



Analyst Day

April 19, 2011 | Mountain Pass, Calif.





Forward-Looking Statements and Other Important Cautions

This presentation contains forward-looking statements that represent Molycorp's beliefs, projections and predictions about future events or Molycorp's future performance. Forward-looking statements can be identified by terminology such as "may," "will," "would," "could," "should," "expect," "intend," "plan," "anticipate," "believe," "estimate," "predict," "potential," "continue" or the negative of these terms or other similar expressions or phrases. These forward-looking statements are necessarily subjective and involve known and unknown risks, uncertainties and other important factors that could cause Molycorp's actual results, performance or achievements or industry results to differ materially from any future results, performance or achievement described in or implied by such statements.

Factors that may cause actual results to differ materially from expected results described in forward-looking statements include, but are not limited to: Molycorp's ability to effectively assimilate Santoku America, Inc. into its overall operations; Molycorp's ability to effectively assimilate AS Silmet into its overall operations; Molycorp's ability to secure sufficient capital to implement its business plans; Molycorp's ability to complete its modernization and expansion efforts and reach full planned production rates for rare earth oxides and other planned downstream products; uncertainties associated with Molycorp's reserve estimates and non-reserve deposit information; uncertainties regarding global supply and demand for rare earths materials; Molycorp's ability to maintain appropriate relations with unions and employees; Molycorp's ability to successfully implement its "mine-to-magnets" strategy; environmental laws, regulations and permits affecting Molycorp's business, directly and indirectly, including, among others, those relating to mine reclamation and restoration, climate change, emissions to the air and water and human exposure to hazardous substances used, released or disposed of by Molycorp; and uncertainties associated with unanticipated geological conditions related to mining.

For more information regarding these and other risks and uncertainties that Molycorp may face, see the section entitled "Risk Factors" in Molycorp Annual Report on Form 10-K for the year ended December 31, 2010 and other reports filed with the SEC. Any forward-looking statement contained in this presentation, or the Quarterly Report on Form 10-Q, reflects Molycorp's current views with respect to future events and Molycorp assumes no obligation to publicly update or revise these forward-looking statements for any reason, or to update the reasons actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future, except as otherwise required by applicable law.

This presentation also contains statistical data and estimates obtained by Molycorp from industry publications and reports generated by third parties. Although Molycorp believes that the publications and reports are reliable, it has not independently verified such data.

THIS PRESENTATION USES THE TERM "RESOURCES" TO DESCRIBE THOSE QUANTITIES OF REE'S THAT ARE POTENTIALLY RECOVERABLE FROM ACCUMULATIONS YET TO BE DISCOVERED. BECAUSE OF THE UNCERTAINTY OF COMMERCIALITY AND LACK OF SUFFICIENT EXPLORATION DRILLING, THE RESOURCES CANNOT BE CLASSIFIED AS RESERVES. INVESTORS ARE ADVISED THAT THE SEC DOES NOT RECOGNIZE RESOURCES. ONLY PROBABLE AND POSSIBLE RESERVES MAY BE DISCLOSED TO INVESTORS IN AN SEC FILING. RESOURCES HAVE A GREAT AMOUNT OF UNCERTAINTY AS TO THEIR EXISTENCE. THERE IS NO CERTAINTY THAT ANY PORTION OF THE RESOURCES WILL BE DISCOVERED AND, IF DISCOVERED, WHETHER THEY COULD BE DEVELOPED ECONOMICALLY. THEREFORE, INVESTORS ARE CAUTIONED NOT TO ASSUME THAT ALL OR ANY PART OF MOLYCORP'S RESOURCES EXIST, OR THAT THEY CAN BE DEVELOPED ECONOMICALLY. ACCORDINGLY, INFORMATION CONCERNING DESCRIPTIONS OF RESOURCES CONTAINED IN THIS PRESENTATION IS NOT COMPARABLE TO INFORMATION INCLUDED IN SEC FILINGS.

- 1 Corporate Update / Acquisition Strategy –**
Mark Smith, CEO
- 2 Technology Overview –** Dr. John Burba, Executive VP
and Chief Technology Officer
- 3 Sales and Markets –** Doug Jackson, VP, Business
Development
- 4 Government Affairs –** Jim Sims, Director of Public Affairs
- 5 Financial Review –** Jim Allen, CFO and Treasurer
- 6 Mine Tour**
- 7 Lunch/Open Q&A –** Management Team



CEO Update

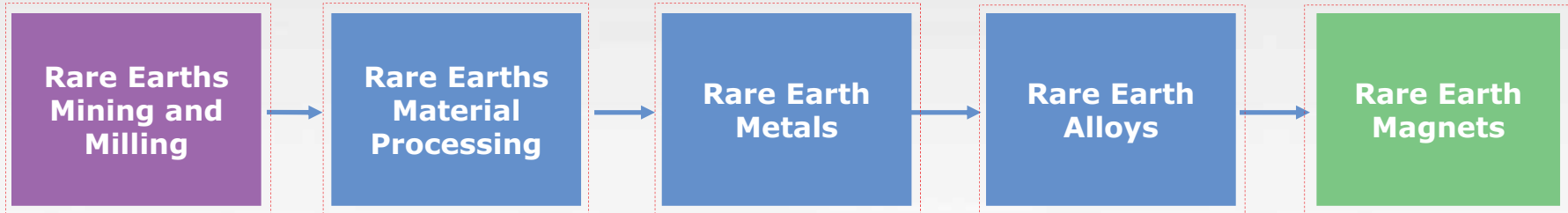
Mark A. Smith, President and CEO



Molycorp Business Supply Chain

Global Supply Chain:

- ~97% Chinese Production
- ~97% Chinese Production
- ~100% Chinese Production
- 80% Chinese
■ 20% Japanese⁽¹⁾
- 80% Chinese
■ 17% Japanese⁽¹⁾
■ 3% Europe⁽¹⁾



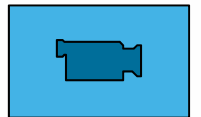
Source: REITA report dated January 27, 2010

¹ Dependent on Chinese rare earths feedstock

² Non-binding letter of intent

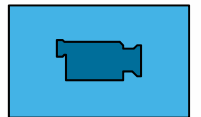
Molycorp Silmet AS

- 1 MCP purchased approximately a 90% controlling interest in AS Silmet for about \$89MM from Silmet Grupp and Treibacher Industrie AG. Silmet Grupp retains approximately a 10% interest.
- 2 Based in Sillamäe, Estonia, employs 550 workers, and is one of only two rare earth processing facilities in Europe.
- 3 The facility produces rare earth oxides and metals -- including didymium metal -- from feed stocks supplied by Molycorp. Also produces the rare metals niobium and tantalum.
- 4 Gives Molycorp its first European base of operations, a larger global customer base, greater rare earth production capacity, and an expanded product line.



Molycorp Metals and Alloys

- 1 High-purity rare earth metals and alloys
 - NdFeB
 - SmCo
- 2 Will source RE feed stocks from Mountain Pass.
- 3 Specialty alloys produced there for 30+ years.
- 4 Highly trained and experienced workforce.



Acquisition Strategy

Complete Build-out of
M2M Manufacturing
Supply Chain



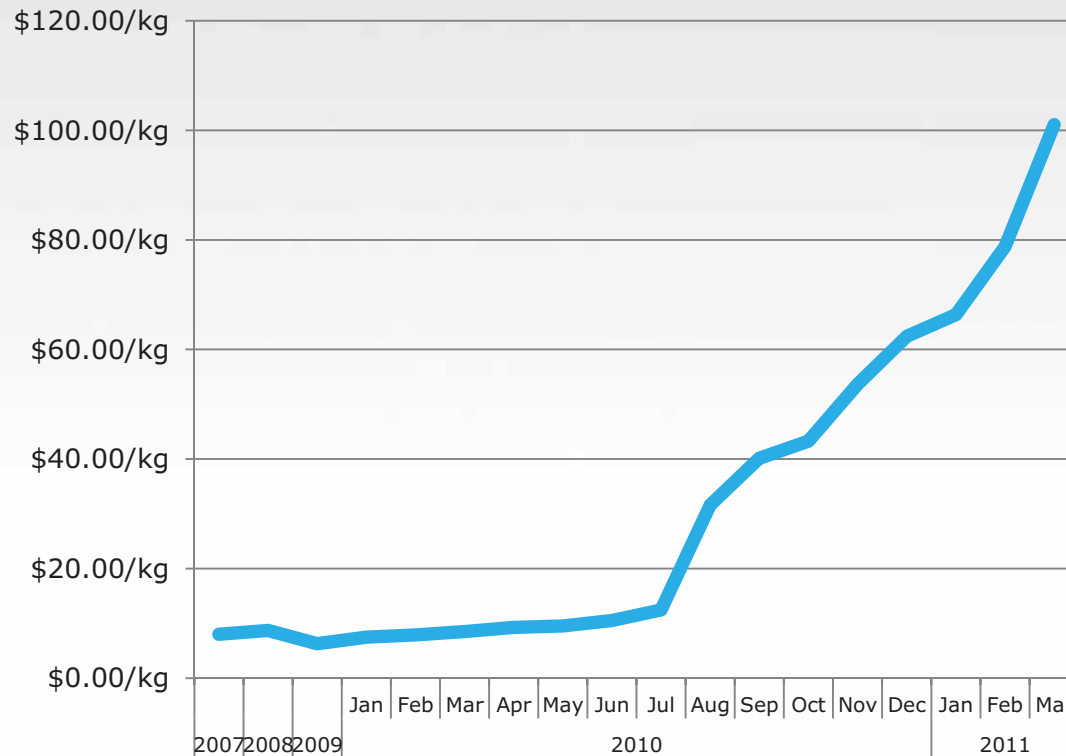
Increase Production
Capacity and
Capabilities

Acquire Intellectual
Capital and
Experienced Workers

Broaden Geographic
Reach To Better Serve
Global Customer Base

Pricing (\$/Kg)

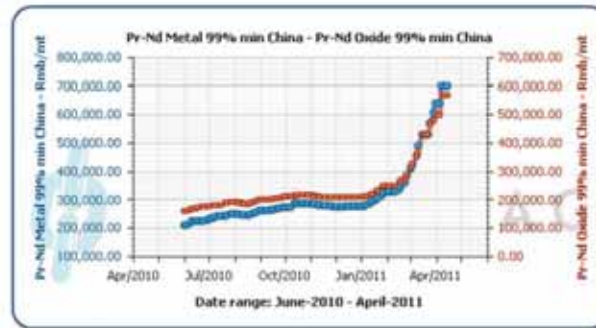
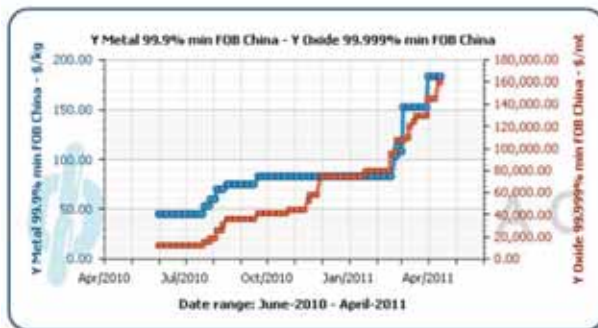
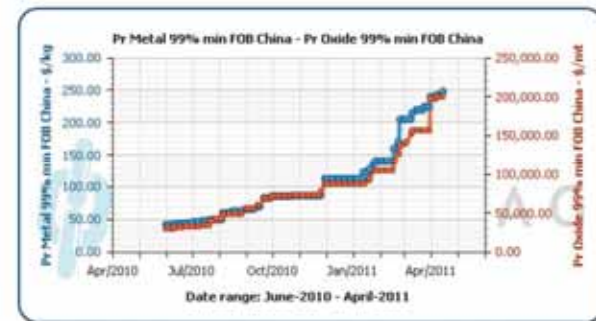
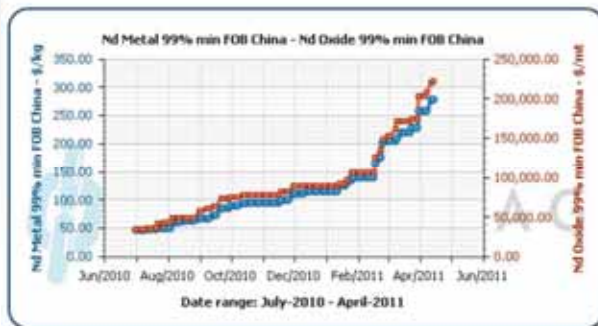
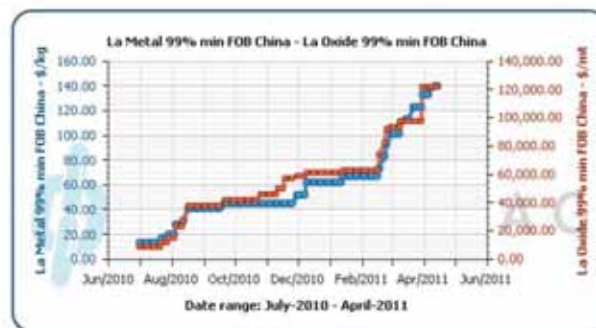
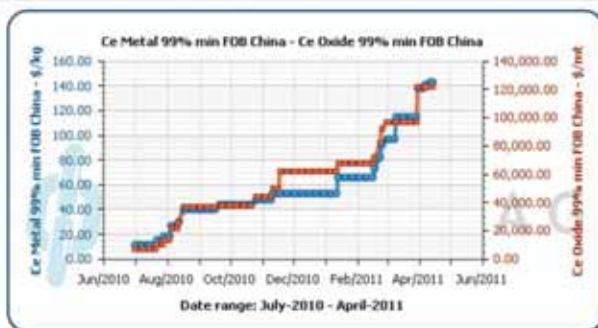
Weighted Avg. Oxide Price



Source: Metal-Pages.com

Pricing drivers

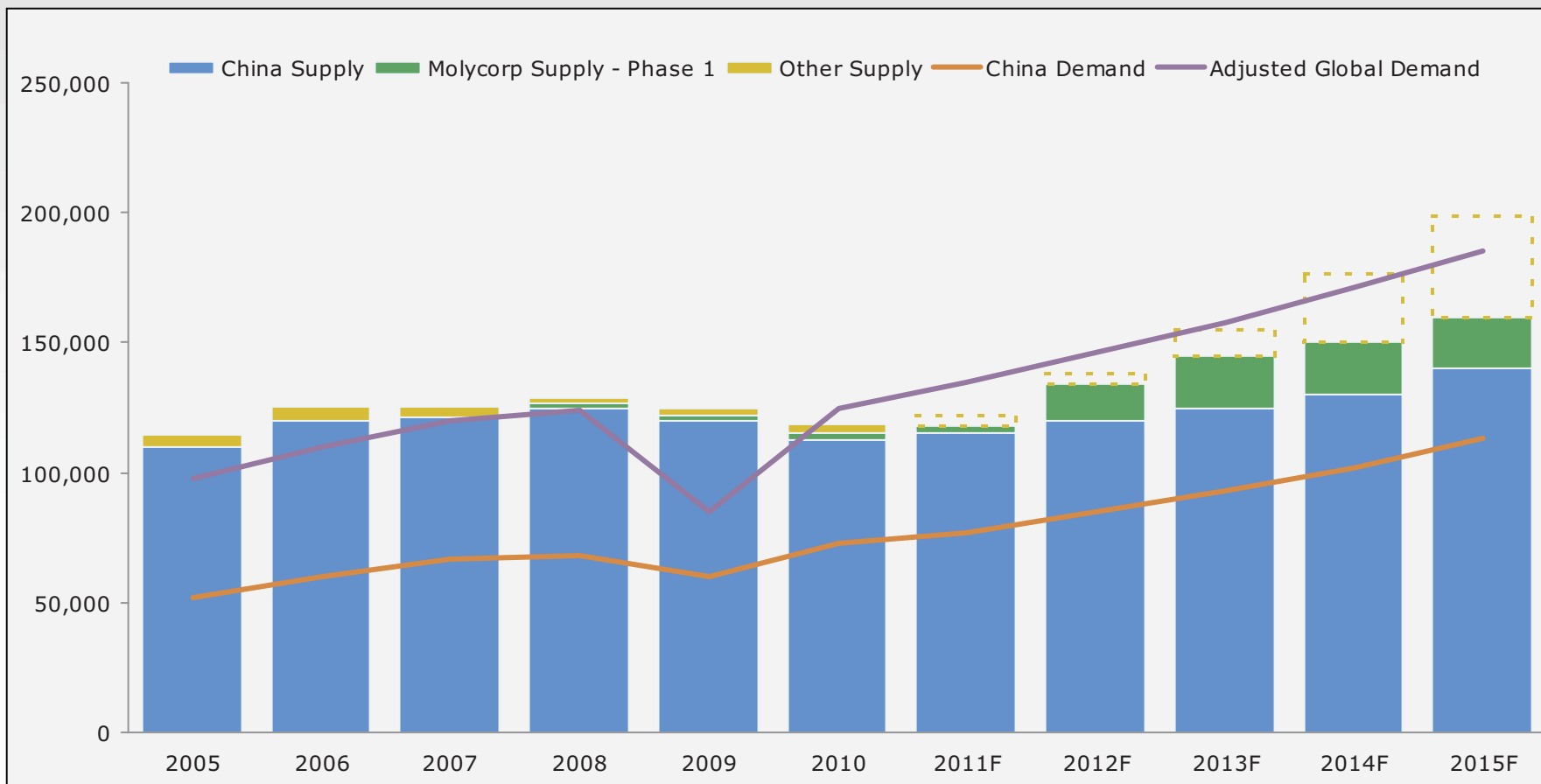
- **China continues to focus supply inward, despite growing ROW demand**
 - Dramatic consolidation of Chinese rare earths industry
- **Existing rare earths production insufficient to meet expected market demand**
- **National strategic stockpiling**
 - China, Japan, and S. Korea currently stockpiling
 - US and EU looking to stockpile



- 1 1H 2011 Chinese export quotas continue 7-year downward trend; senior officials warn of declining quotas in the future.
- 2 Multiple Chinese government initiatives will affect production and price levels: hundreds of illegal mines closed; export licenses reduced; export taxes increased; VAT rebate on exports withdrawn; coordinated pricing sought; environmental reforms; vertical industry consolidation being forced.
- 3 Implementation of strict environmental standards expected to “double production costs” (*Wang Guozhen, the former VP of China Nonferrous Engineering and Research Institute*)
- 4 Internal REE demand rising with GDP growth while Chinese production from 2005-2010 relatively stagnant
- 5 59% of respondents think China will “**become a net importer of rare earths by 2015**” in a Metal-Pages.com poll. Senior Chinese officials not ruling out this possibility.



Global Rare Earths Supply and Demand (mt, REO $\pm 20\%$)¹



Source: IMCOA (January 2011)

¹ Does not reflect Molycorp's potential to increase production to 40,000 mt of REO per year following completion of Phase 2 expansion plan, but instead reflects anticipated production of 19,050 mt of REO per year beginning in 2013



Technology Overview

Dr. John L. Burba, Executive Vice President
and Chief Technology Officer



In 2004, Molycorp established a pathway to success in the rare earth marketplace:

- 1 Become the *low cost* rare earth producer;
- 2 Produce rare earths in an *environmentally superior* manner;
- 3 Sell all of the *cerium* we produce.

These goals required that Molycorp develop and implement several **new and innovative** technologies at Mountain Pass.

New & Innovative Technology Paths That Allow Molycorp to Become the Low-Cost Producer:

- 1 Improved rates of REE recovery;
- 2 More efficient reagent usage;
- 3 Reduced power costs; and
- 4 Cerium technology innovation and sale into current markets to absorb production costs.

New & Innovative Technology Paths That Allow Molycorp to Operate in an Environmentally Superior Manner:

- 1** Improved REE recovery technologies that have reduced the environmental footprint of our facility and extended the life of the resource;
- 2** More efficient reagent use eliminates need for evaporation ponds and pipelines and decreases fresh water usage;
- 3** Integrating onsite CHP helps power reagent recycling system and lowers GHG emissions;
- 4** Cerium technology innovation is helping to increase sales and eliminates the need for onsite storage.

New & Innovative Technology Paths That Help Molycorp Address the Cerium Issue:

- 1 Ability to produce increased purity of cerium as demanded by the market; and
- 2 New cerium-based applications that have created new sales markets:
 - Drinking water filtration
 - Pool, spa, and recreational water markets
 - Wastewater treatment

Project Phoenix

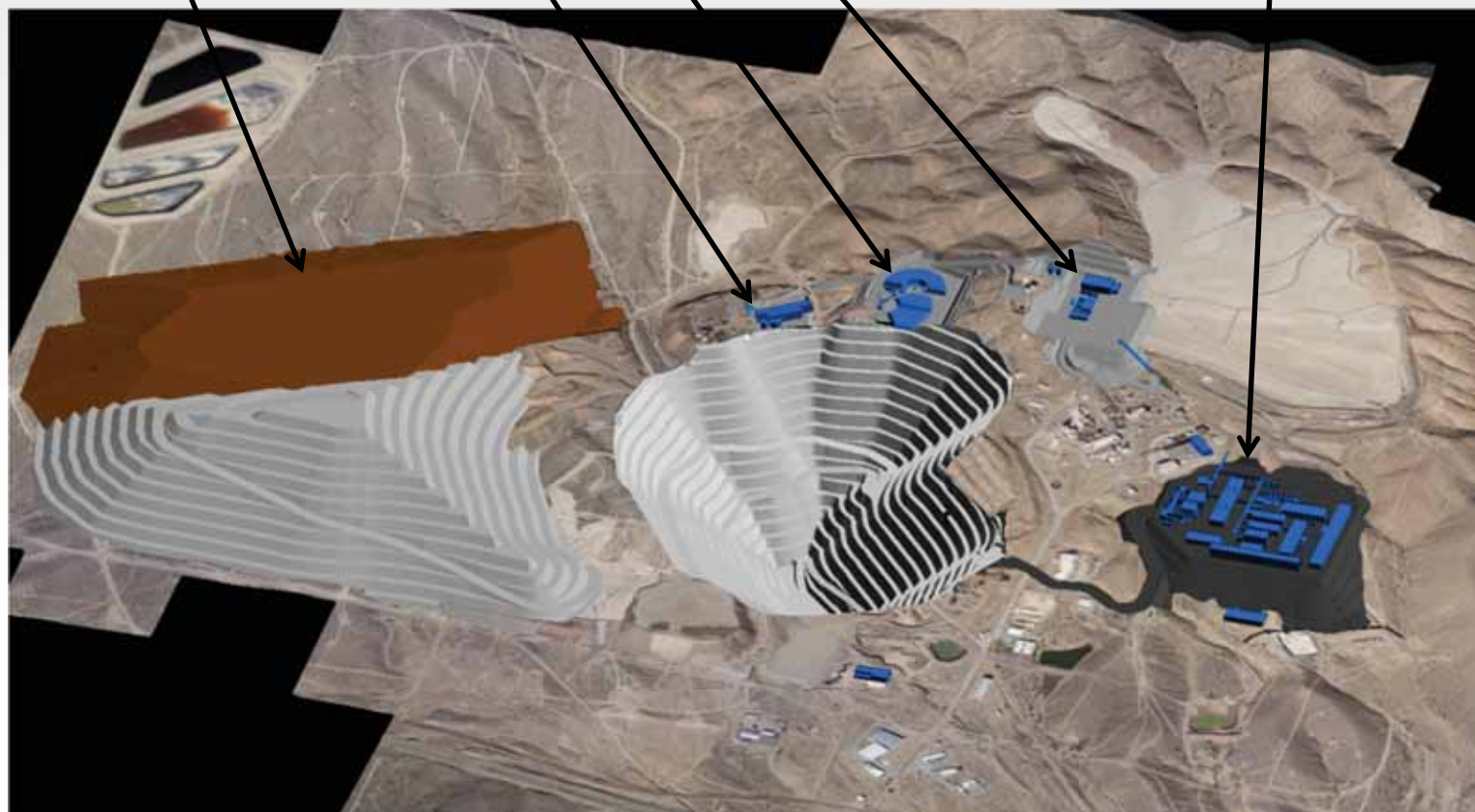
95 Acres Paste
Tailings Storage

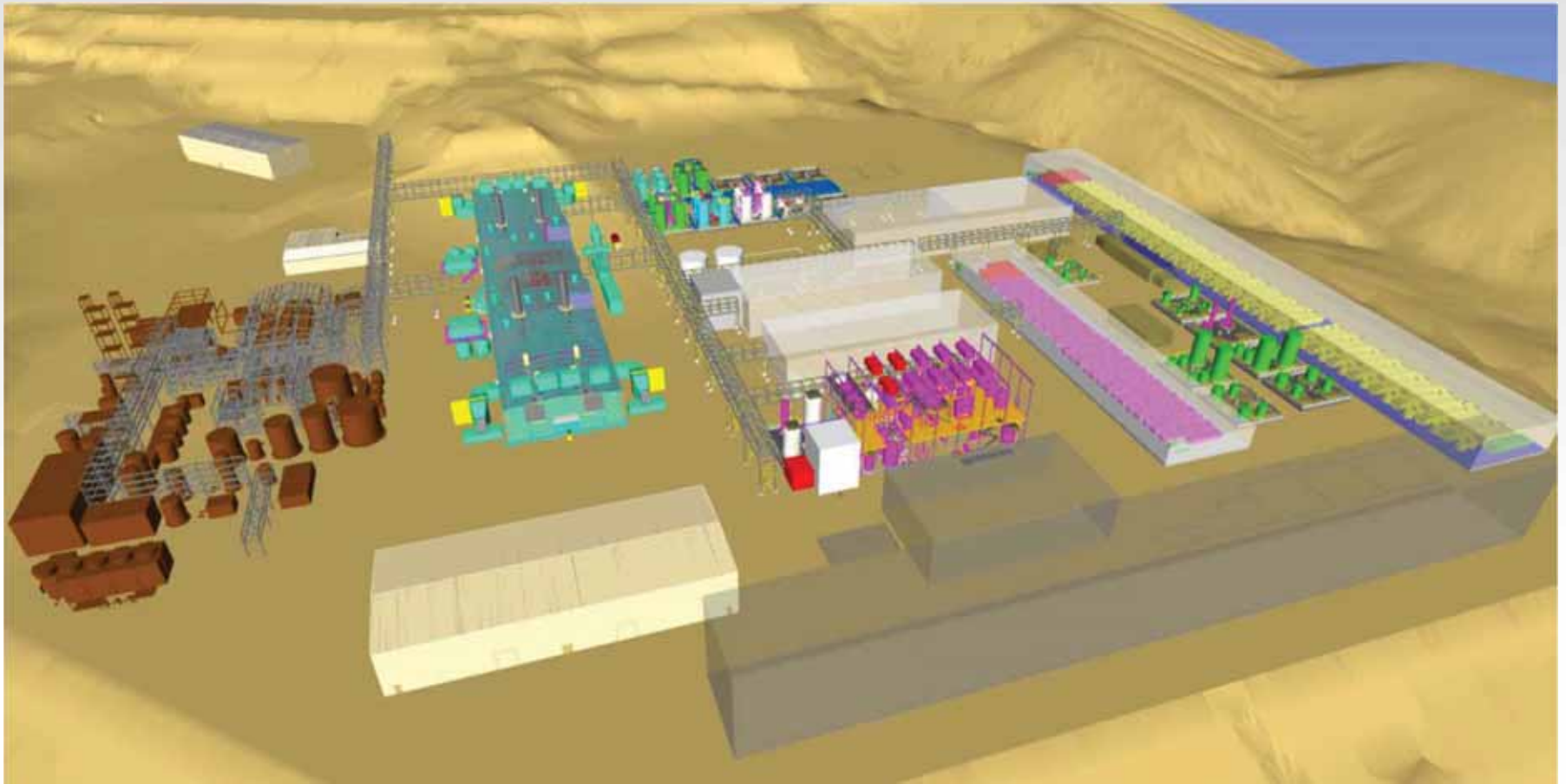
15 Acres Paste
Tailings Plant

11 Acres Crushing

9 Acres, Rare Earth
Chloride Production &
Purification

36 Acres
Separations, CHP,
Salt Recovery,
Ancillary
Facilities

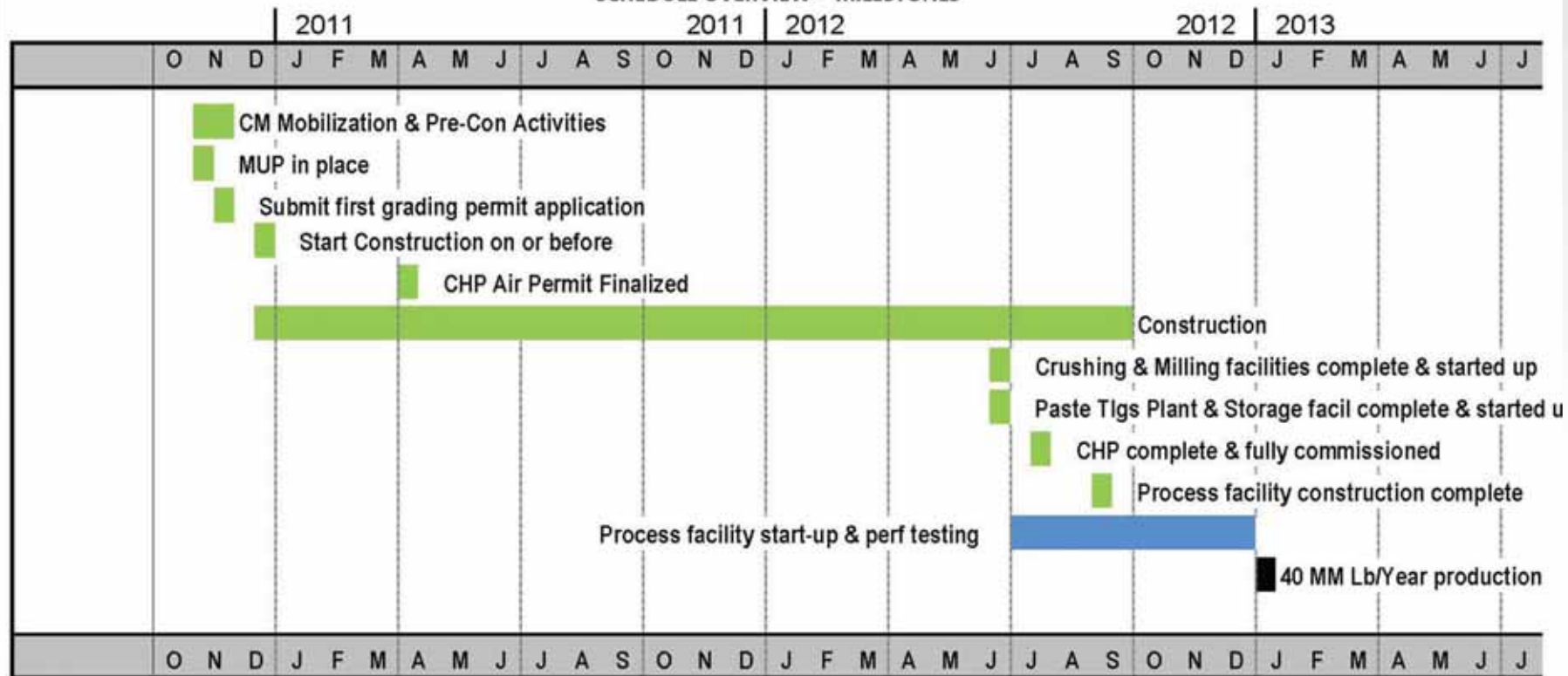




Phase 1 Program Schedule

Molycorp Phoenix Project

SCHEDULE OVERVIEW - MILESTONES

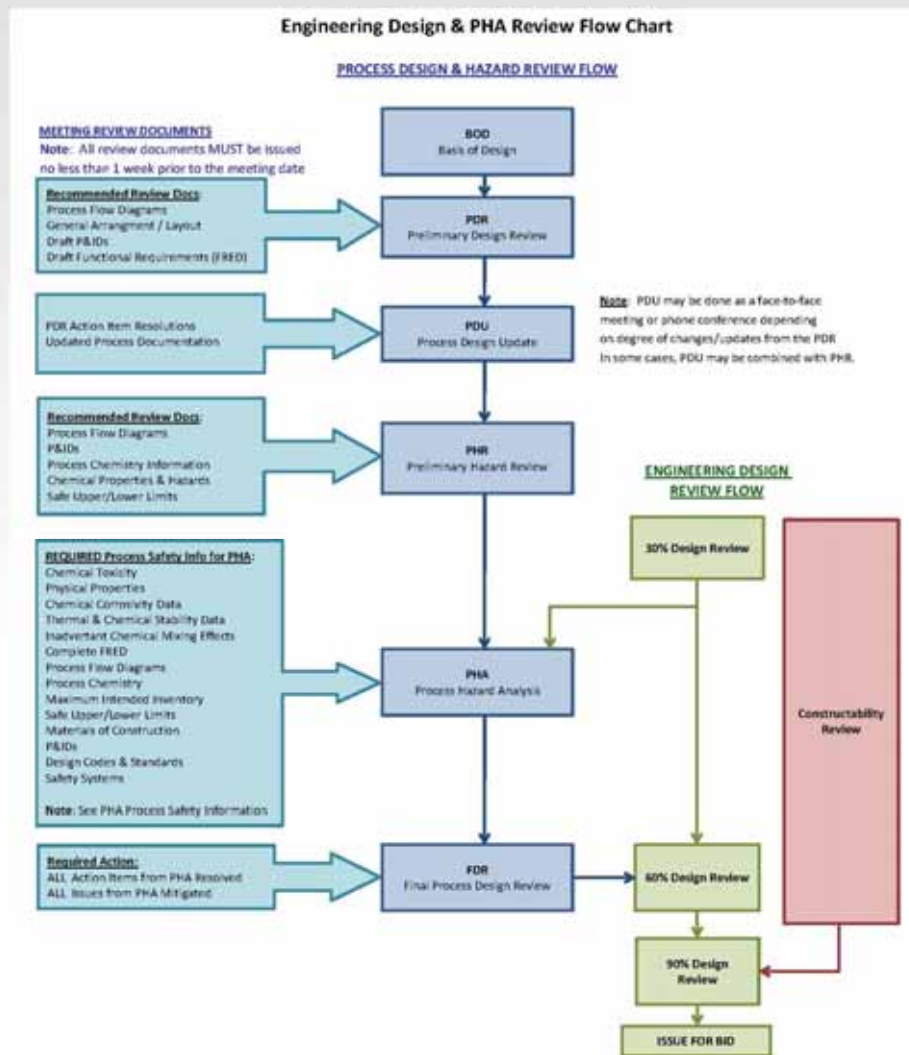


1 Managing Technical Risks

- Basis of Design Approval
- Staged Process Reviews
- 30, 60, 90% Design Reviews
- Constructability Reviews

2 Benefits of this Approach

- Early involvement/education of Plant Personnel
- Allows effective management of changes, scope creep
- Risks are clearly identified and addressed before design completes
- Construction participation to address constructability
- Checkpoints for cost estimate updates





Markets & Contracting Status

Doug Jackson, VP, Business Development

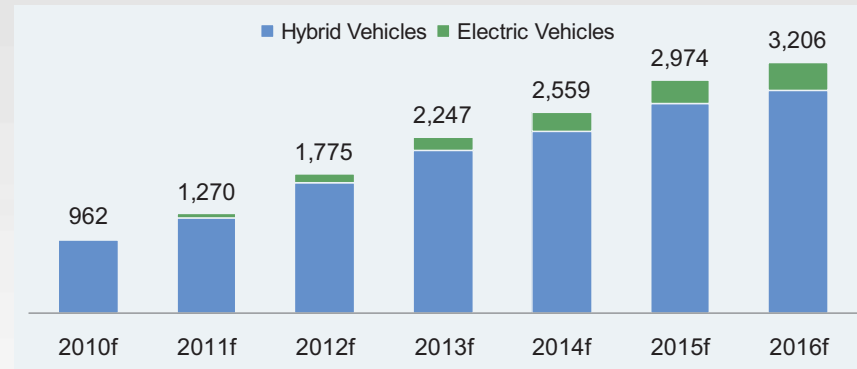


Demand Growth: Rare Earths Critical For Hybrid and Electric Vehicles

Hybrid and Electric Vehicles Demand Drivers:

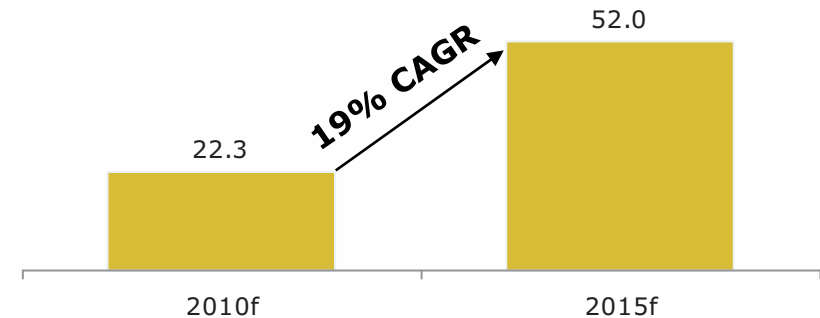
- Intensive use of rare earths in hybrid and electric vehicles are compounding the traditional use of rare earths
- Hybrid and electric vehicles contain 9-11 kgs of rare earths
- Anticipated rare earth demand from hybrid and electric vehicles is estimated to grow significantly

Annual Hybrid and Electric Vehicle Sales (000's)



Source: JD Power and Associates

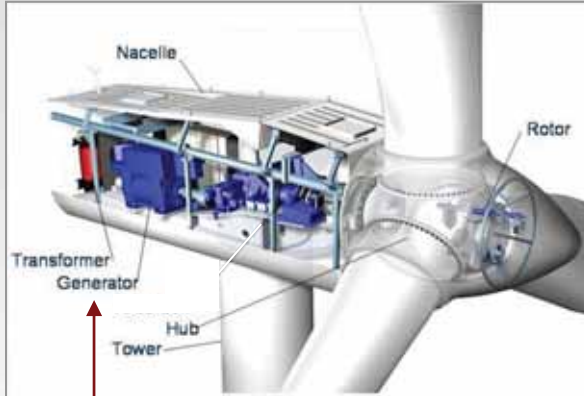
Total Rare Earth Metal Alloys Consumption (ktpa)



Source: IMCOA



Demand Growth: Next Generation Wind Turbines Use Rare Earth Magnets in Tons



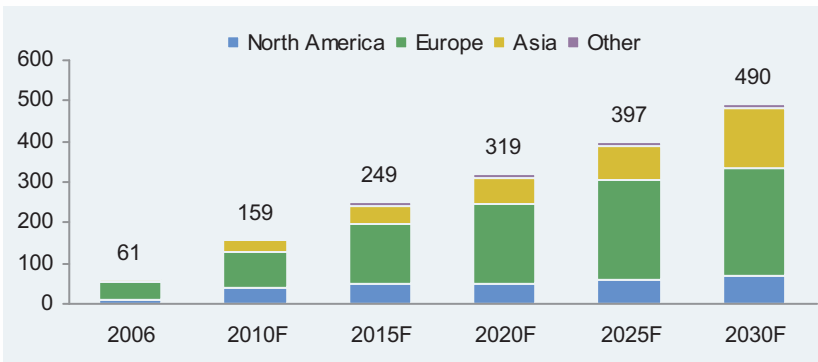
Permanent rare earth magnet in generator

Each 3MW permanent magnet turbine requires approximately one metric ton of neodymium iron boron magnets¹

Wind turbine demand drivers

- Global commitment to increasing the presence of wind energy:
 - U.S. EIA estimates >3x increase in installed wind generation 2010-30 to 490GW
 - China is estimated to have allocated >\$150bn to become the world's wind leader
 - Growing European use of offshore wind generation
- Permanent rare earth magnets are used in generators of wind turbines
 - Increased reliability and efficiency – reduces expensive breakdowns and maintenance expenditures
 - Critical element for 3MW+ and off-shore turbine segments
- With the expected JV, Molycorp would have access to the raw materials, IP and technical expertise to be a world-class supplier of permanent magnets

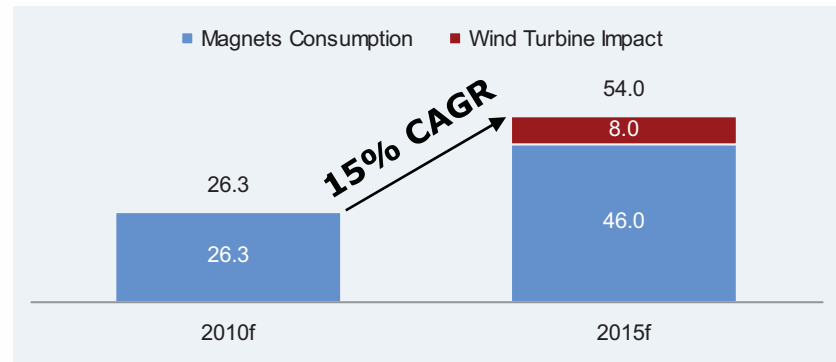
Wind turbine production (GW)



Source: Energy Information Administration

¹ IMCOA estimates each megawatt requires 0.4 tons of NdFeB magnets

REO consumption for magnets (ktpa)



Source: IMCOA

Note: Both magnet consumption and wind turbine impact are middle of IMCOA range

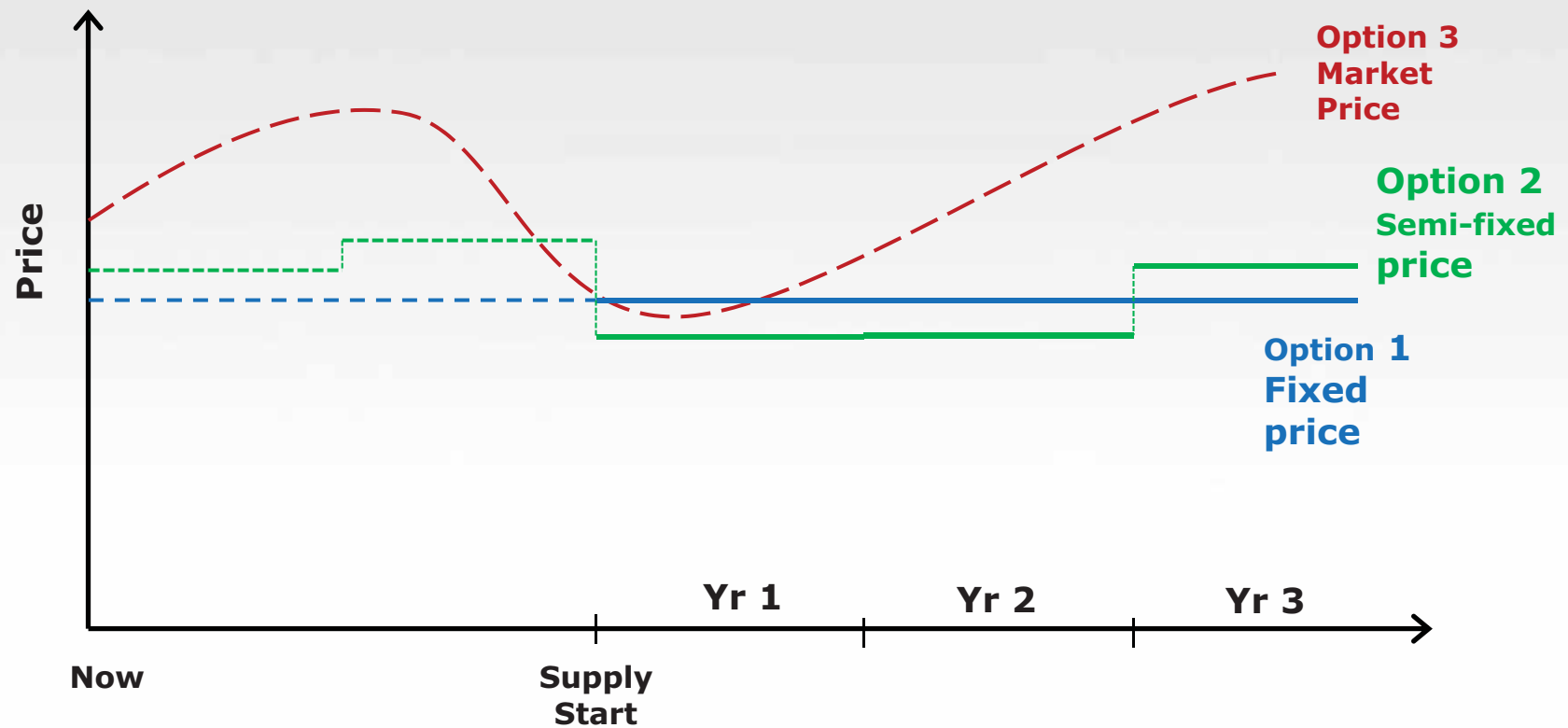
- 1 Sales roadmap for Phase 1 and 2 production in place, and we have started negotiating with targeted customers.
- 2 Key contracting strategies:
 - Geographical diversity
 - Diversity of end-use markets
 - Diversity of volume
- 3 Allocation priorities
 - Wholly-owned or joint venture companies
 - Companies that have invested in MCP
 - Blue Chip companies
 - Others

A 3-option approach (see next page) offered to customers for consideration:

- Mixture of fixed price and market price customers will provide us with a balanced portfolio between predictable income (business stability), upside profit potential and downside protection.
- Mixture of different contracting period will further smooth out effect of market volatility at the time of contract renewal, and staggers contract renewal negotiations.

Contract Pricing Options

We offer three pricing options



Product	Amount of Phase 1 Production With Either: (a) Supply Agreements In Place; (b) Supply Committed; or (c) Agreements Under Discussion
Cerium	90% ¹
Lanthanum	108%
Didymium	100% ²

- Significant quantities of Phase 2 production also have either:
(a) supply agreements in place; (b) supply committed; or
(c) agreements under discussion

1 Does not include Ce which may be used in granular XSORBX™ product for drinking water filtration markets.

2 We are holding/reserving didymium for our internal mine-to-magnets manufacturing supply chain.



Government / Political Update

Jim Sims, Director of Public Affairs



- 1 All critical environmental permits secured for Phase 1 and 2
- 2 DOE has offered us a term sheet for our \$280MM loan and we are now engaged in significant due diligence
- 3 Support for our project in California is both strong and strongly bipartisan.
- 4 Multiple bills introduced in Congress to promote REs from both Republicans and Democrats.
- 5 Discussions with DoD regarding possible RE stockpile



Financial Update

James Allen, Chief Financial Officer and Treasurer



Corporate Capital Plan Update

- Molycorp Silmet and Molycorp Metals & Alloys acquisitions fully paid
- Mountain Pass Capital Plan nearly fully funded
- Multiple debt funding alternatives
 - Traditional debt
 - Project financing
 - Public debt offering
 - DOE loan guarantee program

Capital Need	Amount
Phase One	\$531
Phase Two	\$250
M&A	\$27
Total	\$808

Capital Source	Amount
IPO	\$379
Sumitomo*	\$130
Preferred Stock	\$199
Remaining	\$100
Total	\$808

* Assumes consummation of the Sumitomo memorandum of understanding

All amounts in millions