

Technical and Market Developments in the Global Bauxite Mining and Alumina Refining Sector

Alan Clark¹ and Jason You²

1. Founder and Managing Director

2. Operations Manager

CM Group, Glenelg, South Australia

Corresponding author: alan.clark@cmgroup.net

<https://doi.org/10.71659/icsoba2026-xxYYY>

Abstract

The rapid growth of the third-party traded bauxite market has transformed the way producers, refiners and investors assess bauxite resources and refinery investments. As supply expands beyond traditional producing regions and refining capacity continues to migrate, understanding the value of different bauxite grades has become increasingly important.

This presentation reviews the evolution of global bauxite mining, including the emergence of Guinea as the world's dominant exporter, developments in other producing regions and the implications of evolving mining policies and export constraints. It also presents new refinery developments in China, Guinea, Indonesia and Vietnam.

Drawing on these developments, the presentation outlines a practical value-in-use (ViU) methodology for calculating equivalent bauxite prices based on variations in grade and impurities. The methodology provides a consistent framework for comparing bauxite deposits, evaluating refinery feedstocks and assessing where future mining and refining capacity can be most economically developed.

Keywords: Bauxite, Value-in-use, Alumina economics, Refinery technology.