AMERICAN AUTOMAKERS
AAPC

AAPC Federal Register Notice Submission Regarding
Proposed Imposition of 232 Tariffs on Neodymium Magnets

The American Automotive Policy Council (AAPC) – representing American Automakers Ford Motor Company, General Motors and Stellantis – appreciates the opportunity to provide the following input in response to the U.S. Department of Commerce Bureau of Industry and Security, Office of Technology Evaluation request for comment on the initiation of an investigation, under section 232 of the Trade Expansion Act of 1962, to determine the effects on the national security from imports of neodymium magnets.

Summary

Neodymium magnets are an important and critical component of electric motors used in Electric Vehicles (EVs). While AAPC and its member companies understand the importance of efforts to secure for national security purposes U.S. access to the key minerals and production capacity, we are strongly opposed to actions that will directly or indirectly result in adding costs to the manufacture of EVs in the United States. Higher tariffs will hinder the transition to EVs and undermine the objectives of the Biden Administration of promoting the uptake of EVs in the U.S. and reducing the U.S. transportation sectors' contribution to CO2 emissions, as well as developing and securing domestic supply chains, supporting American jobs, and strengthening U.S. manufacturing.

AAPC members continue to deal with the adverse, indirect, and unintended consequences of past applications of 232 tariffs. A current example of this is the impact of the 232 tariffs on steel prices in the U.S., which has contributed to the auto industry paying a significant price penalty for steel – thus putting U.S. automakers at a competitive disadvantage compared to our international competitors. We strongly recommend that the U.S. Department of Commerce, in its investigation of neodymium magnets, avoid any adverse impact on the cost of production in the U.S. of EV motors. Rather, we believe collaborating with industry on a combination of initiatives – including a domestic action plan, incentives, and working with global, asset-rich allies to diversify and support local sourcing and processing of rare earths and critical minerals – would more effectively support the growth and competitiveness of these supply chains.

Background

Neodymium magnets[1], a type of rare earth mineral (REM) magnet, represents a critical technology for the future of Electric vehicles (EVs). It is a key subcomponent of the most efficient electric drive motors, that along with the battery forms the centerpiece of most battery-electric vehicles.[2] Neodymium magnets, although not an essential input for all types of EV electric vehicle motors, are

[1] Extremely strong for their size, Neodymium magnets are earth magnets composed of neodymium, iron, boron and a few transition metals. In general, as part of the manufacturing process, the elements are melted together and milled into a powder that is dry-pressed to shape in the presence of a magnetic field. The material is then sintered, ground to dimension, magnetized and tested.

[2] https://www.reuters.com/business/autos-transportation/automakers-cutting-back-rare-earth-magnets-2021-07-19/

currently an important component in the most efficient EV motors and are therefore important in the global drive to increase the efficiency and range of EVs.[3]

With regards to U.S. sources of neodymium the only REM operational mine located in the U.S. – Mountain Pass Mine – was closed for several years until it was reopened in 2018. Reportedly, the Mountain Pass Mine currently supplies nearly 16% of the world's rare earth elements.[4] China is the world's largest source of Neodymium – accounting for 58%, followed by the U.S. (16%), Burma (12.3%) and Australia (7%).

Neodymium is largely refined and manufactured into magnets outside of North America. China is the largest processor of rare earths[5] and manufacturer of the magnets, with Japan, the EU and the UK also manufacturing smaller amounts. While a handful of U.S. companies continue to explore domestic rare earth processing and magnet manufacturing, these processing and manufacturing capabilities in the U.S. are underdeveloped and, at present, no neodymium magnet manufacturing plant is operational in the Americas.

U.S. Demand for EVs

While the U.S. automotive industry is expected to continue to increase its localization of major EV components, including electric drive motors, driven in part by the new USMCA rules of origin, it is uncertain whether that localization would include rare earth magnets. Meanwhile, some automakers are seeking ways to reduce the need for REM in its vehicles.[6] [7]

Despite the potential impact of the USMCA and efforts to reduce the use of neodymium, EVs will continue to use these magnets and are expected to become one of the largest consumers of neodymium magnet production. The U.S. auto industry alone is expected to utilize millions of neodymium magnets over the next half decade.[8] It is forecast that, in 2030, EVs will be responsible for around 25% of neodymium magnets consumption.

Given the limits of domestic sources for raw materials, as well as mineral processing and magnet manufacturing capacity noted above, open and unhindered access to overseas sources will be essential in order to increase U.S. EV production and do so in a cost-effective manner.

AAPC Position

While AAPC member companies understand and support ongoing efforts to secure domestic and allied sources of critical materials and technology for national security purposes, it is important that the transition to EVs, building a domestic EV supply chain, and continued growth of U.S. manufacturing and jobs are not hindered as a byproduct of that effort. Consequently, AAPC and its member companies strongly recommend that the Biden Administration work with the U.S. auto industry to ensure that any applied tariffs do not raise costs for domestically manufactured EVs, batteries, drive units, and other key

[3] https://insideevs.com/news/439469/quarter-of-ndfeb-production-used-evs-2030/
[4] https://pubs.usgs.gov/periodicals/mcs2021/mcs2021-rare-earths.pdf
[5] https://www.cnbc.com/2021/04/17/the-new-us-plan-to-rival-chinas-dominance-in-rare-earth-metals.html
[6] https://www.reuters.com/business/autos-transportation/automakers-cutting-back-rare-earth-magnets-2021-07-19/
[7] https://www.reuters.com/business/autos-transportation/china-frictions-steer-electric-automakers-away-rare-earth-magnets-2021-07-19/
[8] https://insideevs.com/news/439469/quarter-of-ndfeb-production-used-evs-2030/

components. If this were allowed to happen, it would undermine other critical objectives of the Administration that are aimed at incentivizing, and thereby increasing the uptake of EVs by U.S. consumers, as well as the environmental benefits that would result.

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