S&P Global Core Battery Metals ETF (ION): Electrifying the Future

Key Takeaways:

- **Global demand is soaring** for the battery metals lithium, nickel, and cobalt.
- **Driving that demand is rapid growth** in the electric vehicle, consumer electronics and energy storage industries, which all rely heavily on lithium-ion batteries.
- **ION is the first ETF** to invest only in companies mining battery metals.

Soaring Demand for Batteries and the Metals to Make Them

An energy revolution is underway, driving a huge surge in demand for the lithium-ion batteries used to power electric vehicles (EVs), consumer electronics, and the energy storage industry. In turn, the need for these batteries is fueling demand for lithium, nickel and cobalt metals needed to manufacture them.

As global lithium-ion battery manufacturing continues to take off, and demand for these critical metals soars, a potentially exciting investment opportunity is emerging.

<table>
<thead>
<tr>
<th>Year</th>
<th>Electric vehicles</th>
<th>Stationary storage</th>
<th>Consumer electronics</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2020</td>
<td>500</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2025</td>
<td>1,000</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>2030</td>
<td>1,500</td>
<td>1,000</td>
<td>1,000</td>
</tr>
</tbody>
</table>

*Gigawatt hours. Typically used to measure energy output.


Source: S&P Global Market Intelligence, as of Sept. 21, 2022.
Powering the Battery Revolution

Global battery demand is expected to grow at a 25% annual rate until 2030. But what is behind the battery-power surge? Here are three main drivers:

**Electric Vehicles**
Consumers and automakers are turning to EVs, as governments around the world put policies in place to reduce or even eliminate fossil-fuel vehicle sales.

- Over 50% of passenger vehicle sales could be EVs by 2035.
- 56 million EVs could be sold annually by 2040.

**Consumer Electronics**
Smartphone, laptop and other portable consumer electronics growth—particularly in developing nations—is on the rise with tremendous room for growth.

- Consider the smartphone ownership rates in four of the world's most populous countries:
  - China: 66%
  - India: 35%
  - Indonesia: 62%
  - Pakistan: 21%

**Energy Storage**
The use of home and commercial lithium-ion battery storage to store excess solar, wind and other types of power for later consumption is expanding.

- Global energy storage is currently a $9 billion industry.
- The global energy storage industry is expected to grow ~3X by 2029.

## Tapping Into the Battery Metals Miners Opportunity

Focusing on the miners may be an effective way for investors to capitalize on the growing demand for battery power.
Miners May Benefit from Supply and Demand Imbalance

The limited supply of metals critical to manufacturing lithium-ion batteries is being significantly outpaced by demand. This could lead to sustained shortages potentially beneficial to battery metal miners, who control the rights to those resources.

- Even though lithium production more than doubled to 100,000 metric tons over the last decade, 365,000 additional metric tons was needed to meet 2021 demand.  
- Experts suggest the world could face lithium-ion battery metals shortages by 2025.

Miners Have Demonstrated Appealing Investment Characteristics

The mining industry has high barriers to entry. Building a new mine requires government cooperation and often faces environmental or regulatory hurdles. It also requires enormous capital investment, making it hard for new players to come into the space.

Miners have generally been profitable. They have already been producing attractive margins, in contrast to the generally unprofitable EV manufacturers and others in the battery supply chain.

Miners Have Solid Business Models

Miners generally have business models with operating leverage that lets them scale operations in response to market forces.

- When demand and prices are high, they may ramp up production to increase potential earnings and profit margins.
- When prices fall, they may reduce production or stockpile metals for processing later when prices increase.

ProShares S&P Global Core Battery Metals ETF (ION)

ION is the first ETF to invest only in companies mining battery metals. ION’s strategy of investing in companies at the beginning of the battery supply chain offers a unique way to take advantage of the opportunity created by the growing demand for lithium-ion batteries and battery metals. ION offers access to an array of global companies mining these metals—companies that can be difficult for U.S. investors to access on their own—in a single ETF.

Have Questions?

Financial professionals can contact ProShares at 866-776-5125 or email info@proshares.com for additional information about ION and our other thematic funds.
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Investing is currently subject to additional risks and uncertainties related to COVID-19, including general economic, market and business conditions; changes in laws or regulations or other actions made by governmental authorities or regulatory bodies; and world economic and political developments.

**Investing involves risk, including the possible loss of principal.** This ProShares ETF is subject to certain risks, including the risk that the fund may not track the performance of the index and that the fund’s market price may fluctuate, which may decrease performance. Please see summary and full prospectuses for a more complete description of risks. **There is no guarantee any ProShares ETF will achieve its investment objective.**

Companies engaged in battery metals mining are subject to various risks, including: changes in the supply of and demand for battery metals; price changes resulting from inflation and inflation expectations; supply chain and other disruptions due to changing world events, economic conditions and political risks; currency fluctuations; regulatory and legislative scrutiny of the environmental impact of battery metal mining; and risks associated with the development of mineral deposits.

The index theme may not be the primary driver of company, index or fund performance. Companies in the index may have significant unrelated business lines, which could have a significant negative impact on company, index and fund performance.

Investments in non-U.S. securities may involve risks different from U.S. securities, including risks from geographic concentration, differences in valuation and valuation times, unfavorable fluctuations in currency, differences in generally accepted accounting principles, and from economic or political instability.

Investments in emerging markets generally are less liquid, more volatile and riskier than investments in more developed markets and are considered to be speculative.

Investments in smaller companies typically exhibit higher volatility. Small- and mid-cap companies may have limited product lines or resources, may be dependent upon a particular market niche and may have greater fluctuations in price than the stocks of larger companies. Small- and mid-cap companies may lack the financial and personnel resources to handle economic or industry-wide setbacks and, as a result, such setbacks could have a greater effect on small- and mid-cap security prices.

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Shares of any ETF are generally bought and sold at market price (not NAV) and are not individually redeemed from the fund. Brokerage commissions will reduce returns.

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