

EVESE Consortium

Electrified Vehicle & Energy Storage Evaluation

Southwest Research Institute® (SwRI®) formed the Electrified Vehicle & Energy Storage Evaluation (EVESE) Consortium in August 2020 as a continuation of the Energy Storage System Evaluation & Safety (ESSES-I and ESSES-II) Consortia.

Concerns over climate change and urban air quality have led regulators and governments to strongly encourage the use of electric-powered vehicles. Electric powertrains offer several operational advantages over traditional powertrains but they also present several unique challenges, notably a steep sticker price and "range anxiety" — concern that an EV will run out of power before reaching its destination or a suitable charging point.

To facilitate the transition to electrified vehicles, state agencies are working with the private sector to develop affordable fueling and charging options. In addition, most vehicle manufacturers have made a commitment to selling a majority of electrified vehicles by the 2030–2040 time frame. With these commitments there is an increasing need to understand state-of-the-art technologies for lithium-ion batteries, electric motors, and electrified vehicles.

Consortium Goals

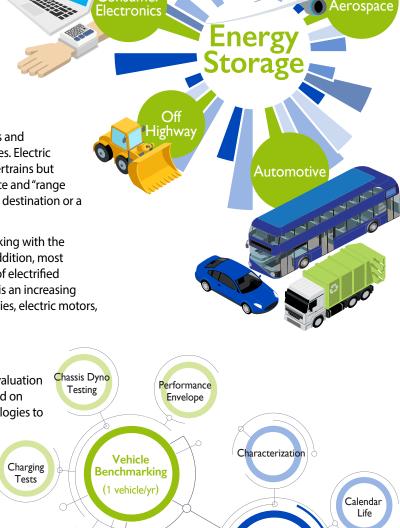
The mission of the SwRI EVESE Consortium is to provide analysis and evaluation of current electrified vehicle technologies and conduct research focused on improving the efficiency, performance, safety, and cost of these technologies to improve adoption of electrified powertrains.

Project Content

- Vehicle and component benchmarking
- Lithium-ion battery benchmarking
- Applied research and development related to electrified powertrains

Typical Research Topics

- Immersed coolant thermal management
- Fast charge algorithms
- Lithium plating diagnostics
- Novel safety technologies



Cell Benchmarking

(2 cells/yr)

Cycle Life

Grid Storage

onsumer

Component

Benchmarking

Participants

The SwRI EVESE Consortium consists of commercial participants and will run for a period of four-years. The consortium format allows for cost-sharing based on the number of participants. A larger number of participants results in greater generation of data, to be shared only among participants.

Deliverables

- Monthly progress reports and conference calls
- Semi-annual progress review meetings
- FTP secure site to access test data
- Annual report
- Updates on SwRI's internal research & development programs

Tiered Membership Structure

Category	EVESE Year 1	EVESE Year 2	EVESE Year 3	EVESE Year 4
Tier 1	\$150,000	\$153,000	\$156,000	\$159,000
Tier 2	\$75,000	\$76,500	\$78,000	\$79,500

- Tier 1 members have access to all data.
- Tier 2 members have access to only the research topic and the battery cell benchmarking and battery-related vehicle benchmarking data.



We welcome your inquiries. For more information, please contact:

lan Smith Manager, Electrified Powertrain 210.522.2041 ian.smith@swri.org

Automotive Propulsion Systems Department Powertrain Engineering Division



evese.swri.org

SOUTHWEST RESEARCH INSTITUTE

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210.522.2122 ask@swri.org



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