The Pentagon Can Buy Security. Can the Consumer Economy Afford It?

written by Jack Lifton | September 22, 2026

America has two markets for its critical materials. One is the military. The other is the much larger civilian economy.

They use many of the same chemical elements, but they do not buy them under the same economic conditions. The Department of Defense can justify paying a premium to ensure a material is available when needed. An automobile manufacturer, electronics company, or machine-tool maker must produce something its customers can afford. If the cost of securing a domestic material makes the finished product uncompetitive, the mine may be strategically useful without becoming a successful commercial supplier.

I have argued for years that we should begin with the customer's required product and work backward to the mine. We should also begin with the customer's required **quantity**. I wanted to compare three numbers: what the military needs, what proposed mines say they will produce, and what the rest of the American economy will buy. Doing so reveals a surprising limitation in the public discussion: for many critical materials, those three numbers still can't be placed in a single honest column.

The Defense Logistics Agency's Annual Materials Plan publishes ceilings for *possible* National Defense Stockpile acquisitions. A ceiling is neither a firm purchase order nor annual military consumption. The U.S. Geological Survey reports apparent or estimated consumption, but that covers military and civilian use together. Subtracting a stockpile ceiling from national

consumption does not reveal the civilian market.

Those qualifications are not academic. They change how an investor should read a mine announcement.

Consider **antimony**. The DLA's fiscal 2025 plan allowed for the potential acquisition of 700 metric tons. The USGS estimates that the United States consumed **45,000 metric tons** in 2025. Perpetua Resources Corp.'s (Nasdaq: PPTA | TSX: PPTA) Stibnite project in Idaho has projected recovery of **69 million pounds of antimony during its first four production years**. That averages approximately **7,800 metric tons annually**, about 17% of the 2025 American market.

An important industrial step sits between those figures. Stibnite's proposed mine product is **antimony concentrate**. The customer may require refined metal, an oxide, or a compound meeting a particular specification. The cost and capacity of that conversion have to be part of the comparison. Nor can one calculate a stand alone antimony production cost by taking Stibnite's reported gold costs and dividing them by antimony output. It is a combined gold and antimony project whose published economics treat antimony revenue as a credit to gold production. The company's production and cost disclosures should be read on that basis.

Gallium makes the problem even clearer. The USGS estimates American consumption at **19 metric tons in 2025** and reports complete reliance on net imports. Gallium goes into compound semiconductors used by both defense and civilian customers; integrated circuits represented most reported U.S. consumption. Ramaco Resources, Inc.'s (NASDAQ: METC) initial assessment for Wyoming's Brook Mine anticipates about **55 metric tons annually of gallium oxide equivalent**, containing roughly **41 metric tons of gallium**.

Does that mean one proposed American operation could supply more than twice the present national requirement? No. Brook's figure describes planned output from a project still at an early assessment stage. It does not establish commercial recovery, continuous production, electronic grade purity, customer qualification, or a competitive delivered price. Comparing the contained gallium in a proposed oxide with reported consumption is a useful indication of scale. It is not proof of a functioning supply chain.

Germanium presents a similar challenge. It serves infrared optics, fiber optics, semiconductors, and space solar cells. A USGS study described American consumption of roughly **30 metric tons per year** in earlier years, but recent USGS tables do not provide a current consumption figure suitable for a precise civilian forecast. Brook anticipates about **13 metric tons of germanium oxide annually**, equivalent to roughly **9 metric tons of contained germanium**. Those are proposed oxide quantities, not qualified infrared optical products. U.S.-mined germanium bearing zinc concentrates have also been sent to Canada for recovery. Where a material is refined can matter just as much as where it was mined.

The rare earths require even greater discipline about product form. The DLA's fiscal 2025 plan included potential acquisitions of **300 metric tons of neodymium-praseodymium oxide** and, separately, **450 metric tons of finished neodymium-iron-boron magnet blocks**. Those are two different products. MP Materials Corp. (NYSE: MP) reported actual production of **2,599 metric tons of separated NdPr oxide in 2025**. Oxide must still become metal, alloy, and a qualified magnet before many customers can use it. Meanwhile, the USGS estimate of **27,000 metric tons of American consumption of rare earth compounds and metals** includes many elements besides NdPr.

Dysprosium and terbium must also be counted individually. Their contribution to high-performance magnets cannot be inferred from a company's total "rare earth" production number. The International Energy Agency projects that global demand for the four magnet rare earths—neodymium, praseodymium, dysprosium, and terbium—will rise by about one-third by 2030 under current policy settings. That is a global projection, not a forecast of American civilian demand for each element. The IEA also finds that future capacity becomes progressively tighter as one moves from mining through refining to finished magnets. That is precisely why mine capacity alone can give investors the wrong answer.

Finally, consider **tungsten**. The DLA's fiscal 2025 plan listed about **2,041 metric tons of tungsten content** for potential acquisition. Guardian Metal Resources plc's (NYSE American: GMTL | LON: GMET | OTCQB: GMTLF) Pilot Mountain prefeasibility study in Nevada projects roughly **1,990 metric tons a year of tungsten trioxide in concentrate**, containing about **1,580 metric tons of tungsten**. The study provides an estimated adjusted operating cost of **$54,622 per metric ton of tungsten trioxide in concentrate**, after its stated adjustments. This is more useful cost information than a resource estimate, but it remains a projected *concentrate* cost, not the delivered cost of the tungsten chemicals, powders, carbides, or engineered components purchased by industry. The operation is planned, not producing.

The Department of Defense's agreement with MP Materials makes the economic issue explicit. It establishes a **$110 per kilogram price floor** for specified NdPr products: under the agreement, the government pays a difference when the defined market benchmark falls below that floor. This mechanism supports a strategically important supplier. It does **not** tell us that MP's production cost is $110 per kilogram.

For the military, a higher price can be an insurance cost. For the civilian economy, that same price becomes a cost in a motor, an automobile, a cutting tool, a communications network, or an electronic device. Government can absorb or shift part of that cost. It cannot cause the cost to disappear.

I would therefore ask every developer of a strategic material project to publish, in comparable units, four things: **the quantity of each product it expects to sell; the specification and processing steps needed to make it usable; the delivered cost at commercial scale; and the volume that civilian customers will buy at that cost.** The defense requirement should be stated separately, using an actual requirement when one can be disclosed rather than a stockpile planning ceiling.

Until we have those numbers, we should resist treating a large resource, an announced plant capacity, or a government award as proof that an American industrial supply chain has been rebuilt. The question for the investor, as for the nation, is whether the output can serve both American economies: secure enough for the military and affordable enough for the manufacturers and consumers whose demand must sustain the industry.