

BorgWarner Receives R&D 100 Award for Breakthrough Electric Motor Collaboration

- *Award recognizes co-development between BorgWarner and the Department of Energy's Oak Ridge National Laboratory, beginning in 2021*
- *Company honored for rotary transformer work on permanent-magnet-free electric motors without brushes*
- *Technology improves reliability and reduces dependence on rare earth magnets*

Auburn Hills, Michigan, November 6, 2025 – BorgWarner, a global product leader in delivering innovative and sustainable mobility solutions, has won an R&D 100 Award in partnership with the Department of Energy's Oak Ridge National Laboratory (ORNL) for their work on a rotary-transformer-based wireless excitation system for electrically excited synchronous motors (EESM).

BorgWarner and ORNL's advanced development project powers an electromagnet-based rotor, eliminating the need for rare earth magnets and reducing supply chain risks. The transformer-based approach also eliminates brushes and sliprings, which tend to wear out over time, enhancing overall reliability in passenger and commercial vehicle applications and reducing the size of the motor by 15%.

The partnership began in 2021 and focused on designing a solution that delivers greater efficiency, lower costs, enhanced robustness and ease of integration – all of which were achieved. Additionally, while competing concepts are restricted to certain drivetrains based on their designs, this rotary transformer is highly compatible with all forms of drivetrains and compact gearboxes.

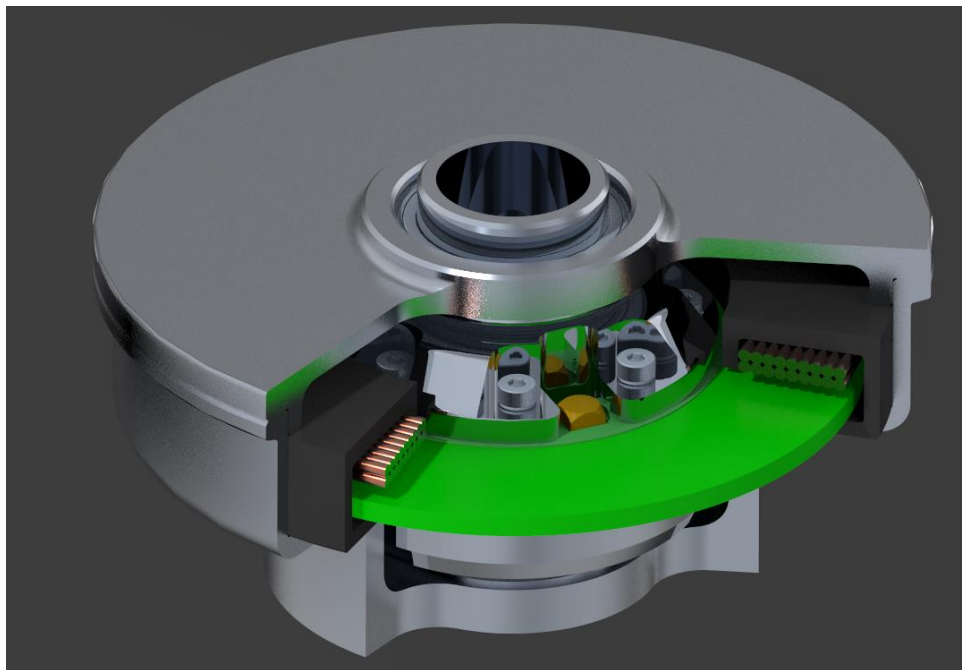
"This partnership brought strong collaboration and significant technological advances, including nine patent applications," said Harry L. Husted, Chief Technology Officer, BorgWarner Inc. "By combining BorgWarner's traction motor expertise with Oak Ridge National Laboratory's wireless power transfer capabilities, we developed a technology that matches the performance and exceeds the power density of rare earth-based motors – without using rare earth materials. This is a substantial accomplishment."

The rotary transformer system wirelessly transmits power to the rotor with 92-95% efficiency, and it can spin faster than 20,000 revolutions per minute. High speed power density of the brushless EESM motor can be 25% higher than rare earth magnet motors.

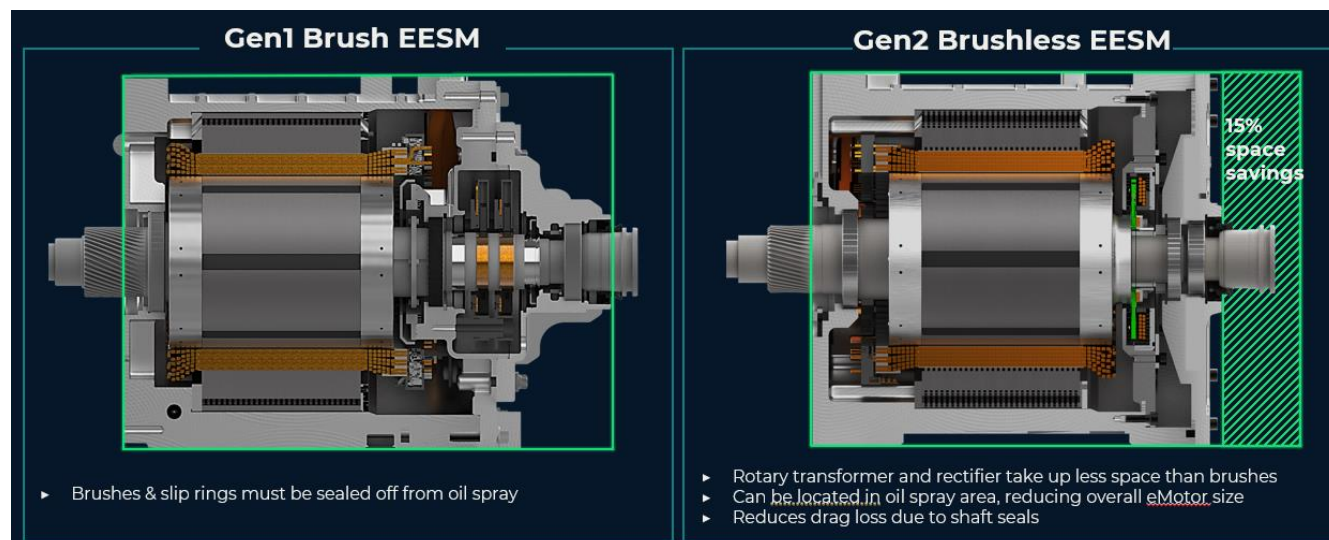
The annual [R&D 100 Awards](#) is a global science and innovation competition that has been hosted by R&D World magazine since 1963. The competition is judged by industry professionals from across the world and evaluates nominations based on impact, novelty and practical application in a variety of fields and categories. BorgWarner and ORNL were awarded in the IT/Electrical category. The awards ceremony to honor R&D 100 Award recipients will take place on November 20th in Scottsdale, Arizona.

About BorgWarner

For more than 130 years, BorgWarner has been a transformative global product leader bringing successful mobility innovation to market. With a focus on sustainability, we're helping to build a cleaner, healthier, safer future for all.



BorgWarner won an R&D 100 Award in partnership with the Department of Energy's Oak Ridge National Laboratory (ORNL) for their development of a rotary-transformer-based wireless excitation system for electrically excited motors. The technology can be used for both passenger and commercial vehicles.



BorgWarner and ORNL’s advanced development project powers an electromagnet-based rotor, eliminating the need for rare earth magnets and reducing supply chain risks. The transformer-based approach also eliminates brushes and sliprings, which tend to wear out over time, enhancing overall reliability in passenger and commercial vehicle applications and reducing the size of the motor by 15%.

Forward-Looking Statements: This press release contains forward-looking statements as contemplated by the 1995 Private Securities Litigation Reform Act that are based on management’s current outlook, expectations, estimates and projections. Words such as “anticipates,” “believes,” “continues,” “could,” “designed,” “effect,” “estimates,” “evaluates,” “expects,” “forecasts,” “goal,” “guidance,” “initiative,” “intends,” “may,” “outlook,” “plans,” “potential,” “predicts,” “project,” “pursue,” “seek,” “should,” “target,” “when,” “will,” “would,” and variations of such words and similar expressions are intended to identify such forward-looking statements. Further, all statements, other than statements of historical fact, contained or incorporated by reference in this press release that we expect or anticipate will or may occur in the future regarding our business strategy, goals, plans, references to future success and other such matters, are forward-looking statements. All forward-looking statements are based on assumptions and analyses made by us in light of our experience and our perception of historical trends, current conditions and expected future developments, as well as other factors we believe are appropriate under the circumstances. Forward-looking statements are not guarantees of performance, and the Company’s actual results may differ materially from those expressed, projected or implied in or by the forward-looking statements.

You should not place undue reliance on these forward-looking statements, which speak only as of the date of this press release. Forward-looking statements are subject to risks and uncertainties, many of which are difficult to predict and generally beyond our control, that could cause actual results to differ materially from those expressed, projected or implied in or by the forward-looking statements. These risks and uncertainties, among others, include: evolving legal, regulatory, and tax regimes; the supply disruptions impacting us or our customers; commodity availability and pricing, and an inability to achieve expected levels of success in additional commercial negotiations with customers concerning recovery of these costs; competitive challenges from existing and new competitors including original equipment manufacturers (“OEM”) customers; the challenges associated with rapidly changing technologies and our ability to innovate in response; the difficulty in forecasting demand for electric vehicles and our electric vehicles revenue growth; future changes in laws and regulations, including, by way of example, taxes and tariffs, in the countries in which we operate; potential disruptions in the global economy caused by wars or other geopolitical conflicts; the ability to identify targets and consummate acquisitions on acceptable terms; failure to realize the expected benefits of acquisitions on a timely basis the possibility that our 2023 tax-free spin-off of our former Fuel Systems and Aftermarket segments into a separate publicly traded company will not achieve its intended benefits; the failure to promptly and effectively integrate acquired businesses; the potential for unknown or inestimable liabilities relating to the acquired businesses; impacts of our exit of the charging business; our dependence on automotive and truck production, both of which are highly cyclical

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and subject to disruptions; our reliance on major OEM customers; impacts of any future strikes involving any of our OEM customers and any actions such OEM customers take in response; fluctuations in interest rates and foreign currency exchange rates; our dependence on information systems; the uncertainty surrounding global trade policies, including tariffs and export restrictions, and their impacts on the Company, its customers and suppliers and the economies in which the Company operates; the outcome of existing or any future legal proceedings, including litigation with respect to various claims, or governmental investigations, included related litigation;; impacts from potential future acquisition or disposition transactions; and the other risks noted in reports that we file with the Securities and Exchange Commission, including Item 1A, “Risk Factors” in our most recently-filed Form 10-K and/or Quarterly Report on Form 10-Q. We do not undertake any obligation to update or announce publicly any updates to or revisions to any of the forward-looking statements in this press release to reflect any change in our expectations or any change in events, conditions, circumstances, or assumptions underlying the statements.

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