

Methodology and Specifications for *Insight: Battery & Mining Projects Quarterly Database and Briefing*

Last Updated: December 2023

Introduction

Acuity Commodities (Acuity) regularly updates and reports on battery and mining projects in the US and Canada for *Acuity Insight: Battery & Mining Projects* quarterly database and accompanying briefing.

This Methodology and specifications guide is designed to give an overview of our general procedures and a clear description of how Acuity provides information for the database and briefing. This Methodology is routinely reviewed for accuracy, appropriateness, and relevance. It is reviewed annually at a minimum with the month and year of the most recent update included in the published Methodology. When conducting the review, Acuity will consider the views of relevant stakeholders.

Acuity's Methodology is publicly available on its website:

<https://www.acuitycommodities.com/methodologyandcompliance>. Market participants are encouraged to submit feedback on the Methodology, including recommending any important changes and suggestions. Feedback is welcome at any time and will be considered during the annual review at a minimum.

Outside of the annual review, there could be changes that result from factors such as adding content, or based on feedback from industry participants, as reviewed by co-founders Fiona Boyd and Freda Gordon. In addition, when Acuity is considering a content change, such as adding or retiring content, it posts a notice in the impacted report for several issues welcoming feedback from market participants.

Acuity ensures there is always more than one qualified employee who possesses the relevant levels of expertise for the database and briefing to maintain continuity.

General procedures

Acuity produces independent analysis on projects consuming, or expected to consume, chemical commodities in the battery and mining supply chain and other related industries. The specific chemical commodities include ammonia, caustic soda, chlorine, hydrochloric acid, soda ash, sulphur, and sulphuric acid. This analysis is based on company interviews, releases, announcements, and published technical and economic reports. Information is considered according to the most accurate sources as viewed by Acuity to keep accuracy of project information. In instances where a company source mentioned above is not attainable, some information is estimated based on comparable projects or collected from industry sources with knowledge of specific projects.

Acuity welcomes and encourages industry participants to submit data and information and ensures confidentiality of information that is submitted. Acuity will use the information as part of its independent analysis process at our discretion, which can involve discussion with additional industry participants without disclosing who submitted the initial information.

Data and information collected is stored on a secure network, according to Acuity's policies and procedures. We archive notes collected from all forms of market survey and keep record of how the information is derived. All documents, notes, and internal data are retained on a secure, internal drive for at least five (5) years.

When data is submitted, the following information is required. If omitted, it will be requested for it to be taken into consideration in any project analysis:

- Project (name, company, and location)
- Chemical commodity consumption or production as covered by Acuity including but not limited to ammonia, caustic soda, chlorine, hydrochloric acid, soda ash, sulphur, and sulphuric acid
- Volume size or estimate of chemical commodity consumption or production (in metric tonnes (t) or appropriate measure)
- Expected date of consumption or production unless the project is already producing in commercial quantities
- Any non-standard terms or other points of consideration, including project outlay considerations

Data is accepted via telephone, email, and other electronic communication and through face-to-face meetings. Contact info@acuitycommodities.com to start a submission, including "Information submission" in the subject line.

Acuity conducts a survey of industry participants through the communication methods described above. We seek to collect, confirm, and analyse as much information as possible by surveying a fair ratio of company spokespersons, industry experts, market participants, and other parties involved. The purpose of the survey process is to discover project information and updates which will be used to support the analysis in the database and briefing.

We expect any individual who is submitting project information to be familiar with Acuity's published Methodology and Compliance Manual. It is also assumed that any information submitter holds the necessary qualifications and experience to provide such information to Acuity. We reserve the right to bar any individual or company who purposefully report false or speculative information from submission in the future.

Any submitted data or information gathered through the survey and research process that meets Acuity's Methodology standards will be considered when completing our independent analysis. This includes scrutiny by Acuity to ensure information provided for analysis is bona fide, accurate, and in good faith.

When making a final analysis update or change, priority is given to fully verifiable and transparent information, such as company spokespersons, releases, announcements, published economic or technical reports and studies. This will be followed by outside sources including industry and market participants with knowledge of projects. Finally, estimates based on comparable projects will be used in cases where no other information is available. This survey process ensures projects are analysed consistently, which helps avoid risk of any key submitter dependency.

In *Acuity Insight: US & Canada Battery & Mining Projects* database, volumes of chemical commodities will be grouped by volume assessment. The volume groupings will be categorised and noted as follows on a tonnes per year (t/yr) basis:

- None (0) – not expected to use chemical commodities
- Unknown quantity (U) – chemical commodity quantity is not currently known
- Small (S) – below 5,000 t/yr
- Medium (M) – 5,000-25,000 t/yr
- Large (L) – 25,000-50,000 t/yr
- Extra Large (XL) – 50,000 t/yr and above

If volume groupings by project are confirmed by the company leading the project, this will be used in the database and noted in the briefing when appropriate. Additional coverage when appropriate will be included in the accompanying briefing to provide clarity of the data underpinning the database. Exact volumes may be included when confirmed by company spokesperson or publication.

Ultimately Acuity uses its professional judgment to support project findings which includes analyzing data and information to determine if it meets specific requirements and is not considered speculative. Acuity's updates and changes in the database will be reflected in our briefing published the last month of each quarter. Minor changes to the database may be omitted from briefing coverage by Acuity's judgement of its relevance.

The two co-founders of Acuity, Fiona Boyd and Freda Gordon, will oversee reviewing work of its other analysts on both the database and briefing. Boyd and Gordon have extensive experience in reporting through previous and current roles at price reporting agencies. Boyd began her coverage of the sulphur and sulphuric acid markets, including price assessments, in 2008 while Gordon commenced in 2010.

Information and data received and released between publication of the prior issue and current issue is considered when publishing the briefing and updating the database.

Acuity regularly reviews the competence and quality of its analysts through annual internal staff review and offers training to ensure assessors have the skills and tools to conduct analysis and assessments in a consistent and unbiased manner. Projects are documented by a master internal database, designed to let the analyst uncover, normalise, and verify updates, news, and analysis against the Acuity Methodology. This database will be subject to quarterly review by other approvers to ensure consistency and reliability throughout the Insights. Similarly, the briefing will also be reviewed internally before publication, on a quarterly basis.

Related prices are referred to in US dollars (\$) per metric tonne (t), unless otherwise noted. In certain cases, Acuity may convert its assessments to other currencies or units of measure for comparison purposes. Such conversion factors will accompany any such analysis.

Acuity probability and timing index

Acuity has created a probability and timing index to reflect project outlays, timing, and probability of completion to commercial production in our database and briefing. The index is assessed quarterly on a project-by-project basis and is published in *Insight: US & Canada Battery & Mining Projects* database with changes and updates noted in its accompanying briefing.

The index is assessed on intervals between 0% and 100%:

- **0%-20%** means early stages of project development, permitting, economic study, and planning
- **21%-40%** means project may hold some permits, economic or technical studies, and economic feasibility is recognised as probable
- **41%-60%** means some permits attained and economic feasibility is either recognised or proven
- **61%-80%** means most major permits attained and economic feasibility is proven
- **81%-100%** means project is fully permitted and under construction for commercial quantities, with 100% meaning the project is currently producing in commercial quantities

Related prices

Commodity prices related to the battery and mining supply chains are reported in Acuity's *Insight: US & Canada Battery & Mining Projects* briefing as follows:

- Gold futures – \$/troy ounce
 - This price represents gold futures price for the current contract month as settled on the previous business day prior to our briefing publication as posted by the Chicago mercantile exchange (CME).
- Lithium hydroxide (LiOH) futures – \$/t CIF
 - This price represents the lithium hydroxide futures price for the current contract month as settled on the previous business day prior to our briefing publication as posted by the Chicago Mercantile Exchange (CME).

- Lithium carbonate (Li_2CO_3) futures – \$/t FOB
 - This price represents lithium carbonate futures price for the current contract month as settled on the previous business day prior to our briefing publication as posted by the Chicago Mercantile Exchange (CME).
- Copper cash ask – \$/t
 - This price represents the official London Metal Exchange (LME) midpoint between the bid and offer cash prices from the previous business day prior to publication.
- Cobalt cash ask – \$/t
 - This price represents the official London Metal Exchange (LME) midpoint between the bid and offer cash prices from the previous business day prior to publication.
- Nickel cash ask – \$/t
 - This price represents the official London Metal Exchange (LME) midpoint between the bid and offer cash prices from the previous business day prior to publication.
- Zinc cash ask – \$/t
 - This price represents the official London Metal Exchange (LME) midpoint between the bid and offer cash prices from the previous business day prior to publication.

Terms and abbreviations

- Cl – chlorine
- Cu – copper
- HCl – hydrochloric acid
- H_2SO_4 – sulphuric acid
- LFP – lithium iron phosphate
- Li – lithium
- LiOH – lithium hydroxide
- Li_2CO_3 – lithium carbonate
- NaOH – caustic soda
- Na_2CO_3 – soda ash
- NH_3 – ammonia
- S – sulphur

Corrections procedure

Acuity is committed to promptly correcting any errors, including analysis and other information. We strive to provide independent analysis and increase transparency in the battery and mining industry. As such, any questions or concerns from subscribers will be thoroughly reviewed by Acuity. We strongly encourage feedback from our customers and contacts.

Any authorised reader/user who has identified an error in any of Acuity's published reports including analysis or written content should notify Acuity by email at info@acuitycommodities.com with the subject line including "Correction" with reference to the corresponding database or briefing. An authorised user is considered one working for a company that holds an active subscription to the publication connected to the complaint.

Once Acuity is aware of a potential correction, it will internally review the need of any correction. If a correction is warranted, including any change that is made after the original analysis, Acuity will reissue the briefing and identify it as corrected, including the reason for the correction, and update the corresponding database. Corrections will be communicated to the market or industry as soon as possible.

Separately, if Acuity through its own internal review determines a correction to any of its published reports or database is needed, including any change that is made after the original analysis, Acuity will reissue the briefing or database and identify them as corrected, including the reason for the correction, and communicate to the market as soon as possible.

Complaints procedure

In the event any authorised reader/user of Acuity's published reports or database should have a formal complaint, the following procedure is adhered to. A formal complaint is regarding whether a specific issue is representative of analysis, proposed changes, or other editorial decisions in relation to our processes or written content.

Any complaint should be submitted in written form to info@acuitycommodities.com with the subject line including "Complaint" with reference to the corresponding report. Once the complaint is received, Acuity will acknowledge receipt of the complaint in writing within three (3) working days and will determine which member of its team is responsible for the specified analysis or written content. Once determined, another member of the team, an independent member of staff who is not subject of the complaint, in a senior or equal role will manage and resolve the complaint.

Resolution will be reached following a prompt investigation, with the outcome reported to the complainant and any other relevant parties in writing within fourteen (14) working days. In the event of a complex complaint, this may not be possible, but Acuity aims to resolve any complaint in a timely and fair manner.

In the event a complainant wishes to exercise the right to appeal Acuity's decision, this should be done no later than six (6) months after the original complaint was filed. An independent third party will be appointed by Acuity to reach an external resolution in a timely and fair manner.

The steps described above will be logged in Acuity's internal Complaint Register.

If a formal complaint results in a change in content, Acuity will communicate to the market as soon as possible following our Corrections procedure.

All documents relating to a complaint, including those submitted by the complainant, as well as Acuity's internal Complaint Register document is retained on a secure, internal drive for at least five (5) years.

Publication schedule

Acuity Insight: US & Canada Battery & Mining Projects database and briefing is published on a calendar year quarterly basis. The released date will be the first Tuesday of the last month of each quarter (March, June, September, December). If the schedule is to be altered because of events such as public holidays, a notice will be put in the publication for the report prior to the report that will be impacted.

Publication dates are subject to change in the event of unforeseen circumstances that limit Acuity's ability to adhere to its regular publication schedule. This includes circumstances such as natural disasters or any other situation that results in an interruption of business continuity in Acuity's operations. In the case of such an event, Acuity will communicate through postings on our website and/or direct emails.