



## American Rare Earths Subsidiary Announced as Team Member of the US Critical Materials Institute; Partner to DOE funded R&D project

American Rare Earths Ltd is pleased to announce that its wholly owned subsidiary Western Rare Earths Corp. has been named a Team Member of Critical Materials Institute (CMI); a U.S. Department of Energy (DOE) Energy Innovation Hub.

### Highlights:

- CMI is a public/private partnership funded by the US Department of Energy, led by the Ames Laboratory
- Team Members include universities, national laboratories, and private companies
- Focused on finding innovative technology solutions for the Rare Earths supply chain
- Strategic objectives include opportunities to drive R&D, license IP for deployment, and provide input to CMI research programs
- Recently approved, DOE funded, CMI managed R&D project to be announced in early 2022

Phoenix, AZ - January 12, 2022 - American Rare Earths Limited (ASX: ARR, OTCQB: ARRF), an exploration and technology company focused on the development of its unique Rare Earth and Scandium assets, is pleased to announce that its wholly owned US subsidiary, Western Rare Earths, has been named a Team Member of the highly esteemed Critical Materials Institute. The company's assets have the potential to be some of the largest rare earth deposits in the United States.

The Critical Materials Institute (CMI) is a multi-institutional, multi-disciplinary consortium led by the Ames Laboratory. CMI is an Energy Innovation Hub of the U.S. Department of Energy. Its focus is innovation to assure supply chains for materials critical to clean energy technologies with special focus on the Rare Earths supply chain for the United States. These critical materials are essential for American competitiveness in clean energy, including wind turbines, solar panels, electric vehicles, and energy-efficient lighting. The Department's "Critical Materials Strategy" reported that supply challenges for five rare earth metals may affect clean energy technology deployment in the coming years.

CMI is a public/private partnership, led by the Ames Laboratory, that brings together the best and brightest research minds from universities, national laboratories, and the private sector. The shared goal is to find innovative technology solutions that will help avoid a supply shortage that would threaten the US clean energy industry as well as security interests.

Strategic objectives for Team Members include opportunities to drive R&D, the option to license technology for deployment, and provide input to CMI research programs.

CMI Team Members have research subcontracts from CMI or are providing cost sharing funds. Requirements include specific research project deliverables within the entity's areas of expertise, based on a scope of work and a negotiated budget, including cost-share as applicable.

Western Rare Earths' invitation to become a CMI Team Member is a result of being a cost sharing co-applicant to a recently approved CMI R&D project expected to be announced in early 2022. The project includes other CMI Team Members, in the National Lab and University categories, as the primary researchers and Western Rare Earths providing feedstock, beneficiated Rare Earths mineralized ore, and industry guidance.



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According to the CMI website, some Team Members include:

- Industry: BorgWarner, First Solar, Lixivia, Marshallton Research Laboratories, Rio Tinto, Solvay, and Western Rare Earths
- Universities: Arizona State University, Case Western Reserve University, Colorado School of Mines, FIPR Institute, Idaho State University, Iowa State University, Missouri S&T, Pennsylvania State University, Purdue University, Rutgers, University of Arizona, University of California-Davis, University of Tennessee-Knoxville and Worcester Polytechnic University
- National Laboratories: Ames Laboratory, Idaho National Laboratory, Lawrence Livermore National Laboratory and Oak Ridge National Laboratory

\* <https://www.ameslab.gov/cmi/cmi-partners>

Marty Weems, CEO of Western Rare Earths and the President for the US Business Unit of American Rare Earths says “We are delighted to be admitted as a member of the Critical Minerals Institute and to be working with some of the brightest minds in the world leading the innovation efforts to assure the supply chain for materials critical to the United States.”

Chris Gibbs, CEO and Managing Director for American Rare Earths states “Marty and the US team have been working diligently with various R&D partners to establish our presence with a number of the rare earth innovation efforts. It’s our vision to be more than just a mining company but rather a technology leader in this space: vertically integrated and one day producing the rare earth metals that are critical to our future. It’s our strategy to not only focus on developing our rare earth mining projects that have some of the cleanest ore in the world but to work collaboratively with R&D leaders building processing and refining capability, using new, disruptive, green and clean technologies that will provide critical minerals for future generations. Becoming a member of the Critical Minerals Institute is one important step in the pursuit of our vision and the journey that lays ahead.”

**Disclaimer:** American Rare Earths Limited, nor its subsidiaries, does not claim affiliation to, nor endorsement of any CMI Team Member. American Rare Earths Limited, nor its subsidiaries, has not been endorsed or supported by any CMI Team Member. No affiliation, joint venture, or partnership is implied with any CMI Team Member. All logos, marks and names are the property of their respective owners.

This market announcement has been authorised for release to the market by the Board of American Rare Earths Limited.

Creagh O’Connor AM  
Chairman

About American Rare Earths Limited

American Rare Earths Limited (ASX: ARR, OTCQB: ARRNF, FSE: 1BHA) is the only Australian company listed on the ASX with assets in the growing rare earth metals sector of the United States of America, itself emerging as an alternative international supply chain to China's market dominance of a global rare earth market expected to balloon to US\$20 billion by the mid-2020s. The Company's mission is to supply Critical Materials for Renewable Energy, Green Tech, Electric Vehicles, National Security, and a Carbon-Reduced Future. Chris Gibbs is the Managing Director and CEO of American Rare Earths Limited. Western Rare Earths (WRE) is the wholly owned US subsidiary of the Company. ARR owns 100% of the world-class La Paz rare-earth Project, located 170km northwest of Phoenix, Arizona. As a large tonnage, bulk deposit, La Paz is potentially the largest, rare-earth deposit in the USA and benefits from containing exceptionally low penalty elements such as radioactive thorium and uranium. ARR plans to deliver its first Preliminary Economic Assessment for La Paz by the end of 2022 and is working with leading USA research institutions. La Paz's mineral profile is incorporated into emerging US advanced rare earth processing technologies. In late January 2022, the company will commence further drilling at the La Paz project to explore lateral and vertical extent in new southwest area. Approximately 742 - 928 million tonnes of Rare Earths mineralised rocks are identified as an exploration target in the La Paz Rare Earths project's southwest area with an average TREO Grade of 350 - 400ppm and Scandium Oxide grade of 20 - 24.5ppm. The new exploration Target is additive to the La Paz Rare Earth project's recently upgraded 170MT Resource. ARR acquired a second USA REE asset in the Searchlight Rare Earths Project in the first half of 2021. In June 2021 ARR acquired a third USA REE asset, the Halleck Creek Project in Wyoming. With permits in hand the maiden exploration drilling program is planned for Q1 2022 or early Q2 2022. The exploration deep drilling will provide initial mineralisation, lithology and fresh rock core material for metallurgical and process testing. Approximately 308 to 385 million tonnes of rare earths mineralised rocks were identified as an exploration target for the Halleck Creek project area with an average TREO Grade of 2,330 ppm - 2,912 ppm. Initial surface sampling of the Overton Mountain area conducted in 2018 revealed average Total Rare Earth Oxide (TREO) values of 3,297 ppm, average Heavy Rare Earth Oxide (HREO) values of 244 ppm, and average Magnetic Rare Earth Oxide (MREO) values of 816 ppm.

American Rare Earths Limited (ASX: ARR, OTCQB: ARRNF, HSE: 1BHA)

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