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The State of Play in Battery Metals | Episode 2
Andy Home, Senior Metals Columnist, Thomson Reuters

On our second installment of *The State of Play in Battery Metals*, we welcome back Andy Home, Senior Metals Columnist at Thomson Reuters. David Greely sits down with Andy to discuss the ways the energy transition hasn't gone the way people thought it would in battery metals; where we stand after a brutal year in the battery metals business; and the need to manage risk that's driving new exchanges and resurging trading volumes.

Andy Home (00s):
The demand side of the equation has so many moving parts. I mean I almost defy anyone to try and work out exactly how much lithium is gonna be used in electric vehicle batteries in one, two years' time. The question then is whether the supply can be tailored to match the demand, right? That for me holds the key to pricing.

Announcer (23s):
Welcome to SmarterMarkets, a weekly podcast featuring the icons and entrepreneurs of technology, commodities, and finance ranting on the inadequacies of our systems and riffing on ideas for how to solve them. Together we examine the questions: are we facing a crisis of information or a crisis of trust, and will building Smarter Markets be the antidote?
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David Greely (01m 06s):
Welcome back to The State of Play in Battery Metals on SmarterMarkets. I am Dave Greely, Chief Economist at Abaxx Technologies. Our guest today is Andy Home, Senior Metals Columnist at Thomson Reuters. We will be discussing the ways the energy transition hasn't gone the way people thought it would in battery metals, where we stand after a brutal year in the battery metals business, and the need to manage risk that's driving new exchanges and resurging trading volumes. Hello Andy. Welcome back to SmarterMarkets.

Andy Home (01m 37s):
Hi Dave. Happy new year to you. Thanks for having me back.

David Greely (01m 40s):
Happy New Year to you too. I was thinking you are just the person to help me get my head on straight thinking about the year to come and where we are in the battery metal space and where we might be going and I remember the last time you were here with us on the podcast, you said something that stuck with me. You said that the energy transition hasn't stopped, but it just hasn't gone the way people thought it would go. And in this podcast series where we are discussing the state of play in the battery metals markets, I thought that would be the perfect place for us to pick up the conversation. And I saw that you wrote recently in one of your articles that 2024 was in your words, a brutal year to be in the battery metals business. So I hoped you could start off just walking us through what made it so brutal.

Andy Home (02m 27s):
Let's take a little step back. I mean let's look at, what's been going on in these markets for the last four or five years? So 2021, 2022, it was a rip roaring bull market. Do you remember cobalt, nickel, lithium; they were all going absolute gangbusters. Everyone was super excited about the EV revolution and you know, the exponential demand growth forecast that we were all looking at, okay, each one of them crashed in 2022. 2023 nickels started it. Cobalt followed, lithium was last, right? We are back to sort of like where we were, but here is what happened in 2024, nothing. They just kept on grinding steadily lower and you are getting you to absolute producer pain levels, right? So we got an industry that just, what, three or four years ago it was kind of like me trying to expand capacity. Like there was no tomorrow We were told that the world was gonna run out of this stuff. This last year you had just seen a string of casualties, right? Plants have been closed, new mines have been mock gold every once or I mean pushed back. I mean any sort of investment plans. So this is a very, very difficult market for anyone trying to sort like get into the battery metals business. It's a difficult market for

those already in the battery metals business, right and at the moment we're just still waiting as we were all last year any signs of recovery?

David Greely (03m 54s):
And when you look at it, part of what's made it so brutal that might be a little bit of a western perspective in a way, right because so much of the production that's been coming on has been coming out of China. So much of the demand for electric vehicles and batteries has been coming out of China. How has China's growth and dominance really affected the whole balance of the industry?

Andy Home (04m 19s):
One of the answers to be behind why the price crash is of course overproduction, right? The world has simply produced too much of these metals at the time when demand maybe wasn't quite what we expected to be and let's run through them. Who dominates sort of cobalt production in the world? Chinese producers operating out of the democratic republic of Conga, right, who dominates lithium production and lithium processing. We know the answer to that. We could say in nickel maybe slightly different because it all comes from Indonesia, but who operates the Indonesian mines and plants? It's the Chinese, right? These guys are sort of like are basically carried on expanding even as everyone else has had a problem, right and one of the reasons is look, a lot of these entities, particularly in the lithium space, they are vertically integrated. They go from mine to precursor materials to battery manufacturing all the way up to making their own EVs.

Andy Home (05m 10s):
You know, these are kind of, these are players that are more insulated against all those such depressed prices at the very upstream part of the chain. But that is not to say they are not suffering as well. There has been reports of Chinese domestic lithium producers closing as well. They are not completely immune. They are partially protected if you like, by vertical integration in a way that the western supply chain hasn't evolved that far yet. It's shown signs of wanting to sort of have that sort of vertical integration. But hey, the whole point here is the west is running 10 to 15 years behind the Chinese.

David Greely (05m 44s):
And I wanted to ask you about that because it's really fascinating in that China now seems to be dominating both ends of the supply chain, the production of the metals and the production of the batteries and the electric vehicles vehicle and it's done this through important technology breakthroughs by being able to process Indonesia's relatively low grade ore and by being able to use lithium iron phosphate LFP batteries in about two thirds of their new electric vehicles. Now how did China become so innovative in this space?

Andy Home (06m 17s):
Well, I will tell you little anecdotes like we are going back about sort of eight or nine years now into the last sort of like decade and I was in Beijing for a week, first time I would ever been there, but I was walking down a really big road, big shops on each side, hundreds of people and I stopped in my tracks because I heard something that up until that moment in time I had not heard before. It was the sound of a supercharged motorbike, an old school motorbike being raved down the street, right and then I realized, hold on, everything else here is electric. Now you go back 9 to 10 years, you tell me western city where you could have had that experience when the sound of an eternal combustion engine being gusted down the main street makes you stop and go, wow, they started so much earlier than us Dave.

Andy Home (07m 03s):
They were sort of starting to sort of subsidized electric vehicles into their inner cities. I mean 10, 15 years ago they created the demand which they then had to go and find the raw materials to generate. So the simple answer is why are they where they are? They decided to go electric before anyone else pretty much and out of that creating that demand, of course you need then guys who are going to make you the batteries. The guys who make the batteries need the guys who are going to make the precursor materials. The guys who make the precursor materials want to find the lithium, the nickel to go to it and so you have got the entire Chinese sector if you like, rapidly all like could be consolidating, but it's to meet its own domestic demand first and foremost, right? We in the west have been playing catch up ever since.

Andy Home (07m 50s):
And we still are by the way. But one of the really interesting facts from last year, right? The new energy vehicle revolution has not stopped electric vehicle sales or new energy sales were up 25% globally last year, right but here is the thing, most of them are still sold in China, 40% growth, something like that year on year sales, right? United States, Canada, 9% growth Europe negative, right? We sold

less EVs in Europe last year than we did the year before and that's because Germany particular has got rid of its EV subsidies. This is not just still a historical like, I mean in fact this is still the reality of the market. They are still selling more EVs than anyone else. It's the biggest marketplace and it's growing faster than any other market. Therefore if anyone's going be producing right for their domestic market, it's going to be Chinese operators.

David Greely (08m 47s):
Shocking to hear that European EV sales fell. And I wanted to ask, you know, with the us with the inflation reduction act and so much of a push into the battery metals and critical metal space, how is what the US is doing with the inflation reduction act? Is it a different strategy or is it simply trying to catch up to China

Andy Home (09m 08s):
Consumers all over the world and it doesn't matter whether they are Chinese, they are European, or they are North American, there is a reluctance to make the switch from internal combustion engine to electric vehicle, right and obviously old guys like me are particularly reluctant because this is what we have known all of our lives, right. The Chinese, when they started rolling out EVs, they put massive subsidies on it to encourage people to take it up, right. The reason European sales were down last year is Germany surprisingly took away subsidies and that market collapsed, right. The slightly disconcerting element of the sales growth in the states is, is it a case where everyone rushing out to buy now before the Trump administration removes the EV subsidies that Biden introduced, right because this is still really about an in demand story. Yeah. You only need as many minerals as you need to sort of like mean, electrify your fleet, right?

Andy Home (10m 08s):
So in principle, I think the Biden administration was quite right. I mean he wanted to stimulate people like me to sort of get involved buying an electric vehicle. He knew he would have to give me a subsidy to do that. At the same time he knew it was short of all the critical raw materials, therefore a lot of money was put into it. So he was a kind of a holistic approach if you like. I mean they, you know, they were trying to do the right thing, but there is a problem, right? Price with the best wood in the world, you cannot open a say for example a new North American cobalt mine when the price is at such bombed out levels, you opening it to lose money unless you force integration. I mean and that's, as I said, the western supply chain in my opinion hasn't got there. I think what the Biden approach was from mines to the cars was absolutely right. But the problem is an every country finds this. People like me, I did an incentive. You don't have to give me a subsidy if I give out my old 1987 Volkswagen, right and that's true of the Chinese as well. You look at their sales fluctuations over the years, it's been directly correlated to subsidy schemes, whether it be in cities or certain provinces or the national level.

David Greely (11m 19s):
And I wanted to ask you, when you turning to the other side of the supply chain, you had brought up that for a long time US producers, the trouble with opening a new mine was often permitting and getting the approvals. Now you bring up, it's not only the permitting, it's the price. What does that mean for Western producers? Where do we go from here? I know you wrote in a recent article that much of the production in the US has been focused more on scrap than say new mines. What's the role for kind of new mine production outside of China and these areas where China is very embedded?

Andy Home (11m 59s):
Well, I mean I think the answer's pretty straightforward. Either we all buy really nice cheap, very good Chinese electric vehicles and watch our domestic automotive industries die probably quite suddenly. Or we have to do it ourselves right? In western markets and you can't do it without new mines. And that, that's just a reality. I mean there's lots of really interesting developments going on in the battery recycling side, but you know, bear in mind you need a good pool of electric vehicles to have enough batteries to recycle in the first place. So mines, if you do not want to rely on China, you are going to have to build them building them in the states. Tricky. We know the problems with the mining laws there and how long it can take to get to any mine that up and running mines in friendly countries such as Canada.

Andy Home (12m 48s):
I don't know whether you still count Canada as a friendly country under the new administration or you know, some of the South American countries. Yes. I mean if you do not want to buy a land of Chinese to dominate the electric vehicle market, new mines and new supply chains must be built out. It's difficult though, isn't it, if prices are bombed out at so multi-year low prices, who wants to

lend finance to that sort of like proposition? I think the US has quite correctly, you've seen a lot of federal investment directly and through loan organizations and to some extent you could say well that's also taking a leaf outta the Chinese book, isn't it?

David Greely (13m 25s):
And you brought up an interesting point earlier. We have been talking about what it means for producers. I want to talk a little bit about what it means for consumers and should we expect to see increasing exports of Chinese electric vehicles into Western markets and you know, is there some sort of time horizon where we should expect to begin to see that? That it's not just about meeting their own domestic markets needs and still importing foreign cars into China, but we'll start to see these Chinese electric vehicles showing up in the US and Europe?

Andy Home (13m 54s):
All things being equal. That would be true because the Chinese EV market is itself going through an period of intense competition. We are seeing actually a lot of like a smaller companies drop out of the race. It is ferocious what's going on within that sector. Obviously exporting would be one of their preferred options. However, what do our policy makers think about that? Can I speak really, I mean I will speak from a European sort of perspective if you like. Our policy makers do not want our markets to be flooded by cheap Chinese electric vehicles. You know, manufacturers, I mean automotive manufacturing is kind of a core part of the European manufacturing economy, particularly in places like Germany. Yeah, it's a weird thing, right? So the best probable answer to global warming is not going to be politically possible. I would suggest your incoming president has a few things to say about Chinese electric vehicles and indeed all Chinese goods as well. So it will not be a free flow of goods, I don't think.

David Greely (14m 52s):
So let's get into the geopolitics because clearly China's dominance and battery metals has been raising a lot of these geopolitical issues. How do you think that President Trump will respond as he takes office and does it make any difference that Tesla's Elon Musk is one of his most influential advisors?

Andy Home (15m 10s):
As an observer to the politics of Washington from afar as well? One of the things I find curious in a country on apparently, which neither side can agree on anything, there is one exception and that is they don't the US to be dependent on China for critical raw materials, right? I mean you on that, I could see very little difference really between Republicans or Democrats or the language may change. But listen, Biden was pretty tough. He also saw like put tariffs and Chinese goods and Chinese metals entry in the country. Yeah, there has been a steady raising of barriers, I would say, to stop Chinese metals and metal products, ensuring the states. Trump is just simply going to continue with that policy. I would imagine the difference may be as to how aggressive he gets on finished goods. Will there be a ridiculous tariff on, for example, Chinese EVs there could be. In broad brush terms though US policy towards the critical minerals question has been remarkably consistent for two or three administrations now and various changes of government. That is the one thing everyone wants to make American manufacturing strong again and everyone wants to loosen the grip of the Chinese on the supply chains.

David Greely (16m 23s):
Kind of an interesting dissonance, right? Where we are still talking about these critical minerals, these critical metals, much of the language from a few years ago when everyone is expecting dramatic shortages and higher prices and as we started this conversation, we've talked about kind of a, at least a near term oversupplied market and very low prices is the path forward. You have brought up a few times about how do you get demand back into the market. Is that that where we need to be focused from a policy perspective more than on the supply side in the short term?

Andy Home (16m 56s):
Demand has turned out to be the really unpredictable part of our market equation, right? In terms of moving units, absolutely. It seems subsidies work for consumers whether they are living in Beijing, London or San Francisco, right? But here is the thing, not all the electric vehicles are made alike and one of the big surprises I think for me personally, but I think for the market as a whole is when we talk about electric vehicles and battery metals, I think most of us are thinking of a Tesla style vehicle. Pure battery driven, right? Actually the vehicles that are so much better than pure battery hybrids, the world's car buyers really like hybrids, plugin hybrids, full hybrids, extended range hybrids and that applies to the Chinese as well where hybrids are the rage, right? But here is the problem. Battery in a hybrid about a third of the size and a third of the power in one of the pure battery electric vehicle, right?

Andy Home (18m 00s):
Which means what, yeah, a third less of all the materials are going into make that battery. This is a big surprise. The hybrids the Chinese are making are fantastic by the way. I mean from what I can tell, right and are very popular. They get rid of that sort of ranging society with a hybrid. I have relatives who live in rural island who drive hybrids because they, they, they're not comfortable with the infrastructure for charging around them. Everyone likes them, but they change that demand equation from battery metals quite a lot. First off, smaller batteries, right? Secondly, a lot of the batteries being used now changed the chemistry, just lithium iron phosphate, no nickel, no cobalt, no manganese. So demand in terms of vehicles going out there, 25% growth in global electric vehicles last year, right? But that's not the same as saying that's the equivalent demand for the metals because solar cars, which are really moving faster at the hybrid models using less metals, right?

Andy Home (18m 55s):
This is kind of a really, this is the market, this is the market if you like. This shows you that even in China. Hey guys, you are all going to go battery electric? Yeah, yeah, yeah, of course you will. I really like that hybrid. Even Chinese have to accept that this is not how they probably envisage the battery electric vehicle market evolving. We all just think it's, they are all going to be Teslas, right? No, no. Hybrids, plugin hybrids are outselling all your battery ones. So how that evolves, I don't know, I just regard that as customer choice and it seems to be almost, as I said, it doesn't matter whether the customer is Chinese or western. The hybrids have really sold, proved extraordinarily popular, which no one really expected them to do. So, right? This is the way 10 years ago, everyone had wished off the lithium iron phosphate batteries.

Andy Home (19m 39s):
No, no, no, no. It, it won't have a power modern vehicle and the drivers won't accept it. Yeah. But now it can because they have done the technology to upgrade it so incrementally, right? So in terms of moving the EV revolution forward, subsidies obviously critical and we shall watch very closely what happens in the United States so this year. But then as part of that subsidies cannot sort of necessarily fully sort, right? Can we take away that market power of the customer? If the customer doesn't want a pure battery and the customer wants a hybrid, customers sort, you know, should get a hybrid and the industry will adapt to give him or have that right? The roads up to the green future has turned out to be a bit bumpier than we all expected because no one really saw the return of lithium iron phosphate technology in the way we have seen it. And no one certainty really, as far as I know, predicted that hybrids would prove much more popular than the pure batteries. Maybe they are just a stepping stone. Maybe someone like me has to go to a hybrid before I can like make the final leap to be a pure battery, right? But that's the way the market's evolving at the moment.

David Greely (20m 39s):
Along this bumpy road of the energy transition to electric vehicles. What the consumer wants has been unpredictable. What producers are able to bring to the market has been unpredictable, creates a lot of uncertainty, a lot of risk that needs to be managed. And many of the changes that we've seen in the physical metals markets have caused disruptions in futures markets and the financial markets that are necessary to, you know, coordinate, create price discovery, help consumers and producers manage risk. This was particularly true in the, at the LME back in 2022. You recently wrote an article that futures trading volumes are way up and that existing and new exchanges are launching new battery metals products. I was curious, what's driving this resurgence that you are seeing in battery metals trading?

Andy Home (21m 28s):
Nickel had its own very specific story, which maybe we should say was more a specific story related to the London Metal Exchange contract. The LME has worked hard to sort of restore confidence in that contract, make it more relevant to the global physical market, which maybe had been one of the original issues when that contract blew up. But I mean, evidently judging by the return of volumes, particularly to that nickel contract as ever, this is a market seeking to solve, like, I mean hedge its price risk, right? And I have argued in the past that one of the problems with the, say for example lithium was the lack of any such forum to manage future price risk. This then turns to the CME exchange in states, which has now got several battery metal contracts, which seemed to be fairing very well. I mean, a couple of them are very new indeed, but I mean the more established one like cobalt futures or lithium hydroxide futures have picked up genuine attraction, I would say.

Andy Home (22m 28s):
And I am guessing that comes from industrial players as much as anything else who are looking for a reference price, which is not a Chinese one. So price risk management, I mean, is there we finally, I think now have a ways of sort of like handling that particular cobalt and lithium. It's still tentative early days if you like, for exchange trading, but the CME has definitely taken a lead, if you like, for

western pricing of cobalt and lithium and ability to futurize it and then sort like obviously hedge your price risk into it. But that's what drives it. I mean, price risk, as I said, drop a chart of sort any of these three methods we are talking about over the last five years and understand that volatility and what it could mean in terms of, so would you like to hedge that price at any way possible?

David Greely (23m 15s):
And it's interesting because you are also seeing, you wrote recently about other exchanges that are coming into the market or expanding their presence. What are you seeing there? What's opening up those opportunities?

Andy Home (23m 26s):
We are thinking particularly about nickel, which there are still, I know sort of reservations about the role of the London Metal Exchange in a global market that is becoming one both increasingly Asian, but two is also self-evolving new product lines. So nickel sulfate for example. So you know, you have Abaxx technologies, Abaxx Exchange has saw, I just launched I think only this month a nickel sulfate contract to try and capture a different part of the market than that captured by the LMEs refined metal contract. You have also seen global commodity holdings who already operate a coal trading platform seeing a pickup in business on their physical nickel contract. In essence, people are just, I think, looking for the right solution to get the right product if you would like because nickel can come in many different forms, right? I mean, one of the reasons we saw that nickel contract blow out in 2022 was the big short, who was the biggest producer of nickel in the world?

Andy Home (24m 30s):
Could it produce it in the way that's always deliverable against the enemy contract? So no surprise then that you are seeing others. All right, experiments around with pricing mechanisms, particularly in relatively new product lines such as nickel sulfate. I would expect to see more competition in the lithium and cobalt space as well. Why not? I mean, no market needs to be a monopoly market, right? In terms of price risk management from the industrial users' point of view of the market, the more the merrier, the as long as they're liquid, right and don't cannibalize each other. Again, put it back into perspective if you are not gonna have Western pricing reference points, your only other ones are Chinese and good luck with those.

David Greely (25m 11s):
And I wanted to ask you, when you look at all the changes in the physical markets and the changes that we are seeing in the financial markets that support them, the futures and options markets, do you think that the nature of metals trading is changing relative to the past and if so, how?

Andy Home (25m 29s):
Well, in my lifetime, writing about metals, which is sadly a very, very long time indeed, I mean obviously it has changed so much from the early days in terms of the electronic trading. You go back, I mean, so when I started in the late 80, the London Metal Exchange, most of the liquidity was over an outcry on the trading floor, just all of it. They hadn't even got properly round to even designing an electronic trading platform at that stage. Now we live in a world of electronic futures and electronic options trading with all the quants analysis that goes with that. I mean, I mean, it's a very different place, but look, the reality of why people use markets and what they are hoping to achieve with them has never changed, right? I mean, it goes back, it doesn't matter whether I am mining, copper, lithium, whatever it is, when I go to the bank and say, I yeah, could I borrow like $1 billion off you please to build a huge hole in the ground, they will rightly ask me, what are you going to produce and what will the price of it be?

Andy Home (26m 25s):
And I don't know, it's probably not gonna still help me get that $1 billion investment. Me being able to say, hey look, I can show you the forward curve and maybe we could do some hedging on that sort of guarantee you like funding. That's the answer, right? So the need for price hedging mechanisms doesn't change, right? Markets can change all the time, but I mean that, that underlying demand, whether it be from a car manufacturer looking to lock in future purchase prices, or from a producer locking, looking to sort a hedge future selling prices, that remains a constant. Without that, there would never have been any markets.

David Greely (26m 59s):
We started the conversation talking about how things haven't always gone as expected. And I am wondering, as we look ahead to the 2025 and beyond, I am interested in your thoughts on, you know, when you think about where we go from here, what are you expecting and what do you think may not go the way that others may be expecting?

Andy Home (27m 20s):
If you want to like, first off, just look at battery metals, right? The demand side of the equation has so many moving parts. I mean, I almost defy anyone to sort, I try and work out exactly sort of like me how much lithium is going to use in the electric vehicle batteries that I own in one, two years' time. The question there is whether the supply can be tailored to match the demand, right? That for me holds the key to pricing and actually, you know, we just hadn't used Indonesia, but you know, it's just become the dominant force in the nickel market. But even they are now worried about the price and they are probably going to withhold or reduce the amount of our permitted production this year. So, you know, there is a positive sign there. But I think in the broader space, I mean in the broader part of that question, we have I think a lot of uncertainty about the next US administration.

Andy Home (28m 14s):
Can't we all kind of know some sort of tariffs are coming. We don't know how big the tariffs are, whether they be big enough to sell the whole trade war. We at this moment can't see anything up, but a further escalation of geopolitical tensions around the metal space. By the way, just another little thing we're gonna throw in recent news development think came out just before Christmas. So China has been so like a restricting exports of some of its critical metals, gallium germanium and too many. It's also just announced restrictions on exports of lithium processing technology, which I would suggest could be an ominous sign that the critical minerals source war, if you like, could be spitting or starting to spill into the battery and metal space. Which, you know, that becomes a massive potential destabilizing force if you think about it, both in terms of, I mean, physical supply flies, but pricing even the then the, the very future or sort of like the battery metal space, everyone who's trying to set up in that space may be using technology which was patented by Chinese. If they are going to start sort of like putting it back on that, as I said, more, more tension, I think it's very hard to see how it's gonna deescalate in the short term that's put that way. But I would expect to see more export restrictions in China coupled with more import restrictions in the US with Europe somewhere. It's all caught somewhere in between me, shot by both sides as it were.

David Greely (29m 47s):
Thanks again to Andy Home, Senior Metals Columnist at Thomson Reuters. We hope you enjoyed the episode. We will be back next week with another episode of The State of Play in Battery Metals. We hope you will join us.

Announcer (30m 01s):
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