, controlled by Li Liangbin, PRC national) is the operator	FEOC-POSITIVE (operator HIGH confidence); facility capacity MEDIUM confidence	No NATO Admiralty tag; sourced from USGS MCS 2024 / NRCan (MEDIUM confidence post step-down)
6	Bikita Lithium Mine (Masvingo, Zimbabwe)	25,000 t/yr nameplate (MEDIUM confidence, SME step-down); operated by Sinomine Resource Group Co. Ltd. (SZSE:002738, controlled by founder Wang Pingwei, PRC national); Zimbabwe geopolitical risk score 65, governance score 30 - highest risk jurisdiction in our data	FEOC-POSITIVE (operator HIGH confidence); facility capacity MEDIUM confidence	No NATO Admiralty tag; sourced from USGS MCS 2024 / NRCan (MEDIUM confidence post step-down)
7	Cauchari-Olaroz (Jujuy, Argentina) - Ganfeng JV stake	40,000 t/yr nameplate; Ganfeng Lithium holds a stake stated as ~14% (sub-25%) per Lithium Argentina AG's operator entry; JEMSE (Argentine provincial SOE, NON_FEOC) also holds equity; operating-control test flagged	FEOC-AMBIGUOUS - "FEOC posture turns on operating-control test under 26 CFR § 1.30D-6" (per facility record); Lithium Argentina AG assessed NON_FEOC at HIGH confidence	No NATO Admiralty tag; no source name on facility record (honest absence)

8	ICL-Dynanonic Sallent (Spain) - Shenzhen Dynanonic JV	No capacity figure; pre-production (JV agreement 2025); Shenzhen Dynanonic (SZSE:300769, controlled by founder Xue Wenji + CN institutionals) is one of two operators; ICL Group (NYSE:ICL/TASE:ICL, Israel, NON_FEOC) is the other	FEOC-POSITIVE for Dynanonic's share of the JV (HIGH confidence); ICL share NON_FEOC; JV-level FEOC posture depends on operating-control allocation	No NATO Admiralty tag; sourced from OTHER ICL-Dynanonic-Sallent-2025 (2025 - 10 - 01, HIGH confidence)
9	Chengxin Lithium Sabi Star (Zimbabwe) and Zhejiang Huayou Cobalt Arcadia (Zimbabwe)	No capacity figures; no operator detail in either record; country not stated for Chengxin record	FEOC status indeterminate - no operator fields populated; honest absence	No NATO Admiralty tag; Chengxin sourced from SZSE 002240 (2025 - 04 - 30, MEDIUM); Huayou from SSE 603799 (2025 - 04 - 30, MEDIUM)
10	Multiple Canadian entities with LOW-confidence FEOC assessments (American Lithium Energy, E3 Lithium, Frontier Lithium, Nano One Materials, Patriot Battery Metals, COREM)	No capacity figures; FEOC methodology flagged as "Sprint 1A scaffold default; SME stamp pending" for five of the six	FEOC status indeterminate - LOW confidence, SME stamp pending	No NATO Admiralty tag; sourced from SEDAR+ (HIGH confidence on filing existence, not on FEOC determination)

Key non-FEOC anchors in our data (for contrast):

- Albemarle Corporation (NYSE:ALB, US-domiciled): assessed NON_FEOC at HIGH confidence across Kemerton, La Negra, Silver Peak, Wodgina, and Kings Mountain - the largest non-FEOC operator by named facility count in our data. (Per Albemarle 2024 10-K; SEC-10K 0000915913 - 25-.)
- SQM (Salar de Atacama brine and Salar de Carmen/Antofagasta plant): assessed NON_FEOC at HIGH confidence; Tianqi's ~22% stake is below the 25% threshold and declining per SQM Jan-2026 6-K + Tianqi Feb-2026 divestiture announcement. The NovaAndino Litio JV with Codelco (50%+1 golden share, closed 2025 - 12 - 27) covers Salar de Atacama scope; whether it extends to the Salar de Carmen downstream plant is not publicly confirmed - renders must hedge at the facility level. (Per SEC-20F 0000909037 - 25-; SME batch-4 ruling 2026 - 07 - 23.)
- Rio Tinto plc (UK-domiciled): assessed NON_FEOC at HIGH confidence for Salar de Olaroz and Salar del Hombre Muerto Fénix post-2025 - 03 - 06 Arcadium acquisition; precise post-acquisition cap-table not yet disclosed per SME §5.5 MEDIUM hedge. (Per ASX-Announcement RIO ASX 2025 - 03 - 06.)
- Eramet S.A. (France, Euronext Paris): assessed NON_FEOC at HIGH confidence for Centenario-Ratones following 100% buyback of Tsingshan's 49.9% stake (2024 - 10 - 24). (Per Eramet press release + GlobeNewswire 2024 - 10 - 24.)

Beat 5 - Analysis of Alternatives

Alternative 1 - Treasury sets a broad operating-control test that captures Tianqi-operated facilities (upside FEOC exposure scenario)

If forthcoming PFE/MACR regulations define "operating control" to include cases where a Chinese-controlled entity manages day-to-day operations regardless of equity stake, Greenbushes and Kwinana would shift from FEOC-ambiguous to FEOC-positive. This would remove the largest single node in our supply base (Greenbushes, 160,000 t/yr nameplate, MEDIUM confidence) from the non-FEOC pool. Western Australia's 60.2% share of our supply base would be partially compromised. The Cauchari-Olaroz operating-control question would also resolve against the operator. This is the worst-case scenario for non-FEOC lithium availability in our data.

Alternative 2 - Tianqi divestiture from SQM accelerates, Greenbushes ownership restructures toward IGO (downside FEOC exposure scenario)

If Tianqi continues divesting its SQM stake below any plausible threshold and separately restructures Greenbushes ownership to reduce its operating role, both the SQM and Greenbushes ambiguities resolve in favor of NON_FEOC. This would significantly expand the clean supply base. The probability of this outcome is supported by the active divestiture trajectory documented in our data (SQM Jan-2026 6-K; Tianqi Feb-2026 announcement) but is not certain - Tianqi's Greenbushes operating role is a separate question from its SQM equity stake.

Alternative 3 - MACR safe-harbor thresholds are set permissively, but Chinese midstream processing remains the dominant conversion pathway

If Treasury sets MACR thresholds at levels that allow non-FEOC miners to use Chinese converters up to a defined cost-ratio ceiling, the near-term supply disruption is limited. However, the structural dependency on Chinese lithium carbonate/hydroxide conversion - which our data explicitly flags as a gap ("refining/processing concentration is materially higher" than mine-production concentration, per USGS MCS 2025 Lithium chapter) - persists. This alternative implies a medium-term compliance window but a long-term vulnerability that the MACR phase-in from 2030 will eventually close.

Alternative 4 - OBBBA §45X credit phase-out accelerates investment decisions away from US-qualifying supply chains

The §45X critical-minerals credit phases to zero after 2033 under OBBBA (per IRS Notice 2023 - 44 / 26 USC §45X as amended). If manufacturers front-load investment decisions in the 2026 - 2029 window to capture the full credit, demand for FEOC-clean lithium spikes in the near term, tightening the non-FEOC supply base. Conversely, if manufacturers discount the credit's value given the phase-out trajectory, the urgency of FEOC compliance diminishes and Chinese-controlled supply remains commercially attractive despite the taxpayer-level bar.

Beat 6 - Mitigations & Triggers

Mitigations ranked by lead time (shortest to longest):

Lead time	Mitigation	Action
Immediate (0 - 3 months)	Map all direct procurement against the seven confirmed FEOC-positive Chinese operators in our data; cease or restructure any direct sourcing that would trigger the §45X taxpayer-level bar	Operational; no capital required
Near-term (3 - 12 months)	Commission legal analysis of the operating-control test as applied to Greenbushes and Kwinana under 26 CFR § 1.30D-6 and forthcoming MACR regulations; obtain written FEOC opinions for Cauchari-Olaroz and Mt Marion	Legal/advisory; moderate cost
Medium-term (12 - 24 months)	Diversify toward confirmed NON_FEOC sources: Albemarle's Kemerton and La Negra facilities (HIGH confidence); SQM's Antofagasta operations (HIGH confidence, subject to Tianqi stake monitoring); Rio Tinto's Salar de Olaroz and Hombre Muerto Fénix (HIGH confidence, cap-table verification pending); Eramet's Centenario-Ratones (HIGH confidence post-buyback)	Procurement/offtake; 12 - 24 month contracting lead time
Medium-term (12 - 24 months)	Monitor Thacker Pass (Nevada, 40,000 t/yr nameplate, MEDIUM confidence) and Kings Mountain (North Carolina, 50,000 t/yr nameplate, MEDIUM confidence) construction progress - both operated by confirmed NON_FEOC operators (Lithium Americas Corp. and Albemarle respectively) and would add domestic supply	Capital/project monitoring; no direct action required
Long-term (24 - 48 months)	Engage with Treasury's MACR rulemaking process to ensure safe-harbor thresholds are workable for non-FEOC operators that currently rely on Chinese midstream conversion; support development of non-Chinese lithium hydroxide conversion capacity (Kwinana Train 2, Mt Holland/Covalent ramp-up)	Policy/regulatory engagement; capital-intensive

"What would change my mind" triggers:

Trigger 1 - Tianqi SQM stake re-approaches 25%
Bound to: Tianqi Lithium's disclosed equity stake in SQM as reported in SQM's SEC 6-K filings or Tianqi's SZSE/HKEX announcements.

Threshold: Tianqi's stake rises above 23% (approaching the 25% §7701(a) (51) threshold) in any quarterly disclosure.
Direction: Upward movement from the current ~22% declining trajectory.
What it fires into: Immediate reclassification of SQM Salar de Atacama and Salar de Carmen/Antofagasta from NON_FEOC to FEOC-AMBIGUOUS; escalation of Cauchari-Olaroz operating-control analysis; re-rating of Antofagasta's 16.7% supply-base share as at-risk.

Trigger 2 - Treasury finalizes MACR safe-harbor thresholds below 30% Chinese-origin cost ratio
Bound to: IRS/Treasury final regulations implementing IRS Notice 2026 - 15 (material assistance / prohibited foreign entity guidance for §45X, §45Y, §48E).
Threshold: Published MACR safe-harbor set below 30% of eligible-component production costs attributable to PFE-sourced material assistance.
Direction: Tighter than the interim guidance's deferral implies.
What it fires into: Immediate re-assessment of all non-FEOC operators that source lithium carbonate or hydroxide through Chinese converters; potential reclassification of a material portion of the non-FEOC supply base as non-qualifying for §45X credits.

Trigger 3 - Greenbushes operating-control ruling
Bound to: Any IRS private letter ruling, Treasury guidance, or published FEOC/PFE opinion addressing Tianqi-operated facilities with non-Chinese JV partners.
Threshold: Any authoritative ruling that a Chinese-controlled operator triggers the PFE bar regardless of equity split.
Direction: Adverse ruling.
What it fires into: Reclassification of Greenbushes (160,000 t/yr, MEDIUM confidence) and Kwinana (24,000 t/yr) from FEOC-AMBIGUOUS to FEOC-POSITIVE; immediate re-rating of Western Australia's 60.2% supply-base share as partially compromised.

Beat 7 - Confidence & Outlook

Three-axis rating *(Per CFA ROS § 11.0 - Oct 2004.)*

Axis	Rating
Recommendation certainty	MEDIUM
Time horizon	18 - 36 months
Risk exposure	HIGH

Drivers of confidence:

- Operator-level FEOC determinations for the seven confirmed Chinese-controlled facilities are grounded in SZSE, HKEX, and SEDAR filings at HIGH confidence.
- Albemarle's NON_FEOC status is grounded in SEC 10-K filings at HIGH confidence across multiple facilities.
- SQM's NON_FEOC status is grounded in SEC 20-F and SQM Jan-2026 6-K at HIGH confidence, with a specific, dated, declining Tianqi stake figure.
- Eramet's 100% ownership of Centenario-Ratones is grounded in a named press release (GlobeNewswire, 2024 - 10 - 24) at HIGH confidence.
- The regulatory framework (OBBBA, IRS Notice 2026 - 15, 26 USC §45X) is well-documented at HIGH confidence.

Drivers capping confidence:

- Fourteen of 65 producer records carry no operational-status tag; capacity figures for multiple key facilities (Greenbushes, Pilgangoora, Bikita, Jiangxi Ganfeng, Kings Mountain, Thacker Pass) were stepped down to MEDIUM confidence by SME ruling because the underlying citations are USGS national aggregates, not facility-level disclosures.
- The MACR safe-harbor thresholds - the most consequential forward-looking regulatory variable - are explicitly deferred to forthcoming Treasury regulations; IRS Notice 2026 - 15 is interim only.
- Chinese midstream processing concentration is explicitly flagged as a gap in our data: "refining/processing concentration is materially higher for cobalt and graphite and must be stored in a separate field" (USGS MCS 2025 Lithium chapter). The same dynamic likely applies to lithium hydroxide conversion, but no facility-level refining concentration data is present in our records.

- Six trade-route records carry no volume figures; the supply-route picture is directional only.
- Two Zimbabwe facilities (Chengxin Sabi Star, Huayou Arcadia) have no operator detail - FEOC status is indeterminate.
- Five Canadian entities carry LOW-confidence FEOC assessments ("Sprint 1A scaffold default; SME stamp pending").

Freshness: Producer records were last reviewed 2026 - 07 - 20 to 2026 - 07 - 23 (SME batches #875, #884, #889). SQM operator entries were synced 2026 - 07 - 23. Eramet/Centenario-Ratones was corrected 2026 - 07 - 20. Li-Cycle nodes were corrected 2026 - 07 - 20. The Tianqi/SQM stake figure is from SQM's Jan-2026 6-K - approximately six months old at assessment date; a fresh 6-K should be checked at next quarterly filing.

Half-life: This assessment should be re-run within 90 days of any Treasury publication of final MACR/PFE regulations, any SQM quarterly 6-K showing Tianqi stake movement, or any IRS ruling on operating-control tests for Chinese-operated JV facilities.

Data Limitations & Confidence

1. Capacity figures: Multiple facility-level tonnages (Greenbushes 160,000 t/yr, Pilgangoora 68,000 t/yr, Bikita 25,000 t/yr, Jiangxi Ganfeng 100,000 t/yr, Kings Mountain 50,000 t/yr, Thacker Pass 40,000 t/yr) are MEDIUM confidence following SME step-downs - the underlying citations are USGS national aggregates. Re-sourcing against operator IR filings is pending (#884 campaign). These figures are used directionally; precise tonnage-based FEOC exposure quantification is not possible at current data quality.
2. Chinese midstream processing: Our data explicitly states that refining/processing concentration is materially higher than mine-production concentration for lithium. No facility-level refining concentration data is present. The FEOC exposure at the conversion/refining stage is therefore understated in this assessment.
3. Trade-route volumes: All six route records carry null volume figures. The magnitude of Chinese-origin lithium flowing into US supply chains cannot be quantified from our data.
4. Zimbabwe operators (Chengxin, Huayou): No operator detail is present in either record. FEOC status is indeterminate. These would raise confidence if operator filings (SZSE 002240, SSE 603799) were reviewed for ownership structure.
5. Canadian scaffold entities: Five entities (American Lithium Energy, E3 Lithium, Frontier Lithium, Nano One Materials, Patriot Battery Metals) carry LOW-confidence FEOC assessments pending SME stamp. These are pre-production or development-stage; near-term supply impact is limited but forward planning requires resolution.
6. MACR thresholds: The most consequential forward variable is not yet in our data - Treasury has not published final MACR safe-harbor thresholds. This is the single largest gap for forward-looking compliance planning.
7. SQM/NovaAndino JV scope: Whether the Codelco-SQM NovaAndino Litio JV (closed 2025 - 12 - 27, Salar de Atacama scope) extends to the Salar de Carmen/Antofagasta downstream conversion plant is not publicly confirmed. This hedge must be carried in any facility-level FEOC render for that plant.

Methodology

This assessment is a single-pass synthesis over the cited records in the source packet. All factual claims are grounded in named record fields; no external knowledge was introduced. Concentration metrics are taken directly from the computed rollup (HHI 3,985, top-1 share 60.2%, top-3 share 83.5%, 14 entities) without recomputation. FEOC/PFE verdicts are derived from operator-level methodology fields, cited to the operator's own records. Hedges, caveats, and reviewer annotations present in the source records are carried forward without flattening. Honest absences are stated in plain language where data is missing.

This product is intelligence, not investment advice. It reflects the state of the cited records as of 2026 - 07 - 23 and should not be relied upon as legal guidance on FEOC or PFE compliance. Readers should obtain independent legal counsel for compliance determinations under 26 U.S.C. § 7701(a) (51), IRS Notice 2026 - 15, and forthcoming Treasury MACR regulations.

Figures

Figure 1: Supply - market concentration (HHI)

Source: LodeIQ computed rollup over 156 packet records (90 sources: USGS Mineral Commodity Summaries 2025 - Lithium chapter; Albemarle 2024 10-K - Kemerton operations; SEC-10K 0000915913 - 25- (2025 - 02 - 12); +87 more).
Computed deterministically by LodeIQ from the report's source packet · Source tier: T3

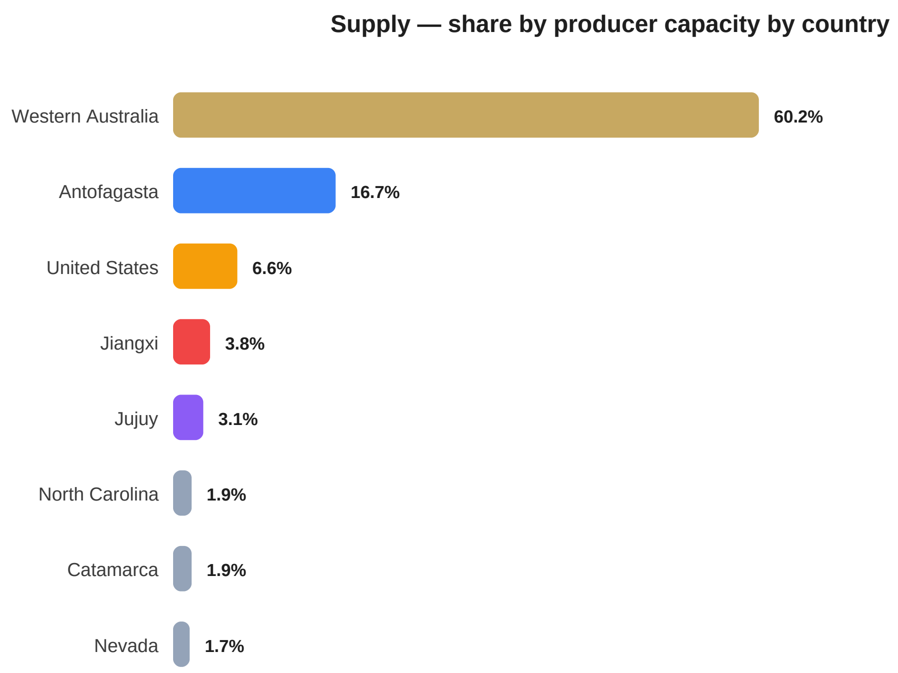

Figure 2: Supply - share by producer capacity by country

Source: LodeIQ computed rollup over 156 packet records (90 sources: USGS Mineral Commodity Summaries 2025 - Lithium chapter; Albemarle 2024 10-K - Kemerton operations; SEC-10K 0000915913 - 25- (2025 - 02 - 12); +87 more).
Computed deterministically by LodeIQ from the report's source packet · Source tier: T3

Supply — operational status

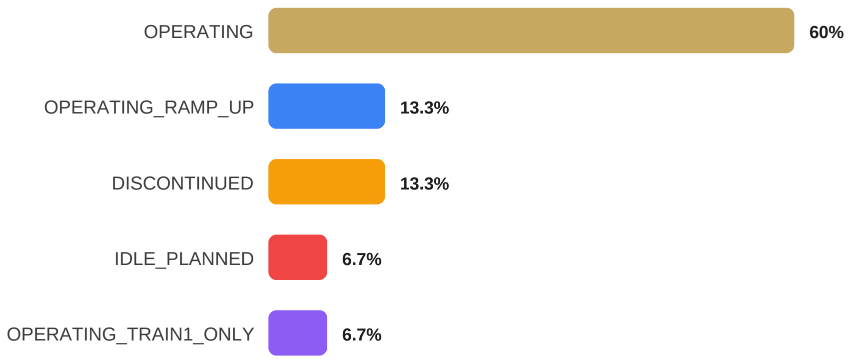

Figure 3: Supply - operational status

Source: LodeIQ computed rollup over 156 packet records (90 sources: USGS Mineral Commodity Summaries 2025 - Lithium chapter; Albemarle 2024 10-K - Kemerton operations; SEC-10K 0000915913 - 25- (2025 - 02 - 12); +87 more).
Computed deterministically by LodeIQ from the report's source packet · Source tier: T3
