Executive Summary

Continuous Onboard Re-Charge Environment (CORE): Revolutionizing Electric Vehicle Charging and Range Extension

The shift toward renewable energy and electric mobility is accelerating rapidly, with electric vehicles (EVs), hybrid vehicles, electric aircraft, marine propulsion systems, and portable generators gaining widespread adoption. However, one of the biggest challenges facing these technologies remains the limited range and downtime required for recharging. Enter the **Continuous Onboard Re-Charge Environment (CORE)** — an innovative patented technology designed to transform how electric vehicles and devices recharge while in motion.

What is CORE Technology?

CORE, also known as Re-ChargeEV, is a portable, mechanical-to-electrical voltage producing system that provides continuous onboard charging for electric and hybrid vehicles, aircraft, marine vessels, and portable generators. This technology enables vehicles to recharge their main battery arrays while operating, effectively extending their range and reducing dependency on stationary charging stations.

Unlike traditional EVs that must stop to recharge, CORE replicates the voltage input of commercial charging stations, delivering a steady charging current during vehicle operation. This breakthrough allows electric vehicles to operate for 5 to 10 times longer than current limits, dramatically enhancing usability and cost-effectiveness.

How Does CORE Work?

CORE integrates seamlessly with existing electric motor and battery systems, utilizing the rotating shaft of electric motors to generate electrical energy without drawing from the battery itself. This means the vehicle's battery can be continuously recharged while driving, flying, or sailing, without compromising performance or requiring major modifications to the original equipment manufacturer (OEM) design.

The system is versatile and adaptable, suitable for:

- Fully electric and hybrid vehicles (cars, trucks, buses)
- Electric aircraft and aerospace motors
- Marine electric propulsion systems (boats, ships)
- Portable and commercial generators

If any part of the CORE system fails, it safely reverts to the vehicle's standard operation mode, ensuring no disruption in performance.

Market Opportunity and Industry Impact

The global market for electric vehicles, aircraft electric motors, marine propulsion, and portable generators is growing rapidly:

- The electric vehicle market is projected to reach $823.75 billion by 2030, growing at a CAGR of 18.2%.
- The aircraft electric motor market is expected to grow to $12.1 billion by 2026.
- The marine propulsion engine market is anticipated to reach $40.91 billion by 2027.
- The portable generator market is forecasted to grow to $7.3 billion by 2030.

CORE technology addresses critical pain points in these markets by extending operational range, reducing charging downtime, and lowering total cost of ownership. It also supports global efforts to reduce fossil fuel dependency and carbon emissions, aligning with environmental regulations and clean energy initiatives.

Key Benefits of CORE Technology

- **Extended Range and Operational Time:** CORE enables electric vehicles and devices to operate much longer between traditional charges, improving convenience and utility.
- **Cost Savings:** By reducing reliance on fossil fuels and stationary charging infrastructure, CORE lowers operational costs for consumers and businesses.
- **Environmental Impact:** CORE contributes to significant reductions in greenhouse gas emissions and fossil fuel consumption.
- **Versatility:** The technology is adaptable to a wide range of electric motor-driven applications, including aftermarket modifications for combustion vehicles converting to electric.

- **Reliability and Safety:** Designed with fail-safe mechanisms, CORE ensures uninterrupted vehicle operation even if the system encounters issues.

The Future of Electric Mobility with CORE

Imagine electric airliners flying around the globe without fuel stops, marine vessels traveling farther without refueling, and electric cars driving longer distances without frequent charging breaks. CORE technology promises to make this vision a reality, revolutionizing the electric transportation and power generation industries.

With ongoing research and development, CORE aims to become the gold standard for onboard charging solutions, supporting a cleaner, more efficient, and economically viable future for electric mobility worldwide.

Conclusion
The Continuous Onboard Re-Charge Environment (CORE) represents a groundbreaking advancement in electric vehicle technology. By enabling continuous charging during operation, CORE extends range, reduces costs, and supports environmental sustainability. As the global market for electric vehicles and electric propulsion systems expands, CORE is poised to play a pivotal role in shaping the future of clean energy transportation.

For investors, manufacturers, and consumers alike, CORE offers a compelling opportunity to embrace innovation that drives performance, profitability, and planet-friendly progress.
