



ExxonMobil Expanding Electric Vehicle Product Offerings Now and into the Future

In the ever-changing automotive landscape, the vehicle mix will continue to evolve. The ExxonMobil 2021 Outlook for Energy predicts that by 2050, plugin hybrids, battery electric and fuel cell vehicles will grow to ~40% of the global vehicle fleet and more than 50% of new cars sold. This evolution will be driven by a combination of factors including decreased battery costs as well as ever more stringent regulations for reductions in tailpipe emissions and improvements in fuel economy.

As electric vehicle requirements mature, ExxonMobil is committed to delivering solutions to help extend vehicle range and promote safe, efficient vehicle performance. Innovative approaches to engineering are critical to meet the electric vehicle needs of tomorrow, which is why ExxonMobil is expanding the Mobil $EV^{\mathbb{T}}$ offer leveraging the new SpectraSyn $^{\mathbb{T}}$ MaX PAO platform.

Technology leadership

ExxonMobil has a rich 135-year heritage of leadership in both energy technology and product innovation and is committed to lead in mobility solutions across energy types. We work closely with Original Equipment manufacturers (OEMs) around the world, providing unique insights into the evolving EV application requirement and fluids needs. Mobil EV^{**} fluid technology, coupled with expertise in engineering solutions can help vehicle and component manufacturers develop and produce electric vehicles that advance their mobility ambitions and surpass consumer expectations.

Mobil EV[™] value proposition:

The Mobil EV^{m} product offer features a full suite of fluids and greases designed to meet the new powertrain requirements of battery electric vehicles. The suite of Mobil EV^{m} products helps provide further, longer and safer performance today and in the future to help consumers optimize range as well as helping businesses improve performance and efficiency across their fleets.

Evolving Mobil EV[™] product line

Mobil EV[™] products are formulated with molecules carefully selected to help electric vehicles travel further between charges, extend component life, and operate more safely, and as OEMs look to further optimize range, new fluid technologies are needed. This is where ExxonMobil's SpectraSyn[™] MaX PAO technology can play an important role.

ExxonMobil is developing new Mobil $EV^{\mathbb{N}}$ formulations featuring SpectraSyn $^{\mathbb{N}}$ MaX PAO as a key ingredient to help improve energy efficiency, which in turn can help extend vehicle range. Additionally, SpectraSyn $^{\mathbb{N}}$ MaX PAO can also help improve thermal management of e-motor and electronics which can be a challenge for next generation EVs.

Covering the full range of battery electric vehicle applications, the Mobil EV™ product range includes:

- Mobil EV[™] Therm series of thermal management fluids formulated to help efficiently remove heat and increase equipment life in applications such as batteries, electric motors, and power electronics.
- Mobil EV[™] Drive series of lubricants for electric vehicle reduction gearboxes, designed to protect gears and bearings from wear for a longer service life.
- Mobil EV[™] Cool Drive series of fluids for electric vehicle reduction gearboxes with integrated electric motors, designed to lubricate gears and bearings while providing the necessary cooling for electric motors and power electronics.
- Mobil EV™ Grease products ensuring protection, performance and reliability for electric vehicle applications including e-motors, bearings and constant velocity joints across a wide range of driving conditions.

As we head deeper into the third decade of the 21st century, know that ExxonMobil is continually investing in R&D with key OEMs to bring this leading technology to the market, to advancing our customers ambitions for efficient performance.

ExxonMobil first launched the Mobil EV^{∞} brand at the 2019 World New Energy Vehicle Congress in Boao, China, and was later rolled out globally, in conjunction with the Frankfurt Auto Show.